

# Hydrogels in drug delivery: Progress and challenges

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Citation Report

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Self-organization of Water Soluble and Amphiphile Crosslinked Carboxymethylpullulan. <i>Polymer Journal</i> , 2008, 40, 1132-1139.   | 1.3 | 5         |
| 2  | Rheological Behavior of Self-Assembling PEG- $\beta$ -Cyclodextrin/PEG-Cholesterol Hydrogels. <i>Langmuir</i> , 2008, 24, 12559-12567.   | 1.6 | 64        |
| 3  | Comparison of a hydrogel model to the Poisson-Boltzmann cell model. <i>Journal of Chemical Physics</i> , 2009, 131, 094903.  | 1.2 | 69        |
| 4  | Synthesis of Per- and Poly-Substituted Trehalose Derivatives: Studies of Properties Relevant to Their Use as Excipients for Controlled Drug Release. <i>Journal of Carbohydrate Chemistry</i> , 2009, 28, 198-221.                                   | 0.4 | 7         |
| 5  | Protein Release Behavior of Self-Assembled PEG- $\beta$ -Cyclodextrin/PEG-Cholesterol Hydrogels. <i>Advanced Functional Materials</i> , 2009, 19, 2992-3001.   | 7.8 | 101       |
| 6  | Swelling properties of copolymeric hydrogels of poly(ethylene glycol) monomethacrylate and monoesters of itaconic acid for use in drug delivery. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2009, 91B, 716-726. | 1.6 | 7         |
| 7  | Gelation and Hollow Particle Formation in Nitroxide-Mediated Radical Copolymerization of Styrene and Divinylbenzene in Miniemulsion. <i>Macromolecular Chemistry and Physics</i> , 2009, 210, 140-149.   | 1.1 | 36        |
| 8  | Hybrid Multicomponent Hydrogels for Tissue Engineering. <i>Macromolecular Bioscience</i> , 2009, 9, 140-156.   | 2.1 | 266       |
| 9  | Preparation and swelling properties of semi-IPN hydrogels based on chitosan-g-poly(acrylic acid) and phosphorylated polyvinyl alcohol. <i>Journal of Applied Polymer Science</i> , 2009, 114, 643-652.   | 1.3 | 19        |
| 10 | Responsive hydrogel layers—from synthesis to applications. <i>Colloid and Polymer Science</i> , 2009, 287, 881-891.  | 1.0 | 123       |
| 11 | A unique phase behavior of random copolymer of N-isopropylacrylamide and N,N-diethylacrylamide in water. <i>Polymer</i> , 2009, 50, 519-523.   | 1.8 | 64        |
| 12 | Multi-morphological biodegradable PLGE nanoparticles and their drug release behavior. <i>Biomaterials</i> , 2009, 30, 100-107.   | 5.7 | 18        |
| 13 | Chemical actuation in responsive hydrogels. <i>Polymer International</i> , 2009, 58, 285-289.  | 1.6 | 38        |
| 14 | A novel pH-sensitive and freeze-thawed carboxymethyl chitosan/poly(vinyl alcohol) blended hydrogel for protein delivery. <i>Polymer International</i> , 2009, 58, 1120-1125.   | 1.6 | 14        |
| 15 | The controlled release behavior and pH- and thermo-sensitivity of alginate/poly(vinyl alcohol) blended hydrogels. <i>Polymers for Advanced Technologies</i> , 2009, 20, 680-688.   | 1.6 | 20        |
| 16 | Polymer blends based on PEO and starch: Miscibility and spherulite growth rate evaluated through DSC and optical microscopy. <i>Materials Science and Engineering C</i> , 2009, 29, 499-504.   | 3.8 | 40        |
| 17 | Self-assembled prodrugs: An enzymatically triggered drug-delivery platform. <i>Biomaterials</i> , 2009, 30, 383-393.   | 5.7 | 141       |
| 18 | Preparation of poly(vinyl alcohol)/poly(acrylic acid) microcapsules and microspheres and their pH-responsive release behavior. <i>Journal of Industrial and Engineering Chemistry</i> , 2009, 15, 902-906.   | 2.9 | 18        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Large strain behaviour of nanostructured polyelectrolyte hydrogels. <i>Polymer</i> , 2009, 50, 481-490.   | 1.8 | 47        |
| 20 | Hindered diffusion of oligosaccharides in high strength poly(ethylene glycol)/poly(acrylic acid) interpenetrating network hydrogels: Hydrodynamic vs. obstruction models. <i>Polymer</i> , 2009, 50, 6331-6339.           | 1.8 | 14        |
| 21 | Synthesis of biodegradable thermo- and pH-responsive hydrogels for controlled drug release. <i>Polymer</i> , 2009, 50, 4308-4316.   | 1.8 | 142       |
| 22 | A delicate ionizable-group effect on self-assembly and thermogelling of amphiphilic block copolymers in water. <i>Polymer</i> , 2009, 50, 6111-6120.  | 1.8 | 79        |
| 23 | Characterization of cross-linked polyampholytic gelatin hydrogels through the rubber elasticity and thermodynamic swelling theories. <i>Polymer</i> , 2009, 50, 6065-6075.  | 1.8 | 40        |
| 24 | New smart-poly(NIPAM) microgels and nanoparticle microgel hybrids: Properties and advances in characterisation. <i>Current Opinion in Colloid and Interface Science</i> , 2009, 14, 438-450.                              | 3.4 | 192       |
| 25 | Cytocompatibility of poly(1,2 propanediol methacrylate) copolymer hydrogels and conetworks with or without alkyl amine functionality. <i>Biomaterials</i> , 2009, 30, 2468-2478.  | 5.7 | 18        |
| 26 | Swelling behaviour of thermo-sensitive hydrogels based on oligo(ethylene glycol) methacrylates. <i>European Polymer Journal</i> , 2009, 45, 3418-3425.  | 2.6 | 49        |
| 27 | Multiresponsive Hybrid Colloids Based on Gold Nanorods and Poly(NIPAM-co-allylacetic acid) Microgels: Temperature- and pH-Tunable Plasmon Resonance. <i>Langmuir</i> , 2009, 25, 3163-3167.                               | 1.6 | 114       |
| 28 | Controlled Release from Modified Amino Acid Hydrogels Governed by Molecular Size or Network Dynamics. <i>Langmuir</i> , 2009, 25, 10285-10291.  | 1.6 | 227       |
| 29 | Development of polyion-complex hydrogels as an alternative approach for the production of bio-based polymers for food packaging applications: a review. <i>Trends in Food Science and Technology</i> , 2009, 20, 316-332. | 7.8 | 199       |
| 30 | A new probe for targeting drug delivery system. <i>Medical Hypotheses</i> , 2009, 72, 43-44.  | 0.8 | 1         |
| 31 | Smart inorganic/organic hybrid microgels: Synthesis and characterisation. <i>Journal of Materials Chemistry</i> , 2009, 19, 8714.   | 6.7 | 121       |
| 32 | Magnetic hydrogel nanocomposites as remote controlled microfluidic valves. <i>Lab on A Chip</i> , 2009, 9, 1773.  | 3.1 | 133       |
| 34 | Hydrogel Nanocomposites in Biology and Medicine: Applications and Interactions. , 2009, , 319-342.  |     | 7         |
| 35 | Transient modeling for kinetic swelling/deswelling of the ionic-strength-sensitive hydrogel. <i>European Physical Journal E</i> , 2010, 31, 269-274.  | 0.7 | 14        |
| 36 | Nano- and Microgels Through Addition Reactions of Functional Oligomers and Polymers. <i>Advances in Polymer Science</i> , 2010, , 65-93.  | 0.4 | 12        |
| 37 | Development of bone substitute materials: from "biocompatible" to "instructive". <i>Journal of Materials Chemistry</i> , 2010, 20, 8747.  | 6.7 | 116       |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 38 | Chitosan-based hydrogels for controlled, localized drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2010, 62, 83-99.  | 6.6 | 2,026     |
| 39 | Polymers for Drug Delivery Systems. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2010, 1, 149-173.   | 3.3 | 1,205     |
| 40 | Supramolecular Hydrogels Exhibiting Fast In Situ Gel Forming and Adjustable Degradation Properties. <i>Biomacromolecules</i> , 2010, 11, 617-625.   | 2.6 | 80        |
| 41 | Delivery of fullerene-containing complexes via microgel swelling and shear-induced release. <i>International Journal of Pharmaceutics</i> , 2010, 384, 9-14.  | 2.6 | 9         |
| 42 | Hyperbranched poly(amine-ester) based hydrogels for controlled multi-drug release in combination chemotherapy. <i>Biomaterials</i> , 2010, 31, 5445-5454.   | 5.7 | 57        |
| 43 | The effects of reaction conditions on block copolymerization of chitosan and poly(ethylene glycol). <i>Carbohydrate Polymers</i> , 2010, 81, 799-804.   | 5.1 | 12        |
| 44 | Delivery of drug macromolecules from thermally responsive gel implants to the posterior eye. <i>Chemical Engineering Science</i> , 2010, 65, 5170-5177.   | 1.9 | 15        |
| 45 | Entrapment of <i>Saccharomyces cerevisiae</i> cells in u.v. crosslinked hydroxyethylcellulose/poly(ethylene oxide) double-layered gels. <i>Reactive and Functional Polymers</i> , 2010, 70, 908-915.                  | 2.0 | 10        |
| 46 | Diffusion-transport properties of a polycomplex matrix system based on eudragit® EPO and Carbomer 940. <i>Pharmaceutical Chemistry Journal</i> , 2010, 44, 147-150.   | 0.3 | 11        |
| 47 | Hydrogel-based drug delivery systems: Comparison of drug diffusivity and release kinetics. <i>Journal of Controlled Release</i> , 2010, 142, 221-228.   | 4.8 | 221       |
| 48 | Facile control of porous structures of polymer microspheres using an osmotic agent for pulmonary delivery. <i>Journal of Controlled Release</i> , 2010, 146, 61-67.   | 4.8 | 96        |
| 49 | Temperature Response of PNIPAM Derivatives at Planar Surfaces: Comparison between Polyelectrolyte Multilayers and Adsorbed Microgels. <i>ChemPhysChem</i> , 2010, 11, 3571-3579.                                      | 1.0 | 21        |
| 50 | Injectable chitosan-based hydrogel for implantable drug delivery: Body response and induced variations of structure and composition. <i>Journal of Biomedical Materials Research - Part A</i> , 2010, 95A, 1019-1027. | 2.1 | 25        |
| 51 | Time Controlled Protein Release from Layer-by-Layer Assembled Multilayer Functionalized Agarose Hydrogels. <i>Advanced Functional Materials</i> , 2010, 20, 247-258.  | 7.8 | 94        |
| 52 | Design of Multiresponsive Hydrogel Particles and Assemblies. <i>Advanced Functional Materials</i> , 2010, 20, 1697-1712.  | 7.8 | 171       |
| 53 | pH-sensitive hydrogels based on bovine serum albumin for anticancer drug delivery. <i>Journal of Applied Polymer Science</i> , 2010, 115, 2050-2059.  | 1.3 | 28        |
| 54 | Investigation of sorption/swelling characteristics of chemically crosslinked AAm/SMA hydrogels as biopotential sorbent. <i>Journal of Applied Polymer Science</i> , 2010, 117, 1787-1797.                             | 1.3 | 7         |
| 55 | Pectin grafted poly( <i>N</i> -vinylpyrrolidone): Optimization and <i>in vitro</i> controllable theophylline drug release. <i>Journal of Applied Polymer Science</i> , 2010, 117, 1945-1954.                          | 1.3 | 42        |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 56 | Progress in Depsipeptide-Based Biomaterials. <i>Macromolecular Bioscience</i> , 2010, 10, 1008-1021.   | 2.1  | 68        |
| 57 | Some hydrogels having novel molecular structures. <i>Progress in Polymer Science</i> , 2010, 35, 332-337.  | 11.8 | 137       |
| 58 | Synthesis and characterization of in situ cross-linked hydrogel based on self-assembly of thiol-modified chitosan with PEG diacrylate using Michael type addition. <i>Polymer</i> , 2010, 51, 639-646.   | 1.8  | 115       |
| 59 | Synthesis and characterization of novel pH-, ionic strength and temperature- sensitive hydrogel for insulin delivery. <i>Polymer</i> , 2010, 51, 1687-1693.  | 1.8  | 134       |
| 60 | Effect of molecular architecture on the self-diffusion of polymers in aqueous systems: A comparison of linear, star, and dendritic poly(ethylene glycol)s. <i>Polymer</i> , 2010, 51, 2345-2350.   | 1.8  | 10        |
| 61 | Multiresponsive polymeric particles with tunable morphology and properties based on acrylonitrile (AN) and 4-vinylpyridine (4-VP). <i>Polymer</i> , 2010, 51, 3156-3163.   | 1.8  | 36        |
| 62 | Synthesis and characterization of in situ photogelable polysaccharide derivative for drug delivery. <i>International Journal of Pharmaceutics</i> , 2010, 393, 97-104.   | 2.6  | 22        |
| 63 | Release of paeonol- $\beta$ -CD complex from thermo-sensitive poly(N-isopropylacrylamide) hydrogels. <i>International Journal of Pharmaceutics</i> , 2010, 402, 123-128.   | 2.6  | 32        |
| 64 | Study on the sol-gel transition of xyloglucan hydrogels. <i>Carbohydrate Polymers</i> , 2010, 80, 555-562.   | 5.1  | 52        |
| 65 | Hydrogel-based devices for biomedical applications. <i>Sensors and Actuators B: Chemical</i> , 2010, 147, 765-774.   | 4.0  | 368       |
| 66 | A novel controlled drug delivery system based on pH-responsive hydrogels included in soft gelatin capsules. <i>Acta Biomaterialia</i> , 2010, 6, 4650-4656.  | 4.1  | 46        |
| 67 | Injectable in situ cross-linking hydrogels for local antifungal therapy. <i>Biomaterials</i> , 2010, 31, 1444-1452.  | 5.7  | 126       |
| 68 | The effect of protein structure on their controlled release from an injectable peptide hydrogel. <i>Biomaterials</i> , 2010, 31, 9527-9534.  | 5.7  | 157       |
| 69 | Synthesis of cross-linked N-(2-carboxybenzyl)chitosan pH sensitive polyelectrolyte and its use for drug controlled delivery. <i>Carbohydrate Polymers</i> , 2010, 82, 181-188.   | 5.1  | 42        |
| 70 | Polymeric gels and hydrogels for biomedical and pharmaceutical applications. <i>Polymers for Advanced Technologies</i> , 2010, 21, 27-47.  | 1.6  | 308       |
| 71 | Design and Application of Nanoscale Actuators Using Block-Copolymers. <i>Polymers</i> , 2010, 2, 454-469.  | 2.0  | 18        |
| 72 | Swelling and Diffusion Characteristics of Hydrogels Synthesized from Diepoxy-terminated Poly(ethylene glycol)s and Aliphatic Polyamines. <i>Soft Materials</i> , 2010, 8, 288-306.   | 0.8  | 7         |
| 73 | A Study on the Effect of Butyl Methacrylate Content on Swelling and Controlled-Release Behavior of Poly (Acrylamide-co-Butyl-Methacrylate-co-Acrylic Acid) Environment-Responsive Hydrogels. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2010, 59, 757-776. | 1.8  | 18        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 74 | Evidence of Hydrophobic Interactions Controlling Mobile Ions Release from Smart Hydrogels. <i>Molecular Crystals and Liquid Crystals</i> , 2010, 521, 265-271.   | 0.4 | 8         |
| 75 | Preparation and Release Properties of a pH-Tunable Carboxymethyl Cellulose Hydrogel/Methylene Blue Host/Guest Model. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2010, 60, 62-74.     | 1.8 | 16        |
| 76 | Bioactive Supramolecular Hydrogel with Controlled Dual Drug Release Characteristics. <i>Biomacromolecules</i> , 2010, 11, 2204-2212.   | 2.6 | 101       |
| 77 | NMR Characterization of the Aggregation State of the Azo Dye Sunset Yellow in the Isotropic Phase. <i>Journal of Physical Chemistry B</i> , 2010, 114, 10032-10038.  | 1.2 | 47        |
| 78 | Cyclodextrin-dextran based in situ hydrogel formation: a carrier for hydrophobic drugs. <i>Soft Matter</i> , 2010, 6, 85-87.   | 1.2 | 79        |
| 79 | Engineering hydrogels as extracellular matrix mimics. <i>Nanomedicine</i> , 2010, 5, 469-484.  | 1.7 | 734       |
| 80 | Design of Renewable Hydrogel Release Systems from Fiberboard Mill Wastewater. <i>Biomacromolecules</i> , 2010, 11, 1406-1411.  | 2.6 | 48        |
| 81 | Biodegradable Hydrogels for Time-Controlled Release of Tethered Peptides or Proteins. <i>Biomacromolecules</i> , 2010, 11, 496-504.  | 2.6 | 41        |
| 82 | A Novel Method to Prepare 5-Fluorouracil, an Anti-cancer Drug, Loaded Microspheres from Poly(N-vinyl caprolactam-co-acrylamide) and Controlled Release Studies. <i>Designed Monomers and Polymers</i> , 2010, 13, 325-336. | 0.7 | 20        |
| 83 | Resins with "Nano-Raisins". <i>Langmuir</i> , 2010, 26, 10243-10249.   | 1.6 | 15        |
| 84 | Size-dependent release of fluorescent macromolecules and nanoparticles from radically cross-linked hydrogels. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2010, 74, 184-192.                           | 2.0 | 22        |
| 85 | Mesoporous Hydrogels: Revealing Reversible Porosity by Cryoporometry, X-ray Scattering, and Gas Adsorption. <i>Langmuir</i> , 2010, 26, 10158-10164.   | 1.6 | 36        |
| 86 | Cyclodextrin/dextran based drug carriers for a controlled release of hydrophobic drugs in zebrafish embryos. <i>Soft Matter</i> , 2010, 6, 3778.   | 1.2 | 39        |
| 87 | Aptamer-Functionalized In Situ Injectable Hydrogel for Controlled Protein Release. <i>Biomacromolecules</i> , 2010, 11, 2724-2730.   | 2.6 | 75        |
| 88 | Hydrogel functionalization with DNA aptamers for sustained PDGF-BB release. <i>Chemical Communications</i> , 2010, 46, 1857-1859.  | 2.2 | 107       |
| 89 | A hybrid particle-hydrogel composite for oligonucleotide-mediated pulsatile protein release. <i>Soft Matter</i> , 2010, 6, 4255.   | 1.2 | 46        |
| 90 | Temperature controlled encapsulation and release using partially biodegradable thermo-magneto-sensitive self-rolling tubes. <i>Soft Matter</i> , 2010, 6, 2633.  | 1.2 | 140       |
| 91 | Control of number density and swelling/shrinking behavior of P(NIPAM-AAc) particles at solid surfaces. <i>Journal of Materials Chemistry</i> , 2010, 20, 3502.   | 6.7 | 87        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 92  | Controlled release of human growth hormone from a biodegradable pH/temperature-sensitive hydrogel system. <i>Soft Matter</i> , 2011, 7, 8984.   | 1.2 | 60        |
| 93  | The influence of the chemical and structural features of xylan on the physical properties of its derived hydrogels. <i>Soft Matter</i> , 2011, 7, 1090-1099.  | 1.2 | 34        |
| 94  | Self-assembling peptide-polysaccharide hybrid hydrogel as a potential carrier for drug delivery. <i>Soft Matter</i> , 2011, 7, 6222.  | 1.2 | 170       |
| 95  | Biodegradable oligo(amidoamine- $\beta$ -2-amino ester) hydrogels for controlled insulin delivery. <i>Soft Matter</i> , 2011, 7, 2994.  | 1.2 | 45        |
| 96  | Synthesis and characterization of nanogels of poly(N-isopropylacrylamide) by a combination of light and small-angle X-ray scattering. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 3108-3114.         | 1.3 | 28        |
| 98  | Versatile Pectin Grafted Poly (N-isopropylacrylamide); Modulated Targeted Drug Release. <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2011, 48, 493-502.                              | 1.2 | 20        |
| 99  | Smart Approach To Evaluate Drug Diffusivity in Injectable Agar-Carbomer Hydrogels for Drug Delivery. <i>Journal of Physical Chemistry B</i> , 2011, 115, 2503-2510.   | 1.2 | 79        |
| 100 | Nanocomposite synthesis by absorption of nanoparticles into macroporous hydrogels. Building a chemomechanical actuator driven by electromagnetic radiation. <i>Nanotechnology</i> , 2011, 22, 245504.           | 1.3 | 27        |
| 101 | Access to Nanostructured Hydrogel Networks through Photocured Body-Centered Cubic Block Copolymer Melts. <i>Macromolecules</i> , 2011, 44, 6557-6567.   | 2.2 | 21        |
| 102 | Supramolecular Gelation of a Polymeric Prodrug for Its Encapsulation and Sustained Release. <i>Biomacromolecules</i> , 2011, 12, 3124-3130.   | 2.6 | 39        |
| 103 | A Novel pH-Responsive Nanogel for the Controlled Uptake and Release of Hydrophobic and Cationic Solutes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 16347-16353.                                       | 1.5 | 50        |
| 104 | Injectable Block Copolymer Hydrogels: Achievements and Future Challenges for Biomedical Applications. <i>Macromolecules</i> , 2011, 44, 6629-6636.  | 2.2 | 221       |
| 105 | Hydrogels in Tissue Engineering. , 2011, , 9-46.  |     | 8         |
| 106 | Synthesis of Biodegradable Hydrogel Nanoparticles for Bioapplications Using Inverse Miniemulsion RAFT Polymerization. <i>Macromolecules</i> , 2011, 44, 7167-7175.  | 2.2 | 46        |
| 107 | Surface Plasmon Spectroscopy of Gold-Poly-N-isopropylacrylamide Core-Shell Particles. <i>Langmuir</i> , 2011, 27, 820-827.  | 1.6 | 87        |
| 108 | Drug delivery strategies for therapeutic angiogenesis and antiangiogenesis. <i>Expert Opinion on Drug Delivery</i> , 2011, 8, 485-504.  | 2.4 | 53        |
| 109 | Investigation of the formation, structure and release characteristics of self-assembled composite films of cellulose nanofibrils and temperature responsive microgels. <i>Soft Matter</i> , 2011, 7, 1369-1377. | 1.2 | 20        |
| 110 | In situ gelling formulation based on methylcellulose/pectin system for oral-sustained drug delivery to dysphagic patients. <i>Drug Development and Industrial Pharmacy</i> , 2011, 37, 790-797.                 | 0.9 | 17        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 111 | Hydrogels for biomedical applications. <i>Future Medicinal Chemistry</i> , 2011, 3, 1877-1888.  | 1.1  | 62        |
| 112 | Biopolymer-Based Hydrogels for Cartilage Tissue Engineering. <i>Chemical Reviews</i> , 2011, 111, 4453-4474.  | 23.0 | 471       |
| 113 | Active Implants and Scaffolds for Tissue Regeneration. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2011, , .  | 0.7  | 15        |
| 114 | Nanofibers Resulting from Cooperative Electrostatic and Hydrophobic Interactions between Peptides and Polyelectrolytes of Opposite Charge. <i>Langmuir</i> , 2011, 27, 14450-14459.                   | 1.6  | 21        |
| 115 | Polymer and Water Dynamics in Poly(vinyl alcohol)/Poly(methacrylate) Networks. A Molecular Dynamics Simulation and Incoherent Neutron Scattering Investigation. <i>Polymers</i> , 2011, 3, 1805-1832. | 2.0  | 21        |
| 117 | Porphyrin-Cross-Linked Hydrogel for Fluorescence-Guided Monitoring and Surgical Resection. <i>Biomacromolecules</i> , 2011, 12, 3115-3118.  | 2.6  | 75        |
| 118 | pH-Responsive Hydrogel/Liposome Soft Nanocomposites For Tuning Drug Release. <i>Biomacromolecules</i> , 2011, 12, 3023-3030.  | 2.6  | 84        |
| 119 | Organic bioelectronics in nanomedicine. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2011, 1810, 276-285.  | 1.1  | 112       |
| 120 | Preparation of Monodisperse Poly( <i>N</i> -isopropylacrylamide) Microgel Particles with Homogenous Cross-Link Density Distribution. <i>Langmuir</i> , 2011, 27, 7917-7925.                           | 1.6  | 122       |
| 121 | Dextran based photodegradable hydrogels formed via a Michael addition. <i>Soft Matter</i> , 2011, 7, 4881.  | 1.2  | 113       |
| 122 | PNIPAM microgels for biomedical applications: from dispersed particles to 3D assemblies. <i>Soft Matter</i> , 2011, 7, 6375.  | 1.2  | 399       |
| 123 | Physical hydrogels with self-assembled nanostructures as drug delivery systems. <i>Expert Opinion on Drug Delivery</i> , 2011, 8, 1141-1159.  | 2.4  | 48        |
| 124 | Injectable Microgel-Hydrogel Composites for Prolonged Small-Molecule Drug Delivery. <i>Biomacromolecules</i> , 2011, 12, 4112-4120.   | 2.6  | 186       |
| 125 | Self-Assembled Prodrugs. , 2011, , 339-355.   |      | 3         |
| 126 | Photocrosslinkable Polymers for Biomedical Applications. , 2011, , .  |      | 5         |
| 127 | Hydrogels: Methods of Preparation, Characterisation and Applications. , 0, , .  |      | 125       |
| 128 | Controlled release of paclitaxel from a self-assembling peptide hydrogel formed in situ and antitumor study in vitro. <i>International Journal of Nanomedicine</i> , 2011, 6, 2143.                   | 3.3  | 100       |
| 129 | Thermo-sensitive and photoluminescent hydrogels: Synthesis, characterization, and their drug-release property. <i>Materials Science and Engineering C</i> , 2011, 31, 1429-1435.                      | 3.8  | 19        |



| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 130 | Unveiling the self-assembly behavior of copolymers of AAc and DMAPMA in situ to form smart hydrogels displaying nanogels-within-macrogel hierarchical morphology. <i>Polymer</i> , 2011, 52, 3800-3810.  | 1.8 | 18        |
| 131 | Evaluation of redox-responsive disulfide cross-linked poly(hydroxyethyl methacrylate) hydrogels. <i>Polymer</i> , 2011, 52, 5262-5270.   | 1.8 | 27        |
| 132 | Novel supramolecular gelation route to in situ entrapment and sustained delivery of plasmid DNA. <i>Journal of Colloid and Interface Science</i> , 2011, 364, 566-573.   | 5.0 | 30        |
| 133 | Hydrogel containing l-valine residues as a platform for cisplatin chemotherapy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2011, 88, 389-395.   | 2.5 | 20        |
| 134 | Gelatin-pectin composite films from polyion-complex hydrogels. <i>Food Hydrocolloids</i> , 2011, 25, 61-70.  | 5.6 | 152       |
| 135 | Affinity hydrogels for controlled protein release using nucleic acid aptamers and complementary oligonucleotides. <i>Biomaterials</i> , 2011, 32, 6839-6849.   | 5.7 | 53        |
| 136 | Degradable, injectable poly(N-isopropylacrylamide)-based hydrogels with low gelation concentrations for protein delivery application. <i>Chemical Engineering Journal</i> , 2011, 173, 241-250.  | 6.6 | 30        |
| 137 | Mechanoresponsive polymer nanoparticles, nanofibers and coatings as drug carriers and components of microfluidic devices. <i>Journal of Materials Chemistry</i> , 2011, 21, 8269.  | 6.7 | 25        |
| 138 | Chitosan-Derivative Based Hydrogels as Drug Delivery Platforms: Applications in Drug Delivery and Tissue Engineering. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2011, , 351-376.   | 0.7 | 6         |
| 139 | Poly(N-isopropylacrylamide) hydrogel: Effect of hydrophilicity on controlled release of ibuprofen at different pH. <i>Journal of Applied Polymer Science</i> , 2012, 124, 5079-5088.   | 1.3 | 6         |
| 140 | Cytocompatible Poly(ethylene glycol)-polycarbonate Hydrogels Cross-Linked by Copper-Free, Strain-Promoted Click Chemistry. <i>Chemistry - an Asian Journal</i> , 2011, 6, 2730-2737.   | 1.7 | 87        |
| 141 | Nanostructured porous silicon-polymer-based hybrids: from biosensing to drug delivery. <i>Nanomedicine</i> , 2011, 6, 1755-1770.   | 1.7 | 103       |
| 142 | Synthesis, characterization and swelling kinetics of thermoresponsive PAM-g-PVA/PVP semi-IPN hydrogels. <i>Polymer Science - Series A</i> , 2011, 53, 707-714.   | 0.4 | 11        |
| 143 | Drug delivery systems for differential release in combination therapy. <i>Expert Opinion on Drug Delivery</i> , 2011, 8, 171-190.  | 2.4 | 83        |
| 144 | Preparation, properties, and drug release of thermo- and pH-sensitive poly((2-dimethylamino)ethyl) methacrylate hydrogels. <i>Journal of Applied Polymer Science</i> , 2011, 124, 1523-1534.   | 1.7 | 63        |
| 145 | Bioactive Electrospun Scaffolds Delivering Growth Factors and Genes for Tissue Engineering Applications. <i>Pharmaceutical Research</i> , 2011, 28, 1259-1272.   | 1.7 | 360       |
| 146 | Controlled Delivery Systems: From Pharmaceuticals to Cells and Genes. <i>Pharmaceutical Research</i> , 2011, 28, 1241-1258.  | 1.7 | 50        |
| 147 | Assembly of poly(N-isopropylacrylamide)-co-acrylic acid microgel thin films on polyelectrolyte multilayers: Effects of polyelectrolyte layer thickness, surface charge, and microgel solution pH. <i>Colloid and Polymer Science</i> , 2011, 289, 591-602. | 1.0 | 29        |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 148 | Different types of microfibrillated cellulose as filler materials in polysodium acrylate superabsorbents. Chinese Journal of Polymer Science (English Edition), 2011, 29, 407-413.   | 2.0  | 14        |
| 149 | Transient analysis of the effect of the initial fixed charge density on the kinetic characteristics of the ionic-strength-sensitive hydrogel by a multi-effect-coupling model. Analytical and Bioanalytical Chemistry, 2011, 399, 1233-1243. | 1.9  | 12        |
| 150 | Preparation and evaluation of a kind of bacterial cellulose dry films with antibacterial properties. Carbohydrate Polymers, 2011, 84, 533-538.   | 5.1  | 224       |
| 151 | Biodegradable IPNs based on oxidized alginate and dextran-HEMA for controlled release of proteins. Carbohydrate Polymers, 2011, 86, 208-213.   | 5.1  | 45        |
| 152 | On the measurement of fracture toughness of soft biogel. Polymer Engineering and Science, 2011, 51, 1078-1086.   | 1.5  | 25        |
| 153 | Characterization of well-defined poly(ethylene glycol) hydrogels prepared by thiol-ene chemistry. Journal of Polymer Science Part A, 2011, 49, 4044-4054.  | 2.5  | 58        |
| 154 | Thermo- and pH-sensitive hydrogels based on 2-(2-methoxyethoxy)ethyl methacrylate and methacrylic acid. Polymer International, 2011, 60, 178-185.  | 1.6  | 16        |
| 155 | Molding Micropatterns of Elasticity on PEG-Based Hydrogels to Control Cell Adhesion and Migration. Advanced Engineering Materials, 2011, 13, B395.   | 1.6  | 18        |
| 156 | Omnidirectional Printing of 3D Microvascular Networks. Advanced Materials, 2011, 23, H178-83.  | 11.1 | 635       |
| 158 | On-demand drug delivery from self-assembled nanofibrous gels: A new approach for treatment of proteolytic disease. Journal of Biomedical Materials Research - Part A, 2011, 97A, 103-110.  | 2.1  | 37        |
| 159 | Compressive stress-strain response of covalently crosslinked oxidized alginate/Na-succinyl-chitosan hydrogels. Journal of Biomedical Materials Research - Part A, 2011, 99A, 367-375.  | 2.1  | 21        |
| 160 | Swelling dynamics of IPN hydrogels including acrylamide-acrylic acid-chitosan and evaluation of their potential for controlled release of piperacillin-tazobactam. Journal of Applied Polymer Science, 2011, 120, 441-450.                   | 1.3  | 18        |
| 161 | Effect of hydrophobic comonomer content on assembling of poly( <i>N</i> -isopropylacrylamide) and thermal properties. Journal of Applied Polymer Science, 2011, 120, 2346-2353.  | 1.3  | 7         |
| 162 | Anionic polysaccharide hydrogels with thermosensitive properties. Carbohydrate Polymers, 2011, 83, 52-59.  | 5.1  | 17        |
| 163 | Hyaluronic acid hydrogel particles with tunable charges as potential drug delivery devices. Carbohydrate Polymers, 2011, 84, 1306-1313.  | 5.1  | 60        |
| 164 | An in vitro study of two GAG-like marine polysaccharides incorporated into injectable hydrogels for bone and cartilage tissue engineering. Acta Biomaterialia, 2011, 7, 2119-2130.   | 4.1  | 28        |
| 165 | Biodegradable pH/temperature-sensitive oligo( $\beta$ -amino ester urethane) hydrogels for controlled release of doxorubicin. Acta Biomaterialia, 2011, 7, 3123-3130.  | 4.1  | 59        |
| 166 | Hydrazine-induced thermo-reversible optical shifts in silver-gelatin bionanocomposites. Chemical Physics Letters, 2011, 505, 37-41.  | 1.2  | 8         |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 167 | Self-assembling polysaccharide systems based on cyclodextrin complexation: Synthesis, properties and potential applications in the biomaterials field. <i>Comptes Rendus Chimie</i> , 2011, 14, 167-177. | 0.2  | 27        |
| 168 | Effects of temperature on diffusion from PNIPA-based gels in a BioMEMS device for localized chemotherapy and hyperthermia. <i>Materials Science and Engineering C</i> , 2011, 31, 67-76.                 | 3.8  | 23        |
| 169 | The interactions between doxorubicin and amphiphilic and acidic $\beta$ -sheet peptides towards drug delivery hydrogels. <i>Journal of Colloid and Interface Science</i> , 2011, 360, 525-531.           | 5.0  | 29        |
| 170 | Chitosan—A versatile semi-synthetic polymer in biomedical applications. <i>Progress in Polymer Science</i> , 2011, 36, 981-1014.   | 11.8 | 2,262     |
| 171 | Composite IPN ionic hydrogels based on polyacrylamide and dextran sulfate. <i>Reactive and Functional Polymers</i> , 2011, 71, 881-890.  | 2.0  | 40        |
| 172 | Thermo- and pH-responsive HPC-g-AA/AA hydrogels for controlled drug delivery applications. <i>Polymer</i> , 2011, 52, 676-682.   | 1.8  | 81        |
| 173 | Poly(ethoxytriethyleneglycol acrylate) cryogels as novel sustained drug release systems for oral application. <i>Polymer</i> , 2011, 52, 1217-1222.  | 1.8  | 39        |
| 174 | Guest release and solution behavior of a hydrogen-bonding physical micelle during chemoresponsive shell disruption. <i>Polymer</i> , 2011, 52, 3405-3412.  | 1.8  | 4         |
| 175 | Enhanced Mucoadhesive Capacity of Novel Co-polymers for Oral Protein Delivery. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2011, 22, 2079-2095.  | 1.9  | 2         |
| 176 | ANALYSIS OF THE KINETICS OF SHRINKING OF THE IONIC-STRENGTH-SENSITIVE HYDROGEL WITH A MULTI-PHYSICAL MODEL. <i>International Journal of Applied Mechanics</i> , 2011, 03, 313-334.                       | 1.3  | 3         |
| 177 | Tissue engineering applications of injectable biomaterials. , 2011, , 142-182.   |      | 8         |
| 178 | Drug delivery applications of injectable biomaterials. , 2011, , 95-141.   |      | 4         |
| 179 | Hydrogels in Biosensing Applications. , 2011, , 491-517.   |      | 6         |
| 180 | Characterization and Degradation Behavior of Agar—Carbomer Based Hydrogels for Drug Delivery Applications: Solute Effect. <i>International Journal of Molecular Sciences</i> , 2011, 12, 3394-3408.      | 1.8  | 32        |
| 181 | Characterization of cryogenically slightly crosslinked biomedical poly(vinyl alcohol) gels. <i>Proceedings of the Estonian Academy of Sciences</i> , 2012, 61, 228.                                      | 0.9  | 3         |
| 182 | Preparation, characterisation and controlled drug release from thermosensitive hybrid hydrogels. <i>Plastics, Rubber and Composites</i> , 2012, 41, 13-17.   | 0.9  | 5         |
| 183 | Multiple Stimuli-Responsive Hydrogels for Metal-Based Drug Therapy. <i>Polymers</i> , 2012, 4, 964-985.  | 2.0  | 12        |
| 184 | Reservoir-Based Polymer Drug Delivery Systems. <i>Journal of the Association for Laboratory Automation</i> , 2012, 17, 50-58.  | 2.8  | 115       |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 185 | A controlled biochemical release device with embedded nanofluidic channels. Applied Physics Letters, 2012, 100, 153510.   | 1.5 | 12        |
| 186 | Time Controlled Release of Arabinofuranosylcytosine (Ara-C) from Agarose Hydrogels using Layer-by-Layer Assembly: An In Vitro Study. Journal of Biomaterials Science, Polymer Edition, 2012, 23, 439-463.   | 1.9 | 16        |
| 187 | Estimation of the hydrodynamic screening length in $\hat{\rho}$ -carrageenan solutions using NMR diffusion measurements. Polymer Journal, 2012, 44, 901-906.  | 1.3 | 14        |
| 188 | A pH-Sensitive Poly (2-(Acryloyloxy) Propanoic Acid) Hydrogel and its Drug Release Behaviors. Advanced Materials Research, 0, 455-456, 901-906.   | 0.3 | 0         |
| 189 | Synthesis, Characteristics and Potential Application of Poly( $\hat{\rho}$ -Amino Ester Urethane)-Based Multiblock Co-Polymers as an Injectable, Biodegradable and pH/Temperature-Sensitive Hydrogel System. Journal of Biomaterials Science, Polymer Edition, 2012, 23, 1091-1106. | 1.9 | 26        |
| 190 | <i>Pseudomonas</i> sp. as a Source of Medium Chain Length Polyhydroxyalkanoates for Controlled Drug Delivery: Perspective. International Journal of Microbiology, 2012, 2012, 1-10.   | 0.9 | 24        |
| 191 | Polyelectrolyte Multilayer Nanoshells With Hydrophobic Nanodomains for Delivery of Paclitaxel. , 2012, , .  |     | 0         |
| 192 | Hydrogels in mucosal delivery. Therapeutic Delivery, 2012, 3, 535-555.  | 1.2 | 15        |
| 193 | Thermo-Responsive Gels: Biodegradable Hydrogels from Enantiomeric Copolymers of Poly(lactide) and Poly(ethylene glycol). ACS Symposium Series, 2012, , 287-311.   | 0.5 | 2         |
| 194 | Superhydrophobic Materials for Tunable Drug Release: Using Displacement of Air To Control Delivery Rates. Journal of the American Chemical Society, 2012, 134, 2016-2019.   | 6.6 | 223       |
| 195 | Photocrosslinkable dextran hydrogel films as substrates for osteoblast and endothelial cell growth. Journal of Materials Chemistry, 2012, 22, 19590.  | 6.7 | 22        |
| 196 | Designing Cell-Compatible Hydrogels for Biomedical Applications. Science, 2012, 336, 1124-1128.   | 6.0 | 1,606     |
| 197 | Novel lyophilized hydrogel patches for convenient and effective administration of microneedle-mediated insulin delivery. International Journal of Pharmaceutics, 2012, 437, 51-56.  | 2.6 | 43        |
| 198 | Injectable hydrogels for central nervous system therapy. Biomedical Materials (Bristol), 2012, 7, 024101.   | 1.7 | 198       |
| 199 | Controlled Thermo-responsive Hydrogels by Stereocomplexed PLA-PEG-PLA Prepared via Hybrid Micelles of Pre-Mixed Copolymers with Different PEG Lengths. Biomacromolecules, 2012, 13, 1828-1836.  | 2.6 | 77        |
| 200 | Gelator-polysaccharide hybrid hydrogel for selective and controllable dye release. Journal of Colloid and Interface Science, 2012, 387, 115-122.  | 5.0 | 30        |
| 201 | Remotely triggered release from composite hydrogel sponges. Soft Matter, 2012, 8, 1811-1816.  | 1.2 | 23        |
| 202 | Interconnected macroporous glycidyl methacrylate-grafted dextran hydrogels synthesised from hydroxyapatite nanoparticle stabilised high internal phase emulsion templates. Journal of Materials Chemistry, 2012, 22, 18824.   | 6.7 | 74        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 203 | Tailoring uptake and release of ATP by dendritic glycopolymer/PNIPAAm hydrogel hybrids: first approaches towards multicompartement release systems. <i>New Journal of Chemistry</i> , 2012, 36, 438-451.            | 1.4  | 32        |
| 204 | <i>In vitro</i> and <i>in vivo</i> evaluation of a hydrogel-based prototype transdermal patch system of alfuzosin hydrochloride. <i>Pharmaceutical Development and Technology</i> , 2012, 17, 158-163.              | 1.1  | 12        |
| 205 | Mechano-responsive hydrogels crosslinked by block copolymer micelles. <i>Soft Matter</i> , 2012, 8, 10233.  | 1.2  | 68        |
| 206 | Novel solvent-free synthesis and modification of polyaspartic acid hydrogel. <i>RSC Advances</i> , 2012, 2, 11592.  | 1.7  | 12        |
| 207 | Ag nanoparticle-entrapped hydrogel as promising material for catalytic reduction of organic dyes. <i>Journal of Materials Chemistry</i> , 2012, 22, 16552.  | 6.7  | 155       |
| 208 | Injectable hydrogel materials for spinal cord regeneration: a review. <i>Biomedical Materials (Bristol)</i> , 2012, 7, 012001.  | 1.7  | 232       |
| 209 | Effect of Peptide and Guest Charge on the Structural, Mechanical and Release Properties of $\beta$ -Sheet Forming Peptides. <i>Langmuir</i> , 2012, 28, 16196-16206.  | 1.6  | 63        |
| 210 | Mechanically robust PEGDA-MSNs-OH nanocomposite hydrogel with hierarchical meso-macroporous structure for tissue engineering. <i>Soft Matter</i> , 2012, 8, 8981.   | 1.2  | 36        |
| 211 | Engineering Surface Adhered Poly(vinyl alcohol) Physical Hydrogels as Enzymatic Microreactors. <i>ACS Applied Materials &amp; Interfaces</i> , 2012, 4, 4981-4990.  | 4.0  | 21        |
| 212 | Thermoreversible Poly(isopropyl lactate diol)-Based Polyurethane Hydrogels: Effect of Isocyanate on Some Physical Properties. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, , 120911115023009.     | 1.8  | 2         |
| 213 | Development of a Hybrid Dextrin Hydrogel Encapsulating Dextrin Nanogel As Protein Delivery System. <i>Biomacromolecules</i> , 2012, 13, 517-527.  | 2.6  | 86        |
| 214 | A Thermosensitive Hydrogel Capable of Releasing bFGF for Enhanced Differentiation of Mesenchymal Stem Cell into Cardiomyocyte-like Cells under Ischemic Conditions. <i>Biomacromolecules</i> , 2012, 13, 1956-1964. | 2.6  | 35        |
| 215 | A Facile Approach for the Synthesis of Xylan-Derived Hydrogels. <i>ACS Symposium Series</i> , 2012, , 257-270.  | 0.5  | 0         |
| 216 | Injectable and biodegradable hydrogels: gelation, biodegradation and biomedical applications. <i>Chemical Society Reviews</i> , 2012, 41, 2193-2221.  | 18.7 | 1,190     |
| 217 | The State of Nanoparticle-Based Nanoscience and Biotechnology: Progress, Promises, and Challenges. <i>ACS Nano</i> , 2012, 6, 8468-8483.  | 7.3  | 211       |
| 218 | Photocrosslinking, micropatterning and cell adhesion studies of sodium hyaluronate with a trisdiazonium salt. <i>Carbohydrate Polymers</i> , 2012, 90, 419-430.   | 5.1  | 3         |
| 219 | Rheological, water uptake and controlled release properties of a novel self-gelling aldehyde functionalized chitosan. <i>Carbohydrate Polymers</i> , 2012, 90, 894-900.   | 5.1  | 29        |
| 220 | Kinetics and mechanism of thermal degradation of pentose- and hexose-based carbohydrate polymers. <i>Carbohydrate Polymers</i> , 2012, 90, 1386-1393.   | 5.1  | 40        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 221 | Preparation, characterization and properties of aminoethyl chitin hydrogels. Carbohydrate Polymers, 2012, 90, 1614-1619.   | 5.1 | 21        |
| 222 | In situ pH maintenance for mammalian cell cultures in shake flasks and tissue culture flasks. Biotechnology Progress, 2012, 28, 1605-1610.   | 1.3 | 9         |
| 223 | Facile and Efficient Fabrication of Photoresponsive Microgels via Thiol-Michael Addition. Macromolecular Rapid Communications, 2012, 33, 1952-1957.  | 2.0 | 39        |
| 224 | Swelling behaviour and controlled drug release from cross-linked $\hat{\text{I}}^{\text{2}}$ -carrageenan/NaCMC hydrogel by diffusion mechanism. Journal of Microencapsulation, 2012, 29, 368-379. | 1.2 | 55        |
| 225 | Thin Hydrogel Films for Optical Biosensor Applications. Membranes, 2012, 2, 40-69.   | 1.4 | 141       |
| 227 | Biomimetic Polymers (for Biomedical Applications). , 2012, , 339-361.  |     | 1         |
| 228 | Polymer Nanogels and Microgels. , 2012, , 309-350.   |     | 17        |
| 229 | Chitosan-Based Delivery System for Tissue Regeneration and Chemotherapy. , 2012, , 321-343.  |     | 3         |
| 230 | Indentation: A simple, nondestructive method for characterizing the mechanical and transport properties of pH-sensitive hydrogels. Journal of Materials Research, 2012, 27, 152-160.               | 1.2 | 52        |
| 231 | Hydrogels as drug-delivery platforms: physicochemical barriers and solutions. Therapeutic Delivery, 2012, 3, 775-786.  | 1.2 | 8         |
| 232 | Synergistic effect of salt mixture on the gelation temperature and morphology of methylcellulose hydrogel. International Journal of Biological Macromolecules, 2012, 51, 831-836.                  | 3.6 | 49        |
| 233 | Synchronizing nonfouling and antimicrobial properties in a zwitterionic hydrogel. Biomaterials, 2012, 33, 8928-8933.   | 5.7 | 116       |
| 234 | Thermorheological properties of a Carbopol gel under shear. Journal of Non-Newtonian Fluid Mechanics, 2012, 183-184, 14-24.  | 1.0 | 39        |
| 235 | One-Step Synthesis of Biodegradable Curcumin-Derived Hydrogels as Potential Soft Tissue Fillers after Breast Cancer Surgery. Biomacromolecules, 2012, 13, 2279-2286.                               | 2.6 | 48        |
| 236 | Injectable, Mixed Natural-Synthetic Polymer Hydrogels with Modular Properties. Biomacromolecules, 2012, 13, 369-378.   | 2.6 | 145       |
| 237 | Anticancer Drug-Loaded Gliadin Nanoparticles Induce Apoptosis in Breast Cancer Cells. Langmuir, 2012, 28, 8216-8223.   | 1.6 | 135       |
| 238 | Fabrication of pH-sensitive graphene oxide-drug supramolecular hydrogels as controlled release systems. Journal of Materials Chemistry, 2012, 22, 24856.   | 6.7 | 138       |
| 239 | Hydrogels as Intracellular Depots for Drug Delivery. Molecular Pharmaceutics, 2012, 9, 196-200.  | 2.3 | 27        |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 240 | Hyaluronic acid methacrylate derivatives and calcium alginate interpenetrated hydrogel networks for biomedical applications: physico-chemical characterization and protein release. <i>Colloid and Polymer Science</i> , 2012, 290, 1575-1582. | 1.0  | 15        |
| 241 | Micro-DSC, rheological and NMR investigations of the gelation of gallic acid and xyloglucan. <i>Soft Matter</i> , 2012, 8, 7258.   | 1.2  | 14        |
| 242 | Acetic and Acrylic Acid Molecular Imprinted Model Silicone Hydrogel Materials for Ciprofloxacin-HCl Delivery. <i>Materials</i> , 2012, 5, 85-107.  | 1.3  | 49        |
| 243 | Review: Cyclodextrin Inclusion Complexes Probed by NMR Techniques. , 0, , .  |      | 19        |
| 244 | Thermosensitive Polymeric Hydrogels As Drug Delivery Systems. <i>Current Medicinal Chemistry</i> , 2012, 20, 79-94.  | 1.2  | 189       |
| 245 | Sky-white Temperature/pH-sensitive Nanocomposite Microgels with Lower Size and Good Temperature-Sensitivity. <i>Polymers and Polymer Composites</i> , 2012, 20, 111-116.   | 1.0  | 0         |
| 246 | Release of Ciprofloxacin-HCl and Dexamethasone Phosphate by Hyaluronic Acid Containing Silicone Polymers. <i>Materials</i> , 2012, 5, 684-698.   | 1.3  | 20        |
| 247 | Physicochemical characterization and drug release properties of PDMAEMA/OSA Semi-IPN hydrogels with microporous structure. <i>Polymers for Advanced Technologies</i> , 2012, 23, 389-397.  | 1.6  | 7         |
| 248 | Biohybrid nanogels by crosslinking of ovalbumin with reactive star-PEGs in W/O emulsions. <i>Journal of Polymer Science Part A</i> , 2012, 50, 4288-4299.  | 2.5  | 9         |
| 249 | Injectable hydrogels. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2012, 50, 881-903.  | 2.4  | 146       |
| 250 | Characterization of Mass and Swelling of Hydrogel Microstructures using MEMS Resonant Mass Sensor Arrays. <i>Small</i> , 2012, 8, 2555-2562.   | 5.2  | 19        |
| 251 | Preparation of poly(acrylic acid)-graphite oxide superabsorbent nanocomposites. <i>Journal of Materials Chemistry</i> , 2012, 22, 4811.  | 6.7  | 66        |
| 252 | Nanomaterials for Ocular Drug Delivery. <i>Macromolecular Bioscience</i> , 2012, 12, 608-620.  | 2.1  | 153       |
| 253 | Biodegradable pH-Dependent Thermo-Sensitive Hydrogels for Oral Insulin Delivery. <i>Macromolecular Chemistry and Physics</i> , 2012, 213, 713-719.   | 1.1  | 7         |
| 254 | The application of digital image techniques to determine the large stress-strain behaviors of soft materials. <i>Polymer Engineering and Science</i> , 2012, 52, 826-834.  | 1.5  | 25        |
| 255 | Fabrication of oxidized alginate-gelatin-BCP hydrogels and evaluation of the microstructure, material properties and biocompatibility for bone tissue regeneration. <i>Journal of Biomaterials Applications</i> , 2012, 27, 311-321.           | 1.2  | 80        |
| 256 | Mesoporous organohydrogels from thermogelling photocrosslinkable nanoemulsions. <i>Nature Materials</i> , 2012, 11, 344-352.   | 13.3 | 138       |
| 257 | Mechanical Properties of End-Linked PEG/PDMS Hydrogels. <i>Macromolecules</i> , 2012, 45, 6104-6110.   | 2.2  | 85        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 258 | Nanoemulsion Composite Microgels for Orthogonal Encapsulation and Release. <i>Advanced Materials</i> , 2012, 24, 3838-3844.   | 11.1 | 50        |
| 259 | Thermosensitive chitosan hydrogel for implantable drug delivery: Blending PVA to mitigate body response and promote bioavailability. <i>Journal of Applied Polymer Science</i> , 2012, 125, 2092-2101.      | 1.3  | 23        |
| 260 | Functional nanoporous membranes for drug delivery. <i>Journal of Materials Chemistry</i> , 2012, 22, 14814.   | 6.7  | 148       |
| 261 | Click Chemistry with Polymers, Dendrimers, and Hydrogels for Drug Delivery. <i>Pharmaceutical Research</i> , 2012, 29, 902-921.   | 1.7  | 109       |
| 262 | Efficient immobilization of lipase from <i>Candida rugosa</i> by entrapment into poly(N-isopropylacrylamide-co-itaconic acid) hydrogels under mild conditions. <i>Polymer Bulletin</i> , 2012, 69, 347-361. | 1.7  | 9         |
| 263 | Controlling the properties of poly(amino ester urethane)-poly(ethylene glycol)-poly(amino ester) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50<br>290, 1077-1086.   | 1.0  | 20        |
| 264 | Photopolymerization of cell-encapsulating hydrogels: Crosslinking efficiency versus cytotoxicity. <i>Acta Biomaterialia</i> , 2012, 8, 1838-1848.   | 4.1  | 281       |
| 265 | An in situ cross-linking hybrid hydrogel for controlled release of proteins. <i>Acta Biomaterialia</i> , 2012, 8, 1703-1709.  | 4.1  | 34        |
| 266 | Sodium dodecyl sulfate-induced rapid gelation of silk fibroin. <i>Acta Biomaterialia</i> , 2012, 8, 2185-2192.  | 4.1  | 127       |
| 267 | Impact of magnetic nanofillers in the swelling and release properties of Î²-carrageenan hydrogel nanocomposites. <i>Carbohydrate Polymers</i> , 2012, 87, 328-335.  | 5.1  | 77        |
| 268 | Amphiphilic and thermosensitive copolymers based on pullulan and Jeffamine®: Synthesis, characterization and physicochemical properties. <i>Carbohydrate Polymers</i> , 2012, 87, 1522-1531.                | 5.1  | 46        |
| 269 | Preparation and characterization of IPN composite hydrogels based on polyacrylamide and chitosan and their interaction with ionic dyes. <i>Carbohydrate Polymers</i> , 2012, 88, 270-281.                   | 5.1  | 92        |
| 270 | Multi-responsive carboxymethyl polysaccharide crosslinked hydrogels containing Jeffamine side-chains. <i>Carbohydrate Polymers</i> , 2012, 89, 578-585.   | 5.1  | 32        |
| 271 | Functional polymeric nanoparticles for dexamethasone loading and release. <i>Colloids and Surfaces B: Biointerfaces</i> , 2012, 93, 59-66.  | 2.5  | 41        |
| 272 | Thermogelling polymers composed of poly(cyclohexylenedimethylene adipate) and poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50   | 2.6  | 4         |
| 273 | Dual roles of hyaluronic acids in multilayer films capturing nanocarriers for drug-eluting coatings. <i>Biomaterials</i> , 2012, 33, 5468-5477.   | 5.7  | 29        |
| 274 | Enhancing water permeability of fouling-resistant POSS-PEGM hydrogels using addition-extraction™ of sacrificial additives. <i>Journal of Membrane Science</i> , 2012, 401-402, 306-312.                     | 4.1  | 29        |
| 275 | Swelling and diffusion of PNIPAA-based gels for localized chemotherapy and hyperthermia. <i>Materials Science and Engineering C</i> , 2012, 32, 24-30.  | 3.8  | 15        |



| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 276 | Release of Ftorafur from pH-sensitive hydrogels with hyperbranched poly(4-vinylbenzyl chloride) moieties. <i>Materials Science and Engineering C</i> , 2012, 32, 953-960.  | 3.8  | 10        |
| 277 | Self-folding devices and materials for biomedical applications. <i>Trends in Biotechnology</i> , 2012, 30, 138-146.  | 4.9  | 227       |
| 278 | Amphiphilic block copolymer surface composition: Effects of spin coating versus spray coating. <i>Polymer</i> , 2012, 53, 1321-1327.   | 1.8  | 14        |
| 279 | Poly- $\gamma$ -caprolactone based formulations for drug delivery and tissue engineering: A review. <i>Journal of Controlled Release</i> , 2012, 158, 15-33.   | 4.8  | 794       |
| 280 | Polyelectrolyte multilayer nanoshells with hydrophobic nanodomains for delivery of Paclitaxel. <i>Journal of Controlled Release</i> , 2012, 159, 403-412.  | 4.8  | 36        |
| 281 | In situ forming implants – an attractive formulation principle for parenteral depot formulations. <i>Journal of Controlled Release</i> , 2012, 161, 668-679.   | 4.8  | 239       |
| 282 | Thermodynamics of deformation and swelling of crosslinked polymers under small deformations. <i>Polymer Science - Series A</i> , 2012, 54, 240-247.  | 0.4  | 3         |
| 283 | Extended and sequential delivery of protein from injectable thermoresponsive hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , 2012, 100A, 776-785.  | 2.1  | 48        |
| 284 | One-step Preparation of Thiol-ene Clickable PEG-based Thermoresponsive Hyperbranched Copolymer for In Situ Crosslinking Hybrid Hydrogel. <i>Macromolecular Rapid Communications</i> , 2012, 33, 120-126.                         | 2.0  | 84        |
| 285 | Evolution-based Design of an Injectable Hydrogel. <i>Advanced Functional Materials</i> , 2012, 22, 529-537.  | 7.8  | 77        |
| 286 | Reversible Control of Electrochemical Properties Using Thermally-responsive Polymer Electrolytes. <i>Advanced Materials</i> , 2012, 24, 886-889.   | 11.1 | 54        |
| 287 | Controlled release of nutrients to mammalian cells cultured in shake flasks. <i>Biotechnology Progress</i> , 2012, 28, 188-195.  | 1.3  | 17        |
| 288 | Synthesis and degradation of agar-carbomer based hydrogels for tissue engineering applications. <i>Journal of Applied Polymer Science</i> , 2012, 123, 398-408.  | 1.3  | 12        |
| 289 | Synthesis and characterization of pH-sensitive crosslinked (NIPAA-co-AAAC) nanohydrogels copolymer. <i>Journal of Applied Polymer Science</i> , 2012, 124, 1947-1955.  | 1.3  | 16        |
| 290 | Photo-crosslinked biodegradable thermo- and pH-responsive hydrogels for controlled drug release. <i>Journal of Applied Polymer Science</i> , 2012, 123, 2923-2932.   | 1.3  | 18        |
| 291 | Development and characterization of thermosensitive hydrogels based on poly( <i>N</i> -isopropylacrylamide) and calcium alginate. <i>Journal of Applied Polymer Science</i> , 2012, 124, 890-903.                                | 1.3  | 33        |
| 292 | Thermoresponsive hyperbranched copolymer with multi acrylate functionality for in situ cross-linkable hyaluronic acid composite semi-IPN hydrogel. <i>Journal of Materials Science: Materials in Medicine</i> , 2012, 23, 25-35. | 1.7  | 40        |
| 293 | PEG-based bioresponsive hydrogels with redox-mediated formation and degradation. <i>Journal of Materials Science: Materials in Medicine</i> , 2012, 23, 697-710.   | 1.7  | 16        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 294 | Delivery of cisplatin from thermosensitive co-cross-linked chitosan hydrogels. <i>European Polymer Journal</i> , 2013, 49, 2504-2510.   | 2.6  | 34        |
| 295 | Asymptotic solutions and new insights for cylinder and core-shell polymer gels in a solvent. <i>Soft Matter</i> , 2013, 9, 8664.  | 1.2  | 10        |
| 296 | Detailed investigation of gel-sol transition temperature of $\kappa$ -carrageenan studied by DSC, TMA and FBM. <i>Journal of Thermal Analysis and Calorimetry</i> , 2013, 114, 895-901.                     | 2.0  | 20        |
| 297 | Infection-Responsive Drug Delivery from Urinary Biomaterials Controlled by a Novel Kinetic and Thermodynamic Approach. <i>Pharmaceutical Research</i> , 2013, 30, 857-865.                                  | 1.7  | 24        |
| 298 | Boronic acid-containing hydrogels: synthesis and their applications. <i>Chemical Society Reviews</i> , 2013, 42, 8106.  | 18.7 | 368       |
| 299 | Photothermally enhanced drug release by $\kappa$ -carrageenan hydrogels reinforced with multi-walled carbon nanotubes. <i>RSC Advances</i> , 2013, 3, 10828.  | 1.7  | 50        |
| 300 | Preparation of polyacrylamide based microgels with different charges for drug encapsulation. <i>European Polymer Journal</i> , 2013, 49, 1479-1486.   | 2.6  | 8         |
| 301 | Mechanically strong hydrogels with reversible behaviour under cyclic compression with MPa loading. <i>Soft Matter</i> , 2013, 9, 2869.  | 1.2  | 49        |
| 302 | Miconazole-loaded nanostructured lipid carriers (NLC) for local delivery to the oral mucosa: Improving antifungal activity. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013, 111, 755-763.             | 2.5  | 128       |
| 303 | Study of the interaction between modified cyclodextrin and octopriox : potential applications in drug delivery. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2013, 77, 351-361.        | 0.9  | 1         |
| 304 | Lipogels: surface-adherent composite hydrogels assembled from poly(vinyl alcohol) and liposomes. <i>Nanoscale</i> , 2013, 5, 6758.  | 2.8  | 31        |
| 305 | Photochemical crosslinking of hyaluronic acid confined in nanoemulsions: towards nanogels with a controlled structure. <i>Journal of Materials Chemistry B</i> , 2013, 1, 3369.                             | 2.9  | 46        |
| 306 | Drug Delivery Systems: Advanced Technologies Potentially Applicable in Personalised Treatment. <i>Advances in Predictive, Preventive and Personalised Medicine</i> , 2013, , .                              | 0.6  | 58        |
| 307 | Development of Hydrophobized Alginate Hydrogels for the Vessel-Simulating Flow-Through Cell and Their Usage for Biorelevant Drug-Eluting Stent Testing. <i>AAPS PharmSciTech</i> , 2013, 14, 1209-1218.     | 1.5  | 18        |
| 308 | Starch-Based Hydrogels: Present Status and Applications. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2013, 62, 411-420.  | 1.8  | 223       |
| 309 | Mechanical Properties of Polymer Gels with Bimodal Distribution in Strand Length. <i>Macromolecules</i> , 2013, 46, 7027-7033.  | 2.2  | 29        |
| 310 | Hyaluronic Acid Catechol: A Biopolymer Exhibiting a pH-Dependent Adhesive or Cohesive Property for Human Neural Stem Cell Engineering. <i>Advanced Functional Materials</i> , 2013, 23, 1774-1780.          | 7.8  | 246       |
| 311 | Microstructure characterization through mechanical, electrokinetic and spectroscopic methods of polyampholyte gelatin hydrogels crosslinked with poly(vinyl alcohol). <i>Polymer</i> , 2013, 54, 2706-2716. | 1.8  | 6         |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 312 | A Mechanistic Study of Wetting Superhydrophobic Porous 3D Meshes. <i>Advanced Functional Materials</i> , 2013, 23, 3628-3637.   | 7.8  | 87        |
| 313 | Investigation of the Diels-Alder reaction as a cross-linking mechanism for degradable poly(ethylene Tj ETQq1 1 0,784314 ggBT /Ov  | 2.9  | 95        |
| 314 | Prodrugs forming multifunctional supramolecular hydrogels for dual cancer drug delivery. <i>Journal of Materials Chemistry B</i> , 2013, 1, 5532.   | 2.9  | 42        |
| 315 | Catanionic Gels Based on Cholic Acid Derivatives. <i>Langmuir</i> , 2013, 29, 12342-12351.  | 1.6  | 33        |
| 316 | Peptide-Functionalized Oxime Hydrogels with Tunable Mechanical Properties and Gelation Behavior. <i>Biomacromolecules</i> , 2013, 14, 3749-3758.  | 2.6  | 102       |
| 317 | Poly(ethylene glycol)-poly(lactic-co-glycolic acid) based thermosensitive injectable hydrogels for biomedical applications. <i>Journal of Controlled Release</i> , 2013, 172, 715-729.  | 4.8  | 150       |
| 318 | Diffusion in hydrogel-supported phospholipid bilayer membranes. <i>Journal of Fluid Mechanics</i> , 2013, 723, 352-373.   | 1.4  | 2         |
| 319 | Polymer siRNA conjugates synthesised by controlled radical polymerisation. <i>European Polymer Journal</i> , 2013, 49, 2861-2883.   | 2.6  | 12        |
| 320 | Macroscale delivery systems for molecular and cellular payloads. <i>Nature Materials</i> , 2013, 12, 1004-1017.   | 13.8 | 251       |
| 321 | Temperature-Responsive Graft Copolymer Hydrogels for Controlled Swelling and Drug Delivery. <i>Soft Materials</i> , 2013, 11, 294-304.  | 0.8  | 29        |
| 322 | Drug absorption and release properties of crosslinked hydrogels based on diepoxy-terminated poly(ethylene glycol)s and aliphatic polyamines - a study on the effect of the gel molecular structure. <i>Materials Science and Engineering C</i> , 2013, 33, 1307-1314. | 3.8  | 16        |
| 323 | Composite hydrogels as a vehicle for releasing drugs with a wide range of hydrophobicities. <i>Acta Biomaterialia</i> , 2013, 9, 8815-8822.   | 4.1  | 28        |
| 324 | Gelation behavior of cellulose in NaOH/urea aqueous system via cross-linking. <i>Cellulose</i> , 2013, 20, 1669-1677.   | 2.4  | 67        |
| 325 | Thermo- and pH-sensitive interpenetrating poly(N-isopropylacrylamide)/carboxymethyl pullulan network for drug delivery. <i>Journal of Polymer Research</i> , 2013, 20, 1.   | 1.2  | 54        |
| 326 | Mechanical Behavior of Thermo-responsive Hydrogel Embedded with Gold Nanoshell. <i>BioNanoScience</i> , 2013, 3, 348-355.   | 1.5  | 1         |
| 327 | Poly(N-isopropylacrylamide)-poly(ferrocenylsilane) dual-responsive hydrogels: synthesis, characterization and antimicrobial applications. <i>Polymer Chemistry</i> , 2013, 4, 337-342.  | 1.9  | 65        |
| 328 | Cation-Induced Hydrogels of Cellulose Nanofibrils with Tunable Moduli. <i>Biomacromolecules</i> , 2013, 14, 3338-3345.  | 2.6  | 303       |
| 329 | Tuning Organogel Properties by Controlling the Organic-Phase Composition. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 14185-14191.   | 1.8  | 17        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 330 | Targeted Drug Delivery: Multifunctional Nanoparticles and Direct Micro-Drug Delivery to Tumors. , 2013, , 391-416.  |     | 5         |
| 331 | Enzymatically cross-linked injectable alginate-g-pyrrole hydrogels for neovascularization. Journal of Controlled Release, 2013, 172, 30-37.   | 4.8 | 35        |
| 332 | Injectable biodegradable hydrogels: progress and challenges. Journal of Materials Chemistry B, 2013, 1, 5371.   | 2.9 | 242       |
| 333 | Graphene oxide decorated diatom silica particles as new nano-hybrids: towards smart natural drug microcarriers. Journal of Materials Chemistry B, 2013, 1, 6302.  | 2.9 | 92        |
| 334 | pH-responsive physical gels from poly(meth)acrylic acid-containing crosslinked particles: the relationship between structure and mechanical properties. Journal of Materials Chemistry B, 2013, 1, 4065.                                | 2.9 | 31        |
| 335 | The influence of pH and ionic strength on the swelling of dense protein particles. Soft Matter, 2013, 9, 4598.  | 1.2 | 36        |
| 336 | The synthesis and lectin-binding properties of novel mannose-functionalised polymers. RSC Advances, 2013, 3, 15435.   | 1.7 | 7         |
| 337 | Sequential thermo-induced self-gelation and acid-triggered self-release process of drug-conjugated nanoparticles: a strategy for the sustained and controlled drug delivery to tumors. Journal of Materials Chemistry B, 2013, 1, 4667. | 2.9 | 24        |
| 338 | State of the art composites comprising electrospun fibres coupled with hydrogels: a review. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 322-335.  | 1.7 | 126       |
| 339 | Preparation of polyacrylamide/graphite oxide superabsorbent nanocomposites with salt tolerance and slow release properties. Journal of Applied Polymer Science, 2013, 129, 2328-2334.   | 1.3 | 15        |
| 340 | The role of crystallization and phase separation in the formation of physically cross-linked PVA hydrogels. Soft Matter, 2013, 9, 826-833.  | 1.2 | 233       |
| 341 | Encapsulation of proteins in hydrogel carrier systems for controlled drug delivery: Influence of network structure and drug size on release rate. Journal of Biotechnology, 2013, 163, 243-249.   | 1.9 | 106       |
| 342 | Tuning drug release from smart microgelâ€“hydrogel composites via cross-linking. Journal of Colloid and Interface Science, 2013, 392, 422-430.  | 5.0 | 60        |
| 343 | Biodegradable polyphosphazenes containing antibiotics: synthesis, characterization, and hydrolytic release behavior. Polymer Chemistry, 2013, 4, 1826.  | 1.9 | 43        |
| 344 | Sequential interpenetrating poly(ethylene glycol) hydrogels prepared by UVâ€“initiated thiolâ€“ene coupling chemistry. Journal of Polymer Science Part A, 2013, 51, 363-371.  | 2.5 | 21        |
| 345 | Hydration studies in polymer hydrogels. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 159-175.   | 2.4 | 48        |
| 346 | Biodegradable pH-responsive polyacrylic acid derivative hydrogels with tunable swelling behavior for oral delivery of insulin. Polymer, 2013, 54, 1786-1793.  | 1.8 | 126       |
| 347 | Formulation of saquinavir mesylate loaded microparticle by counterion induced aggregation method: Approach by hyperosmotic technique. Drug Invention Today (discontinued), 2013, 5, 259-266.  | 0.6 | 5         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 348 | Organized polysaccharide fibers as stable drug carriers. <i>Carbohydrate Polymers</i> , 2013, 94, 209-215.  | 5.1 | 17        |
| 349 | Toward mucoadhesive hydrogel formulations for the management of xerostomia: The physicochemical, Biological, and Pharmacological Considerations. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101, 3327-3338. | 2.1 | 13        |
| 350 | Thermoresponsive transition of a PEO-b-PNIPAM copolymer: From hierarchical aggregates to well defined ellipsoidal vesicles. <i>Polymer</i> , 2013, 54, 6373-6380.   | 1.8 | 31        |
| 351 | Thermoresponsive copolymer microgels. <i>Journal of Materials Chemistry B</i> , 2013, 1, 5874.  | 2.9 | 70        |
| 352 | Redox-active injectable gel using thermo-responsive nanoscale polyion complex flower micelle for noninvasive treatment of local inflammation. <i>Journal of Controlled Release</i> , 2013, 172, 914-920.                          | 4.8 | 45        |
| 353 | Thermoresponsive poly-(N-isopropylmethacrylamide) microgels: Tailoring particle size by interfacial tension control. <i>Polymer</i> , 2013, 54, 5499-5510.  | 1.8 | 59        |
| 354 | Tough interpenetrating Pluronic F127/polyacrylic acid hydrogels. <i>Polymer</i> , 2013, 54, 2979-2987.  | 1.8 | 34        |
| 355 | Mechanical behavior of hybrid hydrogels composed of a physical and a chemical network. <i>Polymer</i> , 2013, 54, 2174-2182.  | 1.8 | 54        |
| 356 | Injectable Superparamagnets: Highly Elastic and Degradable Poly( <i>N</i> -isopropylacrylamide)-Superparamagnetic Iron Oxide Nanoparticle (SPION) Composite Hydrogels. <i>Biomacromolecules</i> , 2013, 14, 644-653.              | 2.6 | 107       |
| 357 | Bifunctional bisphosphonates for delivering PTH (1-34) to bone mineral with enhanced bioactivity. <i>Biomaterials</i> , 2013, 34, 3141-3149.  | 5.7 | 25        |
| 358 | One-step fabrication of core-shell structured alginate-PLGA/PLLA microparticles as a novel drug delivery system for water soluble drugs. <i>Biomaterials Science</i> , 2013, 1, 486.  | 2.6 | 48        |
| 359 | Liposomal Templating, Association with Mammalian Cells, and Cytotoxicity of Poly(vinyl alcohol) Physical Hydrogel Nanoparticles. <i>Particle and Particle Systems Characterization</i> , 2013, 30, 514-522.                       | 1.2 | 6         |
| 360 | Alginate-Based Microcapsules with a Molecule Recognition Linker and Photosensitizer for the Combined Cancer Treatment. <i>Chemistry - an Asian Journal</i> , 2013, 8, 736-742.  | 1.7 | 29        |
| 361 | Preparation and characterization of hydrogels based on homopolymeric fractions of sodium alginate and PNIPAAm. <i>Carbohydrate Polymers</i> , 2013, 92, 157-166.  | 5.1 | 37        |
| 362 | Mobility of Green Fluorescent Protein in Hydrogel-Based Drug Delivery Systems Studied by Anisotropy and Fluorescence Recovery After Photobleaching. <i>Macromolecular Bioscience</i> , 2013, 13, 215-226.                         | 2.1 | 11        |
| 363 | Fabrication and properties of chitin/hydroxyapatite hybrid hydrogels as scaffold nano-materials. <i>Carbohydrate Polymers</i> , 2013, 91, 7-13.   | 5.1 | 121       |
| 364 | PLA Microspheres-Embedded PVA Hydrogels Prepared by Gamma-Irradiation and Freeze-Thaw Methods as Drug Release Carriers. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2013, 62, 28-33.         | 1.8 | 25        |
| 365 | Injectable and Thermoresponsive Self-Assembled Nanocomposite Hydrogel for Long-Term Anticancer Drug Delivery. <i>Langmuir</i> , 2013, 29, 3721-3729.  | 1.6 | 105       |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 366 | Structural and viscoelastic properties of chitosan-based hydrogel and its drug delivery application. <i>International Journal of Biological Macromolecules</i> , 2013, 59, 119-124.                             | 3.6  | 68        |
| 367 | Designing degradable hydrogels for orthogonal control of cell microenvironments. <i>Chemical Society Reviews</i> , 2013, 42, 7335-7372.   | 18.7 | 590       |
| 368 | Transdermal drug delivery of paroxetine through lipid-vesicular formulation to augment its bioavailability. <i>International Journal of Pharmaceutics</i> , 2013, 443, 307-317.                                 | 2.6  | 60        |
| 369 | Injectable and Biodegradable Supramolecular Hydrogels by Inclusion Complexation between Poly(organophosphazenes) and $\beta$ -Cyclodextrin. <i>Macromolecules</i> , 2013, 46, 2715-2724.                        | 2.2  | 72        |
| 370 | Dextran-based hydrogel containing chitosan microparticles loaded with growth factors to be used in wound healing. <i>Materials Science and Engineering C</i> , 2013, 33, 2958-2966.                             | 3.8  | 143       |
| 371 | Interpenetrating Polymer Networks polysaccharide hydrogels for drug delivery and tissue engineering. <i>Advanced Drug Delivery Reviews</i> , 2013, 65, 1172-1187.   | 6.6  | 450       |
| 372 | Chemically cross-linked and grafted cyclodextrin hydrogels: From nanostructures to drug-eluting medical devices. <i>Advanced Drug Delivery Reviews</i> , 2013, 65, 1188-1203.                                   | 6.6  | 168       |
| 373 | pH-Controlled Nanoaggregation in Amphiphilic Polymer Co-networks. <i>ACS Nano</i> , 2013, 7, 2693-2704.   | 7.3  | 31        |
| 374 | Hydrogels: an interesting strategy for smart drug delivery. <i>Therapeutic Delivery</i> , 2013, 4, 157-160.   | 1.2  | 22        |
| 375 | Time Dependence of Dissipative and Recovery Processes in Nanohybrid Hydrogels. <i>Macromolecules</i> , 2013, 46, 4095-4104.   | 2.2  | 114       |
| 376 | Synthesis, characterization, and swelling kinetics of pH-responsive and temperature-responsive carboxymethyl chitosan/polyacrylamide hydrogels. <i>Journal of Applied Polymer Science</i> , 2013, 129, 806-814. | 1.3  | 33        |
| 378 | Electrospun composite nanofiber-based transmucosal patch for anti-diabetic drug delivery. <i>Journal of Materials Chemistry B</i> , 2013, 1, 3410.  | 2.9  | 86        |
| 379 | Reversible maleimide-thiol adducts yield glutathione-sensitive poly(ethylene glycol)-heparin hydrogels. <i>Polymer Chemistry</i> , 2013, 4, 133-143.  | 1.9  | 150       |
| 380 | A Stiff Injectable Biodegradable Elastomer. <i>Advanced Functional Materials</i> , 2013, 23, 1527-1533.   | 7.8  | 54        |
| 381 | Supramolecular self-assemblies as functional nanomaterials. <i>Nanoscale</i> , 2013, 5, 7098.   | 2.8  | 610       |
| 382 | Biofabrication of Hydrogel Constructs. <i>Advances in Predictive, Preventive and Personalised Medicine</i> , 2013, , 225-254.   | 0.6  | 7         |
| 383 | Beta-adrenoceptor antagonists affect amyloid nanostructure; amyloid hydrogels as drug delivery vehicles. <i>Chemical Communications</i> , 2013, 49, 5082.   | 2.2  | 22        |
| 384 | Variations in polyethylene glycol brands and their influence on the preparation process of hydrogel microspheres. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2013, 85, 1215-1218.          | 2.0  | 3         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 385 | Formulations for trans-tympanic antibiotic delivery. <i>Biomaterials</i> , 2013, 34, 1281-1288.  | 5.7 | 54        |
| 386 | Bioresorbable Surface-Adhered Enzymatic Microreactors Based on Physical Hydrogels of Poly(vinyl Tj ETQq1 1 0.784314 rgBT /Overlook   | 1.6 | 28        |
| 387 | Mechanics of pH-Responsive Hydrogel Capsules. <i>Langmuir</i> , 2013, 29, 9814-9823.   | 1.6 | 50        |
| 388 | Janus nanogels of PEGylated Taxol and PLGAâ€“PEGâ€“PLGA copolymer for cancer therapy. <i>Nanoscale</i> , 2013, 5, 9902.  | 2.8 | 30        |
| 389 | In Situ Size Exclusion Chromatographic NMR of Sunset Yellow FCF in Solution. <i>Journal of Physical Chemistry C</i> , 2013, 117, 17503-17508.  | 1.5 | 6         |
| 390 | Preparation and characterization of gelatin hydrogel support for immobilization of <i>Candida Rugosa</i> lipase. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2013, 41, 145-151.          | 1.9 | 28        |
| 391 | Atomistic insights into solvation dynamics and conformational transformation in thermo-sensitive and non-thermo-sensitive oligomers. <i>Polymer</i> , 2013, 54, 210-222.                               | 1.8 | 47        |
| 392 | Comparison Effects and Dielectric Properties of Different Dose Methylene-Blue-Doped Hydrogels. <i>Journal of Physical Chemistry B</i> , 2013, 117, 8931-8938.  | 1.2 | 33        |
| 393 | Albumin-Conjugated pH/Thermo Responsive Poly(amino urethane) Multiblock Copolymer as an Injectable Hydrogel for Protein Delivery. <i>Macromolecular Bioscience</i> , 2013, 13, 1195-1203.              | 2.1 | 24        |
| 394 | Effects of Polymer and Salt Concentration on the Structure and Properties of Triblock Copolymer Coacervate Hydrogels. <i>Macromolecules</i> , 2013, 46, 1512-1518.                                     | 2.2 | 113       |
| 395 | Current advances of chemical and physical starchâ€“based hydrogels. <i>Starch/Staerke</i> , 2013, 65, 82-88.   | 1.1 | 60        |
| 396 | Integration of Biosensors and Drug Delivery Technologies for Early Detection and Chronic Management of Illness. <i>Sensors</i> , 2013, 13, 7680-7713.  | 2.1 | 56        |
| 397 | Ultra Small Angle X-Ray Scattering Characterization of Temperature-Sensitive Ferrogels Prepared Using Magnetic Nanoparticles. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1453, 40. | 0.1 | 0         |
| 398 | Thermo-responsive metallo-supramolecular gels based on terpyridine end-functionalized amphiphilic diblock copolymers. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1499, 1.          | 0.1 | 1         |
| 399 | Synthetic and Performance Research on the New Type Hydrogel with Acrylic Acid and Acrylamide Unit. <i>Advanced Materials Research</i> , 0, 864-867, 690-693.   | 0.3 | 0         |
| 400 | International Symposium on Biomedical Engineering and Medical Physics, 10-12 October, 2012, Riga, Latvia. <i>IFMBE Proceedings</i> , 2013, , .   | 0.2 | 2         |
| 401 | Therapeutics targeting angiogenesis: Genetics and epigenetics, extracellular miRNAs and signaling networks (Review). <i>International Journal of Molecular Medicine</i> , 2013, 32, 763-767.           | 1.8 | 140       |
| 402 | Targeted electrohydrodynamic printing for micro-reservoir drug delivery systems. <i>Journal of Micromechanics and Microengineering</i> , 2013, 23, 035012.   | 1.5 | 8         |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 403 | The effects of 5-fluorouracil on flexor tendon healing by using a biodegradable gelatin, slow releasing system: experimental study in a hen model. Journal of Hand Surgery: European Volume, 2013, 38, 651-657. | 0.5 | 31        |
| 404 | A versatile characterization of poly(N-isopropylacrylamide-co-N,N'-methylene-bis-acrylamide) hydrogels for composition, mechanical strength, and rheology. EXPRESS Polymer Letters, 2013, 7, 95-105.            | 1.1 | 20        |
| 405 | Preparation of a Sustained Release Drug Delivery System for Dexamethasone by a Thermosensitive, In Situ Forming Hydrogel for Use in Differentiation of Dental Pulp. ISRN Pharmaceutics, 2013, 2013, 1-6.        | 1.0 | 8         |
| 406 | Tailored Macromolecules Versus Nanoparticles as Additives for Mechanical Reinforcement of NCO-sP(EO-stat-PO) Hydrogels. , 2013, , 77-89.  |     | 1         |
| 407 | Structure of polymer and particle aggregates in hydrogel composites. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 421-429.  | 2.4 | 14        |
| 408 | Injectable biomimetic hydrogels for soft tissue repair. , 2013, , 276-300.  |     | 0         |
| 409 | An interplay between electrostatic and polar interactions in peptide hydrogels. Biopolymers, 2013, 100, 174-183.  | 1.2 | 17        |
| 410 | Interdigitated electrodes for uniform stimulation of electroresponsive hydrogels for biomedical applications. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1523-1528.                         | 2.4 | 3         |
| 411 | Microstructured, Functional PVA Hydrogels through Bioconjugation with Oligopeptides under Physiological Conditions. Small, 2013, 9, 942-950.  | 5.2 | 61        |
| 412 | Hydrogels for controlled pulmonary delivery. Therapeutic Delivery, 2013, 4, 1293-1305.  | 1.2 | 18        |
| 414 | Effect of number of grindings of attapulgit on enhanced swelling properties of the superabsorbent nanocomposites. Journal of Composite Materials, 2013, 47, 969-978.  | 1.2 | 12        |
| 415 | Fracture Behavior of Two Highly Stretchable Double Network Hydrogels. International Journal of Polymer Analysis and Characterization, 2013, 18, 504-509.  | 0.9 | 2         |
| 416 | - Polymeric Nanoparticles for Drug Delivery. , 2013, , 144-173.   |     | 0         |
| 417 | Physio-chemico-thermo-mechanical properties of selected biodegradable polymers. Green Materials, 2013, 1, 191-200.  | 1.1 | 7         |
| 418 | Can Immunobiotics Beneficially Modulate Hemato-Immune Responses in Immunocompromised Hosts?. , 2013, , 291-308.   |     | 3         |
| 419 | Swelling behavior of poly (2-hydroxyethyl methacrylate) copolymer gels. MATEC Web of Conferences, 2013, 5, 04008.   | 0.1 | 2         |
| 420 | Dendrimeric Systems and Their Applications in Ocular Drug Delivery. Scientific World Journal, The, 2013, 2013, 1-13.  | 0.8 | 69        |
| 421 | Biofunctionalization of Hydrogels for Engineering the Cellular Microenvironment. , 2014, , 315-348.   |     | 3         |



| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 422 | Montmorillonite Loaded Highly Swollen AAm/AMPS Hydrogels and Semi-IPNs with PEG as a Novel Composite Polymeric Sorbent for Water and Dye Sorption. <i>Polymer-Plastics Technology and Engineering</i> , 2014, 53, 1259-1271.     | 1.9 | 8         |
| 424 | Three-dimensional printing-based electro-millifluidic devices for fabricating multi-compartment particles. <i>Biomicrofluidics</i> , 2014, 8, 064112.  | 1.2 | 21        |
| 425 | Cyclic Swelling as a Phenomenon Inherent to Biodegradable Polyesters. <i>Journal of Pharmaceutical Sciences</i> , 2014, 103, 3560-3566.  | 1.6 | 4         |
| 426 | Polymeric drug carriers through covalent attachment and encapsulation for controlled delivery purposes. <i>International Journal of Plastics Technology</i> , 2014, 18, 333-336.   | 2.9 | 0         |
| 427 | Evaluation of Thermal Gelation of F-127 in a Non-Aqueous Solvent and its Suitability as a Support Material for Additive Manufacturing. <i>Advanced Materials Research</i> , 0, 911, 226-231.                                     | 0.3 | 1         |
| 428 | Stimuli-Sensitive Hydrogel Based on N-Isopropylacrylamide and Itaconic Acid for Entrapment and Controlled Release of <i>Candida rugosa</i> Lipase under Mild Conditions. <i>BioMed Research International</i> , 2014, 2014, 1-9. | 0.9 | 7         |
| 429 | Nanoparticle based Drug Delivery Systems for Treatment of Infectious Diseases. , 2014, , .   |     | 34        |
| 430 | Investigation of hydrogel membranes containing a combination of timolol maleate and brimonidine tartrate for ocular delivery. <i>Asian Journal of Pharmaceutics (discontinued)</i> , 2014, 8, 259.                               | 0.4 | 2         |
| 431 | Study on swelling behaviour of hydrogel based on acrylic acid and pectin from dragon fruit. , 2014, , .  |     | 0         |
| 432 | Nanotechnological Strategies for Vaginal Administration of Drugsâ€”A Review. <i>Journal of Biomedical Nanotechnology</i> , 2014, 10, 2218-2243.  | 0.5 | 31        |
| 433 | Development and <i>in vitro</i> evaluation of a buccal drug delivery system based on preactivated thiolated pectin. <i>Drug Development and Industrial Pharmacy</i> , 2014, 40, 1530-1537.                                       | 0.9 | 27        |
| 434 | Hydrogel Materials. , 2014, , 225-264.   |     | 0         |
| 435 | <i>In situ</i> gelling polysaccharideâ€”based hydrogel for cell and drug delivery in tissue engineering. <i>Journal of Applied Polymer Science</i> , 2014, 131, .  | 1.3 | 32        |
| 436 | Macroporous antibacterial hydrogels with tunable pore structures fabricated by using Pickering high internal phase emulsions as templates. <i>Polymer Chemistry</i> , 2014, 5, 4227-4234.  | 1.9 | 51        |
| 437 | Poly(ethylene glycol) Hydrogels with Adaptable Mechanical and Degradation Properties for Use in Biomedical Applications. <i>Macromolecular Bioscience</i> , 2014, 14, 687-698.   | 2.1 | 50        |
| 439 | Drug Delivery. , 2014, , .   |     | 22        |
| 440 | Characterization of protein release from poly(ethylene glycol) hydrogels with crosslink density gradients. <i>Journal of Biomedical Materials Research - Part A</i> , 2014, 102, 487-495.  | 2.1 | 37        |
| 441 | Thermoresponsive hydrogels from BSA esterified with low molecular weight PEG. <i>Journal of Applied Polymer Science</i> , 2014, 131, .   | 1.3 | 9         |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 442 | Renaissance of aliphatic polycarbonates: New techniques and biomedical applications. <i>Journal of Applied Polymer Science</i> , 2014, 131, .  | 1.3  | 87        |
| 443 | Fabrication of N-isopropylacrylamide (NIPAAm) based micro-hydrogel using UV LED microscope. , 2014, , .  |      | 1         |
| 444 | Formulation and evaluation of stimuli-sensitive hydrogels of timolol maleate and brimonidine tartrate for the treatment of glaucoma. <i>International Journal of Pharmaceutical Investigation</i> , 2014, 4, 112.  | 0.2  | 32        |
| 445 | Naturapolyceutics: The Science of Utilizing Natural Polymers for Drug Delivery. <i>Polymers</i> , 2014, 6, 1312-1332.  | 2.0  | 51        |
| 446 | Cyclodextrin-based hydrogels toward improved wound dressings. <i>Critical Reviews in Biotechnology</i> , 2014, 34, 328-337.  | 5.1  | 42        |
| 447 | Effect of a nano-sized natural clinoptilolite modified by the hexadecyltrimethyl ammonium surfactant on cephalixin drug delivery. <i>Comptes Rendus Chimie</i> , 2014, 17, 49-61.  | 0.2  | 65        |
| 448 | Synthesis, characterization, biodegradability and biocompatibility of a temperature-sensitive PBLA-PEG-PBLA hydrogel as protein delivery system with low critical gelation concentration. <i>Drug Development and Industrial Pharmacy</i> , 2014, 40, 1264-1275. | 0.9  | 10        |
| 449 | Development and characterization of hydrogels based on natural polysaccharides: Policaju and chitosan. <i>Materials Science and Engineering C</i> , 2014, 42, 219-226.   | 3.8  | 35        |
| 450 | Thermo- and pH-sensitive hydrogels containing the $\beta$ -cyclodextrin moiety for controlled protein release. <i>Monatshefte für Chemie</i> , 2014, 145, 39-46.   | 0.9  | 5         |
| 451 | Preparation and characterization of IPN hydrogels composed of chitosan and gelatin cross-linked by genipin. <i>Carbohydrate Polymers</i> , 2014, 99, 31-38.  | 5.1  | 209       |
| 452 | Regenerative Therapies for Central Nervous System Diseases: a Biomaterials Approach. <i>Neuropsychopharmacology</i> , 2014, 39, 169-188.   | 2.8  | 248       |
| 453 | Design of Bio-nanosystems for Oral Delivery of Functional Compounds. <i>Food Engineering Reviews</i> , 2014, 6, 1-19.  | 3.1  | 99        |
| 454 | Microneedle-Assisted Permeation of Lidocaine Carboxymethylcellulose with Gelatine Co-polymer Hydrogel. <i>Pharmaceutical Research</i> , 2014, 31, 1170-1184.   | 1.7  | 46        |
| 455 | Scaffolds for tissue engineering of cardiac valves. <i>Acta Biomaterialia</i> , 2014, 10, 2877-2893.   | 4.1  | 147       |
| 456 | Graphene-polymer nanocomposites for structural and functional applications. <i>Progress in Polymer Science</i> , 2014, 39, 1934-1972.  | 11.8 | 922       |
| 457 | Development of biodegradable antibacterial cellulose based hydrogel membranes for wound healing. <i>International Journal of Biological Macromolecules</i> , 2014, 67, 22-27.  | 3.6  | 103       |
| 458 | A thermally triggered in situ hydrogel from poly(acrylic acid-co-N-isopropylacrylamide) for controlled release of anti-glaucoma drugs. <i>Journal of Materials Chemistry B</i> , 2014, 2, 1988.  | 2.9  | 52        |
| 459 | Biocatalytic polymer thin films: optimization of the multilayered architecture towards in situ synthesis of anti-proliferative drugs. <i>Nanoscale</i> , 2014, 6, 4131.  | 2.8  | 16        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 460 | Protocol and cell responses in three-dimensional conductive collagen gel scaffolds with conductive polymer nanofibres for tissue regeneration. <i>Interface Focus</i> , 2014, 4, 20130050.  | 1.5  | 70        |
| 461 | In Vitro, In Vivo, and In Silico Evaluation of the Bioresponsive Behavior of an Intelligent Intraocular Implant. <i>Pharmaceutical Research</i> , 2014, 31, 607-634.  | 1.7  | 21        |
| 462 | Gel-sol evolution of cyclodextrin-based nanosponges: role of the macrocycle size. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2014, 80, 77-83.  | 0.9  | 15        |
| 463 | Influence of crosslinker and ionic comonomer concentration on glass transition and demixing/mixing transition of copolymers poly(N-isopropylacrylamide) and poly(sodium acrylate) hydrogels. <i>Colloid and Polymer Science</i> , 2014, 292, 485-492. | 1.0  | 26        |
| 464 | Starch and chitosan oligosaccharides as interpenetrating phases in poly(N-isopropylacrylamide) injectable gels. <i>Materials Science and Engineering C</i> , 2014, 37, 20-27.   | 3.8  | 17        |
| 465 | Design and applications of interpenetrating polymer network hydrogels. A review. <i>Chemical Engineering Journal</i> , 2014, 243, 572-590.  | 6.6  | 764       |
| 466 | Externally addressable hydrogel nanocomposites for biomedical applications. <i>Current Opinion in Chemical Engineering</i> , 2014, 4, 1-10.   | 3.8  | 42        |
| 467 | Click hydrogels, microgels and nanogels: Emerging platforms for drug delivery and tissue engineering. <i>Biomaterials</i> , 2014, 35, 4969-4985.  | 5.7  | 629       |
| 468 | Antibiotic-containing polymers for localized, sustained drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2014, 78, 77-87.   | 6.6  | 109       |
| 469 | Pressure and microwave sensors/actuators based on smart hydrogel/conductive polymer nanocomposite. <i>Sensors and Actuators B: Chemical</i> , 2014, 190, 270-278.   | 4.0  | 84        |
| 470 | Preparation and characterization of double crosslinked hydrogel films from carboxymethylchitosan and carboxymethylcellulose. <i>Carbohydrate Polymers</i> , 2014, 110, 113-120.   | 5.1  | 51        |
| 471 | An innovative hydrogel of gemcitabine-loaded lipid nanocapsules: when the drug is a key player of the nanomedicine structure. <i>Soft Matter</i> , 2014, 10, 1767.  | 1.2  | 42        |
| 472 | pH and glutathion-responsive hydrogel for localized delivery of paclitaxel. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014, 116, 247-256.   | 2.5  | 31        |
| 474 | Injectable Hydrogels from Triblock Copolymers of Vitamin E-Functionalized Polycarbonate and Poly(ethylene glycol) for Subcutaneous Delivery of Antibodies for Cancer Therapy. <i>Advanced Functional Materials</i> , 2014, 24, 1538-1550.             | 7.8  | 88        |
| 475 | Bioactive factor delivery strategies from engineered polymer hydrogels for therapeutic medicine. <i>Progress in Polymer Science</i> , 2014, 39, 1235-1265.  | 11.8 | 193       |
| 476 | pH sensitive nanocomposite hydrogel beads based on carboxymethyl cellulose/layered double hydroxide as drug delivery systems. <i>Journal of Polymer Research</i> , 2014, 21, 1.   | 1.2  | 130       |
| 477 | Tunable Porous Hydrogels from Cocontinuous Polymer Blends. <i>Macromolecules</i> , 2014, 47, 3068-3075.   | 2.2  | 34        |
| 478 | Synthesis of a co-cross-linked nanocomposite hydrogels from poly(methyl vinyl ether-co-maleic) Tj ETQq1 1 0.784314 rgBT /Qverlock 10  | 2.4  | 18        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 479 | High strength of hemicelluloses based hydrogels by freeze/thaw technique. Carbohydrate Polymers, 2014, 101, 272-280.  | 5.1 | 126       |
| 480 | Hyaluronic acid/chondroitin sulfate-based hydrogel prepared by gamma irradiation technique. Carbohydrate Polymers, 2014, 102, 598-605.  | 5.1 | 39        |
| 481 | Differentiation of neuronal stem cells into motor neurons using electrospun poly-l-lactic acid/gelatin scaffold. Biomaterials, 2014, 35, 664-674.   | 5.7 | 121       |
| 482 | Curcumin, a promising anti-cancer therapeutic: a review of its chemical properties, bioactivity and approaches to cancer cell delivery. RSC Advances, 2014, 4, 10815.   | 1.7 | 193       |
| 483 | Facile fabrication of novel pH-sensitive poly(aspartic acid) hydrogel by crosslinking nanofibers. Materials Letters, 2014, 132, 393-396.  | 1.3 | 24        |
| 484 | A multi-photoresponsive supramolecular hydrogel with dual-color fluorescence and dual-modal photodynamic action. Journal of Materials Chemistry B, 2014, 2, 3443-3449.  | 2.9 | 36        |
| 485 | Enzymatically Cross-Linked Hyperbranched Polyglycerol Hydrogels as Scaffolds for Living Cells. Biomacromolecules, 2014, 15, 3881-3890.  | 2.6 | 38        |
| 486 | Design and Viscoelastic Properties of <sc>PDMA</sc>/<sc>S</sc>ilica Assemblies in Aqueous Media. Macromolecular Symposia, 2014, 337, 58-73.   | 0.4 | 6         |
| 487 | Dilute Self-Healing Hydrogels of Silk-Collagen-Like Block Copolypeptides at Neutral pH. Biomacromolecules, 2014, 15, 699-706.   | 2.6 | 54        |
| 488 | Catalyst-mediated yet catalyst-free hydrogels formed by interfacial chemical activation. Chemical Communications, 2014, 50, 2869-2872.  | 2.2 | 30        |
| 489 | Supramolecular polymer networks of building blocks prepared via RAFT polymerization. Polymer Chemistry, 2014, 5, 2142.  | 1.9 | 18        |
| 490 | Controlled delivery of dexamethasone to the intestine from poly(vinyl alcohol)-poly(acrylic acid) microspheres containing drug-cyclodextrin complexes: influence of method of preparation of inclusion complex. RSC Advances, 2014, 4, 24222. | 1.7 | 17        |
| 491 | Photo-triggerable hydrogel-nanoparticle hybrid scaffolds for remotely controlled drug delivery. Journal of Materials Chemistry B, 2014, 2, 7685-7693.   | 2.9 | 42        |
| 492 | Controlling uniformity of photopolymerized microscopic hydrogels. Lab on A Chip, 2014, 14, 1551-1563.   | 3.1 | 29        |
| 493 | Metal and light free click-hydrogels for prevention of post-operative peritoneal adhesions. Polymer Chemistry, 2014, 5, 2018-2026.  | 1.9 | 50        |
| 494 | Dually degradable click hydrogels for controlled degradation and protein release. Journal of Materials Chemistry B, 2014, 2, 5511-5521.   | 2.9 | 61        |
| 495 | Doxycycline and oxytetracycline loading of a zwitterionic amphoteric surfactant-gel and their controlled release. Physical Chemistry Chemical Physics, 2014, 16, 23096-23107.   | 1.3 | 17        |
| 496 | Silica nanoparticles as tracers of the gelation dynamics of a natural biopolymer physical gel. Soft Matter, 2014, 10, 4547.   | 1.2 | 44        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 497 | Designing Injectable, Covalently Cross-Linked Hydrogels for Biomedical Applications. <i>Macromolecular Rapid Communications</i> , 2014, 35, 598-617.  | 2.0 | 147       |
| 498 | Engineered Nanoparticles for Drug Delivery in Cancer Therapy. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 12320-12364.   | 7.2 | 1,447     |
| 499 | Amphiphilic designer nano-carriers for controlled release: from drug delivery to diagnostics. <i>MedChemComm</i> , 2014, 5, 1602-1618.  | 3.5 | 74        |
| 500 | Evidence for the existence of crosslinked crystalline domains within cyclodextrin-based supramolecular hydrogels through sol-gel replication. <i>RSC Advances</i> , 2014, 4, 8200.  | 1.7 | 22        |
| 501 | Promising low cost antimicrobial composite material based on bacterial cellulose and polyhexamethylene guanidine hydrochloride. <i>European Polymer Journal</i> , 2014, 60, 247-254.  | 2.6 | 58        |
| 502 | Intercalation of 5-fluorouracil into ZnAl hydrotalcite-like nanoparticles: Preparation, characterization and drug release. <i>Applied Clay Science</i> , 2014, 101, 320-326.  | 2.6 | 9         |
| 503 | Thermoresponsive gelation behavior of poly(N-isopropylacrylamide)-block-poly(N-vinylpyrrolidone)-block-poly(N-isopropylacrylamide) triblock copolymers. <i>European Polymer Journal</i> , 2014, 61, 23-32.                            | 2.6 | 21        |
| 504 | Stimuli-Induced Release of Compounds from Elastin Biomimetic Matrix. <i>Biomacromolecules</i> , 2014, 15, 416-422.  | 2.6 | 25        |
| 505 | Characterization of Biodegradable Polyurethane Nanoparticles and Thermally Induced Self-Assembly in Water Dispersion. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 5685-5694.   | 4.0 | 79        |
| 506 | Novel Functionalization of Discrete Polymeric Biomaterial Microstructures for Applications in Imaging and Three-Dimensional Manipulation. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 14477-14485.                       | 4.0 | 11        |
| 507 | Synthesis, Chloramphenicol Uptake, and In Vitro Release of Poly(AMPS-co-TEA-Co-AAm) Gels with Affinity for Both Water and Alcohols. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2014, 63, 73-79. | 1.8 | 6         |
| 508 | Injectable, in situ gelling, cyclodextrin-dextran hydrogels for the partitioning-driven release of hydrophobic drugs. <i>Journal of Materials Chemistry B</i> , 2014, 2, 5157.  | 2.9 | 52        |
| 509 | Injectable Biocompatible and Biodegradable pH-Responsive Hollow Particle Gels Containing Poly(acrylic acid): The Effect of Copolymer Composition on Gel Properties. <i>Biomacromolecules</i> , 2014, 15, 1814-1827.                   | 2.6 | 52        |
| 510 | Nanostructured Hydrogels. , 2014, , 325-355.  |     | 15        |
| 511 | Synthesis and photopolymerisation of maleic polyvinyl alcohol based hydrogels for bone tissue engineering. <i>Journal of Polymer Research</i> , 2014, 21, 1.  | 1.2 | 4         |
| 512 | Tunable Temperature-Responsive Supramolecular Hydrogels Formed by Prodrugs As a Codelivery System. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 10623-10630.  | 4.0 | 90        |
| 513 | Integrated Antimicrobial and Nonfouling Zwitterionic Polymers. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 1746-1754.  | 7.2 | 516       |
| 514 | Controlled Drug Release from the Aggregation-Disaggregation Behavior of pH-Responsive Microgels. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 13749-13756.  | 4.0 | 52        |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 515 | Thermoresponsive hydrogels from alginate-based graft copolymers. <i>European Polymer Journal</i> , 2014, 61, 33-44.  | 2.6  | 73        |
| 516 | Composite wound dressing for drug release. <i>Fibers and Polymers</i> , 2014, 15, 1422-1428.   | 1.1  | 19        |
| 517 | Thermoresponsive polymers: Insights into decisive hydrogel characteristics, mechanisms of gelation, and promising biomedical applications. <i>International Journal of Pharmaceutics</i> , 2014, 472, 262-275. | 2.6  | 182       |
| 518 | Polymeric Hydrogel Nanocapsules: A Thermo and pH Dual-responsive Carrier for Sustained Drug Release. <i>Nano-Micro Letters</i> , 2014, 6, 200-208.   | 14.4 | 26        |
| 520 | Probing the Internal Morphology of Injectable Poly(oligoethylene glycol methacrylate) Hydrogels by Light and Small-Angle Neutron Scattering. <i>Macromolecules</i> , 2014, 47, 6017-6027.                      | 2.2  | 16        |
| 521 | Tuning Gelation Time and Morphology of Injectable Hydrogels Using Ketone-Hydrazide Cross-Linking. <i>Biomacromolecules</i> , 2014, 15, 781-790.  | 2.6  | 92        |
| 522 | A microfluidic method to measure small molecule diffusion in hydrogels. <i>Materials Science and Engineering C</i> , 2014, 35, 322-334.  | 3.8  | 16        |
| 523 | Smart hydrogels as functional biomimetic systems. <i>Biomaterials Science</i> , 2014, 2, 603-618.  | 2.6  | 193       |
| 524 | Near-infrared light triggerable deformation-free polysaccharide double network hydrogels. <i>Chemical Communications</i> , 2014, 50, 7052-7055.  | 2.2  | 35        |
| 525 | Synthesis and Characterization of a POSS-PEG Macromonomer and POSS-PEG-PLA Hydrogels for Periodontal Applications. <i>Biomacromolecules</i> , 2014, 15, 666-679.   | 2.6  | 45        |
| 526 | Electrical characterization of polymer composite gel under biasing as polar medium. <i>Ionics</i> , 2014, 20, 529-534.   | 1.2  | 16        |
| 527 | Tunable diblock copolypeptide hydrogel depots for local delivery of hydrophobic molecules in healthy and injured central nervous system. <i>Biomaterials</i> , 2014, 35, 1989-2000.                            | 5.7  | 45        |
| 528 | A carbohydrate-based hydrogel containing vesicles as responsive non-covalent cross-linkers. <i>Chemical Science</i> , 2014, 5, 1054.   | 3.7  | 88        |
| 529 | pH sensitive N-succinyl chitosan grafted polyacrylamide hydrogel for oral insulin delivery. <i>Carbohydrate Polymers</i> , 2014, 112, 627-637.   | 5.1  | 179       |
| 530 | Tailor-Made Nanocontainers for Combined Magnetic-Field-Induced Release and MRI. <i>Macromolecular Bioscience</i> , 2014, 14, 1205-1214.  | 2.1  | 12        |
| 531 | Inner Structure of Adsorbed Ionic Microgel Particles. <i>Langmuir</i> , 2014, 30, 7168-7176.   | 1.6  | 42        |
| 532 | Enzyme Prodrug Therapy Engineered into Biomaterials. <i>Advanced Functional Materials</i> , 2014, 24, 5202-5210.   | 7.8  | 23        |
| 533 | Characterization of Heterogeneous Polyacrylamide Hydrogels by Tracking of Single Quantum Dots. <i>Macromolecules</i> , 2014, 47, 741-749.  | 2.2  | 57        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 534 | Pd-Porphyrin-Cross-Linked Implantable Hydrogels with Oxygen-Responsive Phosphorescence. <i>Advanced Healthcare Materials</i> , 2014, 3, 891-896.   | 3.9 | 46        |
| 535 | Thiolated human serum albumin cross-linked dextran hydrogels as a macroscale delivery system. <i>Soft Matter</i> , 2014, 10, 4869-4874.  | 1.2 | 16        |
| 536 | Swelling properties of amino acid containing cross-linked polymeric organogels and their respective polyelectrolytic hydrogels with pH and salt responsive property. <i>Polymer</i> , 2014, 55, 5425-5434.             | 1.8 | 39        |
| 537 | Thermoresponsive aggregation of PS-PNIPAM-PS triblock copolymer: A combined study of light scattering and small angle neutron scattering. <i>European Polymer Journal</i> , 2014, 56, 59-68.                           | 2.6 | 43        |
| 539 | Microstructure and inter-molecular forces involved in gelation-like protein hydrolysate from neutrase-treated male gonad of scallop ( <i>Patinopecten yessoensis</i> ). <i>Food Hydrocolloids</i> , 2014, 40, 245-253. | 5.6 | 43        |
| 540 | A carboxy methyl tamarind polysaccharide matrix for adhesion and growth of osteoclast-precursor cells. <i>Carbohydrate Polymers</i> , 2014, 101, 1033-1042.  | 5.1 | 27        |
| 541 | Thermal responsive hydrogels based on semi interpenetrating network of poly(NIPAm) and cellulose nanowhiskers. <i>Carbohydrate Polymers</i> , 2014, 102, 159-166.  | 5.1 | 115       |
| 543 | Mechanical properties and dual drug delivery application of poly(lactic-co-glycolic acid) scaffolds fabricated with a poly( $\beta$ -amino ester) porogen. <i>Acta Biomaterialia</i> , 2014, 10, 2125-2132.            | 4.1 | 26        |
| 544 | Silk fibroin aerogels for drug delivery applications. <i>Journal of Supercritical Fluids</i> , 2014, 91, 84-89.  | 1.6 | 95        |
| 545 | Augmenting protein release from layer-by-layer functionalized agarose hydrogels. <i>Carbohydrate Polymers</i> , 2014, 103, 377-384.  | 5.1 | 18        |
| 546 | Bioresponsive nanohydrogels based on HEAA and NIPA for poorly soluble drugs delivery. <i>International Journal of Pharmaceutics</i> , 2014, 470, 107-119.  | 2.6 | 21        |
| 547 | Facile method to prepare self-healable PVA hydrogels with high water stability. <i>Materials Letters</i> , 2014, 122, 227-229.   | 1.3 | 21        |
| 548 | High encapsulation efficiency of poloxamer-based injectable thermoresponsive hydrogels of etoposide. <i>Pharmaceutical Development and Technology</i> , 2014, 19, 651-661.   | 1.1 | 50        |
| 549 | Multistimuli-Responsive Supramolecular Gels: Design Rationale, Recent Advances, and Perspectives. <i>ChemPhysChem</i> , 2014, 15, 2421-2430.   | 1.0 | 77        |
| 552 | A Repertoire of Peptide Tags for Controlled Drug Release from Injectable Noncovalent Hydrogel. <i>Biomacromolecules</i> , 2014, 15, 2058-2066.   | 2.6 | 20        |
| 553 | Injectable poly(oligoethylene glycol methacrylate)-based hydrogels with tunable phase transition behaviours: Physicochemical and biological responses. <i>Acta Biomaterialia</i> , 2014, 10, 4143-4155.                | 4.1 | 59        |
| 554 | Synthesis and biodegradation studies of gamma irradiated electrically conductive hydrogels. <i>Polymer Degradation and Stability</i> , 2014, 107, 166-177.   | 2.7 | 67        |
| 555 | Crosslinked hydrogels—a promising class of insoluble solid molecular dispersion carriers for enhancing the delivery of poorly soluble drugs. <i>Acta Pharmaceutica Sinica B</i> , 2014, 4, 26-36.                      | 5.7 | 33        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 556 | Preparation and characterization of methotrexate-loaded microcapsules. <i>Pharmaceutical Development and Technology</i> , 2014, 19, 42-47.  | 1.1 | 7         |
| 557 | Composite Hydrogel Materials. <i>Chromatographic Science</i> , 2014, , 1-38.  | 0.1 | 0         |
| 558 | Dynamic Properties of Water Confined in Sephadex G15 Gel by Quasi-Elastic Neutron Scattering and Neutron Spin Echo Measurements. <i>Bulletin of the Chemical Society of Japan</i> , 2014, 87, 603-608.                  | 2.0 | 6         |
| 559 | Cyclodextrin-based biodegradable polymer stars: synthesis and fluorescence studies. <i>Green Materials</i> , 2014, 2, 31-42.  | 1.1 | 7         |
| 560 | Nanosensors for Biomedicine. <i>Frontiers in Nanobiomedical Research</i> , 2014, , 413-451.   | 0.1 | 0         |
| 561 | Molecularly Imprinted Polymers for Water Polishing. , 2014, , 218-231.  |     | 0         |
| 562 | Tracer Diffusion in Heterogeneous Polymer Networks. <i>Macromolecular Chemistry and Physics</i> , 2014, 215, 2097-2111.   | 1.1 | 10        |
| 563 | Exploring poly(vinyl alcohol) hydrogels containing drug-cyclodextrin complexes as controlled drug delivery systems. <i>Journal of Applied Polymer Science</i> , 2014, 131, .  | 1.3 | 8         |
| 564 | Self-linked polymer gels [based on hyaluronic acid and poly (itaconic anhydride-co-3, 9-divinyl-2, 4, 8,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf   |     |           |
| 565 | Microwave-Assisted Preparation of Hydrogel-Forming Microneedle Arrays for Transdermal Drug Delivery Applications. <i>Macromolecular Materials and Engineering</i> , 2015, 300, 586-595.                                 | 1.7 | 73        |
| 566 | Amphiphilic Polymers: Drug Delivery. , 0, , 186-202.  |     | 0         |
| 567 | Interpenetrating Polymer Networks (IPNs): Hydrophilic and Hydrophobic System Applications. , 2015, , 4094-4119.   |     | 0         |
| 568 | Microgels: Drug Uptake and Release Behavior. , 0, , 4690-4700.  |     | 1         |
| 570 | The Human Skin and Hydration. , 2015, , 51-80.  |     | 1         |
| 572 | Tuning methods and mechanical modelling of hydrogels. <i>Bioinspired, Biomimetic and Nanobiomaterials</i> , 2015, 4, 140-154.   | 0.7 | 3         |
| 574 | Fabrication of Polyethylene Glycol-Based Hydrogel Microspheres Through Electrospraying. <i>Macromolecular Materials and Engineering</i> , 2015, 300, 823-835.   | 1.7 | 28        |
| 575 | pH/temperature double responsive behaviors and mechanical strength of laponite-crosslinked poly(DEA-co-DMAEMA) nanocomposite hydrogels. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015, 53, 876-884. | 2.4 | 34        |
| 576 | Switchable Release of Entrapped Nanoparticles from Alginate Hydrogels. <i>Advanced Healthcare Materials</i> , 2015, 4, 1634-1639.   | 3.9 | 50        |



| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 577 | 3D-Printed Drug/Cell Carrier Enabling Effective Release of Cyclosporin a for Xenogeneic Cell-Based Therapy. Cell Transplantation, 2015, 24, 2513-2525.   | 1.2 | 21        |
| 578 | Behavior of POP-calcium carbonate hydrogel as bone substitute with controlled release capability: A study in rat. Journal of Biomedical Materials Research - Part A, 2015, 103, 3273-3283.   | 2.1 | 16        |
| 579 | Protein Compatibility of Selected Cross-Linking Reactions for Hydrogels. Macromolecular Bioscience, 2015, 15, 405-413.   | 2.1 | 40        |
| 580 | Poly(anhydride-ester) and Poly(N-vinyl-2-pyrrolidone) Blends: Salicylic Acid-Releasing Blends with Hydrogel-Like Properties that Reduce Inflammation. Macromolecular Bioscience, 2015, 15, 342-350.  | 2.1 | 20        |
| 581 | Injectable, Pore-Forming Hydrogels for In Vivo Enrichment of Immature Dendritic Cells. Advanced Healthcare Materials, 2015, 4, 2677-2687.  | 3.9 | 92        |
| 582 | Mechanically Strong Microstructured Hydrogels Based on Reactive Star-Shaped Prepolymers. Macromolecular Symposia, 2015, 358, 148-156.  | 0.4 | 2         |
| 583 | Biodegradable and stimuli sensitive amphiphilic graft copolymers and their sol-gel phase transition behavior. Polymers for Advanced Technologies, 2015, 26, 399-407.   | 1.6 | 8         |
| 584 | Synthesis and characterization of interpenetrating polymer network based on sodium alginate and methacrylic acid and potential application for immobilization of TiO <sub>2</sub> nanoparticles. Polymer Engineering and Science, 2015, 55, 2511-2518. | 1.5 | 8         |
| 585 | Analysis of Healing Effect of Alginate Sulfate Hydrogel Dressing Containing Antimicrobial Peptide on Wound Infection Caused by Methicillin-Resistant Staphylococcus aureus. Jundishapur Journal of Microbiology, 2015, 8, e28320.                      | 0.2 | 27        |
| 586 | Hydrogels for ocular drug delivery and tissue engineering. BiolImpacts, 2015, 5, 159-164.  | 0.7 | 67        |
| 587 | Development and Characterization of SMEDDS Based Thermally Triggered In Situ Gelling Intramuscular Implant for Sustained Release of Rifampicin. Recent Patents on Nanomedicine, 2015, 5, 38-47.  | 0.5 | 1         |
| 588 | Enhanced antitumor effects by docetaxel/LL37-loaded thermosensitive hydrogel nanoparticles in peritoneal carcinomatosis of colorectal cancer. International Journal of Nanomedicine, 2015, 10, 7291.   | 3.3 | 49        |
| 589 | Improvements in Topical Ocular Drug Delivery Systems: Hydrogels and Contact Lenses. Journal of Pharmacy and Pharmaceutical Sciences, 2015, 18, 683.  | 0.9 | 30        |
| 590 | Synthesis and Properties of New Stimuli-Responsive Nanocomposite Hydrogels Containing Silver Nanoparticles. Gels, 2015, 1, 117-134.  | 2.1 | 32        |
| 591 | Grafting Techniques towards Production of Peptide-Tethered Hydrogels, a Novel Class of Materials with Biomedical Interest. Gels, 2015, 1, 194-218.   | 2.1 | 14        |
| 592 | Drug Carrier for Photodynamic Cancer Therapy. International Journal of Molecular Sciences, 2015, 16, 22094-22136.  | 1.8 | 190       |
| 593 | Injectable Amorphous Chitin-Agarose Composite Hydrogels for Biomedical Applications. Journal of Functional Biomaterials, 2015, 6, 849-862.   | 1.8 | 18        |
| 594 | Hydrogel-Based Drug Delivery Systems for Poorly Water-Soluble Drugs. Molecules, 2015, 20, 20397-20408.   | 1.7 | 157       |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 595 | Composites of Polymer Hydrogels and Nanoparticulate Systems for Biomedical and Pharmaceutical Applications. <i>Nanomaterials</i> , 2015, 5, 2054-2130.   | 1.9 | 297       |
| 596 | Nucleic Acid Aptamers: An Emerging Tool for Biotechnology and Biomedical Sensing. <i>Sensors</i> , 2015, 15, 16281-16313.  | 2.1 | 140       |
| 597 | Nanotechnology-Based Drug Delivery Systems for Melanoma Antitumoral Therapy: A Review. <i>BioMed Research International</i> , 2015, 2015, 1-22.  | 0.9 | 60        |
| 598 | Analgesic Effect of Intra-Articular Injection of Temperature-Responsive Hydrogel Containing Bupivacaine on Osteoarthritic Pain in Rats. <i>BioMed Research International</i> , 2015, 2015, 1-9.                          | 0.9 | 38        |
| 599 | History and Applications of Hydrogels. <i>Journal of Biomedical Sciences</i> , 2015, 04, .   | 0.3 | 115       |
| 600 | Synthesis and Characterization of Chemically Cross-Linked Acrylic Acid/Gelatin Hydrogels: Effect of pH and Composition on Swelling and Drug Release. <i>International Journal of Polymer Science</i> , 2015, 2015, 1-15. | 1.2 | 141       |
| 602 | A pH-sensitive and biodegradable supramolecular hydrogel constructed from a PEGylated polyphosphoester-doxorubicin prodrug and $\beta$ -cyclodextrin. <i>Polymer Chemistry</i> , 2015, 6, 5009-5014.                     | 1.9 | 44        |
| 603 | Modeling of Drug Release from a Novel Temperature-Responsive Phase-Transient Drug Delivery System in Cylindrical Coordinates. <i>Journal of Macromolecular Science - Physics</i> , 2015, 54, 450-468.                    | 0.4 | 3         |
| 604 | Nanotechnological Approaches to Therapeutic Delivery Using Elastin-Like Recombinamers. <i>Bioconjugate Chemistry</i> , 2015, 26, 1252-1265.  | 1.8 | 21        |
| 605 | Pain management via local anesthetics and responsive hydrogels. <i>Therapeutic Delivery</i> , 2015, 6, 165-176.  | 1.2 | 32        |
| 606 | Preparation of biodegradable PEGylated pH/reduction dual-stimuli responsive nanohydrogels for controlled release of an anti-cancer drug. <i>Nanoscale</i> , 2015, 7, 12051-12060.  | 2.8 | 44        |
| 607 | Enzymatically Active Microgels from Self-Assembling Protein Nanofibrils for Microflow Chemistry. <i>ACS Nano</i> , 2015, 9, 5772-5781.   | 7.3 | 43        |
| 608 | Preparation, antimicrobial and release behaviors of nisin-poly (vinyl alcohol)/wheat gluten/ZrO <sub>2</sub> nanofibrous membranes. <i>Journal of Materials Science</i> , 2015, 50, 5068-5078.                           | 1.7 | 35        |
| 609 | Percutaneous Penetration Enhancers Chemical Methods in Penetration Enhancement. , 2015, , .  |     | 13        |
| 610 | Injectable and Self-Healing Carbohydrate-Based Hydrogel for Cell Encapsulation. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 13029-13037.  | 4.0 | 199       |
| 611 | pH-sensitive interpenetrating network hydrogels based on pachyman and its carboxymethylated derivatives for oral drug delivery. <i>Journal of Polymer Research</i> , 2015, 22, 1.  | 1.2 | 7         |
| 612 | Dextran-based hydrogel formed by thiol-Michael addition reaction for 3D cell encapsulation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 128, 140-148.  | 2.5 | 75        |
| 613 | Hydrogels in ophthalmic applications. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 95, 227-238.   | 2.0 | 166       |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 614 | Swelling, mechanical and mucoadhesion properties of Mt/starch-g-PMAA nanocomposite hydrogels. <i>Applied Clay Science</i> , 2015, 112-113, 44-52.   | 2.6  | 52        |
| 615 | Tough and fully recoverable hydrogels. <i>Journal of Materials Chemistry B</i> , 2015, 3, 5284-5290.  | 2.9  | 35        |
| 616 | Polymeric Supramolecular Hydrogels as Materials for Medicine. <i>Series in Bioengineering</i> , 2015, , 151-185.  | 0.3  | 1         |
| 617 | Design and development of two component hydrogel ejector. , 2015, , .   |      | 0         |
| 618 | Application of highly swollen novel biosorbent hydrogels in uptake of uranyl ions from aqueous solutions. <i>Fibers and Polymers</i> , 2015, 16, 2165-2176.   | 1.1  | 18        |
| 619 | Swelling Kinetic Study of Poly(Vinyl Alcohol)/Poly( $\gamma$ -Glutamic Acid) Blend Hydrogel. <i>Advanced Materials Research</i> , 0, 1095, 423-426.   | 0.3  | 0         |
| 620 | Multiscale electrochemistry of hydrogels embedding conductive nanotubes. <i>Chemical Science</i> , 2015, 6, 3900-3905.  | 3.7  | 8         |
| 621 | Thermorheological Characterization of Elastoviscoplastic Carbopol Ultrez 20 Gel. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2015, 137, .                          | 0.8  | 11        |
| 622 | Homogeneous deposition of particles by absorption on hydrogels. <i>Europhysics Letters</i> , 2015, 112, 48004.  | 0.7  | 15        |
| 623 | Advanced Therapeutic Dressings for Effective Wound Healingâ€”A Review. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 3653-3680.  | 1.6  | 607       |
| 624 | In-Situ Gelling Polymers. <i>Series in Bioengineering</i> , 2015, , .   | 0.3  | 3         |
| 625 | Synthesis and Characterization of a Library of Inâ€”Situ Curing, Nonswelling Ethoxylated Polyol Thiolâ€”ene Hydrogels for Tailorable Macromolecule Delivery. <i>Advanced Materials</i> , 2015, 27, 65-72. | 11.1 | 70        |
| 626 | Composite hydrogel-loaded alumina membranes for nanofluidic molecular filtration. <i>Journal of Membrane Science</i> , 2015, 477, 151-156.  | 4.1  | 15        |
| 627 | Composite hydrogel based on surface modified mesoporous silica and poly[(2-acryloyloxy)ethyl trimethylammonium chloride]. <i>Materials Chemistry and Physics</i> , 2015, 152, 69-76.                      | 2.0  | 13        |
| 628 | Molecularly Engineered Dualâ€”Crosslinked Hydrogel with Ultrahigh Mechanical Strength, Toughness, and Good Selfâ€”Recovery. <i>Advanced Materials</i> , 2015, 27, 2054-2059.                              | 11.1 | 711       |
| 629 | Modeling and simulation of the bending behavior of electrically-stimulated cantilevered hydrogels. <i>Smart Materials and Structures</i> , 2015, 24, 035021.  | 1.8  | 41        |
| 630 | Micro-structured, spontaneously eroding hydrogels accelerate endothelialization through presentation of conjugated growth factors. <i>Biomaterials</i> , 2015, 49, 113-124.                               | 5.7  | 19        |
| 631 | Physically-strengthened collagen bioactive nanocomposite gels for bone: A feasibility study. <i>Tissue Engineering and Regenerative Medicine</i> , 2015, 12, 90-97.                                       | 1.6  | 16        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 632 | Delivery systems for the treatment of degenerated intervertebral discs. <i>Advanced Drug Delivery Reviews</i> , 2015, 84, 172-187.  | 6.6 | 89        |
| 633 | Temperature-responsive bending of a bilayer gel. <i>International Journal of Solids and Structures</i> , 2015, 56-57, 20-28.  | 1.3 | 46        |
| 634 | Designing hydrogel particles for controlled or targeted release of lipophilic bioactive agents in the gastrointestinal tract. <i>European Polymer Journal</i> , 2015, 72, 698-716.  | 2.6 | 148       |
| 635 | A high-efficiency, low-toxicity, phospholipids-based phase separation gel for long-term delivery of peptides. <i>Biomaterials</i> , 2015, 45, 1-9.  | 5.7 | 46        |
| 636 | Biodegradable Tetra-PEG Hydrogels as Carriers for a Releasable Drug Delivery System. <i>Bioconjugate Chemistry</i> , 2015, 26, 270-278.   | 1.8 | 56        |
| 637 | Nanostructural heterogeneity in polymer networks and gels. <i>Polymer Chemistry</i> , 2015, 6, 5515-5528.   | 1.9 | 185       |
| 638 | Cross-linked poly(acrylic acids) microgels and agarose as semi-interpenetrating networks for resveratrol release. <i>Journal of Materials Science: Materials in Medicine</i> , 2015, 26, 5328.  | 1.7 | 11        |
| 639 | Topical Lyogel Containing Corticosteroid Decreases IgE Expression and Enhances the Therapeutic Efficacy Against Atopic Eczema. <i>AAPS PharmSciTech</i> , 2015, 16, 656-663.  | 1.5 | 8         |
| 640 | A functionalized, injectable hydrogel for localized drug delivery with tunable thermosensitivity: Synthesis and characterization of physical and toxicological properties. <i>Journal of Controlled Release</i> , 2015, 208, 76-84.                               | 4.8 | 48        |
| 641 | Enabling Surgical Placement of Hydrogels Through Achieving Paste-Like Rheological Behavior in Hydrogel Precursor Solutions. <i>Annals of Biomedical Engineering</i> , 2015, 43, 2569-2576.  | 1.3 | 20        |
| 642 | Aptamers Selected by Cell-SELEX for Theranostics. , 2015, , .   |     | 10        |
| 643 | Microfluidic Synthesis of Biodegradable Polyethylene-Glycol Microspheres for Controlled Delivery of Proteins and DNA Nanoparticles. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 157-165.   | 2.6 | 35        |
| 644 | Stimulus-Responsive, Biodegradable, Biocompatible, Covalently Cross-Linked Hydrogel Based on Dextrin and Poly( <i>N</i> -isopropylacrylamide) for in Vitro/in Vivo Controlled Drug Release. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 14338-14351. | 4.0 | 117       |
| 645 | Partitioning of coomassie brilliant blue into DMAEMA containing poly(HEMA)-based hydrogels. <i>European Polymer Journal</i> , 2015, 72, 438-450.  | 2.6 | 11        |
| 646 | One-pot microfluidic fabrication of graphene oxide-patched hollow hydrogel microcapsules with remarkable shell impermeability. <i>Chemical Communications</i> , 2015, 51, 12756-12759.  | 2.2 | 18        |
| 647 | Remote modulation of neural activities via near-infrared triggered release of biomolecules. <i>Biomaterials</i> , 2015, 65, 76-85.  | 5.7 | 65        |
| 648 | Structure investigation of nanohybrid PDMA/silica hydrogels at rest and under uniaxial deformation. <i>Soft Matter</i> , 2015, 11, 5905-5917.   | 1.2 | 21        |
| 649 | Thermo-responsive hydrogels with <i>N</i> -isopropylacrylamide/acrylamide interpenetrating networks for controlled drug release. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2015, 26, 917-930.   | 1.9 | 9         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 650 | Artificial Peroxidase/Oxidase Multiple Enzyme System Based on Supramolecular Hydrogel and Its Application as a Biocatalyst for Cascade Reactions. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 16694-16705.        | 4.0 | 52        |
| 651 | Synthesis and characterization of a photocrosslinkable chitosan-gelatin hydrogel aimed for tissue regeneration. <i>RSC Advances</i> , 2015, 5, 63478-63488.  | 1.7 | 65        |
| 652 | The Relationship between the Hydrophilicity and Surface Chemical Composition Microphase Separation Structure of Multicomponent Silicone Hydrogels. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9780-9786.              | 1.2 | 19        |
| 653 | Bone Regeneration Using Bone Morphogenetic Proteins and Various Biomaterial Carriers. <i>Materials</i> , 2015, 8, 1778-1816.   | 1.3 | 78        |
| 654 | Evaluation of enzymatically crosslinked injectable glycol chitosan hydrogel. <i>Journal of Materials Chemistry B</i> , 2015, 3, 5511-5522.   | 2.9 | 41        |
| 655 | Fabrication and properties of a supramolecular hybrid hydrogel doped with CdTe quantum dots. <i>RSC Advances</i> , 2015, 5, 58746-58754.   | 1.7 | 19        |
| 656 | pH-Responsive guar gum hydrogels for controlled delivery of dexamethasone to the intestine. <i>International Journal of Biological Macromolecules</i> , 2015, 79, 856-863.   | 3.6 | 69        |
| 657 | Supramolecular Fmoc-valyl based nanoassemblies for delivery of mitoxantrone into HeLa cells. <i>Journal of Drug Delivery Science and Technology</i> , 2015, 29, 107-116.   | 1.4 | 4         |
| 658 | Drug nano-reservoirs synthesized using layer-by-layer technologies. <i>Biotechnology Advances</i> , 2015, 33, 1310-1326.   | 6.0 | 67        |
| 659 | Injectable hydrogels based on poly(ethylene glycol) and derivatives as functional biomaterials. <i>RSC Advances</i> , 2015, 5, 35469-35486.  | 1.7 | 138       |
| 660 | Click-crosslinked injectable hyaluronic acid hydrogel is safe and biocompatible in the intrathecal space for ultimate use in regenerative strategies of the injured spinal cord. <i>Methods</i> , 2015, 84, 60-69.             | 1.9 | 63        |
| 661 | Extraction of chitosan from <i>Aspergillus niger</i> mycelium and synthesis of hydrogels for controlled release of betahistine. <i>Reactive and Functional Polymers</i> , 2015, 91-92, 1-10.                                   | 2.0 | 52        |
| 662 | Nanoencapsulation of rice bran oil increases its protective effects against UVB radiation-induced skin injury in mice. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 93, 11-17.                        | 2.0 | 50        |
| 663 | Injectable Chitin-Poly( $\mu$ -caprolactone)/Nanohydroxyapatite Composite Microgels Prepared by Simple Regeneration Technique for Bone Tissue Engineering. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 9399-9409. | 4.0 | 127       |
| 664 | Swelling and mechanical behavior of nanoclay reinforced hydrogel: single network vs. full interpenetrating polymer network. <i>Polymer Bulletin</i> , 2015, 72, 1663-1681.   | 1.7 | 19        |
| 665 | Polymeric Prodrugs Containing Metal-Based Anticancer Drugs. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2015, 25, 339-353.   | 1.9 | 9         |
| 666 | An eco-friendly synthesis of modified poly(vinyl alcohol)-graft-lactic acid by curing method. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015, 120, 929-936.   | 2.0 | 3         |
| 667 | Structure, swelling and mechanical behavior of a cationic full-IPN hydrogel reinforced with modified nanoclay. <i>Iranian Polymer Journal (English Edition)</i> , 2015, 24, 379-388.   | 1.3 | 11        |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 668 | Systemic modulation of the stability of pluronic hydrogel by a small amount of graphene oxide. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 128, 515-521.   | 2.5  | 20        |
| 669 | Stimuli-responsive microgel-based etalons for optical sensing. <i>RSC Advances</i> , 2015, 5, 44074-44087.   | 1.7  | 57        |
| 670 | Aptamer-Based Hydrogels and Their Applications. , 2015, , 163-195.   |      | 2         |
| 671 | Soft nanofluidics governing minority ion exclusion in charged hydrogels. <i>Soft Matter</i> , 2015, 11, 4081-4090.   | 1.2  | 7         |
| 672 | A supramolecular two-photon-active hydrogel platform for direct bioconjugation under near-infrared radiation. <i>Journal of Materials Chemistry B</i> , 2015, 3, 1313-1320.  | 2.9  | 11        |
| 673 | Nanocomposite Hydrogels: 3D Polymerâ€“Nanoparticle Synergies for On-Demand Drug Delivery. <i>ACS Nano</i> , 2015, 9, 4686-4697.  | 7.3  | 624       |
| 674 | Drug delivery from gelatin-based systems. <i>Expert Opinion on Drug Delivery</i> , 2015, 12, 1547-1563.  | 2.4  | 237       |
| 675 | Design and Synthesis of Nonionic Copolypeptide Hydrogels with Reversible Thermo-responsive and Tunable Physical Properties. <i>Biomacromolecules</i> , 2015, 16, 1331-1340.  | 2.6  | 61        |
| 676 | Effect of rat bone marrow derivedâ€“stem cell delivery from serum-loaded oxidized alginateâ€“gelatinâ€“biphasic calcium phosphate hydrogel for bone tissue regeneration using a nude mouse critical-sized calvarial defect model. <i>Journal of Bioactive and Compatible Polymers</i> , 2015, 30, 188-208. | 0.8  | 9         |
| 677 | Characteristics of the bulk hydrogels made of the citric acid cross-linked whey protein microgels. <i>Food Hydrocolloids</i> , 2015, 50, 159-165.  | 5.6  | 77        |
| 678 | Covalently-crosslinked mucin biopolymer hydrogels for sustained drug delivery. <i>Acta Biomaterialia</i> , 2015, 20, 51-59.  | 4.1  | 59        |
| 679 | Self-assembled sorbitol-derived supramolecular hydrogels for the controlled encapsulation and release of active pharmaceutical ingredients. <i>Chemical Communications</i> , 2015, 51, 7451-7454.  | 2.2  | 57        |
| 680 | Thermalâ€“mechanical behaviour of chitosanâ€“cellulose derivative thermoreversible hydrogel films. <i>Cellulose</i> , 2015, 22, 1911-1929.   | 2.4  | 49        |
| 681 | Injectable polymeric hydrogels for the delivery of therapeutic agents: A review. <i>European Polymer Journal</i> , 2015, 72, 602-619.  | 2.6  | 184       |
| 682 | Local immunotherapy via delivery of interleukin-10 and transforming growth factor $\beta^2$ antagonist for treatment of chronic kidney disease. <i>Journal of Controlled Release</i> , 2015, 206, 131-139.   | 4.8  | 60        |
| 683 | Photoswitchable Membranes Based on Peptideâ€“Modified Nanoporous Anodic Alumina: Toward Smart Membranes for Onâ€“Demand Molecular Transport. <i>Advanced Materials</i> , 2015, 27, 3019-3024.  | 11.1 | 38        |
| 684 | Vibrational heat capacity of Poly(N-isopropylacrylamide). <i>Polymer</i> , 2015, 63, 108-115.  | 1.8  | 16        |
| 686 | Swelling Behavior of Hydrogels within Auxetic Polytetrafluoroethylene Jacket. <i>Polymer-Plastics Technology and Engineering</i> , 2015, 54, 1787-1793.  | 1.9  | 2         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 687 | An injectable drug-loaded hydrogel using a <a href="#">clickable</a> amphiphilic triblock copolymer as a precursor. <i>Polymer Chemistry</i> , 2015, 6, 8240-8243.                                       | 1.9 | 13        |
| 688 | Effect of ultrasound pre-treatment on formation of transglutaminase-catalysed soy protein hydrogel as a riboflavin vehicle for functional foods. <i>Journal of Functional Foods</i> , 2015, 19, 182-193. | 1.6 | 87        |
| 689 | Ketoprofen-eluting biodegradable ureteral stents by CO <sub>2</sub> impregnation: In vitro study. <i>International Journal of Pharmaceutics</i> , 2015, 495, 651-659.                                    | 2.6 | 36        |
| 690 | Rayleigh-Bénard convection in Herschel-Bulkley fluid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2015, 226, 32-45.  | 1.0 | 33        |
| 691 | Graphitic carbon nitride embedded hydrogels for enhanced gel electrophoresis. <i>Analytica Chimica Acta</i> , 2015, 887, 245-252.  | 2.6 | 33        |
| 692 | Supramolecular polycationic hydrogels with high swelling capacity prepared by partial methacrylation of polyethyleneimine. <i>RSC Advances</i> , 2015, 5, 88866-88875.                                   | 1.7 | 14        |
| 693 | Long-acting bioactive composition based on chitosan and taxifolin. <i>Inorganic Materials: Applied Research</i> , 2015, 6, 479-484.  | 0.1 | 8         |
| 694 | Quality by Design Coupled with Near Infrared in Formulation of Transdermal Glimepiride Liposomal Films. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 2062-2075.                                | 1.6 | 37        |
| 695 | Reductant-triggered rapid self-gelation and biological functionalization of hydrogels. <i>Polymer Chemistry</i> , 2015, 6, 8275-8283.  | 1.9 | 16        |
| 696 | Synthesis & characterization of iron-carboxylate nanoscale metal organic frameworks for drug delivery. , 2015, , .   |     | 0         |
| 697 | Silk fibroin/copolymer composite hydrogels for the controlled and sustained release of hydrophobic/hydrophilic drugs. <i>International Journal of Pharmaceutics</i> , 2015, 494, 264-270.                | 2.6 | 37        |
| 698 | Structured microparticles with tailored properties produced by membrane emulsification. <i>Advances in Colloid and Interface Science</i> , 2015, 225, 53-87.   | 7.0 | 57        |
| 699 | Preparation of a mixed-matrix hydrogel of vorinostat for topical administration on the rats as experimental model. <i>European Journal of Pharmaceutical Sciences</i> , 2015, 78, 255-263.               | 1.9 | 6         |
| 700 | The effect of albumin and cholesterol on the biotribological behavior of hydrogels for contact lenses. <i>Acta Biomaterialia</i> , 2015, 26, 184-194.  | 4.1 | 37        |
| 701 | Hydrogel beads from sugar cane bagasse and palm kernel cake, and the viability of encapsulated <i>Lactobacillus acidophilus</i> . <i>E-Polymers</i> , 2015, 15, 411-418.                                 | 1.3 | 15        |
| 702 | Injectable Interpenetrating Network Hydrogels via Kinetically Orthogonal Reactive Mixing of Functionalized Polymeric Precursors. <i>ACS Macro Letters</i> , 2015, 4, 1104-1109.                          | 2.3 | 34        |
| 703 | Sustained small molecule delivery from injectable hyaluronic acid hydrogels through host-guest mediated retention. <i>Journal of Materials Chemistry B</i> , 2015, 3, 8010-8019.                         | 2.9 | 111       |
| 704 | The Diels-Alder reaction: A powerful tool for the design of drug delivery systems and biomaterials. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2015, 97, 438-453.                   | 2.0 | 164       |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 705 | The Effect of Swelling Ratio on the Coulter Underestimation of Hydrogel Microsphere Diameters. <i>Tissue Engineering - Part C: Methods</i> , 2015, 21, 1246-1250.  | 1.1  | 5         |
| 706 | Hydrogels for central nervous system therapeutic strategies. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2015, 229, 905-916.   | 1.0  | 14        |
| 707 | Effect of functional groups on physicochemical and mechanical behavior of biocompatible macroporous hydrogels. <i>Reactive and Functional Polymers</i> , 2015, 97, 77-85.  | 2.0  | 30        |
| 708 | Substrate-Independent Robust and Heparin-Mimetic Hydrogel Thin Film Coating via Combined LbL Self-Assembly and Mussel-Inspired Post-Cross-linking. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 26050-26062.   | 4.0  | 81        |
| 709 | Synthesis and swelling properties of silk sericin-g-poly(acrylic acid/attapulgitite) composite superabsorbent. <i>Polymer Bulletin</i> , 2015, 72, 487-501.  | 1.7  | 18        |
| 710 | A novel pH-responsive interpolyelectrolyte hydrogel complex for the oral delivery of levodopa. Part II: Characterization and formulation of an IPEC-based tablet matrix. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 1085-1094.          | 2.1  | 2         |
| 711 | A Fast and Activatable Cross-linking Strategy for Hydrogel Formation. <i>Advanced Materials</i> , 2015, 27, 1235-1240.   | 11.1 | 38        |
| 712 | The concept of self-assembling and the interactions involved. , 2015, , 1-20.  |      | 0         |
| 713 | Biomedical applications of hydrogels: A review of patents and commercial products. <i>European Polymer Journal</i> , 2015, 65, 252-267.  | 2.6  | 1,905     |
| 714 | Phase behavior of electrostatically complexed polyelectrolyte gels using an embedded fluctuation model. <i>Soft Matter</i> , 2015, 11, 1214-1225.  | 1.2  | 58        |
| 715 | Thermosensitive block copolymer hydrogels based on poly( $\epsilon$ -caprolactone) and polyethylene glycol for biomedical applications: State of the art and future perspectives. <i>Journal of Biomedical Materials Research - Part A</i> , 2015, 103, 1276-1290. | 2.1  | 67        |
| 716 | Synthesis and characterization of antibacterial carboxymethyl cellulose/ZnO nanocomposite hydrogels. <i>International Journal of Biological Macromolecules</i> , 2015, 74, 136-141.  | 3.6  | 164       |
| 717 | Hydrolytically Degradable Polyrotaxane Hydrogels for Drug and Cell Delivery Applications. <i>Biomacromolecules</i> , 2015, 16, 389-403.  | 2.6  | 25        |
| 718 | pH-responsive, lysine-based hydrogels for the oral delivery of a wide size range of molecules. <i>International Journal of Pharmaceutics</i> , 2015, 478, 496-503.   | 2.6  | 36        |
| 719 | Rational design of a hexapeptide hydrogelator for controlled-release drug delivery. <i>Journal of Materials Chemistry B</i> , 2015, 3, 759-765.  | 2.9  | 32        |
| 720 | Temperature-responsiveness and sustained delivery properties of macroporous PEG-PNIPAAm-PCL hydrogels. <i>Polymer Engineering and Science</i> , 2015, 55, 223-230.   | 1.5  | 6         |
| 721 | Gamma ray-induced synthesis of hyaluronic acid/chondroitin sulfate-based hydrogels for biomedical applications. <i>Radiation Physics and Chemistry</i> , 2015, 106, 404-412.   | 1.4  | 14        |
| 722 | Injectable and photocross-linkable gels based on gellan gum methacrylate: A new tool for biomedical application. <i>International Journal of Biological Macromolecules</i> , 2015, 72, 1335-1342.  | 3.6  | 53        |



| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 723 | Kinetic release studies of nitrogen-containing bisphosphonate from gum acacia crosslinked hydrogels. <i>International Journal of Biological Macromolecules</i> , 2015, 73, 115-123.                               | 3.6 | 46        |
| 724 | Absorption of whey protein isolated (WPI)-stabilized $\beta$ -Carotene emulsions by oppositely charged oxidized starch microgels. <i>Food Research International</i> , 2015, 67, 315-322.                         | 2.9 | 38        |
| 725 | Hydrogels for 3D mammalian cell culture: a starting guide for laboratory practice. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 623-636.   | 1.7 | 123       |
| 726 | Cucurbituril-based supramolecular engineered nanostructured materials. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 330-347.   | 1.5 | 98        |
| 727 | Synthesis and characterization of antibacterial carboxymethylcellulose/CuO bio-nanocomposite hydrogels. <i>International Journal of Biological Macromolecules</i> , 2015, 73, 109-114.                            | 3.6 | 164       |
| 728 | Hierarchical supramolecules and organization using boronic acid building blocks. <i>Chemical Communications</i> , 2015, 51, 2005-2020.  | 2.2 | 131       |
| 729 | Advances and new technologies applied in controlled drug delivery system. <i>Research on Chemical Intermediates</i> , 2015, 41, 2165-2200.  | 1.3 | 33        |
| 730 | Bionanocomposites based on alginate and chitosan/layered double hydroxide with ciprofloxacin drug: Investigation of structure and controlled release properties. <i>Polymer Composites</i> , 2015, 36, 1819-1825. | 2.3 | 26        |
| 731 | Stimuli responsive fibrous hydrogels from hierarchical self-assembly of a triblock copolyptide. <i>Soft Matter</i> , 2015, 11, 331-342.   | 1.2 | 25        |
| 732 | Optimization of microwave assisted Maillard reaction to fabricate and evaluate corn fiber gum-chitosan IPN films. <i>Food Hydrocolloids</i> , 2015, 44, 260-276.  | 5.6 | 26        |
| 733 | Stimuli-Responsive Hydrogels Bearing amino acid Residues: a Potential Platform for Future Therapies. <i>Journal of Biomedical Engineering and Medical Devices</i> , 2016, 01, .                                   | 0.1 | 4         |
| 734 | In Situ Forming Crosslinking Hydrogel Systems: Chemistry and Biomedical Applications. , 0, , .  |     | 9         |
| 735 | An Engineering Point of View on the Use of the Hydrogels for Pharmaceutical and Biomedical Applications. , 2016, , .  |     | 2         |
| 736 | Swellable Hydrogel-based Systems for Controlled Drug Delivery. , 0, , .   |     | 22        |
| 737 | Biomaterial Applications in Cell-Based Therapy in Experimental Stroke. <i>Stem Cells International</i> , 2016, 2016, 1-14.  | 1.2 | 46        |
| 738 | Synthesis of Potato Starch-Acrylic-Acid Hydrogels by Gamma Radiation and Their Application in Dye Adsorption. <i>International Journal of Polymer Science</i> , 2016, 2016, 1-11.                                 | 1.2 | 43        |
| 739 | Sustained Release of Protein Therapeutics from Subcutaneous Thermosensitive Biocompatible and Biodegradable Pentablock Copolymers (PTSGels). <i>Journal of Drug Delivery</i> , 2016, 2016, 1-15.                  | 2.5 | 9         |
| 740 | Biocatalytic membrane reactors (BMR). <i>ChemistrySelect</i> , 2016, 1, .   | 0.7 | 3         |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 741 | Nanoparticle and Targeted Systems for Colon Cancer Therapy. , 2016, , 695-713.  |      | 0         |
| 742 | Polyelectrolyte Hydrogel Platforms for the Delivery of Antidepressant Drugs. Gels, 2016, 2, 24.   | 2.1  | 13        |
| 743 | Composite Hydrogels for Bone Regeneration. Materials, 2016, 9, 267.   | 1.3  | 112       |
| 744 | Marine Origin Polysaccharides in Drug Delivery Systems. Marine Drugs, 2016, 14, 34.   | 2.2  | 205       |
| 745 | Sulfated Seaweed Polysaccharides as Multifunctional Materials in Drug Delivery Applications. Marine Drugs, 2016, 14, 42.  | 2.2  | 408       |
| 746 | Ionically Crosslinked Chitosan Hydrogels for the Controlled Release of Antimicrobial Essential Oils and Metal Ions for Wound Management Applications. Medicines (Basel, Switzerland), 2016, 3, 8.                         | 0.7  | 21        |
| 747 | Flow and Thixotropic Parameters for Rheological Characterization of Hydrogels. Molecules, 2016, 21, 786.  | 1.7  | 99        |
| 748 | A Thixotropic Polyglycerol Sebacate-Based Supramolecular Hydrogel as an Injectable Drug Delivery Matrix. Polymers, 2016, 8, 130.  | 2.0  | 50        |
| 749 | A Review of Thermo- and Ultrasound-Responsive Polymeric Systems for Delivery of Chemotherapeutic Agents. Polymers, 2016, 8, 359.  | 2.0  | 70        |
| 750 | Drug-releasing textiles. , 2016, , 119-154.   |      | 8         |
| 751 | Degradable hydrogel systems for biomedical applications. , 2016, , 173-188.   |      | 18        |
| 752 | Cellulose-Derivatives-Based Hydrogels as Vehicles for Dermal and Transdermal Drug Delivery. , 0, , .  |      | 17        |
| 753 | Response surface based co-optimization of release kinetics and mucoadhesive strength for an oral mucoadhesive tablet of cefixime trihydrate. Bulletin of Faculty of Pharmacy, Cairo University, 2016, 54, 227-235.        | 0.2  | 12        |
| 754 | Fabrication of Apigenin loaded gellan gum-chitosan hydrogels (GGCH-HGs) for effective diabetic wound healing. International Journal of Biological Macromolecules, 2016, 91, 1110-1119.                                    | 3.6  | 103       |
| 755 | Injectable Hydrogels for Biomedical Applications. , 2016, , 33-96.  |      | 3         |
| 756 | A Supramolecular Shear-Thinning Anti-Inflammatory Steroid Hydrogel. Advanced Materials, 2016, 28, 6680-6686.  | 11.1 | 43        |
| 757 | Cationic hybrids from poly( <i>N,N</i> -dimethylaminoethyl methacrylate) covalently crosslinked with chloroalkyl silicone derivatives effective in binding anionic dyes. Journal of Applied Polymer Science, 2016, 133, . | 1.3  | 7         |
| 758 | Thermo-responsive hydrogels from cellulose-based polyelectrolytes and cationic vesicles for biomedical application. Journal of Biomedical Materials Research - Part A, 2016, 104, 1668-1679.                              | 2.1  | 15        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 759 | Calcium carbonate hydrogel construct with cinnamaldehyde incorporated to control inflammation during surgical procedure. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 768-774.       | 2.1  | 12        |
| 760 | Hydrogels based on schiff base formation between an amino-containing polyphosphazene and aldehyde functionalized dextrans. <i>Journal of Polymer Science Part A</i> , 2016, 54, 2984-2991.                    | 2.5  | 19        |
| 761 | Synthesis and characterization of Schiff base contained dextran microgels in water-in-oil inverse microemulsion. <i>Carbohydrate Polymers</i> , 2016, 152, 156-162.   | 5.1  | 50        |
| 762 | Hierarchical mesoporous silica nanoparticles for tailorable drug release. <i>International Journal of Pharmaceutics</i> , 2016, 511, 65-72.   | 2.6  | 26        |
| 763 | Novel hemocompatible nanocomposite hydrogels crosslinked with methacrylated gelatin. <i>RSC Advances</i> , 2016, 6, 43663-43671.  | 1.7  | 34        |
| 764 | Supramolecular Hydrogel from Nanoparticles and Cyclodextrins for Local and Sustained Nanoparticle Delivery. <i>Macromolecular Bioscience</i> , 2016, 16, 1188-1199.   | 2.1  | 24        |
| 765 | Novel polyurethane-based thermosensitive hydrogels as drug release and tissue engineering platforms: design and <i>in vitro</i> characterization. <i>Polymer International</i> , 2016, 65, 756-769.           | 1.6  | 43        |
| 766 | Bio-Orthogonally Crosslinked, Engineered Protein Hydrogels with Tunable Mechanics and Biochemistry for Cell Encapsulation. <i>Advanced Functional Materials</i> , 2016, 26, 3612-3620.                        | 7.8  | 122       |
| 767 | Improvement in Mechanical Performance of Anionic Hydrogels Using Fully Interpenetrating Polymer Network Reinforced with Graphene Oxide Nanosheets. <i>Advances in Polymer Technology</i> , 2016, 35, 386-395. | 0.8  | 7         |
| 768 | <i>In situ</i> incorporation of monodisperse drug nanoparticles into hydrogel scaffolds for hydrophobic drug release. <i>Journal of Applied Polymer Science</i> , 2016, 133, .                                | 1.3  | 2         |
| 769 | Fabrication of Hydrogel Particles of Defined Shapes Using Superhydrophobic-Hydrophilic Micropatterns. <i>Advanced Materials</i> , 2016, 28, 7613-7619.  | 11.1 | 83        |
| 770 | Smart nanocomposite hydrogels based on azo crosslinked graphene oxide for oral colon-specific drug delivery. <i>Nanotechnology</i> , 2016, 27, 315105.  | 1.3  | 47        |
| 771 | Programmable DNA Hydrogels Assembled from Multidomain DNA Strands. <i>ChemBioChem</i> , 2016, 17, 1156-1162.  | 1.3  | 49        |
| 772 | Hydrogels for Drug Delivery. , 2016, , 191-224.   |      | 0         |
| 773 | Laser Speckle Rheology for evaluating the viscoelastic properties of hydrogel scaffolds. <i>Scientific Reports</i> , 2016, 6, 37949.  | 1.6  | 39        |
| 774 | Ionizing Radiation Effects in Polymers. , 2016, , .   |      | 16        |
| 775 | NanoCrystalline Cellulose, an environmental friendly nanoparticle for pharmaceutical application – A quick study. <i>MATEC Web of Conferences</i> , 2016, 60, 01006.  | 0.1  | 5         |
| 776 | Skin penetration-inducing gelatin methacryloyl nanogels for transdermal macromolecule delivery. <i>Macromolecular Research</i> , 2016, 24, 1115-1125.   | 1.0  | 16        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 777 | A comparative release study of curcumin and diclofenac sodium from genipin cross-linked composite hydrogel. , 2016, , .  |     | 2         |
| 778 | Controlled Drug Release Formulation by Sequential Crosslinking of Multilayered Electrospun Gelatin Nanofiber Mat. MRS Advances, 2016, 1, 2107-2113.                        | 0.5 | 8         |
| 779 | Thermoresponsive Toughening in LCST-Type Hydrogels: Comparison between Semi-Interpenetrated and Grafted Networks. Macromolecules, 2016, 49, 9568-9577.                     | 2.2 | 36        |
| 780 | Solvent and solute ingress into hydrogels resolved by a combination of imaging techniques. Journal of Chemical Physics, 2016, 144, 204903.                                 | 1.2 | 6         |
| 781 | Poly(vinyl alcohol) Physical Hydrogels: Matrix-Mediated Drug Delivery Using Spontaneously Eroding Substrate. Journal of Physical Chemistry B, 2016, 120, 5916-5926.        | 1.2 | 45        |
| 782 | Recent Advances in Shape Memory Soft Materials for Biomedical Applications. ACS Applied Materials & Interfaces, 2016, 8, 10070-10087.                                      | 4.0 | 313       |
| 783 | Alginate microgels created by selective coalescence between core drops paired with an ultrathin shell. Journal of Materials Chemistry B, 2016, 4, 3232-3238.               | 2.9 | 28        |
| 784 | Regeneration strategies after the adult mammalian central nervous system injury“biomaterials. International Journal of Energy Production and Management, 2016, 3, 115-122. | 1.9 | 11        |
| 785 | Swelling behavior of bisensitive interpenetrating polymer networks for microfluidic applications. Soft Matter, 2016, 12, 5529-5536.  | 1.2 | 24        |
| 786 | Xylan-based temperature/pH sensitive hydrogels for drug controlled release. Carbohydrate Polymers, 2016, 151, 189-197.   | 5.1 | 107       |
| 787 | Periadventitial drug delivery for the prevention of intimal hyperplasia following open surgery. Journal of Controlled Release, 2016, 233, 174-180.                         | 4.8 | 37        |
| 788 | Thermoresponsive Toughening in LCST-Type Hydrogels with Opposite Topology: From Structure to Fracture Properties. Macromolecules, 2016, 49, 4295-4306.                     | 2.2 | 49        |
| 789 | Sulfamethazine-based pH-sensitive hydrogels with potential application for transcatheter arterial chemoembolization therapy. Acta Biomaterialia, 2016, 41, 253-263.        | 4.1 | 55        |
| 790 | Tuning the Receding Contact Angle on Hydrogels by Addition of Particles. Langmuir, 2016, 32, 5573-5579.  | 1.6 | 13        |
| 791 | 5-Fluorouracil microencapsulation and impregnation in hyaluronic acid hydrogel as composite drug delivery system for ocular fibrosis. Cogent Medicine, 2016, 3, 1182108.   | 0.7 | 5         |
| 792 | PFS- <i>b</i> -PNIPAM: A First Step toward Polymeric Nanofibrillar Hydrogels Based on Uniform Fiber-Like Micelles. Macromolecules, 2016, 49, 4265-4276.                    | 2.2 | 28        |
| 793 | Synthesis, characterization, properties of N-succinyl chitosan-g-poly (methacrylic acid) hydrogels and in vitro release of theophylline. Polymer, 2016, 92, 36-49.         | 1.8 | 77        |
| 794 | Insight into hydrogels. Designed Monomers and Polymers, 2016, 19, 456-478.   | 0.7 | 78        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 795 | Photonic crystal protein hydrogel sensor materials enabled by conformationally induced volume phase transition. <i>Chemical Science</i> , 2016, 7, 4557-4562.  | 3.7 | 72        |
| 796 | Self-organization of hydrophobic-capped triblock copolymers with a polyelectrolyte midblock: a coarse-grained molecular dynamics simulation study. <i>Soft Matter</i> , 2016, 12, 4611-4620.                                       | 1.2 | 27        |
| 797 | Composite Hydrogels with Tunable Anisotropic Morphologies and Mechanical Properties. <i>Chemistry of Materials</i> , 2016, 28, 3406-3415.  | 3.2 | 206       |
| 798 | Biodegradable graphene oxide and polyaptamer DNA hybrid hydrogels for implantable drug delivery. <i>Carbon</i> , 2016, 105, 14-22.   | 5.4 | 33        |
| 799 | Injectable hydrogels by inclusion complexation between a three-armed star copolymer (mPEG-acetal-PCL-acetal)- <sub>3</sub> and I±-cyclodextrin for pH-triggered drug delivery. <i>RSC Advances</i> , 2016, 6, 40858-40868.         | 1.7 | 18        |
| 800 | Encapsulated Hydrogels by E-beam Lithography and Their Use in Enzyme Cascade Reactions. <i>Langmuir</i> , 2016, 32, 4043-4051.   | 1.6 | 16        |
| 801 | Nanocarrier fabrication and macromolecule drug delivery: challenges and opportunities. <i>Therapeutic Delivery</i> , 2016, 7, 257-278.   | 1.2 | 94        |
| 802 | Numerical and Analytical Modeling to Determine Performance Tradeoffs in Hydrogel-Based pH Sensors. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 2524-2530.   | 1.6 | 5         |
| 803 | Polymerization of Hydrogel Network on Microfiber Surface: Synthesis of Hybrid Water-Absorbing Matrices for Biomedical Applications. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 887-892.                            | 2.6 | 18        |
| 804 | An In-depth Analysis of the Mechanical, Electrical, and Drug Release Properties of Gelatin-Starch Phase-Separated Hydrogels. <i>Polymer-Plastics Technology and Engineering</i> , 2016, 55, 1731-1742.                             | 1.9 | 4         |
| 805 | Engineering Approaches for Understanding Osteogenesis: Hydrogels as Synthetic Bone Microenvironments. <i>Hormone and Metabolic Research</i> , 2016, 48, 726-736.   | 0.7 | 7         |
| 806 | Molecular level investigation on the interaction of pluronic F127 and human intestinal bile salts using excited state prototropism of 1-naphthol. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2016, 160, 61-67. | 1.7 | 10        |
| 807 | Tetra-sensitive graft copolymer gels with high volume changes. <i>RSC Advances</i> , 2016, 6, 34809-34817.   | 1.7 | 8         |
| 808 | Formation of Chitosan-Based Hydrogels Network. , 2016, , 189-244.  |     | 2         |
| 809 | Polymer Gels as EAPs: Materials. , 2016, , 27-52.  |     | 1         |
| 810 | Curcumin cross-linked collagen aerogels with controlled anti-proteolytic and pro-angiogenic efficacy. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 045011.  | 1.7 | 39        |
| 811 | Citric acid crosslinked cyclodextrin/hydroxypropylmethylcellulose hydrogel films for hydrophobic drug delivery. <i>International Journal of Biological Macromolecules</i> , 2016, 93, 75-86.                                       | 3.6 | 84        |
| 812 | Ophthalmic Drug Delivery: Hybrid Polymeric Hydrogels. , 0, , 5742-5758.  |     | 0         |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 813 | One-Pot Automated Synthesis of Quasi Triblock Copolymers for Self-Healing Physically Crosslinked Hydrogels. <i>Macromolecular Rapid Communications</i> , 2016, 37, 1682-1688.                    | 2.0  | 17        |
| 814 | Polyanions effectively prevent protein conjugation and activity loss during hydrogel cross-linking. <i>Journal of Controlled Release</i> , 2016, 238, 92-102.                                    | 4.8  | 9         |
| 815 | An Injectable Hydrogel Prepared Using a PEG/Vitamin E Copolymer Facilitating Aqueous-Driven Gelation. <i>Biomacromolecules</i> , 2016, 17, 3648-3658.  | 2.6  | 29        |
| 816 | Temporal control of xyloglucan self-assembly into layered structures by radiation-induced degradation. <i>Carbohydrate Polymers</i> , 2016, 152, 382-390.  | 5.1  | 13        |
| 817 | Injectable camptothecin conjugated hydrogels with simultaneous drug release and degradation. <i>RSC Advances</i> , 2016, 6, 94661-94668.   | 1.7  | 9         |
| 818 | Double stimuli-responsive polymer systems: How to use crosstalk between pH- and thermosensitivity for drug depots. <i>European Polymer Journal</i> , 2016, 84, 54-64.                            | 2.6  | 14        |
| 819 | Mechanical Force-Triggered Drug Delivery. <i>Chemical Reviews</i> , 2016, 116, 12536-12563.  | 23.0 | 247       |
| 820 | Micelles: Micellar Nanoparticles. , 2016, , 568-573.   |      | 0         |
| 821 | The rheological injectability of N-succinyl-chitosan solutions. <i>Carbohydrate Polymers</i> , 2016, 151, 1082-1090.   | 5.1  | 2         |
| 822 | pH-sensitive bionanocomposite hydrogel beads based on carboxymethyl cellulose/ZnO nanoparticle as drug carrier. <i>International Journal of Biological Macromolecules</i> , 2016, 93, 1317-1327. | 3.6  | 134       |
| 823 | A bio-inspired hybrid nanosack for graft vascularization at the omentum. <i>Acta Biomaterialia</i> , 2016, 41, 224-234.  | 4.1  | 10        |
| 824 | Nanocellulose-Based Interpenetrating Polymer Network (IPN) Hydrogels for Cartilage Applications. <i>Biomacromolecules</i> , 2016, 17, 3714-3723.   | 2.6  | 162       |
| 825 | Preparation and Timed Release Properties of Self-Rupturing Gels. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 29015-29024.   | 4.0  | 10        |
| 826 | Highly Stretchable, Strain Sensing Hydrogel Optical Fibers. <i>Advanced Materials</i> , 2016, 28, 10244-10249.   | 11.1 | 327       |
| 827 | 3D printed structures for delivery of biomolecules and cells: tissue repair and regeneration. <i>Journal of Materials Chemistry B</i> , 2016, 4, 7521-7539.                                      | 2.9  | 64        |
| 828 | Dynamic light scattering of nano-gels of xanthan gum biopolymer in colloidal dispersion. <i>Journal of Advanced Research</i> , 2016, 7, 635-641.   | 4.4  | 11        |
| 829 | Macromolecule and Particle Dynamics in Confined Media. <i>Macromolecules</i> , 2016, 49, 5755-5772.  | 2.2  | 105       |
| 830 | Injectable and microporous scaffold of densely-packed, growth factor-encapsulating chitosan microgels. <i>Carbohydrate Polymers</i> , 2016, 152, 792-801.  | 5.1  | 37        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 831 | Macromolecular Decoration of Nanoparticles for Guiding Self&#x2010;Assembly in 2D and 3D. , 0, , 159-192.  |     | 7         |
| 832 | Anionic amphiphilic model conetworks synthesized by end-linking of tetra-arm copolymers. Polymer, 2016, 100, 134-142.  | 1.8 | 3         |
| 833 | Super Stable and Tough Hydrogel Containing Covalent, Crystalline, and Ionic Cross&#x2010;Links. Macromolecular Chemistry and Physics, 2016, 217, 32-38.  | 1.1 | 17        |
| 834 | A Novel Cheap and Easy to Handle Protein Hydrogel for 3D Cell Culture Applications: A High Stability Matrix with Tunable Elasticity and Cell Adhesion Properties. ChemistrySelect, 2016, 1, 1353-1360. | 0.7 | 9         |
| 835 | Design of Injectable Materials to Improve Stem Cell Transplantation. Current Stem Cell Reports, 2016, 2, 207-220.  | 0.7 | 134       |
| 836 | Polyethylene glycol and poly(vinyl alcohol) hydrogels treated with photo-initiated chemical vapor deposition. Canadian Journal of Chemistry, 2016, 94, 744-750.  | 0.6 | 14        |
| 837 | Static and dynamic behaviour of responsive graphene oxide&#x2010;poly(N-isopropyl acrylamide) composite gels. Soft Matter, 2016, 12, 7166-7173.  | 1.2 | 12        |
| 838 | Structure and Property Modications by Ion Implantation in Metal Oxide Thin Solid Films Suitable for Gas Sensing Applications. , 2016, , 240-285.   |     | 1         |
| 839 | Preparation of piperlongumine-loaded chitosan nanoparticles for safe and efficient cancer therapy. RSC Advances, 2016, 6, 79307-79316.   | 1.7 | 30        |
| 840 | Electrospinning applications from diagnosis to treatment of diabetes. RSC Advances, 2016, 6, 83638-83655.  | 1.7 | 49        |
| 841 | Trapping It Softly: Ultrasoft Zirconium Metallogels for Macromolecule Entrapment and Reconfiguration. ACS Macro Letters, 2016, 5, 904-908.   | 2.3 | 8         |
| 842 | Solvato-morphologically controlled, reversible NIPAAm hydrogel photoactuators. RSC Advances, 2016, 6, 83296-83302.   | 1.7 | 15        |
| 843 | Novel gelatin-polyoxometalate based self-assembled pH responsive hydrogels: formulation and <i>in vitro</i> characterization. Designed Monomers and Polymers, 2016, 19, 697-705.                       | 0.7 | 13        |
| 845 | Improved Mechanical Properties and Sustained Release Behavior of Cationic Cellulose Nanocrystals Reinforced Cationic Cellulose Injectable Hydrogels. Biomacromolecules, 2016, 17, 2839-2848.           | 2.6 | 87        |
| 846 | &#x2010;Smart&#x2010;drug loaded nanoparticle delivery from a self-healing hydrogel enabled by dynamic magnesium&#x2010;biopolymer chemistry. Chemical Communications, 2016, 52, 11151-11154.          | 2.2 | 60        |
| 847 | Multi-stimuli-responsive poly(NIPA-co-HEMA-co-NVP) with spironaphthoxazine hydrogel for optical data storage application. Colloid and Polymer Science, 2016, 294, 1623-1632.                           | 1.0 | 18        |
| 848 | Cyclodextrin-Containing Hydrogel Networks. , 0, , 2243-2258.   |     | 4         |
| 849 | Keratin: Functional Biomaterials. , 0, , 4245-4262.  |     | 0         |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 850 | Modelling and predicting the interactions between oppositely and variously charged polyelectrolytes by frontal analysis continuous capillary electrophoresis. <i>Soft Matter</i> , 2016, 12, 9728-9737. | 1.2  | 15        |
| 852 | Improved topical delivery of tacrolimus: A novel composite hydrogel formulation for the treatment of psoriasis. <i>Journal of Controlled Release</i> , 2016, 242, 16-24.                                | 4.8  | 56        |
| 853 | Hydrogels based on collagen and fibrin – frontiers and applications. <i>BioNanoMaterials</i> , 2016, 17, 3-12.  | 1.4  | 43        |
| 854 | A pH-Responsive Hydrogel Based on a Tumor-Targeting Mesoporous Silica Nanocomposite for Sustained Cancer Labeling and Therapy. <i>Macromolecular Rapid Communications</i> , 2016, 37, 1533-1539.        | 2.0  | 42        |
| 855 | Highly Flexible and Resilient Elastin Hybrid Cryogels with Shape Memory, Injectability, Conductivity, and Magnetic Responsive Properties. <i>Advanced Materials</i> , 2016, 28, 7758-7767.              | 11.1 | 149       |
| 856 | Polymer Gels as EAPs: Materials. , 2016, , 1-27.  |      | 0         |
| 857 | Evolving lessons on nanomaterial-coated viral vectors for local and systemic gene therapy. <i>Nanomedicine</i> , 2016, 11, 1689-1713.   | 1.7  | 31        |
| 858 | Pseudopeptide-Based Hydrogels Trapping Methylene Blue and Eosin...Y. <i>Chemistry - A European Journal</i> , 2016, 22, 12106-12112.   | 1.7  | 19        |
| 859 | Functional PEG building blocks via copolymerization of ethylene carbonate and tert-butyl glycidyl ether. <i>Polymer Chemistry</i> , 2016, 7, 5050-5059.   | 1.9  | 4         |
| 860 | Guest-matrix interactions affect the solvation of cyclodextrin-based polymeric hydrogels: a UV Raman scattering study. <i>Soft Matter</i> , 2016, 12, 8861-8868.  | 1.2  | 11        |
| 861 | Quantitative X-ray microscopic analysis of individual thermoresponsive microgel particles in aqueous solution. <i>RSC Advances</i> , 2016, 6, 98228-98233.  | 1.7  | 3         |
| 862 | Nanotechnology and Nanomaterials in Ophthalmic Drug Delivery. , 2016, , 83-109.   |      | 7         |
| 863 | Reversible Modulation of DNA-Based Hydrogel Shapes by Internal Stress Interactions. <i>Journal of the American Chemical Society</i> , 2016, 138, 16112-16119.   | 6.6  | 105       |
| 864 | Formation of porous hydrogels by self-assembly of photo-cross-linkable triblock copolymers in the presence of homopolymers. <i>Polymer</i> , 2016, 106, 152-158.  | 1.8  | 8         |
| 865 | Treatment of otitis media by transtympanic delivery of antibiotics. <i>Science Translational Medicine</i> , 2016, 8, 356ra120.  | 5.8  | 61        |
| 866 | Enzymatically Crosslinked Emulsion Gels Using Star-Polymer Stabilizers. <i>Macromolecular Rapid Communications</i> , 2016, 37, 1593-1597.   | 2.0  | 15        |
| 867 | Spatiotemporal Programming for the On-Demand Release of Bupivacaine Based on an Injectable Composite Hydrogel. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 3634-3644.                        | 1.6  | 10        |
| 868 | Dextrin. , 2016, , 2634-2649.   |      | 7         |



| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 869 | Self-folding hydrogel bilayer for enhanced drug loading, encapsulation, and transport. , 2016, 2016, 2103-2106.  |      | 6         |
| 870 | Controlled drug release from hydrogels for contact lenses: Drug partitioning and diffusion. International Journal of Pharmaceutics, 2016, 515, 467-475.                                | 2.6  | 44        |
| 871 | Triggered Copolyptide Hydrogel Degradation Using Photolabile Lysine Protecting Groups. ACS Macro Letters, 2016, 5, 1253-1256.  | 2.3  | 31        |
| 872 | Designing hydrogels for controlled drug delivery. Nature Reviews Materials, 2016, 1, .   | 23.3 | 2,817     |
| 873 | â€œA novel highly stable and injectable hydrogel based on a conformationally restricted ultrashort peptideâ€• Scientific Reports, 2016, 6, 31167.                                      | 1.6  | 78        |
| 874 | Supramolecular hydrogelation with bile acid derivatives: structures, properties and applications. Journal of Materials Chemistry B, 2016, 4, 7506-7520.                                | 2.9  | 44        |
| 875 | Cell-laden microfluidic microgels for tissue regeneration. Lab on A Chip, 2016, 16, 4482-4506.   | 3.1  | 133       |
| 876 | Cyclic Î²-(1â†’3) (1â†’6) glucan/carrageenan hydrogels for wound healing applications. RSC Advances, 2016, 6, 98545-98553.   | 1.7  | 35        |
| 877 | Physically cross-linked pH-responsive chitosan-based hydrogels with enhanced mechanical performance for controlled drug delivery. RSC Advances, 2016, 6, 106035-106045.                | 1.7  | 43        |
| 878 | Poly(amino carbonate urethane)-based biodegradable, temperature and pH-sensitive injectable hydrogels for sustained human growth hormone delivery. Scientific Reports, 2016, 6, 29978. | 1.6  | 65        |
| 879 | An In Situ Gelling Drug Delivery System for Improved Recovery after Spinal Cord Injury. Advanced Healthcare Materials, 2016, 5, 1513-1521.   | 3.9  | 31        |
| 880 | Nanocarriers based delivery of nutraceuticals for cancer prevention and treatment: A review of recent research developments. Trends in Food Science and Technology, 2016, 54, 114-126. | 7.8  | 67        |
| 881 | Design of hydrogels for delayed antibody release utilizing hydrophobic association and Dielsâ€“Alder chemistry in tandem. Journal of Materials Chemistry B, 2016, 4, 3398-3408.        | 2.9  | 26        |
| 882 | Antimicrobial hydrogels based on autoclaved poly(vinyl alcohol) and poly(methyl vinyl) Tj ETQq1 1 0.784314 rgBT /Qyerlock 10 Tf 50 22  | 1.7  | 40        |
| 883 | Bionanomaterials for Skin Regeneration. SpringerBriefs in Bioengineering, 2016, , .  | 0.8  | 18        |
| 884 | Structural hydrogels. Polymer, 2016, 98, 516-535.  | 1.8  | 105       |
| 885 | Cyclodextrin-Mediated Hierarchical Self-Assembly and Its Potential in Drug Delivery Applications. Journal of Pharmaceutical Sciences, 2016, 105, 2570-2588.                            | 1.6  | 53        |
| 886 | Polysaccharide based nanogels in the drug delivery system: Application as the carrier of pharmaceutical agents. Materials Science and Engineering C, 2016, 68, 964-981.                | 3.8  | 225       |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 887 | Programmable biomaterials for dynamic and responsive drug delivery. <i>Experimental Biology and Medicine</i> , 2016, 241, 1127-1137.   | 1.1 | 9         |
| 888 | “Missing Tooth”-Multidomain Peptide Nanofibers for Delivery of Small Molecule Drugs. <i>Biomacromolecules</i> , 2016, 17, 2087-2095.   | 2.6 | 51        |
| 889 | Investigation of silk sericin conformational structure for fabrication into porous scaffolds with poly(vinyl alcohol) for skin tissue reconstruction. <i>European Polymer Journal</i> , 2016, 81, 43-52.   | 2.6 | 19        |
| 890 | Characterization of alginate-brushite in-situ hydrogel composites. <i>Materials Science and Engineering C</i> , 2016, 67, 502-510.   | 3.8 | 22        |
| 891 | Multi-stimuli-responsive semi-IPN cryogels with native and anionic potato starch entrapped in poly(N,N-dimethylaminoethyl methacrylate) matrix and their potential in drug delivery. <i>Reactive and Functional Polymers</i> , 2016, 105, 66-77. | 2.0 | 61        |
| 892 | Proof-of-Concept of Polymeric Sol-Gels in Multi-Drug Delivery and Intraoperative Image-Guided Surgery for Peritoneal Ovarian Cancer. <i>Pharmaceutical Research</i> , 2016, 33, 2298-2306.   | 1.7 | 17        |
| 893 | Recreating complex pathophysiologies in vitro with extracellular matrix surrogates for anticancer therapeutics screening. <i>Drug Discovery Today</i> , 2016, 21, 1521-1531.   | 3.2 | 28        |
| 894 | Silk-Elastinlike Protein Polymer Liquid Chemoembolic for Localized Release of Doxorubicin and Sorafenib. <i>Molecular Pharmaceutics</i> , 2016, 13, 2736-2748.   | 2.3 | 35        |
| 895 | Injectable osteogenic and angiogenic nanocomposite hydrogels for irregular bone defects. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 035017.   | 1.7 | 51        |
| 896 | Soft hydrogels interpenetrating silicone—A polymer network for drug-releasing medical devices. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2016, 104, 402-410.   | 1.6 | 25        |
| 897 | Nanochitosan and the Skin. <i>SpringerBriefs in Bioengineering</i> , 2016, , 69-78.  | 0.8 | 2         |
| 898 | Interpenetrating polymer networks of poly(methacrylic acid) and polyacrylamide: synthesis, characterization and potential application for sustained drug delivery. <i>RSC Advances</i> , 2016, 6, 64239-64246.                                   | 1.7 | 6         |
| 899 | Ionically Cross-Linked Polymer Networks for the Multiple-Month Release of Small Molecules. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 4323-4335.   | 4.0 | 25        |
| 900 | Biomaterial-based regional chemotherapy: Local anticancer drug delivery to enhance chemotherapy and minimize its side-effects. <i>Materials Science and Engineering C</i> , 2016, 62, 927-942.   | 3.8 | 142       |
| 901 | Poloxamer-hydroxyethyl cellulose- $\beta$ -cyclodextrin supramolecular gels for sustained release of griseofulvin. <i>International Journal of Pharmaceutics</i> , 2016, 500, 11-19.   | 2.6 | 42        |
| 902 | Application of UVA-riboflavin crosslinking to enhance the mechanical properties of extracellular matrix derived hydrogels. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 54, 259-267.                                | 1.5 | 46        |
| 903 | PEG-Thiol based hydrogels with controllable properties. <i>European Polymer Journal</i> , 2016, 74, 1-12.  | 2.6 | 35        |
| 904 | A Review: Tailor-made Hydrogel Structures (Classifications and Synthesis Parameters). <i>Polymer-Plastics Technology and Engineering</i> , 2016, 55, 54-70.  | 1.9 | 90        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 905 | Non-invasive in vitro and in vivo monitoring of degradation of fluorescently labeled hyaluronan hydrogels for tissue engineering applications. <i>Acta Biomaterialia</i> , 2016, 30, 188-198.                           | 4.1 | 80        |
| 906 | Light-responsive <i>in situ</i> forming injectable implants for effective drug delivery to the posterior segment of the eye. <i>Expert Opinion on Drug Delivery</i> , 2016, 13, 953-962.                                | 2.4 | 32        |
| 907 | Nano-film coatings onto collagen hydrogels with desired drug release. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 36, 326-333.   | 2.9 | 43        |
| 908 | Mechanically Tunable Curcumin Incorporated Polyurethane Hydrogels as Potential Biomaterials. <i>Chemistry of Materials</i> , 2016, 28, 2120-2130.   | 3.2 | 40        |
| 909 | Graphene Oxide-Poly(ethylene glycol) methyl ether methacrylate Nanocomposite Hydrogels. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 101-107.   | 1.1 | 12        |
| 910 | Chondroinduction from Naturally Derived Cartilage Matrix: A Comparison Between Devitalized and Decellularized Cartilage Encapsulated in Hydrogel Pastes. <i>Tissue Engineering - Part A</i> , 2016, 22, 665-679.        | 1.6 | 54        |
| 911 | Synthesis and characterization of bio-reducible heparin-polyethyleneimine nanogels: application as imaging-guided photosensitizer delivery vehicle in photodynamic therapy. <i>RSC Advances</i> , 2016, 6, 14692-14704. | 1.7 | 29        |
| 912 | Zwitterionic cryogels for sustained release of proteins. <i>RSC Advances</i> , 2016, 6, 29608-29611.  | 1.7 | 11        |
| 914 | Properties of Poly(ethylene glycol) Hydrogels Cross-Linked via Strain-Promoted Alkyne-Azide Cycloaddition (SPAAC). <i>Biomacromolecules</i> , 2016, 17, 1093-1100.  | 2.6 | 46        |
| 915 | Injectable peptide hydrogels for controlled-release of opioids. <i>MedChemComm</i> , 2016, 7, 542-549.  | 3.5 | 27        |
| 916 | Continuum theory of swelling material surfaces with applications to thermo-responsive gel membranes and surface mass transport. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 89, 96-109.               | 2.3 | 20        |
| 917 | Chondroinductive Hydrogel Pastes Composed of Naturally Derived Devitalized Cartilage. <i>Annals of Biomedical Engineering</i> , 2016, 44, 1863-1880.  | 1.3 | 33        |
| 918 | Kinetic modeling of the copolymerization of acrylic acid and trimethylolpropane triacrylate over pre and post-gelation periods. <i>European Polymer Journal</i> , 2016, 74, 264-278.                                    | 2.6 | 3         |
| 919 | Mixed $\alpha/\beta$ -Peptides as a Class of Short Amphipathic Peptide Hydrogelators with Enhanced Proteolytic Stability. <i>Biomacromolecules</i> , 2016, 17, 437-445.   | 2.6 | 30        |
| 920 | Carbon dots incorporated polymeric hydrogels as multifunctional platform for imaging and induction of apoptosis in lung cancer cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 141, 242-252.               | 2.5 | 70        |
| 921 | Natural Hydrogels. , 2016, , 1-16.  |     | 1         |
| 922 | Controlling Hydrogel Biodegradability. , 2016, , 131-173.   |     | 1         |
| 923 | Ibuprofen-conjugated hyaluronate/polygalacturonic acid hydrogel for the prevention of epidural fibrosis. <i>Journal of Biomaterials Applications</i> , 2016, 30, 1589-1600.   | 1.2 | 19        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 924 | pH-Triggered Release of Hydrophobic Molecules from Self-Assembling Hybrid Nanoscaffolds. <i>Biomacromolecules</i> , 2016, 17, 1425-1436.   | 2.6 | 19        |
| 925 | Pharmaceutical Applications of Natural Polymers. , 2016, , 263-313.  |     | 3         |
| 926 | Controlling the resolution and duration of pulsatile release from injectable magnetic "plum-pudding"™ nanocomposite hydrogels. <i>RSC Advances</i> , 2016, 6, 15770-15781.   | 1.7 | 15        |
| 927 | Nanoparticle-Hydrogel: A Hybrid Biomaterial System for Localized Drug Delivery. <i>Annals of Biomedical Engineering</i> , 2016, 44, 2049-2061.   | 1.3 | 183       |
| 928 | Kinetics of temperature response of PEO-b-PNIPAM-b-PAA triblock terpolymer aggregates and of their complexes with lysozyme. <i>Polymer</i> , 2016, 83, 111-115.  | 1.8 | 12        |
| 929 | Graphene oxide-based composite hydrogels with self-assembled macroporous structures. <i>RSC Advances</i> , 2016, 6, 3561-3570.   | 1.7 | 47        |
| 930 | Tough dual nanocomposite hydrogels with inorganic hybrid crosslinking. <i>Soft Matter</i> , 2016, 12, 1649-1654.   | 1.2 | 36        |
| 931 | Enhanced Mechanical Properties in Cellulose Nanocrystal-Poly(oligoethylene glycol methacrylate) Injectable Nanocomposite Hydrogels through Control of Physical and Chemical Cross-Linking. <i>Biomacromolecules</i> , 2016, 17, 649-660. | 2.6 | 175       |
| 932 | The metamorphosis of vascular stents: passive structures to smart devices. <i>RSC Advances</i> , 2016, 6, 2835-2853.   | 1.7 | 7         |
| 933 | Emerging Frontiers in Drug Delivery. <i>Journal of the American Chemical Society</i> , 2016, 138, 704-717.   | 6.6 | 776       |
| 934 | Hydrogels 2.0: improved properties with nanomaterial composites for biomedical applications. <i>Biomedical Materials (Bristol)</i> , 2016, 11, 014104.   | 1.7 | 82        |
| 935 | Fabrication of thermosensitive hydrogel-supported Ni nanoparticles with tunable catalytic activity for 4-nitrophenol. <i>Journal of Materials Science</i> , 2016, 51, 3200-3210.   | 1.7 | 10        |
| 936 | Prolonged Release of Bioactive Model Proteins from Anionic Microgels Fabricated with a New Microemulsion Approach. <i>Pharmaceutical Research</i> , 2016, 33, 879-892.   | 1.7 | 8         |
| 937 | Poly (caprolactone) microparticles and chitosan thermogels based injectable formulation of etoricoxib for the potential treatment of osteoarthritis. <i>Materials Science and Engineering C</i> , 2016, 61, 534-544.                     | 3.8 | 37        |
| 938 | Oleogels: a promising tool for delivery of hydrophobic bioactive molecules. <i>Therapeutic Delivery</i> , 2016, 7, 1-3.  | 1.2 | 42        |
| 939 | Formulation and rheological evaluation of ethosome-loaded carbopol hydrogel for transdermal application. <i>Drug Development and Industrial Pharmacy</i> , 2016, 42, 1315-1324.  | 0.9 | 43        |
| 940 | Tuning the Mechanical Properties of Hydrogel Core-Shell Particles by Inwards Interweaving Self-Assembly. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 1493-1500.   | 4.0 | 17        |
| 941 | In-vitro release study of hydrophobic drug using electrospun cross-linked gelatin nanofibers. <i>Biochemical Engineering Journal</i> , 2016, 105, 481-488.   | 1.8 | 70        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 942 | Polysaccharide-based freestanding multilayered membranes exhibiting reversible switchable properties. <i>Soft Matter</i> , 2016, 12, 1200-1209.  | 1.2 | 18        |
| 943 | Diffusion and controlled release characteristics of pH-sensitive poly(2-(dimethyl amino)ethyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10<br>Polymeric Biomaterials, 2016, 65, 134-142.   | 1.8 | 14        |
| 944 | Composite chitosan hydrogels for extended release of hydrophobic drugs. <i>Carbohydrate Polymers</i> , 2016, 136, 570-580.   | 5.1 | 84        |
| 945 | Swelling of poly(N-isopropylacrylamide) P(NIPA)-based hydrogels with bacterial-synthesized prodigiosin for localized cancer drug delivery. <i>Materials Science and Engineering C</i> , 2016, 59, 19-29.                           | 3.8 | 25        |
| 946 | Sequential release of nanoparticle payloads from ultrasonically burstable capsules. <i>Biomaterials</i> , 2016, 75, 91-101.  | 5.7 | 45        |
| 947 | Development of chemically cross-linked hydrophilic-hydrophobic hydrogels for drug delivery applications. <i>European Polymer Journal</i> , 2016, 75, 25-35.  | 2.6 | 15        |
| 948 | Composite chitosan/alginate hydrogel for controlled release of deferoxamine: A system to potentially treat iron dysregulation diseases. <i>Carbohydrate Polymers</i> , 2016, 136, 1338-1347.                                       | 5.1 | 93        |
| 949 | Sodium alginate and gelatin hydrogels: Viscosity effect on hydrophobic drug release. <i>Materials Letters</i> , 2016, 164, 76-79.  | 1.3 | 57        |
| 950 | Lamellar, micro-phase separated blends of methyl cellulose and dendritic polyethylene glycol, POSS-PEG. <i>Carbohydrate Polymers</i> , 2016, 136, 19-29.   | 5.1 | 12        |
| 951 | Characterization and biocompatibility of injectable microspheres-loaded hydrogel for methotrexate delivery. <i>Carbohydrate Polymers</i> , 2016, 136, 516-526.   | 5.1 | 26        |
| 953 | Antiapoptotic Bcl-2 protein as a potential target for cancer therapy: A mini review. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2016, 44, 1212-1221.  | 1.9 | 13        |
| 954 | Composites of electrospun fibers and hydrogels: A potential solution to current challenges in biological and biomedical field. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2016, 104, 640-656. | 1.6 | 79        |
| 955 | Self-assembling peptide-based delivery of therapeutics for myocardial infarction. <i>Advanced Drug Delivery Reviews</i> , 2016, 96, 40-53.   | 6.6 | 62        |
| 956 | Strategies for neurotrophin-3 and chondroitinase ABC release from freeze-cast chitosan-alginate nerve guidance scaffolds. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 285-294.                      | 1.3 | 28        |
| 957 | Design of whey protein nanostructures for incorporation and release of nutraceutical compounds in food. <i>Critical Reviews in Food Science and Nutrition</i> , 2017, 57, 1377-1393.   | 5.4 | 83        |
| 958 | Impact of particle elasticity on particle-based drug delivery systems. <i>Advanced Drug Delivery Reviews</i> , 2017, 108, 51-67.   | 6.6 | 302       |
| 959 | Functionalized Nanolipobubbles Embedded Within a Nanocomposite Hydrogel: a Molecular Bio-imaging and Biomechanical Analysis of the System. <i>AAPS PharmSciTech</i> , 2017, 18, 671-685.   | 1.5 | 3         |
| 960 | Functional calcium phosphate composites in nanomedicine. <i>Advances in Colloid and Interface Science</i> , 2017, 244, 281-295.  | 7.0 | 52        |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 961 | Peptideâ€“drug conjugates as effective prodrug strategies for targeted delivery. <i>Advanced Drug Delivery Reviews</i> , 2017, 110-111, 112-126.   | 6.6  | 366       |
| 962 | Effects of precursor composition and mode of crosslinking on mechanical properties of graphene oxide reinforced composite hydrogels. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 69, 282-293.                | 1.5  | 27        |
| 963 | Smart materials on the way to theranostic nanorobots: Molecular machines and nanomotors, advanced biosensors, and intelligent vehicles for drug delivery. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 1530-1544. | 1.1  | 61        |
| 964 | Thermo-reversible solâ€“gel transition of aqueous solutions of patchy polymers. <i>RSC Advances</i> , 2017, 7, 5101-5110.  | 1.7  | 12        |
| 965 | Additive manufacturing of hydrogel-based materials for next-generation implantable medical devices. <i>Science Robotics</i> , 2017, 2, .   | 9.9  | 131       |
| 966 | Self-Standing Carbon Nitride-Based Hydrogels with High Photocatalytic Activity. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 2029-2034.  | 4.0  | 69        |
| 967 | Scattering perspectives on nanostructural inhomogeneity in polymer network gels. <i>Progress in Polymer Science</i> , 2017, 66, 1-21.  | 11.8 | 73        |
| 968 | Establishment of a Physical Model for Solute Diffusion in Hydrogel: Understanding the Diffusion of Proteins in Poly(sulfobetaine methacrylate) Hydrogel. <i>Journal of Physical Chemistry B</i> , 2017, 121, 800-814.                      | 1.2  | 29        |
| 969 | Development of a novel pH sensitive silane crosslinked injectable hydrogel for controlled release of neomycin sulfate. <i>International Journal of Biological Macromolecules</i> , 2017, 97, 218-227.                                      | 3.6  | 67        |
| 970 | Restoring Fertility with Cryopreserved Prepubertal Testicular Tissue: Perspectives with Hydrogel Encapsulation, Nanotechnology, and Bioengineered Scaffolds. <i>Annals of Biomedical Engineering</i> , 2017, 45, 1770-1781.                | 1.3  | 30        |
| 971 | Citric acid crosslinked Î²-cyclodextrin/carboxymethylcellulose hydrogel films for controlled delivery of poorly soluble drugs. <i>Carbohydrate Polymers</i> , 2017, 164, 339-348.  | 5.1  | 109       |
| 972 | Fabrication of Super Extensible and Highly Tough Graphene Composite Hydrogels by Thermal Treatment Strategy for the Mixture of Tannin and Graphene Oxide. <i>Macromolecular Chemistry and Physics</i> , 2017, 218, 1600549.                | 1.1  | 6         |
| 973 | Synthesis and characterization of thermosensitive poly(N-vinylcaprolactam)-g-collagen. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2017, 45, 1665-1674.  | 1.9  | 20        |
| 974 | Nanogel-Integrated pH-Responsive Composite Hydrogels for Controlled Drug Delivery. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 370-380.   | 2.6  | 78        |
| 975 | A review of the designs and prominent biomedical advances of natural and synthetic hydrogel formulations. <i>European Polymer Journal</i> , 2017, 88, 373-392.   | 2.6  | 327       |
| 976 | Nonmonotonic swelling of agaroseâ€“carbopol hybrid hydrogel: Experimental and theoretical analysis. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017, 55, 444-454.  | 2.4  | 5         |
| 977 | Optical Waveguideâ€“Enhanced Diffraction for Observation of Responsive Hydrogel Nanostructures. <i>Macromolecular Chemistry and Physics</i> , 2017, 218, 1600400.  | 1.1  | 9         |
| 978 | Physical gelation of supramolecular hydrogels cross-linked by metal-ligand interactions: Dynamic light scattering and microrheological studies. <i>Polymer</i> , 2017, 128, 363-372.   | 1.8  | 17        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 979 | Coassembly Modulated pH-Responsive Hydrogel for Dye Absorption and Release. <i>Macromolecular Chemistry and Physics</i> , 2017, 218, 1600560.  | 1.1 | 15        |
| 980 | Hyaluronic acid and beta cyclodextrins films for the release of corneal epithelial cells and dexamethasone. <i>Carbohydrate Polymers</i> , 2017, 166, 281-290.   | 5.1 | 39        |
| 981 | Ultrasound stimulated release of gallic acid from chitin hydrogel matrix. <i>Materials Science and Engineering C</i> , 2017, 75, 478-486.  | 3.8 | 42        |
| 982 | Alginate-polyvinyl alcohol based interpenetrating polymer network for prolonged drug therapy, Optimization and in-vitro characterization. <i>Carbohydrate Polymers</i> , 2017, 166, 183-194.   | 5.1 | 103       |
| 983 | On glioblastoma and the search for a cure: where do we stand?. <i>Cellular and Molecular Life Sciences</i> , 2017, 74, 2451-2466.  | 2.4 | 56        |
| 985 | PoroViscoElastic model to describe hydrogels' behavior. <i>Materials Science and Engineering C</i> , 2017, 76, 102-113.  | 3.8 | 37        |
| 986 | Switchable on/off drug release from gold nanoparticles-grafted dual light- and temperature-responsive hydrogel for controlled drug delivery. <i>Materials Science and Engineering C</i> , 2017, 76, 242-248.                                 | 3.8 | 53        |
| 987 | Carboxymethyl cellulose/graphene oxide bio-nanocomposite hydrogel beads as anticancer drug carrier agent. <i>Carbohydrate Polymers</i> , 2017, 168, 320-326.   | 5.1 | 251       |
| 988 | Combinatorial Therapies After Spinal Cord Injury: How Can Biomaterials Help?. <i>Advanced Healthcare Materials</i> , 2017, 6, 1601130.   | 3.9 | 135       |
| 989 | pH-responsive drug release from dependal-M loaded polyacrylamide hydrogels. <i>Journal of Science: Advanced Materials and Devices</i> , 2017, 2, 45-50.  | 1.5 | 32        |
| 990 | Modeling of drug release behavior of pH and temperature sensitive poly(NIPAAm-co-AAc) IPN hydrogels using response surface methodology and artificial neural networks. <i>Materials Science and Engineering C</i> , 2017, 75, 425-432.       | 3.8 | 32        |
| 991 | Preparation of hydroxyapatite hydrogel for bone-like materials via novel self-initiated photocatalytic polymerization. <i>Materials Letters</i> , 2017, 193, 142-145.  | 1.3 | 8         |
| 992 | Gelatin- $\kappa$ -carrageenan polyelectrolyte complex hydrogel compositions for the design and development of extended-release pellets. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2017, 66, 812-823. | 1.8 | 17        |
| 993 | Basic concepts and recent advances in nanogels as carriers for medical applications. <i>Drug Delivery</i> , 2017, 24, 539-557.   | 2.5 | 319       |
| 994 | Supramolecular hydrogel based on high-solid-content mPLECT nanoparticles and cyclodextrins for local and sustained drug delivery. <i>Biomaterials Science</i> , 2017, 5, 698-706.  | 2.6 | 21        |
| 995 | Porous Inorganic Drug Delivery Systems—a Review. <i>AAPS PharmSciTech</i> , 2017, 18, 1507-1525.   | 1.5 | 63        |
| 996 | Novel hydrogels containing Nafion and poly(ethylene oxide) based block copolymers. <i>Polymer</i> , 2017, 114, 73-78.  | 1.8 | 5         |
| 997 | Effect of internal architecture on microgel deformation in microfluidic constrictions. <i>Soft Matter</i> , 2017, 13, 1920-1928.   | 1.2 | 22        |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 998  | Electrospun core/shell nanofibers as designed devices for efficient Artemisinin delivery. <i>European Polymer Journal</i> , 2017, 89, 211-220.   | 2.6  | 34        |
| 999  | Phototunable Thermoplastic Elastomer Hydrogel Networks. <i>Macromolecules</i> , 2017, 50, 1331-1341.   | 2.2  | 13        |
| 1000 | <i>In Vivo</i> Imaging of the Stability and Sustained Cargo Release of an Injectable Amphipathic Peptide-Based Hydrogel. <i>Biomacromolecules</i> , 2017, 18, 994-1001.  | 2.6  | 25        |
| 1001 | Anticancer Drug Camptothecin Test in 3D Hydrogel Networks with HeLa cells. <i>Scientific Reports</i> , 2017, 7, 37626.   | 1.6  | 15        |
| 1003 | Switchable release nano-reservoirs for co-delivery of drugs via a facile micelle-hydrogel composite. <i>Journal of Materials Chemistry B</i> , 2017, 5, 3488-3497.   | 2.9  | 27        |
| 1004 | Diffusion of rigid nanoparticles in crowded polymer-network hydrogels: dominance of segmental density over crosslinking density. <i>Colloid and Polymer Science</i> , 2017, 295, 1371-1381.  | 1.0  | 8         |
| 1005 | Direct Synthesis of Dextran-Based Antibacterial Hydrogels for Extended Release of Biocides and Eradication of Topical Biofilms. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 15975-15985.  | 4.0  | 74        |
| 1006 | Reverse thermo-responsive hydrogels prepared from Pluronic F127 and gelatin composite materials. <i>RSC Advances</i> , 2017, 7, 21252-21257.   | 1.7  | 41        |
| 1007 | Bioinspired fabrication of high strength hydrogels from non-covalent interactions. <i>Progress in Polymer Science</i> , 2017, 71, 1-25.  | 11.8 | 379       |
| 1008 | Antifouling zwitterionic hydrogel coating improves hemocompatibility of activated carbon hemoabsorbent. <i>Journal of Colloid and Interface Science</i> , 2017, 503, 168-177.  | 5.0  | 66        |
| 1009 | Nanostructured nanoparticles for improved drug delivery. , 2017, , 149-182.  |      | 4         |
| 1010 | Review of Hydrogels and Aerogels Containing Nanocellulose. <i>Chemistry of Materials</i> , 2017, 29, 4609-4631.  | 3.2  | 1,056     |
| 1011 | Improved release of triamcinolone acetonide from medicated soft contact lenses loaded with drug nanosuspensions. <i>International Journal of Pharmaceutics</i> , 2017, 525, 226-236.   | 2.6  | 38        |
| 1012 | A resilient and luminescent stimuli-responsive hydrogel from a heterotopic 1,8-naphthalimide-derived ligand. <i>Chemical Communications</i> , 2017, 53, 5989-5992.   | 2.2  | 25        |
| 1013 | A novel pH-responsive hydrogel-based on calcium alginate engineered by the previous formation of polyelectrolyte complexes (PECs) intended to vaginal administration. <i>Drug Development and Industrial Pharmacy</i> , 2017, 43, 1656-1668. | 0.9  | 25        |
| 1014 | Interconnectivity imaged in three dimensions: Nano-particulate silica-hydrogel structure revealed using electron tomography. <i>Micron</i> , 2017, 100, 91-105.  | 1.1  | 6         |
| 1015 | Temperature Treatment of Highly Porous Zirconium-Containing Metal-Organic Frameworks Extends Drug Delivery Release. <i>Journal of the American Chemical Society</i> , 2017, 139, 7522-7532.  | 6.6  | 269       |
| 1016 | Injectable dual redox responsive diselenide-containing poly(ethylene glycol) hydrogel. <i>Journal of Biomedical Materials Research - Part A</i> , 2017, 105, 2451-2460.  | 2.1  | 27        |



| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1017 | Nanoparticle Coupling to Hydrogel Networks: New Insights from Electroacoustic Spectroscopy. <i>Macromolecules</i> , 2017, 50, 4030-4038.  | 2.2  | 12        |
| 1018 | Poly(2-oxazoline) hydrogels by photoinduced thiol-ene $\text{\AA}$ click $\text{\AA}$ reaction using different dithiol crosslinkers. <i>Journal of Polymer Research</i> , 2017, 24, 1.  | 1.2  | 20        |
| 1019 | Temperature induced multiple structure transformation and aggregation behaviors of amphiphilic acrylicipimaric acid polyglycol ester in water. <i>Polymer</i> , 2017, 118, 49-57.   | 1.8  | 5         |
| 1020 | Design of nonionic micelle-laden polysaccharide hydrogels for controlled delivery of hydrophobic drugs. <i>International Journal of Pharmaceutics</i> , 2017, 526, 455-465.   | 2.6  | 7         |
| 1021 | Novel model of orthotopic U-87 MG glioblastoma resection in athymic nude mice. <i>Journal of Neuroscience Methods</i> , 2017, 284, 96-102.  | 1.3  | 33        |
| 1022 | Bio-Orthogonal Cross-Linking Chemistry Enables <i>In Situ</i> Protein Encapsulation and Provides Sustained Release from Hyaluronic Acid Based Hydrogels. <i>Molecular Pharmaceutics</i> , 2017, 14, 1961-1968.                                | 2.3  | 32        |
| 1023 | Layer-by-Layer polyelectrolyte assemblies for encapsulation and release of active compounds. <i>Advances in Colloid and Interface Science</i> , 2017, 249, 290-307.   | 7.0  | 120       |
| 1024 | DHA and L-carnitine loaded chitosan hydrogels as delivery systems for topical applications. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 525, 85-92.   | 2.3  | 15        |
| 1025 | Chitosan-dextran sulfate hydrogels as a potential carrier for probiotics. <i>Carbohydrate Polymers</i> , 2017, 172, 175-183.  | 5.1  | 52        |
| 1026 | Preparation and evaluation of PLGA nanoparticle-loaded biodegradable light-responsive injectable implants as a promising platform for intravitreal drug delivery. <i>Journal of Drug Delivery Science and Technology</i> , 2017, 40, 142-156. | 1.4  | 23        |
| 1027 | Cellularizing hydrogel-based scaffolds to repair bone tissue: How to create a physiologically relevant micro-environment?. <i>Journal of Tissue Engineering</i> , 2017, 8, 204173141771207.   | 2.3  | 90        |
| 1028 | Dual responsive hydrogels based on functionalized mesoporous silica nanoparticles as an injectable platform for tumor therapy and tissue regeneration. <i>Journal of Materials Chemistry B</i> , 2017, 5, 5968-5973.                          | 2.9  | 22        |
| 1029 | Turning the Page: Advancing Paper-Based Microfluidics for Broad Diagnostic Application. <i>Chemical Reviews</i> , 2017, 117, 8447-8480.   | 23.0 | 439       |
| 1030 | Stem cell migration and mechanotransduction on linear stiffness gradient hydrogels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 5647-5652.  | 3.3  | 370       |
| 1032 | Characterization of Mechanically Matched Hydrogel Coatings to Improve the Biocompatibility of Neural Implants. <i>Scientific Reports</i> , 2017, 7, 1952.   | 1.6  | 126       |
| 1033 | F127DA micelle cross-linked PAACA hydrogels with highly stretchable, puncture resistant and self-healing properties. <i>RSC Advances</i> , 2017, 7, 29489-29495.  | 1.7  | 16        |
| 1034 | Cold Chain-Free Storable Hydrogel for Infant-Friendly Oral Delivery of Amoxicillin for the Treatment of Pneumococcal Pneumonia. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 18440-18449.   | 4.0  | 10        |
| 1035 | Three-dimensional printing: technologies, applications, and limitations in neurosurgery. <i>Biotechnology Advances</i> , 2017, 35, 521-529.   | 6.0  | 118       |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1036 | Microfluidic Production of Biodegradable Microcapsules for Sustained Release of Hydrophilic Actives. <i>Small</i> , 2017, 13, 1700646.  | 5.2 | 57        |
| 1037 | Thermo-sensitive polypeptide hydrogel for locally sequential delivery of two-pronged antitumor drugs. <i>Acta Biomaterialia</i> , 2017, 58, 44-53.  | 4.1 | 97        |
| 1038 | Microfluidic fabrication of polyethylene glycol microgel capsules with tailored properties for the delivery of biomolecules. <i>Biomaterials Science</i> , 2017, 5, 1549-1557.                              | 2.6 | 64        |
| 1039 | Engineering tough, highly compressible, biodegradable hydrogels by tuning the network architecture. <i>Chemical Communications</i> , 2017, 53, 6756-6759.   | 2.2 | 17        |
| 1040 | pH-responsive self-healing injectable hydrogel based on N-carboxyethyl chitosan for hepatocellular carcinoma therapy. <i>Acta Biomaterialia</i> , 2017, 58, 168-180.  | 4.1 | 436       |
| 1042 | Bioengineered liposome-scaffold composites as therapeutic delivery systems. <i>Therapeutic Delivery</i> , 2017, 8, 425-445.   | 1.2 | 20        |
| 1043 | Synthesis of Oil-Laden Poly(ethylene glycol) Diacrylate Hydrogel Nanocapsules from Double Nanoemulsions. <i>Langmuir</i> , 2017, 33, 6116-6126.   | 1.6 | 18        |
| 1044 | Review: Emerging strategies for antimicrobial drug delivery to the ocular surface: Implications for infectious keratitis. <i>Ocular Surface</i> , 2017, 15, 670-679.  | 2.2 | 42        |
| 1045 | Highly Stretchable and Highly Resilient Polymer-Clay Nanocomposite Hydrogels with Low Hysteresis. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 22223-22234.                                     | 4.0 | 65        |
| 1046 | Effect of gellan gum on the thermogelation property and drug release profile of Poloxamer 407 based ophthalmic formulation. <i>International Journal of Biological Macromolecules</i> , 2017, 102, 258-265. | 3.6 | 62        |
| 1047 | Unravelling a Direct Role for Polysaccharide Î²-Strands in the Higher Order Structure of Physical Hydrogels. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 4603-4607.                        | 7.2 | 27        |
| 1048 | Thermosensitive hydrogel loaded with chitosan-carbon nanotubes for near infrared light triggered drug delivery. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 154, 253-262.                         | 2.5 | 95        |
| 1049 | Mechanistic Insights into the Directed Assembly of Hydrogel Blocks Mediated by Polyelectrolytes or Microgels. <i>Langmuir</i> , 2017, 33, 3864-3870.  | 1.6 | 3         |
| 1050 | Polymeric Scaffold Based Gene Delivery Strategies to Improve Angiogenesis in Tissue Engineering: A Review. <i>Polymer Reviews</i> , 2017, 57, 505-556.  | 5.3 | 31        |
| 1051 | Rapid preparation of polysaccharide hydrogel capsule free of organic reagents to control drug release. <i>Materials Letters</i> , 2017, 197, 156-159.   | 1.3 | 3         |
| 1052 | Nonswellable Injectable Hydrogels Self-Assembled Through Non-Covalent Interactions. <i>ChemistrySelect</i> , 2017, 2, 3009-3013.  | 0.7 | 7         |
| 1053 | Nanoparticle-loaded biodegradable light-responsive in situ forming injectable implants for effective peptide delivery to the posterior segment of the eye. <i>Medical Hypotheses</i> , 2017, 103, 5-9.      | 0.8 | 23        |
| 1054 | Stereocomplex poly(lactic acid) nanocoated chitosan microparticles for the sustained release of hydrophilic drugs. <i>Materials Science and Engineering C</i> , 2017, 76, 1129-1135.                        | 3.8 | 14        |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 1055 | “Takeaway” drug delivery: A new nanomedical paradigm. <i>Nano Research</i> , 2017, 10, 2234-2243.  | 5.8  | 4         |
| 1056 | Unravelling a Direct Role for Polysaccharide Î²-Strands in the Higher Order Structure of Physical Hydrogels. <i>Angewandte Chemie</i> , 2017, 129, 4674-4678.  | 1.6  | 8         |
| 1057 | Properties and toughening mechanisms of PVA/PAM double-network hydrogels prepared by freeze-thawing and anneal-swelling. <i>Materials Science and Engineering C</i> , 2017, 77, 1017-1026.                                     | 3.8  | 105       |
| 1058 | Wound healing potential of a polyvinyl alcohol-blended pectin hydrogel containing Hippophae rhamnoides L. extract in a rat model. <i>International Journal of Biological Macromolecules</i> , 2017, 99, 586-593.               | 3.6  | 44        |
| 1059 | Improving tumor chemotherapy effect using an injectable self-healing hydrogel as drug carrier. <i>Polymer Chemistry</i> , 2017, 8, 5071-5076.  | 1.9  | 61        |
| 1060 | A hyaluronic acid-based hydrogel enabling CD44-mediated chondrocyte binding and gapmer oligonucleotide release for modulation of gene expression in osteoarthritis. <i>Journal of Controlled Release</i> , 2017, 253, 153-159. | 4.8  | 47        |
| 1061 | Tough, rapid-recovery composite hydrogels fabricated via synergistic core-shell microgel covalent bonding and Fe <sup>3+</sup> coordination cross-linking. <i>Soft Matter</i> , 2017, 13, 2654-2662.                           | 1.2  | 18        |
| 1062 | Mixed Reversible Covalent Crosslink Kinetics Enable Precise, Hierarchical Mechanical Tuning of Hydrogel Networks. <i>Advanced Materials</i> , 2017, 29, 1605947.   | 11.1 | 121       |
| 1063 | Preparation and characterization of nanocellulose reinforced semi-interpenetrating polymer network of chitosan hydrogel. <i>Cellulose</i> , 2017, 24, 2215-2228.   | 2.4  | 148       |
| 1064 | Control of gelation, degradation and physical properties of polyethylene glycol hydrogels through the chemical and physical identity of the crosslinker. <i>Journal of Materials Chemistry B</i> , 2017, 5, 2679-2691.         | 2.9  | 57        |
| 1065 | Evaluation of Intracameral Pentablock Copolymer Thermosensitive Gel for Sustained Drug Delivery to the Anterior Chamber of the Eye. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2017, 33, 353-360.                | 0.6  | 7         |
| 1066 | Can self-assembled hydrogels composed of aromatic amino acid derivatives function as drug delivery carriers?. <i>New Journal of Chemistry</i> , 2017, 41, 308-315.   | 1.4  | 16        |
| 1067 | A methylcellulose and collagen based temperature responsive hydrogel promotes encapsulated stem cell viability and proliferation in vitro. <i>Drug Delivery and Translational Research</i> , 2017, 7, 132-146.                 | 3.0  | 24        |
| 1068 | Guar gum oleate-graft-poly(methacrylic acid) hydrogel as a colon-specific controlled drug delivery carrier. <i>Carbohydrate Polymers</i> , 2017, 158, 51-57.   | 5.1  | 123       |
| 1069 | Sustained tobramycin release from polyphosphate double network hydrogels. <i>Acta Biomaterialia</i> , 2017, 50, 484-492.   | 4.1  | 15        |
| 1070 | Unified solution for poroelastic oscillation indentation on gels for spherical, conical and cylindrical indenters. <i>Soft Matter</i> , 2017, 13, 852-861.   | 1.2  | 38        |
| 1071 | Controlled nanoparticle release from a hydrogel by DNA-mediated particle disaggregation. <i>Journal of Controlled Release</i> , 2017, 246, 71-78.  | 4.8  | 11        |
| 1072 | Thermoresponsive Semi-IPN Hydrogel Microfibers from Continuous Fluidic Processing with High Elasticity and Fast Actuation. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 901-908.                                   | 4.0  | 99        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1073 | Lithography-based methods to manufacture biomaterials at small scales. <i>Journal of Science: Advanced Materials and Devices</i> , 2017, 2, 1-14.   | 1.5 | 84        |
| 1074 | Amphiphilic Copolymers Capable of Concomitant Release of HNO and Small Molecule Organics. <i>ACS Macro Letters</i> , 2017, 6, 46-49.  | 2.3 | 7         |
| 1075 | Carbon-dot hydrogel for enzyme-mediated bacterial detection. <i>RSC Advances</i> , 2017, 7, 588-594.  | 1.7 | 51        |
| 1076 | Biohybrid methacrylated gelatin/polyacrylamide hydrogels for cartilage repair. <i>Journal of Materials Chemistry B</i> , 2017, 5, 731-741.  | 2.9 | 125       |
| 1077 | Designing biopolymer microgels to encapsulate, protect and deliver bioactive components: Physicochemical aspects. <i>Advances in Colloid and Interface Science</i> , 2017, 240, 31-59.  | 7.0 | 196       |
| 1078 | Stimuli-Responsive Polymer Materials for Creation of Biointerfaces. , 2017, , 229-253.  |     | 0         |
| 1079 | Temperature and pH-sensitive injectable hydrogels based on poly(sulfamethazine carbonate urethane) for sustained delivery of cationic proteins. <i>Polymer</i> , 2017, 109, 38-48.  | 1.8 | 39        |
| 1080 | Engineered Hydrogels for Local and Sustained Delivery of RNA Interference Therapies. <i>Advanced Healthcare Materials</i> , 2017, 6, 1601041.   | 3.9 | 79        |
| 1081 | Design and fabrication of GelMA/chitosan nanoparticles composite hydrogel for angiogenic growth factor delivery. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2018, 46, 1-10.                                    | 1.9 | 58        |
| 1082 | Thermogelling, ABC Triblock Copolymer Platform for Resorbable Hydrogels with Tunable, Degradation Mediated Drug Release. <i>Advanced Functional Materials</i> , 2017, 27, 1704107.  | 7.8 | 49        |
| 1083 | Whey and soy protein-based hydrogels and nano-hydrogels as bioactive delivery systems. <i>Trends in Food Science and Technology</i> , 2017, 70, 69-81.  | 7.8 | 267       |
| 1084 | Pre-clinical evaluation of a therosensitive gel containing epothilone B and mTOR/Hsp90 targeted agents in an ovarian tumor model. <i>Journal of Controlled Release</i> , 2017, 268, 176-183.                                  | 4.8 | 35        |
| 1085 | Injectable Anisotropic Nanocomposite Hydrogels Direct in Situ Growth and Alignment of Myotubes. <i>Nano Letters</i> , 2017, 17, 6487-6495.  | 4.5 | 111       |
| 1086 | Hydrogels that listen to cells: a review of cell-responsive strategies in biomaterial design for tissue regeneration. <i>Materials Horizons</i> , 2017, 4, 1020-1040.   | 6.4 | 144       |
| 1087 | A new strategy to sustained release of ocular drugs by one-step drug-loaded microcapsule manufacturing in hydrogel punctal plugs. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> , 2017, 255, 2173-2184. | 1.0 | 20        |
| 1088 | Supertough Hybrid Hydrogels Consisting of a Polymer Double Network and Mesoporous Silica Microrods for Mechanically Stimulated On-Demand Drug Delivery. <i>Advanced Functional Materials</i> , 2017, 27, 1703826.             | 7.8 | 60        |
| 1089 | Abiotic streamers in a microfluidic system. <i>Soft Matter</i> , 2017, 13, 8698-8705.   | 1.2 | 14        |
| 1090 | Heterofunctional Poly(ethylene glycol) (PEG) Macroinitiator Enabling Controlled Synthesis of ABC Triblock Copolymers. <i>Macromolecules</i> , 2017, 50, 8390-8397.  | 2.2 | 12        |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 1091 | Liquid Marble as Bioreactor for Engineering Three-Dimensional Toroid Tissues. <i>Scientific Reports</i> , 2017, 7, 12388.  | 1.6  | 30        |
| 1092 | Biocompatible Tough Hydrogels via Micellar Copolymerization of NIPAM and Stearyl Acrylate: Synthesis and Characterization. <i>Key Engineering Materials</i> , 0, 748, 96-102.  | 0.4  | 1         |
| 1093 | 3D Microtissues for Injectable Regenerative Therapy and High-throughput Drug Screening. <i>Journal of Visualized Experiments</i> , 2017, , .   | 0.2  | 3         |
| 1094 | Therapeutic Gas-Responsive Hydrogel. <i>Advanced Materials</i> , 2017, 29, 1702859.  | 11.1 | 51        |
| 1095 | A hybrid composite system of biphasic calcium phosphate granules loaded with hyaluronic acid-gelatin hydrogel for bone regeneration. <i>Journal of Biomaterials Applications</i> , 2017, 32, 433-445.                | 1.2  | 39        |
| 1096 | Embedding Well-Defined Responsive Hydrogels with Nanocontainers: Tunable Materials from Telechelic Polymers and Cyclodextrins. <i>ACS Omega</i> , 2017, 2, 6658-6667.  | 1.6  | 26        |
| 1097 | Enzymatic hydrogelation of self-assembling peptide I <sub>4</sub> K <sub>2</sub> and its antibacterial and drug sustained-release activities. <i>RSC Advances</i> , 2017, 7, 48631-48638.                            | 1.7  | 21        |
| 1098 | Injectable hydrogels for ophthalmic applications. <i>Journal of Controlled Release</i> , 2017, 268, 212-224.   | 4.8  | 87        |
| 1099 | Multi-component hybrid hydrogels – understanding the extent of orthogonal assembly and its impact on controlled release. <i>Chemical Science</i> , 2017, 8, 6981-6990.   | 3.7  | 55        |
| 1100 | Fast decolorization of azo methyl orange via heterogeneous Fenton and Fenton-like reactions using alginate-Fe <sub>2+</sub> /Fe <sub>3+</sub> films as catalysts. <i>Carbohydrate Polymers</i> , 2017, 177, 443-450. | 5.1  | 72        |
| 1101 | Surface Engineering: Incorporation of Bioactive Compound. <i>Nanomedicine and Nanotoxicology</i> , 2017, , 111-143.  | 0.1  | 1         |
| 1102 | Nanohybrid hydrogels of laponite: PVA-Alginate as a potential wound healing material. <i>Carbohydrate Polymers</i> , 2017, 176, 392-401.   | 5.1  | 189       |
| 1103 | Influences of neutralization of superabsorbent hydrogel from hydroxyethyl cellulose on water swelling capacities. <i>AIP Conference Proceedings</i> , 2017, , .  | 0.3  | 6         |
| 1104 | Configurable microfluidic platform for investigating therapeutic delivery from biomedical device coatings. <i>Lab on A Chip</i> , 2017, 17, 3331-3337.   | 3.1  | 11        |
| 1106 | Recent progress in exploiting small molecule peptides as supramolecular hydrogelators. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2017, 35, 1194-1211.  | 2.0  | 7         |
| 1107 | Hybrid mesoporous silica nanocarriers with thermovalve-regulated controlled release. <i>Nanoscale</i> , 2017, 9, 13485-13494.  | 2.8  | 43        |
| 1108 | Crosslinking method of hyaluronic-based hydrogel for biomedical applications. <i>Journal of Tissue Engineering</i> , 2017, 8, 204173141772646.   | 2.3  | 256       |
| 1109 | Tailored Approaches in Drug Development and Diagnostics: From Molecular Design to Biological Model Systems. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700258.   | 3.9  | 38        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1110 | Magnetic nanohydrogel obtained by miniemulsion polymerization of poly(acrylic acid) grafted onto derivatized dextran. <i>Carbohydrate Polymers</i> , 2017, 178, 378-385.  | 5.1 | 11        |
| 1111 | Spatially-resolved soft materials for controlled release – hybrid hydrogels combining a robust photo-activated polymer gel with an interactive supramolecular gel. <i>Chemical Science</i> , 2017, 8, 7218-7227.              | 3.7 | 57        |
| 1112 | An automated system for performing continuous viscosity <i>versus</i> temperature measurements of fluids using an Ostwald viscometer. <i>Review of Scientific Instruments</i> , 2017, 88, 095101.                             | 0.6 | 17        |
| 1113 | Injectable Stem Cell Laden Open Porous Microgels That Favor Adipogenesis: In Vitro and in Vivo Evaluation. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 34751-34761.  | 4.0 | 30        |
| 1114 | Cu(II)-CMC: a mild, efficient and recyclable catalyst for the oxidative alkyne homocoupling reaction. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , 2017, 72, 549-554.                     | 0.3 | 2         |
| 1115 | Modeling drug release through stimuli responsive polymer hydrogels. <i>International Journal of Pharmaceutics</i> , 2017, 532, 502-510.   | 2.6 | 17        |
| 1116 | Cationic nioplexes-in-polysaccharide-based hydrogels as versatile biodegradable hybrid materials to deliver nucleic acids. <i>Journal of Materials Chemistry B</i> , 2017, 5, 7756-7767.                                      | 2.9 | 12        |
| 1117 | Chitosan-based self-healing hydrogel for bioapplications. <i>Chinese Chemical Letters</i> , 2017, 28, 2053-2057.  | 4.8 | 59        |
| 1118 | In Situ Dual Cross-Linking of Neat Biogel with Controlled Mechanical and Delivery Properties. <i>Molecular Pharmaceutics</i> , 2017, 14, 3609-3616.   | 2.3 | 7         |
| 1119 | A hydrogel matrix prolongs persistence and promotes specific localization of an oncolytic adenovirus in a tumor by restricting nonspecific shedding and an antiviral immune response. <i>Biomaterials</i> , 2017, 147, 26-38. | 5.7 | 43        |
| 1121 | Manufacturing of hydrogel biomaterials with controlled mechanical properties for tissue engineering applications. <i>Acta Biomaterialia</i> , 2017, 62, 42-63.  | 4.1 | 352       |
| 1122 | Effects of solution pH on ion distribution and drug release behaviors of a weak polyelectrolyte hydrogel. <i>Polymer International</i> , 2017, 66, 1662-1668.   | 1.6 | 3         |
| 1123 | Preparation, properties and formation mechanism of cellulose/polyvinyl alcohol bio-composite hydrogel membranes. <i>New Journal of Chemistry</i> , 2017, 41, 6564-6573.   | 1.4 | 36        |
| 1124 | Origin of nanostructural inhomogeneity in polymer-network gels. <i>Polymer Chemistry</i> , 2017, 8, 4472-4487.  | 1.9 | 100       |
| 1125 | The energy dissipation and Mullins effect of tough polymer/graphene oxide hybrid nanocomposite hydrogels. <i>Polymer Chemistry</i> , 2017, 8, 4659-4672.  | 1.9 | 52        |
| 1126 | Impermeable Robust Hydrogels via Hybrid Lamination. <i>Advanced Healthcare Materials</i> , 2017, 6, 1700520.  | 3.9 | 58        |
| 1127 | Time-Controllable Lipophilic Drug Release System Designed by Loading Lipid Nanoparticles into Polysaccharide Hydrogels. <i>Macromolecular Bioscience</i> , 2017, 17, 1700045.   | 2.1 | 13        |
| 1128 | Liquid-solid phase transition of physical hydrogels subject to an externally applied electro-chemo-mechanical coupled field with mobile ionic species. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 21012-21023.    | 1.3 | 11        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1129 | Controlling Adult Stem Cell Behavior Using Nanodiamond-Reinforced Hydrogel: Implication in Bone Regeneration Therapy. <i>Scientific Reports</i> , 2017, 7, 6577.  | 1.6 | 73        |
| 1130 | Evaluation of chemical modified hydrogel formulation for topical suitability. <i>International Journal of Biological Macromolecules</i> , 2017, 105, 1310-1314.   | 3.6 | 11        |
| 1131 | Rhodamine-loaded surface modified mesoporous silica particles embedded into a thermoresponsive composite hydrogel for prolonged release. <i>European Polymer Journal</i> , 2017, 95, 358-367.   | 2.6 | 11        |
| 1132 | A Hydrogel/Carbon Nanotube Needle-Free Device for Electrostimulated Skin Drug Delivery. <i>ChemPhysChem</i> , 2017, 18, 2715-2723.  | 1.0 | 21        |
| 1133 | Reducing posttreatment relapse in cleft lip palatal expansion using an injectable estrogen nanodiamond hydrogel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E7218-E7225.   | 3.3 | 20        |
| 1134 | Regulating cancer associated fibroblasts with losartan-loaded injectable peptide hydrogel to potentiate chemotherapy in inhibiting growth and lung metastasis of triple negative breast cancer. <i>Biomaterials</i> , 2017, 144, 60-72.                                     | 5.7 | 111       |
| 1135 | Correlation between collective and molecular dynamics in pH-responsive cyclodextrin-based hydrogels. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22555-22563.  | 1.3 | 13        |
| 1136 | Ultrastretchable, Self-Healable Hydrogels Based on Dynamic Covalent Bonding and Triblock Copolymer Micellization. <i>ACS Macro Letters</i> , 2017, 6, 881-886.  | 2.3 | 149       |
| 1137 | Triggerable tough hydrogels for gastric resident dosage forms. <i>Nature Communications</i> , 2017, 8, 124.   | 5.8 | 106       |
| 1138 | Injectable hydrogels for treatment of osteoarthritis – A rheological study. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 159, 477-483.   | 2.5 | 29        |
| 1139 | Hydrogels: Stimuli Responsive to on-Demand Drug Delivery Systems. , 2017, , 117-130.  |     | 4         |
| 1140 | Drug-Loaded Supramolecular Gels Prepared in a Microfluidic Platform: Distinctive Rheology and Delivery through Controlled Far-from-Equilibrium Mixing. <i>ACS Omega</i> , 2017, 2, 8849-8858.   | 1.6 | 14        |
| 1143 | Effect of Glycosylation Degree of Quercetin on Its <i>In Vitro</i> Bioaccessibility in Food Grade Organogels. <i>International Journal of Food Engineering</i> , 2017, 13, .  | 0.7 | 6         |
| 1144 | Supramolecular Organogels Prepared from Pillar[5]arene-Functionalized Conjugated Polymers. <i>Macromolecules</i> , 2017, 50, 9144-9150.   | 2.2 | 44        |
| 1145 | Storage stability of biodegradable polyethylene glycol microspheres. <i>Materials Research Express</i> , 2017, 4, 105403.   | 0.8 | 6         |
| 1146 | Temperature and pH responsive 3D printed scaffolds. <i>Journal of Materials Chemistry B</i> , 2017, 5, 9514-9521.   | 2.9 | 80        |
| 1147 | Nanostructure of Fully Injectable Hydrazone-Thiosuccinimide Interpenetrating Polymer Network Hydrogels Assessed by Small-Angle Neutron Scattering and dSTORM Single-Molecule Fluorescence Microscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 42179-42191. | 4.0 | 14        |
| 1148 | Simultaneous Measurements of Geometric and Viscoelastic Properties of Hydrogel Microbeads Using Continuous-Flow Microfluidics with Embedded Electrodes. <i>Small</i> , 2017, 13, 1702821.   | 5.2 | 19        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1149 | Hierarchical supramolecular hydrogels: self-assembly by peptides and photo-controlled release via host-guest interaction. <i>Chemical Communications</i> , 2017, 53, 12450-12453.  | 2.2 | 53        |
| 1150 | Gentamicin-Loaded Polysaccharide Membranes for Prevention and Treatment of Post-operative Wound Infections in the Skeletal System. <i>Pharmaceutical Research</i> , 2017, 34, 2075-2083.   | 1.7 | 16        |
| 1151 | The mechanical properties of polymer-colloid hybrid hydrogels. <i>Soft Matter</i> , 2017, 13, 4786-4790.   | 1.2 | 8         |
| 1152 | Synthesis and characterization of hydrogel films of carboxymethyl tamarind gum using citric acid. <i>International Journal of Biological Macromolecules</i> , 2017, 105, 463-470.  | 3.6 | 72        |
| 1153 | Synthesis and characterization of bacterial cellulose and gelatin-based hydrogel composites for drug-delivery systems. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2017, 15, 84-91.                                    | 2.1 | 200       |
| 1154 | Preparation and in vitro assessment of wet-spun gemcitabine-loaded polymeric fibers: Towards localized drug delivery for the treatment of pancreatic cancer. <i>Pancreatology</i> , 2017, 17, 795-804.                             | 0.5 | 23        |
| 1155 | Smart, programmable and responsive injectable hydrogels for controlled release of cargo osteoporosis drugs. <i>Scientific Reports</i> , 2017, 7, 4743.   | 1.6 | 31        |
| 1156 | Kinetic and theoretical studies of novel biodegradable thermo-sensitive xerogels based on PEG/PVP/silica for sustained release of enrofloxacin. <i>Applied Surface Science</i> , 2017, 425, 282-290.                               | 3.1 | 8         |
| 1157 | Continuous fabrication of cellulose nanocrystal/poly(ethylene glycol) diacrylate hydrogel fiber from nanocomposite dispersion: Rheology, preparation and characterization. <i>Polymer</i> , 2017, 123, 55-64.                      | 1.8 | 44        |
| 1158 | Theranostic Prodrug Vesicles for Imaging Guided Codelivery of Camptothecin and siRNA in Synergetic Cancer Therapy. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 23536-23543.   | 4.0 | 46        |
| 1159 | Alginate hydrogel improves anti-angiogenic bevacizumab activity in cancer therapy. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2017, 119, 271-282.   | 2.0 | 42        |
| 1160 | Hydrophobically Modified Polymer- Cyclodextrin Thermo-responsive Hydrogels for Use in Ocular Drug Delivery. <i>Molecular Pharmaceutics</i> , 2017, 14, 2740-2748.  | 2.3 | 40        |
| 1161 | Production of chitosan-based hydrogels for biomedical applications. , 2017, , 295-319.   |     | 20        |
| 1162 | Injectable biomaterials for stem cell delivery and tissue regeneration. <i>Expert Opinion on Biological Therapy</i> , 2017, 17, 49-62.   | 1.4 | 29        |
| 1163 | Multifunctional sensors based on silicone hydrogel and their responses to solvents, pH and solution composition. <i>Polymer International</i> , 2017, 66, 566-572.   | 1.6 | 8         |
| 1164 | Mechanoresponsive materials for drug delivery: Harnessing forces for controlled release. <i>Advanced Drug Delivery Reviews</i> , 2017, 108, 68-82.   | 6.6 | 84        |
| 1165 | Development of ionic strength/pH/enzyme triple-responsive zwitterionic hydrogel of the mixed L-glutamic acid and L-lysine polypeptide for site-specific drug delivery. <i>Journal of Materials Chemistry B</i> , 2017, 5, 935-943. | 2.9 | 76        |
| 1166 | Biomaterials and Culture Technologies for Regenerative Therapy of Liver Tissue. <i>Advanced Healthcare Materials</i> , 2017, 6, 1600791.   | 3.9 | 21        |



| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1167 | Combined therapy using low level laser and chitosan-polycapaj hydrogel for wound healing. International Journal of Biological Macromolecules, 2017, 95, 268-272.                                       | 3.6 | 27        |
| 1168 | Instantaneous coprecipitation of polymer/drug microparticles using the supercritical assisted injection in a liquid antisolvent. Journal of Supercritical Fluids, 2017, 120, 151-160.                  | 1.6 | 16        |
| 1169 | Stimuli-Responsive Interfaces. , 2017, , .   |     | 3         |
| 1170 | Beyond bread and beer: whole cell protein extracts from baker's yeast as a bulk source for 3D cell culture matrices. Applied Microbiology and Biotechnology, 2017, 101, 1907-1917.                     | 1.7 | 7         |
| 1171 | Hydrogel-thickened nanoemulsions based on essential oils for topical delivery of psoralen: Permeation and stability studies. European Journal of Pharmaceutics and Biopharmaceutics, 2017, 116, 38-50. | 2.0 | 53        |
| 1172 | Photo- and thermo-responsive multicompartiment hydrogels for synergistic delivery of gemcitabine and doxorubicin. Journal of Controlled Release, 2017, 259, 149-159.                                   | 4.8 | 84        |
| 1173 | Injectable hydrogels as a delivery system for bone regeneration. , 2017, , 241-271.  |     | 4         |
| 1174 | Injectable poly(ethylene glycol) hydrogels for sustained doxorubicin release. Polymers for Advanced Technologies, 2017, 28, 35-40.   | 1.6 | 13        |
| 1175 | Advances in Targeted Drug Delivery Approaches for the Central Nervous System Tumors: The Inspiration of Nanobiotechnology. Journal of NeuroImmune Pharmacology, 2017, 12, 84-98.                       | 2.1 | 50        |
| 1176 | Polysaccharide gel nanoparticles modified by the Layer-by-Layer technique for biomedical applications. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 519, 192-198.           | 2.3 | 9         |
| 1177 | Fabrication methods of biopolymeric microgels and microgel-based hydrogels. Food Hydrocolloids, 2017, 62, 262-272.   | 5.6 | 90        |
| 1178 | Recent advances and perspectives in topical oral anesthesia. Expert Opinion on Drug Delivery, 2017, 14, 673-684.   | 2.4 | 47        |
| 1179 | Reactive Oxygen Species Responsive Drug Delivery Systems: Promises and Challenges. Advanced Science, 2017, 4, 1600124.   | 5.6 | 455       |
| 1180 | In vitro release of metformin hydrochloride from sodium alginate/polyvinyl alcohol hydrogels. Carbohydrate Polymers, 2017, 155, 182-191.   | 5.1 | 107       |
| 1181 | Factors affecting microstructure, physicochemical and textural properties of a novel Gum tragacanth-PVA blend cryogel. Carbohydrate Polymers, 2017, 155, 475-482.                                      | 5.1 | 34        |
| 1182 | Hydrogel films and microcapsules based on soy protein isolate combined with alginate. Journal of Applied Polymer Science, 2017, 134, .   | 1.3 | 20        |
| 1183 | Hydrogels with smart systems for delivery of hydrophobic drugs. Expert Opinion on Drug Delivery, 2017, 14, 879-895.  | 2.4 | 76        |
| 1184 | Enhancing effect of $\beta$ -cyclodextrin on wound dressing properties of sacran hydrogel film. International Journal of Biological Macromolecules, 2017, 94, 181-186.                                 | 3.6 | 17        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1185 | Adsorption of poly(ethylene oxide)-containing amphiphilic polymers on solid-liquid interfaces: Fundamentals and applications. <i>Advances in Colloid and Interface Science</i> , 2017, 244, 132-163.         | 7.0 | 63        |
| 1186 | Improved vascularization of porous scaffolds through growth factor delivery from heparinized polyethylene glycol hydrogels. <i>Acta Biomaterialia</i> , 2017, 49, 89-100.                                    | 4.1 | 33        |
| 1187 | Detection of Reactive Oxygen Species by a Carbon-Dot-Ascorbic Acid Hydrogel. <i>Analytical Chemistry</i> , 2017, 89, 830-836.  | 3.2 | 60        |
| 1188 | Spherically Symmetric Solvent is Sufficient to Explain the LCST Mechanism in Polymer Solutions. <i>Macromolecular Theory and Simulations</i> , 2017, 26, 1600073.  | 0.6 | 4         |
| 1189 | Construction and characterization of a pure protein hydrogel for drug delivery application. <i>International Journal of Biological Macromolecules</i> , 2017, 95, 294-298.                                   | 3.6 | 32        |
| 1191 | Alginate/gelatine hydrogels: characterisation and application of antioxidant release. <i>Green Materials</i> , 2017, 5, 153-164.   | 1.1 | 25        |
| 1192 | Cancer nanomedicine: a review of recent success in drug delivery. <i>Clinical and Translational Medicine</i> , 2017, 6, 44.  | 1.7 | 703       |
| 1193 | Chitosan-based scaffolds for growth factor delivery. , 2017, , 175-207.  |     | 7         |
| 1194 | Synthesis and characterisations of temperature-responsive drug delivery hydrogel for medical applications. , 2017, , .   |     | 0         |
| 1195 | Glycerol gelatin for 3D-printing of implants using a paste extrusion technique. <i>Current Directions in Biomedical Engineering</i> , 2017, 3, 389-392.  | 0.2 | 3         |
| 1196 | Controlled Release of Strontium through Neutralization Reaction within a Methoxy(Polyethylene) Tj ETQq0 0 0 rgBT JOverlock 10 Tf 50  | 0.7 | 5         |
| 1197 | Stimuli-Responsive Systems with Diverse Drug Delivery and Biomedical Applications: Recent Updates and Mechanistic Pathways. <i>Critical Reviews in Therapeutic Drug Carrier Systems</i> , 2017, 34, 209-255. | 1.2 | 21        |
| 1198 | Marine Polysaccharides as Multifunctional Pharmaceutical Excipients. , 0, , .  |     | 2         |
| 1199 | Stimuli-Controlled Fluid Control and Microvehicle Movement in Microfluidic Channels. , 2017, , .   |     | 1         |
| 1200 | Biomaterials for Local, Controlled Drug Delivery to the Injured Spinal Cord. <i>Frontiers in Pharmacology</i> , 2017, 8, 245.  | 1.6 | 78        |
| 1201 | Cross-Linked Hydrogel for Pharmaceutical Applications: A Review. <i>Advanced Pharmaceutical Bulletin</i> , 2017, 7, 515-530.   | 0.6 | 304       |
| 1202 | Visible Light-Cured Glycol Chitosan Hydrogel Containing a Beta-Cyclodextrin-Curcumin Inclusion Complex Improves Wound Healing In Vivo. <i>Molecules</i> , 2017, 22, 1513.                                    | 1.7 | 45        |
| 1203 | Toxicity, Biocompatibility, pH-Responsiveness and Methotrexate Release from PVA/Hyaluronic Acid Cryogels for Psoriasis Therapy. <i>Polymers</i> , 2017, 9, 123.  | 2.0 | 24        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1204 | A Cationic Smart Copolymer for DNA Binding. <i>Polymers</i> , 2017, 9, 576.  | 2.0 | 1         |
| 1205 | Transparent Low Molecular Weight Poly(Ethylene Glycol) Diacrylate-Based Hydrogels as Film Media for Photoswitchable Drugs. <i>Polymers</i> , 2017, 9, 639.   | 2.0 | 29        |
| 1206 | Nanostructured therapeutic systems with bioadhesive and thermoresponsive properties. , 2017, , 313-342.  |     | 16        |
| 1207 | Perspectives on Biomedical Applications of Ulvan. , 2017, , 305-330.   |     | 13        |
| 1208 | Hierarchical Self-Assembly of Amino Acid Derivatives into Enzyme-Responsive Luminescent Gel. <i>Chemosensors</i> , 2017, 5, 6.   | 1.8 | 2         |
| 1209 | Hydrogels for Biomedical Applications: Their Characteristics and the Mechanisms behind Them. <i>Gels</i> , 2017, 3, 6.   | 2.1 | 658       |
| 1210 | Recent Advances in Hydrogel-Based Drug Delivery for Melanoma Cancer Therapy: A Mini Review. <i>Journal of Drug Delivery</i> , 2017, 2017, 1-9.   | 2.5 | 55        |
| 1211 | 4.14 Rational and Combinatorial Methods to Create Designer Protein Interfaces $\hat{\alpha}$ . , 2017, , 221-247.  |     | 1         |
| 1212 | On-chip detection of gel transition temperature using a novel micro-thermomechanical method. <i>PLoS ONE</i> , 2017, 12, e0183492.   | 1.1 | 3         |
| 1213 | Self-initiated Photocatalytic Polymerization of Tough and Flexible Polyacrylamide Hydrogel/Polymeric Semiconductor C<sub>3</sub>N<sub>4</sub> Composites. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2017, 30, 425-429. | 0.1 | 7         |
| 1214 | Promising biocompatible hydrogels of crosslinked polyelectrolytes for biomedical applications. <i>Current Directions in Biomedical Engineering</i> , 2017, 3, 695-698.   | 0.2 | 2         |
| 1215 | Chitosan, Chitosan Derivatives and their Biomedical Applications. , 0, , .   |     | 28        |
| 1216 | Cucurbit[ n ]urils. , 2017, , 405-434.   |     | 7         |
| 1217 | Hydrogels and Their Combination with Liposomes, Niosomes, or Transfersomes for Dermal and Transdermal Drug Delivery. , 0, , .  |     | 9         |
| 1218 | Composites of hydrogels and nanoparticles. , 2017, , 107-138.  |     | 3         |
| 1219 | Thermoresponsive and Reducible Hyperbranched Polymers Synthesized by RAFT Polymerisation. <i>Polymers</i> , 2017, 9, 443.  | 2.0 | 11        |
| 1220 | Biomimetic Polymers (for Biomedical Applications). , 2017, , .   |     | 0         |
| 1221 | Topical Nanoemulgel: A Novel Pathway for Investigating Alopecia. <i>Journal of Nanomedicine &amp; Nanotechnology</i> , 2017, 08, .   | 1.1 | 6         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1222 | Thermoresponsive graphene oxide " starch micro/nanohydrogel composite as biocompatible drug delivery system. <i>BiolImpacts</i> , 2017, 7, 167-175.   | 0.7 | 23        |
| 1223 | Hydrogels for Topical Nitric Oxide Delivery. , 2017, , 313-330.   |     | 6         |
| 1224 | Phenylboronic Acid Functionalized Polycarbonate Hydrogels for Controlled Release of Polymyxin B in <i>Pseudomonas Aeruginosa</i> Infected Burn Wounds. <i>Advanced Healthcare Materials</i> , 2018, 7, e1701388.                      | 3.9 | 36        |
| 1225 | Fast swelling behaviors of thermosensitive poly( <i>N</i> -isopropylacrylamide-co- <i>methacryloxyethyltrimethyl ammonium</i> ) Tj ETQq1 1 0.784314 rgBT /Overlock 10 TTS Science. 2018. 135. 46375.                                  | 1.3 | 10        |
| 1226 | Influence of Poly(lactic acid) Layer on the Physical and Antibacterial Properties of Dry Bacterial Cellulose Sheet for Potential Acute Wound Healing Materials. <i>Fibers and Polymers</i> , 2018, 19, 263-271.                       | 1.1 | 28        |
| 1227 | Drug delivery and epimorphic salamander-type mouse regeneration: A full parts and labor plan. <i>Advanced Drug Delivery Reviews</i> , 2018, 129, 254-261.   | 6.6 | 8         |
| 1228 | Characterization of poly-d-mannuronate and poly-l-gulonate block fractions from sodium alginate and preparation of hydrogels with poly(vinylalcohol). <i>International Journal of Biological Macromolecules</i> , 2018, 111, 935-946. | 3.6 | 12        |
| 1229 | Acrylic acid grafted tamarind kernel polysaccharide-based hydrogel for bone tissue engineering in absence of any osteo-inducing factors. <i>Connective Tissue Research</i> , 2018, 59, 111-121.                                       | 1.1 | 10        |
| 1230 | Impact of synthetic canine cerumen on in vitro penetration of auricular skin of dogs by florfenicol, terbinafine, and betamethasone acetate. <i>American Journal of Veterinary Research</i> , 2018, 79, 333-341.                      | 0.3 | 1         |
| 1231 | Liposome Crosslinked Polyacrylamide/DNA Hydrogel: a Smart Controlled-Release System for Small Molecular Payloads. <i>Small</i> , 2018, 14, e1704039.  | 5.2 | 88        |
| 1232 | Behavior of In Situ Cross-Linked Hydrogels with Rapid Gelation Kinetics on Contact with Physiological Fluids. <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700584.   | 1.1 | 11        |
| 1233 | A Review About the Drug Delivery from Microsponges. <i>AAPS PharmSciTech</i> , 2018, 19, 1501-1511.   | 1.5 | 24        |
| 1234 | Semi-interpenetrating network hyaluronic acid microgel delivery systems in micro-flow. <i>Journal of Colloid and Interface Science</i> , 2018, 519, 174-185.  | 5.0 | 17        |
| 1235 | Programmable hydrogels. <i>Biomaterials</i> , 2018, 178, 663-680.   | 5.7 | 73        |
| 1236 | Structural, macro- and micro-mechanical properties of supramolecular bi-component L-Lysine-sodium tetraphenyl borate based hydrogels. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 546, 366-377.   | 2.3 | 5         |
| 1237 | The influence of natural deep eutectic solvents on bioactive natural products: studying interactions between a hydrogel model and <i>Schisandra chinensis</i> metabolites. <i>FÄ-toterapÄ-Äç</i> , 2018, 127, 212-219.                | 1.1 | 21        |
| 1238 | Synthesis of pectin-N, N-dimethyl acrylamide hydrogel by gamma radiation and application in drug delivery ( <i>in vitro</i> ). <i>Journal of Macromolecular Science - Pure and Applied Chemistry</i> , 2018, 55, 369-376.             | 1.2 | 20        |
| 1240 | Tuning the Mechanical Properties of BIEÄ-Crosslinked Semi-Interpenetrating, Double-Hydrophilic Hydrogels. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1700643.   | 1.7 | 2         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1241 | Porosity in Biomaterials: A Key Factor in the Development of Applied Materials in Biomedicine. , 2018, , 1-20.  |     | 1         |
| 1242 | Anhydrous polymer-based coating with sustainable controlled release functionality for facile, efficacious impregnation, and delivery of antimicrobial peptides. <i>Biotechnology and Bioengineering</i> , 2018, 115, 2000-2012. | 1.7 | 20        |
| 1243 | Lectin-Functionalized Composite Hydrogels for "Capture-and-Killing" of Carbapenem-Resistant <i>Pseudomonas aeruginosa</i> . <i>Biomacromolecules</i> , 2018, 19, 2472-2482.   | 2.6 | 17        |
| 1244 | Geometric screening of core/shell hydrogel microcapsules using a tapered microchannel with interdigitated electrodes. <i>Biosensors and Bioelectronics</i> , 2018, 112, 162-169.  | 5.3 | 4         |
| 1245 | Characterization and in vitro release kinetics of antimalarials from whey protein-based hydrogel biocomposites. <i>International Journal of Industrial Chemistry</i> , 2018, 9, 39-52.  | 3.1 | 32        |
| 1246 | Injectable polypeptide hydrogels via methionine modification for neural stem cell delivery. <i>Biomaterials</i> , 2018, 178, 527-545.   | 5.7 | 43        |
| 1247 | Electrically Triggered Small Molecule Release from Poly( <i>N</i> -Isopropylacrylamide- <i>co</i> -Acrylic Acid) Microgel-Modified Electrodes. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 13124-13129.           | 4.0 | 22        |
| 1248 | The multiple functions of melatonin in regenerative medicine. <i>Ageing Research Reviews</i> , 2018, 45, 33-52.   | 5.0 | 70        |
| 1249 | Supramolecular hydrogels based on poly (ethylene glycol)-poly (lactic acid) block copolymer micelles and $\beta$ -cyclodextrin for potential injectable drug delivery system. <i>Carbohydrate Polymers</i> , 2018, 194, 69-79.  | 5.1 | 61        |
| 1250 | Polymerization-Induced Phase Separation Formation of Structured Hydrogel Particles via Microfluidics for Scar Therapeutics. <i>Scientific Reports</i> , 2018, 8, 2245.  | 1.6 | 22        |
| 1251 | Triple network hydrogels (TN gels) prepared by a one-pot, two-step method with high mechanical properties. <i>RSC Advances</i> , 2018, 8, 6789-6797.  | 1.7 | 13        |
| 1252 | Tailoring drug release rates in hydrogel-based therapeutic delivery applications using graphene oxide. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170949.  | 1.5 | 15        |
| 1253 | Advanced Microengineered Lung Models for Translational Drug Discovery. <i>SLAS Discovery</i> , 2018, 23, 777-789.   | 1.4 | 24        |
| 1254 | Design and Application of Injectable Gels in Tissue Engineering and Drug Delivery. <i>Gels Horizons: From Science To Smart Materials</i> , 2018, , 311-339.   | 0.3 | 0         |
| 1255 | Improved magnetic regulation of delivery profiles from ferrogels. <i>Biomaterials</i> , 2018, 161, 179-189.   | 5.7 | 47        |
| 1256 | A functional chitosan-based hydrogel as a wound dressing and drug delivery system in the treatment of wound healing. <i>RSC Advances</i> , 2018, 8, 7533-7549.  | 1.7 | 548       |
| 1257 | Imprinted Polymeric Gels for Pharmaceutical and Biomedical Purposes. <i>Gels Horizons: From Science To Smart Materials</i> , 2018, , 153-183.   | 0.3 | 0         |
| 1258 | Dynamics-based assessment of nanoscopic polymer-network mesh structures and their defects. <i>Soft Matter</i> , 2018, 14, 1976-1991.  | 1.2 | 38        |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 1259 | Bioinspired microstructures of chitosan hydrogel provide enhanced wear protection. <i>Soft Matter</i> , 2018, 14, 2068-2076.   | 1.2  | 13        |
| 1260 | Design and fabrication of a magnetically actuated non-invasive reusable drug delivery device. <i>Drug Development and Industrial Pharmacy</i> , 2018, 44, 1070-1077.   | 0.9  | 2         |
| 1262 | Synthesis and evaluation of a superabsorbent-fertilizer composite for maximizing the nutrient and water use efficiency in forestry plantations. <i>Journal of Environmental Management</i> , 2018, 210, 239-254.             | 3.8  | 18        |
| 1263 | Hydrogel formulations for biologicals: current spotlight from a commercial perspective. <i>Therapeutic Delivery</i> , 2018, 9, 221-230.  | 1.2  | 13        |
| 1264 | Hydrogels: Promising Energy Storage Materials. <i>ChemistrySelect</i> , 2018, 3, 1309-1320.  | 0.7  | 11        |
| 1265 | Self-Organized Porous Titanium-Chitosan Hybrid Materials with Tunable Functions. <i>ChemNanoMat</i> , 2018, 4, 353-360.  | 1.5  | 7         |
| 1266 | Physical Polyurethane Hydrogels via Charge Shielding through Acids or Salts. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1700711.  | 2.0  | 4         |
| 1267 | Multivalent Polyaspartamide Cross-Linker for Engineering Cell-Responsive Hydrogels with Degradation Behavior and Tunable Physical Properties. <i>Biomacromolecules</i> , 2018, 19, 691-700.                                  | 2.6  | 26        |
| 1268 | Developing an analytical solution for photo-sensitive hydrogel bilayers. <i>Journal of Intelligent Material Systems and Structures</i> , 2018, 29, 1953-1963.  | 1.4  | 11        |
| 1269 | Advances in Carbon Nanotubes-Hydrogel Hybrids in Nanomedicine for Therapeutics. <i>Advanced Healthcare Materials</i> , 2018, 7, e1701213.  | 3.9  | 143       |
| 1270 | Coordination-Triggered Hierarchical Folate/Zinc Supramolecular Hydrogels Leading to Printable Biomaterials. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 4530-4539.   | 4.0  | 91        |
| 1271 | Injectable, Self-Healing, and Stress Sustainable Hydrogel of BSA as a Functional Biocompatible Material for Controlled Drug Delivery in Cancer Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 3321-3330. | 3.2  | 56        |
| 1272 | Methotrexate Aspasomes Against Rheumatoid Arthritis: Optimized Hydrogel Loaded Liposomal Formulation with In Vivo Evaluation in Wistar Rats. <i>AAPS PharmSciTech</i> , 2018, 19, 1320-1336.                                 | 1.5  | 49        |
| 1273 | Hydrogels based on poly(methyl vinyl ether-co-maleic acid) and Tween 85 for sustained delivery of hydrophobic drugs. <i>International Journal of Pharmaceutics</i> , 2018, 538, 147-158.                                     | 2.6  | 40        |
| 1274 | Topological Structure of Networks Formed from Symmetric Four-Arm Precursors. <i>Macromolecules</i> , 2018, 51, 1224-1231.  | 2.2  | 72        |
| 1275 | Controlling Cell Behavior on Silk Nanofiber Hydrogels with Tunable Anisotropic Structures. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 933-941.   | 2.6  | 34        |
| 1276 | Biomedical Applications of Recombinant Silk-Based Materials. <i>Advanced Materials</i> , 2018, 30, e1704636.   | 11.1 | 216       |
| 1277 | Polymer Gels. <i>Gels Horizons: From Science To Smart Materials</i> , 2018, , .  | 0.3  | 2         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1278 | Untapped potential for debonding on demand: the wonderful world of azo-compounds. <i>Materials Horizons</i> , 2018, 5, 162-183.   | 6.4 | 54        |
| 1279 | Novel organic/inorganic hybrid flower-like structure of selenium nanoparticles stabilized by pullulan derivatives. <i>Carbohydrate Polymers</i> , 2018, 184, 9-19.  | 5.1 | 34        |
| 1280 | Near-Infrared Light Induced Phase Transition of Biodegradable Composites for On-Demand Healing and Drug Release. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 4131-4139.   | 4.0 | 22        |
| 1281 | Temperature-Responsive Electrophoretic Deposition of Sulfone-Containing Nonionic Poly( <i>N</i> -isopropylacrylamide). <i>Macromolecular Chemistry and Physics</i> , 2018, 219, 1700468.  | 1.1 | 3         |
| 1282 | Dynamically Cross-Linked Self-Assembled Thermoresponsive Microgels with Homogeneous Internal Structures. <i>Langmuir</i> , 2018, 34, 1601-1612.   | 1.6 | 25        |
| 1283 | An overview of polymeric dosage forms in buccal drug delivery: State of art, design of formulations and their in vivo performance evaluation. <i>Materials Science and Engineering C</i> , 2018, 86, 129-143.   | 3.8 | 85        |
| 1284 | Periodontal thermoresponsive, mucoadhesive dual antimicrobial loaded in-situ gel for the treatment of periodontal disease: Preparation, in-vitro characterization and antimicrobial study. <i>Journal of Oral Biology and Craniofacial Research</i> , 2018, 8, 126-133. | 0.8 | 50        |
| 1285 | Periadventitial local drug delivery to target restenosis. <i>Vascular Pharmacology</i> , 2018, 107, 12-19.  | 1.0 | 7         |
| 1286 | Nonlinear measures and modeling to examine the role of physical and chemical crosslinking in poly(vinyl alcohol)-based crosslinked systems. <i>Rheologica Acta</i> , 2018, 57, 181-195.   | 1.1 | 7         |
| 1287 | Phase-field model for liquid-solids phase transition of physical hydrogel in an ionized environment subject to electro-chemo-thermo-mechanical coupled field. <i>International Journal of Solids and Structures</i> , 2018, 138, 134-143.                               | 1.3 | 11        |
| 1288 | Main-chain polyacetal conjugates with HIF-1 inhibitors: temperature-responsive, pH-degradable drug delivery vehicles. <i>Journal of Materials Chemistry B</i> , 2018, 6, 666-674.   | 2.9 | 13        |
| 1289 | Synthesis, functionalization, and applications of metal-organic frameworks in biomedicine. <i>Dalton Transactions</i> , 2018, 47, 2114-2133.  | 1.6 | 195       |
| 1290 | Dielectric relaxation of interfacial polarizable molecules in chitosan ice-hydrogel materials. <i>Journal of Materiomics</i> , 2018, 4, 35-43.  | 2.8 | 4         |
| 1291 | Antibody loaded collapsible hyaluronic acid hydrogels for intraocular delivery. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2018, 124, 95-103.  | 2.0 | 59        |
| 1292 | Comparing laser diffraction and optical microscopy for characterizing superabsorbent polymer particle morphology, size, and swelling capacity. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46055.  | 1.3 | 14        |
| 1293 | Future Perspective on the Smart Delivery of Biomolecules. From Biomaterials Towards Medical Devices, 2018, , 363-371.   | 0.0 | 2         |
| 1294 | Fast Thermoresponsive Optical Membrane Using Hydrogels Embedded in Macroporous Silicon. , 2018, 2, 1-4.   |     | 12        |
| 1295 | Bionanocomposites based on mesoporous silica and alginate for enhanced drug delivery. <i>Carbohydrate Polymers</i> , 2018, 196, 126-134.  | 5.1 | 43        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1296 | Effect of polymer concentration on structure and rheology of poly (sodium acrylate) hydrogels. AIP Conference Proceedings, 2018, . .  | 0.3 | 2         |
| 1298 | Injectable hydrogels and nanocomposite hydrogels for cartilage regeneration. Journal of Biomedical Materials Research - Part A, 2018, 106, 2762-2776.   | 2.1 | 70        |
| 1299 | Polyhistidine-Based Metal Coordination Hydrogels with Physiologically Relevant pH Responsiveness and Enhanced Stability through a Novel Synthesis. Macromolecular Rapid Communications, 2018, 39, e1800109. | 2.0 | 19        |
| 1300 | Drug delivery systems based on biocompatible imino-chitosan hydrogels for local anticancer therapy. Drug Delivery, 2018, 25, 1080-1090.   | 2.5 | 49        |
| 1301 | The preparations of novel cellulose/phenylboronic acid composite intelligent bio-hydrogel and its glucose, pH-responsive behaviors. Carbohydrate Polymers, 2018, 195, 349-355.                              | 5.1 | 44        |
| 1302 | Ionic effects on the mechanical and swelling properties of a poly(acrylic acid/acrylamide) double crosslinking hydrogel. New Journal of Chemistry, 2018, 42, 9151-9158.                                     | 1.4 | 37        |
| 1303 | Osmolality predictive models of different polymers as tools in parenteral and ophthalmic formulation development. International Journal of Pharmaceutics, 2018, 543, 190-200.                               | 2.6 | 7         |
| 1304 | Soft Micro- and Nanorobotics. Annual Review of Control, Robotics, and Autonomous Systems, 2018, 1, 53-75.   | 7.5 | 145       |
| 1305 | Synthesis of PEO-Based physical gels with tunable viscoelastic properties. Journal of Polymer Science Part A, 2018, 56, 1033-1038.  | 2.5 | 13        |
| 1306 | Composite Hydrogels Using Bioinspired Approach with in Situ Fast Gelation and Self-Healing Ability as Future Injectable Biomaterial. ACS Applied Materials & Interfaces, 2018, 10, 11950-11960.             | 4.0 | 43        |
| 1307 | Encapsulation of ionic nanoparticles produces reactive oxygen species (ROS)-responsive microgel useful for molecular detection. Chemical Communications, 2018, 54, 4329-4332.                               | 2.2 | 11        |
| 1308 | Hydrogels as intelligent materials: A brief review of synthesis, properties and applications. Materials Today Chemistry, 2018, 8, 42-55.  | 1.7 | 356       |
| 1309 | Modulation of functional pendant chains within poly(ethylene glycol) hydrogels for refined control of protein release. Scientific Reports, 2018, 8, 4315.   | 1.6 | 20        |
| 1310 | Biomaterials for drug delivery patches. European Journal of Pharmaceutical Sciences, 2018, 118, 49-66.  | 1.9 | 98        |
| 1311 | A thermodynamically-consistent large deformation theory coupling photochemical reaction and electrochemistry for light-responsive gels. Journal of the Mechanics and Physics of Solids, 2018, 116, 239-266. | 2.3 | 48        |
| 1312 | In situ forming injectable hydrogels for drug delivery and wound repair. Advanced Drug Delivery Reviews, 2018, 127, 167-184.  | 6.6 | 547       |
| 1313 | Nanofibered Gelatin-Based Nonwoven Elasticity Promotes Epithelial Histogenesis. Advanced Healthcare Materials, 2018, 7, e1700895.   | 3.9 | 20        |
| 1314 | Lignin-Containing Cellulose Nanofibril-Reinforced Polyvinyl Alcohol Hydrogels. ACS Sustainable Chemistry and Engineering, 2018, 6, 4821-4828.   | 3.2 | 155       |



| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1315 | Tough high modulus hydrogels derived from carbon-nitride <i>via</i> an ethylene glycol co-solvent route. <i>Soft Matter</i> , 2018, 14, 2655-2664.   | 1.2 | 28        |
| 1316 | Synthesis and Characterization of Biodegradable Hydrogels for Oral Delivery of 5-Fluorouracil Targeted to Colon: Screening with Preliminary In Vivo Studies. <i>Advances in Polymer Technology</i> , 2018, 37, 221-229.  | 0.8 | 49        |
| 1317 | Fabrication of pH-Responsive Hydrogel and Its In Vitro and In Vivo Evaluation. <i>Advances in Polymer Technology</i> , 2018, 37, 290-304.  | 0.8 | 28        |
| 1318 | Hydrogels of poly(2-hydroxyethyl methacrylate) reinforced with nanocrystalline cellulose as candidates for biomaterials. <i>Polymer Composites</i> , 2018, 39, E278.   | 2.3 | 12        |
| 1319 | Magnetic nanoparticle containing thiolene crosslinked hydrogels for controlled and targeted release of hydrophobic drugs. <i>Polymer Composites</i> , 2018, 39, E200.  | 2.3 | 8         |
| 1320 | Nanotechnology application to local anaesthesia (LA). <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2018, 46, 355-360.   | 1.9 | 23        |
| 1321 | PVA-PEG physically cross-linked hydrogel film as a wound dressing: experimental design and optimization. <i>Pharmaceutical Development and Technology</i> , 2018, 23, 751-760.   | 1.1 | 62        |
| 1322 | Preparation and characterization of alginate-PVA-based semi-IPN: controlled release pH-responsive composites. <i>Polymer Bulletin</i> , 2018, 75, 1075-1099.   | 1.7 | 60        |
| 1323 | Rate of fatty acid transport in glassy biopolymers: A free volume based predictive approach. <i>Food Hydrocolloids</i> , 2018, 78, 128-131.  | 5.6 | 2         |
| 1324 | Controlled drug delivery of ciprofloxacin from ultrasonic hydrogel. <i>E-Polymers</i> , 2018, 18, 187-195.   | 1.3 | 15        |
| 1325 | Injectable deferoxamine nanoparticles loaded chitosan-hyaluronic acid coacervate hydrogel for therapeutic angiogenesis. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 161, 129-138.                              | 2.5 | 75        |
| 1326 | Multivalent ion-based in situ gelling polysaccharide hydrogel as an injectable bone graft. <i>Carbohydrate Polymers</i> , 2018, 180, 216-225.  | 5.1 | 35        |
| 1327 | Anisotrope Hydrogele – Synthese und Anwendungen. <i>Angewandte Chemie</i> , 2018, 130, 2558-2570.  | 1.6 | 24        |
| 1328 | Applications of nanocomposite hydrogels for biomedical engineering and environmental protection. <i>Environmental Chemistry Letters</i> , 2018, 16, 113-146.   | 8.3 | 207       |
| 1329 | Controlled release of an optically active compound by hydrogels of acrylic acid and its online detection. <i>Canadian Journal of Chemical Engineering</i> , 2018, 96, 1221-1227.   | 0.9 | 2         |
| 1330 | Controlling Complex Nanoemulsion Morphology Using Asymmetric Cosurfactants for the Preparation of Polymer Nanocapsules. <i>Langmuir</i> , 2018, 34, 978-990.   | 1.6 | 20        |
| 1331 | Pectin-(3-acrylamidopropyl) trimethylammonium chloride-co-acrylic acid] hydrogel prepared by gamma radiation and selectively silver (Ag) metal adsorption. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45906. | 1.3 | 34        |
| 1332 | Synthesis and evaluation of chondroitin sulfate based hydrogels of loxoprofen with adjustable properties as controlled release carriers. <i>Carbohydrate Polymers</i> , 2018, 181, 1169-1179.                            | 5.1 | 72        |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1333 | Tunable injectable alginate-based hydrogel for cell therapy in Type 1 Diabetes Mellitus. <i>International Journal of Biological Macromolecules</i> , 2018, 107, 1261-1269.  | 3.6  | 58        |
| 1334 | Synthesis of Anisotropic Hydrogels and Their Applications. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 2532-2543.  | 7.2  | 287       |
| 1335 | Biocompatible chitosan based hydrogels for potential application in local tumour therapy. <i>Carbohydrate Polymers</i> , 2018, 179, 59-70.  | 5.1  | 73        |
| 1336 | Polysaccharide-based Fibers and Composites. , 2018, , .   |      | 7         |
| 1337 | Effect of Molecular Weight of Poly(Ethylene Glycol) Dicarboxylate on the Properties of Cross-Linked Hydrogel Film as an Antiadhesion Barrier. <i>Polymer-Plastics Technology and Engineering</i> , 2018, 57, 1393-1399.                 | 1.9  | 2         |
| 1338 | Sodium deoxycholate/TRIS-based hydrogels for multipurpose solute delivery vehicles: Ambient release, drug release, and enantiopreferential release. <i>Talanta</i> , 2018, 177, 66-73.  | 2.9  | 13        |
| 1339 | Living Bioelectronics: Strategies for Developing an Effective Long-Term Implant with Functional Neural Connections. <i>Advanced Functional Materials</i> , 2018, 28, 1702969.   | 7.8  | 60        |
| 1340 | Investigation of micromechanical properties of hard sphere filled composite hydrogels by atomic force microscopy and finite element simulations. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 78, 496-504. | 1.5  | 16        |
| 1341 | Injectable hydrogels for delivering biotherapeutic molecules. <i>International Journal of Biological Macromolecules</i> , 2018, 110, 17-29.   | 3.6  | 170       |
| 1342 | A thermo-responsive polyurethane organogel for norfloxacin delivery. <i>Polymer Chemistry</i> , 2018, 9, 228-235.   | 1.9  | 28        |
| 1343 | Dynamic and Responsive Growth Factor Delivery from Electrospun and Hydrogel Tissue Engineering Materials. <i>Advanced Healthcare Materials</i> , 2018, 7, 1700836.  | 3.9  | 54        |
| 1344 | Structured Macroporous Hydrogels: Progress, Challenges, and Opportunities. <i>Advanced Healthcare Materials</i> , 2018, 7, 1700927.   | 3.9  | 143       |
| 1345 | Poly(vinyl alcohol)-based electrospun nanofibers for the sustained release of celecoxib: Characterization and evaluation of drug release mechanism. <i>Polymer Composites</i> , 2018, 39, E221.   | 2.3  | 5         |
| 1346 | Synthesis and characterization of hyaluronic acid hydrogels crosslinked using a solvent-free process for potential biomedical applications. <i>Carbohydrate Polymers</i> , 2018, 181, 1194-1205.  | 5.1  | 195       |
| 1347 | Development of visible-light responsive and mechanically enhanced "smart" UCST interpenetrating network hydrogels. <i>Soft Matter</i> , 2018, 14, 151-160.  | 1.2  | 29        |
| 1348 | Conjugates and nano-delivery of antimicrobial peptides for enhancing therapeutic activity. <i>Journal of Drug Delivery Science and Technology</i> , 2018, 44, 153-171.  | 1.4  | 34        |
| 1349 | Intracellular production of hydrogels and synthetic RNA granules by multivalent molecular interactions. <i>Nature Materials</i> , 2018, 17, 79-89.  | 13.3 | 106       |
| 1350 | Thermosensitive hydrogels a versatile concept adapted to vaginal drug delivery. <i>Journal of Drug Targeting</i> , 2018, 26, 533-550.   | 2.1  | 21        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1351 | Preparation and characterization of maleoylagarose/PNIPAAm graft copolymers and formation of polyelectrolyte complexes with chitosan. <i>Carbohydrate Polymers</i> , 2018, 182, 81-91.                                  | 5.1 | 18        |
| 1352 | Electrically controlled release of ibuprofen from conductive poly(3-methoxydiphenylamine)/crosslinked pectin hydrogel. <i>European Journal of Pharmaceutical Sciences</i> , 2018, 112, 20-27.                           | 1.9 | 39        |
| 1353 | Preparations, properties, and formation mechanism of novel cellulose hydrogel membrane based on ionic liquid. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45488.   | 1.3 | 26        |
| 1354 | Drug-eluting silicone hydrogel for therapeutic contact lenses: Impact of sterilization methods on the system performance. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 161, 537-546.                           | 2.5 | 30        |
| 1355 | PEO-PPO-PEO surfactant exfoliated graphene cyclodextrin drug carriers for photoresponsive release. <i>Materials Chemistry and Physics</i> , 2018, 205, 154-163.   | 2.0 | 10        |
| 1356 | Effect of sodium hydroxide solution as polymerization solvent and activator on structural, mechanical and antibacterial properties of PNIPAAm and P(NIPAAm-clay) hydrogels. <i>Polymer Composites</i> , 2018, 39, E386. | 2.3 | 8         |
| 1357 | Mapping Nanoparticles in Hydrogels: A Comparison of Preparation Methods for Electron Microscopy. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 2446.   | 1.3 | 18        |
| 1358 | Mechanics and Thermodynamics of Deformation for a Liquid-Saturated Elastic Materials in the Approximation of Small Deformations. <i>Mechanics of Solids</i> , 2018, 53, 164-176.  | 0.3 | 2         |
| 1359 | RECENT ADVANCES IN HYDROGELS FOR BIOMEDICAL APPLICATIONS. <i>Asian Journal of Pharmaceutical and Clinical Research</i> , 2018, 11, 62.  | 0.3 | 10        |
| 1360 | Hydrogels Based on Cellulose and its Derivatives: Applications, Synthesis, and Characteristics. <i>Polymer Science - Series A</i> , 2018, 60, 707-722.  | 0.4 | 33        |
| 1361 | Estudio de la capacidad de absorci3n en hidrogeles semi-interpenetrados de poli(acrilamida)/poli(hidroxibutirato-co-hidroxivalerato). <i>Revista Colombiana De Quimica</i> , 2018, 47, 5-12.                            | 0.2 | 3         |
| 1362 | A Combined Approach of Double Network Hydrogel and Nanocomposites Based on Hyaluronic Acid and Poly(ethylene glycol) Diacrylate Blend. <i>Materials</i> , 2018, 11, 2454.   | 1.3 | 31        |
| 1363 | Uptake and release of photosensitizers in a hydrogel for applications in photodynamic therapy: the impact of structural parameters on intrapolymer transport dynamics. <i>RSC Advances</i> , 2018, 8, 41624-41632.      | 1.7 | 11        |
| 1364 | The sol-gel transition of ultra-low solid content TEMPO-cellulose nanofibril/mixed-linkage ̂2-glucan bionanocomposite gels. <i>Soft Matter</i> , 2018, 14, 9393-9401.   | 1.2 | 12        |
| 1365 | Synthesis of a biodegradable interpenetrating polymer network of Av-cl-poly(AA-ipn-AAm) for malachite green dye removal: kinetics and thermodynamic studies. <i>RSC Advances</i> , 2018, 8, 41920-41937.                | 1.7 | 16        |
| 1366 | pH-responsive and porous vancomycin-loaded PLGA microspheres: evidence of controlled and sustained release for localized inflammation inhibition <i>in vitro</i>. <i>RSC Advances</i> , 2018, 8, 37424-37432.           | 1.7 | 17        |
| 1367 | Synthetic hydrogels formed by thiol-ene crosslinking of vinyl sulfone-functional poly(methyl vinyl) Tj ETQqO 0 0 rgBT /Overlock 10 TF 5   | 1.2 | 22        |
| 1368 | Photolithographically assembled polyelectrolyte complexes as shape-directing templates for thermoreversible gels. <i>Journal of Materials Chemistry B</i> , 2018, 6, 7594-7604.   | 2.9 | 2         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1369 | The encapsulation and release properties of poly(ethylen oxide)/poly(acrylic acid) micelles with respect to $\beta$ -tocopheryl acetate. <i>Molecular Crystals and Liquid Crystals</i> , 2018, 672, 18-32.   | 0.4 | 0         |
| 1370 | Guar-Based Injectable Thermoresponsive Hydrogel as a Scaffold for Bone Cell Growth and Controlled Drug Delivery. <i>ACS Omega</i> , 2018, 3, 15158-15167.  | 1.6 | 31        |
| 1371 | Control releasing 5-aminosalicylic acid using pH-sensitive hydrogel with novel albumin cross-linker. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2018, 92, 411-417.  | 0.9 | 2         |
| 1372 | Computational Study of DNA-Cross-Linked Hydrogel Formation for Drug Delivery Applications. <i>Macromolecules</i> , 2018, 51, 9758-9768.  | 2.2 | 11        |
| 1373 | Biomaterials for Stem Cell Therapy for Cardiac Disease. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1064, 181-193.  | 0.8 | 4         |
| 1374 | A Chemo-Mechatronic Origami Device for Chemical Sensing. , 2018, , .   |     | 1         |
| 1375 | Differential orientation and conformation of surface-bound keratinocyte growth factor on (hydroxyethyl)methacrylate, (hydroxyethyl)methacrylate/methyl methacrylate, and (hydroxyethyl)methacrylate/methacrylic acid hydrogel copolymers. <i>Biointerphases</i> , 2018, 13, 06E406.      | 0.6 | 5         |
| 1376 | Single bead investigation of a clinical drug delivery system " A novel release mechanism. <i>Journal of Controlled Release</i> , 2018, 292, 235-247.   | 4.8 | 15        |
| 1377 | pH-Responsive Biocompatible Nanocomposite Hydrogels for Therapeutic Drug Delivery. <i>ACS Applied Bio Materials</i> , 2018, 1, 1810-1822.  | 2.3 | 42        |
| 1378 | Polyaspartamide Functionalized Catechol-Based Hydrogels Embedded with Silver Nanoparticles for Antimicrobial Properties. <i>Polymers</i> , 2018, 10, 1188.   | 2.0 | 10        |
| 1379 | Biomaterial Approaches to Modulate Reactive Astroglial Response. <i>Cells Tissues Organs</i> , 2018, 205, 372-395.   | 1.3 | 34        |
| 1380 | Assembly of Conducting Polymer and Biohydrogel for the Release and Real-Time Monitoring of Vitamin K3. <i>Gels</i> , 2018, 4, 86.  | 2.1 | 8         |
| 1381 | Advanced Hydrogel Structures. <i>Polymers and Polymeric Composites</i> , 2018, , 1-27.   | 0.6 | 0         |
| 1382 | Performance of polyacrylamide and poly(acrylamide/sodium acrylate) hydrogel-coated mesh for separation of oil/water mixtures. <i>Journal of Water Process Engineering</i> , 2018, 26, 62-71.   | 2.6 | 19        |
| 1383 | Injectable and Natural Humic Acid/Agarose Hybrid Hydrogel for Localized Light-Driven Photothermal Ablation and Chemotherapy of Cancer. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 4266-4277.   | 2.6 | 41        |
| 1384 | Synthesis, Characterization and Drug Loading of Multiresponsive p[NIPAm-co-PEGMA] (core)/p[NIPAm-co-AAc] (Shell) Nanogels with Monodisperse Size Distributions. <i>Polymers</i> , 2018, 10, 309.   | 2.0 | 14        |
| 1385 | Microwave-assisted synthesis of biodegradable interpenetrating polymer network of aloe vera "poly(acrylic acid-co-acrylamide) for removal of malachite green dye: equilibrium, kinetics and thermodynamic studies. <i>Iranian Polymer Journal (English Edition)</i> , 2018, 27, 913-926. | 1.3 | 17        |
| 1386 | Bioengineering a novel 3D in vitro model of gastric mucosa for stomach permeability studies. <i>Acta Biomaterialia</i> , 2018, 82, 68-78.  | 4.1 | 14        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1387 | Dipeptide-Functionalized MIL-101(Fe) as efficient material for ibuprofen delivery. <i>Applied Organometallic Chemistry</i> , 2018, 32, e4552.   | 1.7 | 11        |
| 1389 | Effect of embedded polyelectrolyte chains on microstructure of polyacrylamide hydrogels. <i>AIP Conference Proceedings</i> , 2018, , .  | 0.3 | 0         |
| 1390 | UV Light-Responsive Peptide-Based Supramolecular Hydrogel for Controlled Drug Delivery. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800588.  | 2.0 | 85        |
| 1391 | Mechanically tough and recoverable hydrogels via dual physical crosslinkings. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2018, 56, 1294-1305.   | 2.4 | 16        |
| 1392 | High-Strength Nanocomposite Hydrogels with Swelling-Resistant and Anti-Dehydration Properties. <i>Polymers</i> , 2018, 10, 1025.  | 2.0 | 23        |
| 1393 | An Additive Manufacturing Technique for the Facile and Rapid Fabrication of Hydrogel-based Micromachines with Magnetically Responsive Components. <i>Journal of Visualized Experiments</i> , 2018, , .  | 0.2 | 8         |
| 1394 | In situ synthesis of bacterial cellulose/copper nanoparticles composite membranes with long-term antibacterial property. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2018, 29, 2137-2153. | 1.9 | 43        |
| 1395 | Polymeric Nanocarriers for the Delivery of Antimalarials. <i>Molecules</i> , 2018, 23, 2527.  | 1.7 | 39        |
| 1396 | Applications of Hydrogels. <i>Polymers and Polymeric Composites</i> , 2018, , 1-39.   | 0.6 | 0         |
| 1397 | Cellulose-Based Hydrogels for Pharmaceutical and Biomedical Applications. <i>Polymers and Polymeric Composites</i> , 2018, , 1-28.  | 0.6 | 1         |
| 1398 | Polysaccharide-Based Superabsorbents: Synthesis, Properties, and Applications. <i>Polymers and Polymeric Composites</i> , 2018, , 1-39.   | 0.6 | 0         |
| 1399 | Recent progress in the structural modification of chitosan for applications in diversified biomedical fields. <i>European Polymer Journal</i> , 2018, 109, 402-434.                                     | 2.6 | 147       |
| 1400 | Thiol-Mediated Chemoselective Strategies for In Situ Formation of Hydrogels. <i>Gels</i> , 2018, 4, 72.   | 2.1 | 35        |
| 1401 | Lipid Nanoparticles and Their Hydrogel Composites for Drug Delivery: A Review. <i>Pharmaceuticals</i> , 2018, 11, 118.  | 1.7 | 65        |
| 1402 | Soy Protein-Based Composite Hydrogels: Physico-Chemical Characterization and In Vitro Cytocompatibility. <i>Polymers</i> , 2018, 10, 1159.  | 2.0 | 14        |
| 1404 | Sorption Properties of Clay and Pectin-Containing Hydrogels. , 0, , .   |     | 2         |
| 1405 | Cellulose-Based Hydrogels as Biomaterials. <i>Polymers and Polymeric Composites</i> , 2018, , 1-27.   | 0.6 | 0         |
| 1406 | Cell Encapsulation. <i>Polymers and Polymeric Composites</i> , 2018, , 1-51.  | 0.6 | 0         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1407 | Thermoresponsive Gel Drug Delivery for Retina and Posterior Segment Disease. , 2018, , 397-409.  |     | 1         |
| 1408 | Reversible Condensation of Mucins into Nanoparticles. Langmuir, 2018, 34, 13615-13625.   | 1.6 | 20        |
| 1409 | Aptamer Functionalized DNA Hydrogel for Wise-Stage Controlled Protein Release. Applied Sciences (Switzerland), 2018, 8, 1941.  | 1.3 | 21        |
| 1410 | Leeches-Inspired Hydrogelâ€“Elastomer Integration Materials. ACS Applied Materials & Interfaces, 2018, 10, 40238-40245.  | 4.0 | 22        |
| 1411 | Anisotropic contraction of fiber-reinforced hydrogels. Soft Matter, 2018, 14, 7731-7739.   | 1.2 | 11        |
| 1412 | Polymersomeâ€“hydrogel composites with combined quick and long-term antibacterial activities. Journal of Materials Chemistry B, 2018, 6, 6311-6321.                        | 2.9 | 38        |
| 1413 | Magnetogels: Prospects and Main Challenges in Biomedical Applications. Pharmaceutics, 2018, 10, 145.   | 2.0 | 28        |
| 1414 | Towards Developing Bioresponsive, Self-Assembled Peptide Materials: Dynamic Morphology and Fractal Nature of Nanostructured Matrices. Materials, 2018, 11, 1539.           | 1.3 | 8         |
| 1415 | Hydrogels in Regenerative Medicine. , 2018, , .  |     | 3         |
| 1416 | Interpenetrating network gelatin methacryloyl (GelMA) and pectin-g-PCL hydrogels with tunable properties for tissue engineering. Biomaterials Science, 2018, 6, 2938-2950. | 2.6 | 83        |
| 1417 | Glyoxylamide-based self-assembly hydrogels for sustained ciprofloxacin delivery. Journal of Materials Chemistry B, 2018, 6, 6089-6098.                                     | 2.9 | 16        |
| 1418 | Influence of Sulfurâ€“Containing Diamino Acid Structure on Covalently Crosslinked Copolypeptide Hydrogels. Chemistry - an Asian Journal, 2018, 13, 3547-3553.              | 1.7 | 11        |
| 1420 | Gelatin-based porous silicon hydrogel composites for the controlled release of tramadol. European Polymer Journal, 2018, 108, 485-497.                                     | 2.6 | 24        |
| 1421 | Chaperone Copolymer-Assisted Aptamer-Patterned DNA Hydrogels for Triggering Spatiotemporal Release of Protein. ACS Applied Bio Materials, 2018, 1, 1206-1214.              | 2.3 | 10        |
| 1422 | Functional stimuli-responsive polymeric network nanogels as cargo systems for targeted drug delivery and gene delivery in cancer cells. , 2018, , 243-275.                 |     | 5         |
| 1423 | The chitosan hydrogels: from structure to function. New Journal of Chemistry, 2018, 42, 17162-17180.   | 1.4 | 113       |
| 1424 | Hydrogels, DNA, and RNA polypeptides for the preparation of biomaterials. , 2018, , 85-104.  |     | 8         |
| 1425 | Recent advances in applying nanotechnologies for cancer immunotherapy. Journal of Controlled Release, 2018, 288, 239-263.  | 4.8 | 60        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1426 | Curcumin incorporated PVA&borax dual delivery hydrogels as potential wound dressing materials&quot;Correlation between viscoelastic properties and curcumin release rate. Journal of Applied Polymer Science, 2018, 135, 46734. | 1.3 | 40        |
| 1427 | Emerging Technology in Medical Applications of Hydrogel. Gels Horizons: From Science To Smart Materials, 2018, , 197-218.   | 0.3 | 2         |
| 1428 | Tunicate cellulose nanocrystal reinforced polyacrylamide hydrogels with tunable mechanical performance. Cellulose, 2018, 25, 6561-6570.   | 2.4 | 19        |
| 1429 | Structural and molecular response in cyclodextrin-based pH-sensitive hydrogels by the joint use of Brillouin, UV Raman and Small Angle Neutron Scattering techniques. Journal of Molecular Liquids, 2018, 271, 738-746.         | 2.3 | 6         |
| 1430 | Hydrogel-nanoparticle composites for drug delivery. , 2018, , 229-254.  |     | 3         |
| 1431 | Biomimetic delivery of signals for bone tissue engineering. Bone Research, 2018, 6, 25.   | 5.4 | 178       |
| 1432 | Lotus leaf-inspired design of calcium alginate particles with superhigh drug encapsulation efficiency and pH responsive release. Colloids and Surfaces B: Biointerfaces, 2018, 172, 464-470.                                    | 2.5 | 10        |
| 1433 | Shape changing hydrogels and their applications as soft actuators. Journal of Polymer Science, Part B: Polymer Physics, 2018, 56, 1314-1324.  | 2.4 | 69        |
| 1434 | Gelatin-Based Hydrogels. Polymers and Polymeric Composites, 2018, , 1-41.   | 0.6 | 3         |
| 1435 | Alginate hydrogel beads as a carrier of low density lipoprotein/pectin nanogels for potential oral delivery applications. International Journal of Biological Macromolecules, 2018, 120, 859-864.                               | 3.6 | 48        |
| 1436 | Collagen/Heparin Bi&Affinity Multilayer Modified Collagen Scaffolds for Controlled bFGF Release to Improve Angiogenesis In Vivo. Macromolecular Bioscience, 2018, 18, e1800086.   | 2.1 | 25        |
| 1437 | Intelligent Hydrogels as Drug Delivery Systems. Gels Horizons: From Science To Smart Materials, 2018, , 1-28.   | 0.3 | 1         |
| 1438 | Targeted Drug Delivery in the Suprachoroidal Space by Swollen Hydrogel Pushing. , 2018, 59, 2069.   |     | 33        |
| 1439 | Enhancing the mechanical properties and self-healing efficiency of hydroxyethyl cellulose-based conductive hydrogels via supramolecular interactions. European Polymer Journal, 2018, 105, 85-94.                               | 2.6 | 55        |
| 1440 | Bioactive hydrogels for bone regeneration. Bioactive Materials, 2018, 3, 401-417.   | 8.6 | 370       |
| 1441 | Injectable nanocomposite analgesic delivery system for musculoskeletal pain management. Acta Biomaterialia, 2018, 74, 280-290.  | 4.1 | 15        |
| 1442 | Design of a tunable nanocomposite double network hydrogel based on gellan gum for drug delivery applications. European Polymer Journal, 2018, 104, 184-193.   | 2.6 | 47        |
| 1443 | Effect of vitamin derivatives on gelation rate and gel strength of methylcellulose. Carbohydrate Polymers, 2018, 196, 414-421.  | 5.1 | 14        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1444 | Electrochemical printing of calcium alginate/gelatin hydrogel. <i>Electrochimica Acta</i> , 2018, 281, 429-436.  | 2.6 | 43        |
| 1445 | Photo-Cross-Linked Self-Assembled Poly(ethylene oxide)-Based Hydrogels Containing Hybrid Junctions with Dynamic and Permanent Cross-Links. <i>ACS Macro Letters</i> , 2018, 7, 683-687.                                | 2.3 | 13        |
| 1446 | Stimuli sensitive ocular drug delivery systems. , 2018, , 211-270.   |     | 10        |
| 1447 | Recent progress of poly (N-isopropylacrylamide) hybrid hydrogels: synthesis, fundamentals and applications â€“ review. <i>Soft Materials</i> , 2018, 16, 228-247.  | 0.8 | 17        |
| 1448 | Polyethersulfone/poly(acrylic acid) composite hydrogel membrane reservoirs for controlled delivery of cationic drug formulations. <i>Polymer</i> , 2018, 147, 56-66.   | 1.8 | 9         |
| 1449 | Fabrication and Printing of Multi-material Hydrogels. , 2018, , 397-430.   |     | 0         |
| 1450 | Poly(allylamine)/tripolyphosphate coacervates enable high loading and multiple-month release of weakly amphiphilic anionic drugs: an <i>in vitro</i> study with ibuprofen. <i>RSC Advances</i> , 2018, 8, 19409-19419. | 1.7 | 17        |
| 1451 | Poly(vinyl diaminotriazine): From Molecular Recognition to Highâ€“strength Hydrogels. <i>Macromolecular Rapid Communications</i> , 2018, 39, e1800190.   | 2.0 | 10        |
| 1452 | Proton Transfer Hydrogels: Versatility and Applications. <i>Journal of the American Chemical Society</i> , 2018, 140, 6700-6709.   | 6.6 | 37        |
| 1454 | Covalently functionalized amide cross-linked hydrogels from primary amines and polyethylene glycol acyltrifluoroborates (PEG-KATs). <i>Journal of Materials Chemistry B</i> , 2018, 6, 4775-4782.                      | 2.9 | 28        |
| 1455 | Graphene as a Material â€“ An Overview of Its Properties and Characteristics and Development Potential for Practical Applications. , 2018, , .   |     | 14        |
| 1456 | Chitosan based hydrogels and their applications for drug delivery in wound dressings: A review. <i>Carbohydrate Polymers</i> , 2018, 199, 445-460.   | 5.1 | 553       |
| 1457 | Novel Superabsorbent Cellulose-Based Hydrogels: Present Status, Synthesis, Characterization, and Application Prospects. <i>Polymers and Polymeric Composites</i> , 2018, , 1-41.                                       | 0.6 | 2         |
| 1458 | Citric acid crosslinked carboxymethylcellulose-poly(ethylene glycol) hydrogel films for delivery of poorly soluble drugs. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 783-791.              | 3.6 | 83        |
| 1459 | Crosslinked gelatin hydrogels as carriers for controlled heparin release. <i>Materials Letters</i> , 2018, 228, 375-378.   | 1.3 | 22        |
| 1460 | Cyclodextrin Applications in Medicine, Food, Environment and Liquid Crystals. <i>Environmental Chemistry for A Sustainable World</i> , 2018, , .   | 0.3 | 16        |
| 1461 | Smart polymeric gels. , 2018, , 179-230.   |     | 2         |
| 1462 | Supramolecular Liquid Crystals Based on Cyclodextrins. <i>Environmental Chemistry for A Sustainable World</i> , 2018, , 183-240.   | 0.3 | 3         |



| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1463 | Synthetic polymeric gel. , 2018, , 55-90.  |     | 15        |
| 1464 | Particle-loaded gels. , 2018, , 143-178.   |     | 0         |
| 1465 | Antimicrobial polymeric gels. , 2018, , 357-371.   |     | 0         |
| 1466 | Hydrogel nanocomposite for controlled drug release. , 2018, , 575-588.   |     | 4         |
| 1467 | From Batch to Continuous Precipitation Polymerization of Thermoresponsive Microgels. ACS Applied Materials & Interfaces, 2018, 10, 24799-24806.  | 4.0 | 61        |
| 1468 | Synthesis and in vitro assessment of anticancer hydrogels composed by carboxymethylcellulose-doxorubicin as potential transdermal delivery systems for treatment of skin cancer. Journal of Molecular Liquids, 2018, 266, 425-440. | 2.3 | 40        |
| 1469 | Fiber-reinforced colloidal gels as injectable and moldable biomaterials for regenerative medicine. Materials Science and Engineering C, 2018, 92, 143-150.   | 3.8 | 27        |
| 1470 | Recent Innovations in Drug Delivery for Retinal Diseases. Advances in Ophthalmology and Optometry, 2018, 3, 155-183.   | 0.3 | 1         |
| 1471 | Polymer nanocomposites: Insights on rheology, percolation and molecular mobility. Polymer, 2018, 153, 52-60.   | 1.8 | 29        |
| 1472 | Gamma radiative fabrication of semi interpenetrating network film: Optimization, characterization and investigation as colon, intestine specific drug release device. Vacuum, 2018, 156, 357-369.                                  | 1.6 | 6         |
| 1473 | Injectable hydrogels: a new paradigm for osteochondral tissue engineering. Journal of Materials Chemistry B, 2018, 6, 5499-5529.   | 2.9 | 78        |
| 1474 | Polymer Gels. Gels Horizons: From Science To Smart Materials, 2018, , .  | 0.3 | 8         |
| 1475 | Polymeric Gels: Vehicles for Enhanced Drug Delivery Across Skin. Gels Horizons: From Science To Smart Materials, 2018, , 343-375.  | 0.3 | 1         |
| 1476 | Modeling the mechanics and the transport phenomena in hydrogels. Computer Aided Chemical Engineering, 2018, 42, 357-383.   | 0.3 | 10        |
| 1477 | Evaluation of 25% Poloxamer As a Slow Release Carrier for Morphine in a Rat Model. Frontiers in Veterinary Science, 2018, 5, 19.   | 0.9 | 3         |
| 1478 | Milligels Synthesis and Characterization: Mebeverine Hydrochloride Uptake and Release. , 2018, , 372-377.  |     | 0         |
| 1479 | Functional Microgels: Recent Advances in Their Biomedical Applications. Small, 2018, 14, e1801724.   | 5.2 | 111       |
| 1480 | Physical nanocomposite hydrogels filled with low concentrations of TiO <sub>2</sub> nanoparticles: Swelling, networks parameters and cell retention studies. Materials Science and Engineering C, 2018, 92, 769-778.               | 3.8 | 32        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1481 | Optically Driven Soft Micro Robotics. <i>Advanced Optical Materials</i> , 2018, 6, 1800207.  | 3.6 | 111       |
| 1482 | The quest for mechanically and biologically functional soft biomaterials via soft network composites. <i>Advanced Drug Delivery Reviews</i> , 2018, 132, 214-234.  | 6.6 | 35        |
| 1483 | Cellulose-Based Hydrogels in Topical Drug Delivery: A Challenge in Medical Devices. <i>Polymers and Polymeric Composites</i> , 2018, , 1-29.   | 0.6 | 1         |
| 1484 | Polysaccharide Containing Gels for Pharmaceutical Applications. <i>Gels Horizons: From Science To Smart Materials</i> , 2018, , 231-278.   | 0.3 | 1         |
| 1485 | Hybrid hydrogel systems of micelles of drug anion containing ionic liquid and biopolymers: Rheological behavior and drug release. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 555, 668-678.      | 2.3 | 13        |
| 1486 | Gemcitabine hydrochloride microspheres used for intravesical treatment of superficial bladder cancer: a comprehensive in vitro/ex vivo/in vivo evaluation. <i>Drug Design, Development and Therapy</i> , 2018, Volume 12, 1959-1975. | 2.0 | 19        |
| 1487 | Journey into Bone Models: A Review. <i>Genes</i> , 2018, 9, 247.   | 1.0 | 80        |
| 1488 | Surface Functionalization and Targeting Strategies of Liposomes in Solid Tumor Therapy: A Review. <i>International Journal of Molecular Sciences</i> , 2018, 19, 195.  | 1.8 | 332       |
| 1489 | Incorporation of Synthetic mRNA in Injectable Chitosan-Alginate Hybrid Hydrogels for Local and Sustained Expression of Exogenous Proteins in Cells. <i>International Journal of Molecular Sciences</i> , 2018, 19, 1313.             | 1.8 | 25        |
| 1490 | Hydrogels for Hydrophobic Drug Delivery. Classification, Synthesis and Applications. <i>Journal of Functional Biomaterials</i> , 2018, 9, 13.  | 1.8 | 193       |
| 1491 | Nanogels for Pharmaceutical and Biomedical Applications and Their Fabrication Using 3D Printing Technologies. <i>Materials</i> , 2018, 11, 302.  | 1.3 | 44        |
| 1492 | In-Silico Design, Synthesis and Evaluation of a Nanostructured Hydrogel as a Dimethoate Removal Agent. <i>Nanomaterials</i> , 2018, 8, 23.   | 1.9 | 12        |
| 1493 | A Review on Recent Advances in Stabilizing Peptides/Proteins upon Fabrication in Hydrogels from Biodegradable Polymers. <i>Pharmaceutics</i> , 2018, 10, 16.   | 2.0 | 94        |
| 1494 | Integrated Oxidized-Hyaluronic Acid/Collagen Hydrogel with $\beta$ -TCP Using Proanthocyanidins as a Crosslinker for Drug Delivery. <i>Pharmaceutics</i> , 2018, 10, 37.   | 2.0 | 29        |
| 1495 | In Situ-Based Gels for Nose to Brain Delivery for the Treatment of Neurological Diseases. <i>Pharmaceutics</i> , 2018, 10, 40.   | 2.0 | 77        |
| 1496 | Poly(carbonate urethane)-Based Thermogels with Enhanced Drug Release Efficacy for Chemotherapeutic Applications. <i>Polymers</i> , 2018, 10, 89.   | 2.0 | 32        |
| 1497 | Thermoresponsive Hydrogels and Their Biomedical Applications: Special Insight into Their Applications in Textile Based Transdermal Therapy. <i>Polymers</i> , 2018, 10, 480.   | 2.0 | 112       |
| 1498 | Supramolecular Hydrogel Based on pNIPAm Microgels Connected via Host-Guest Interactions. <i>Polymers</i> , 2018, 10, 566.  | 2.0 | 29        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1499 | pH-Responsive Hybrid Hydrogels as Antibacterial and Drug Delivery Systems. <i>Polymers</i> , 2018, 10, 660.   | 2.0 | 55        |
| 1500 | Bioinspired navigation in shape morphing micromachines for autonomous targeted drug delivery. , 2018, , .   |     | 2         |
| 1501 | Application of Polymerization Activator in the Course of Synthesis of N-Isopropylacrylamide Derivatives for Thermally Triggered Release of Naproxen Sodium. <i>Materials</i> , 2018, 11, 261. | 1.3 | 2         |
| 1502 | Oleogels. , 2018, , 231-249.  |     | 12        |
| 1503 | Biodegradable superabsorbents: Methods of preparation and applicationâ€™A review. , 2018, , 307-322.  |     | 10        |
| 1504 | Targeted Treatment of Ischemic and Fibrotic Complications of Myocardial Infarction Using a Dual-Delivery Microgel Therapeutic. <i>ACS Nano</i> , 2018, 12, 7826-7837.                         | 7.3 | 63        |
| 1505 | A Micellar-Hydrogel Nanogrid from a UV Crosslinked Inulin Derivative for the Simultaneous Delivery of Hydrophobic and Hydrophilic Drugs. <i>Pharmaceutics</i> , 2018, 10, 97.                 | 2.0 | 10        |
| 1506 | Elastin-like materials for tissue regeneration and repair. , 2018, , 309-327.   |     | 8         |
| 1507 | Integrative control of mechanical and degradation properties of in situ crosslinkable polyamine-based hydrogels for dual-mode drug release kinetics. <i>Polymer</i> , 2018, 145, 272-280.     | 1.8 | 21        |
| 1508 | Fabrication of Nanoemulsions by Membrane Emulsification. , 2018, , 287-346.   |     | 4         |
| 1509 | H2S Delivery from Aromatic Peptide Amphiphile Hydrogels. <i>Methods in Molecular Biology</i> , 2018, 1758, 193-208.   | 0.4 | 0         |
| 1510 | Preparation of Gallic Acid â€™ Anhydride Conjugate and Evaluation of Prodrug Release Through Pva-Based Hydrogel. <i>Pharmaceutical Chemistry Journal</i> , 2018, 52, 139-144.                 | 0.3 | 0         |
| 1511 | Injectable Hydrogels for Cardiac Tissue Engineering. <i>Macromolecular Bioscience</i> , 2018, 18, e1800079.   | 2.1 | 172       |
| 1512 | Efficient loading of ophthalmic drugs with poor loadability into contact lenses using functional comonomers. <i>Biomaterials Science</i> , 2018, 6, 2639-2646.                                | 2.6 | 15        |
| 1513 | Biodegradable Hydrogels for Controlled Drug Delivery. <i>Polymers and Polymeric Composites</i> , 2018, , 1-41.  | 0.6 | 2         |
| 1514 | Robotic microplate voltammetry for real-time hydrogel drug release testing. <i>Analytica Chimica Acta</i> , 2018, 1041, 33-39.  | 2.6 | 12        |
| 1515 | TiO2 as Photosensitizer and Photoinitiator for Synthesis of Photoactive TiO2-PEGDA Hydrogel Without Organic Photoinitiator. <i>Frontiers in Chemistry</i> , 2018, 6, 340.                     | 1.8 | 27        |
| 1516 | Development of PVA/Fe3O4 as Smart Magnetic Hydrogels for Biomedical Applications. , 2018, , .   |     | 5         |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1517 | Polymers and hydrogels for local nucleic acid delivery. <i>Journal of Materials Chemistry B</i> , 2018, 6, 5651-5670.   | 2.9  | 31        |
| 1518 | Hydrazone-Linkage-Based Self-Healing and Injectable Xanthan-Poly(ethylene glycol) Hydrogels for Controlled Drug Release and 3D Cell Culture. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 30936-30945. | 4.0  | 88        |
| 1519 | Synthesis, optimization, and evaluation of polyvinyl alcohol-based hydrogels as controlled combinatorial drug delivery system for colon cancer. <i>Advances in Polymer Technology</i> , 2018, 37, 3348-3363.        | 0.8  | 24        |
| 1520 | Superabsorbent. , 0, , .  |      | 4         |
| 1521 | Synthesis and characterization of karaya gum-g- poly (acrylic acid) hydrogels and in vitro release of hydrophobic quercetin. <i>Polymer</i> , 2018, 147, 108-120.   | 1.8  | 75        |
| 1522 | High strength and anti-fatigue nanocomposite hydrogels prepared via self-initiated free radical polymerization triggered by daylight. <i>New Journal of Chemistry</i> , 2018, 42, 11796-11803.                      | 1.4  | 15        |
| 1523 | Recent Advances in Edible Polymer Based Hydrogels as a Sustainable Alternative to Conventional Polymers. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 6940-6967.                                   | 2.4  | 208       |
| 1524 | Design of Hollow Hyaluronic Acid Cylinders for Sustained Intravitreal Protein Delivery. <i>Journal of Pharmaceutical Sciences</i> , 2018, 107, 2354-2365.   | 1.6  | 9         |
| 1525 | Tough, resilient and pH-sensitive interpenetrating polyacrylamide/alginate/montmorillonite nanocomposite hydrogels. <i>Carbohydrate Polymers</i> , 2018, 197, 497-507.  | 5.1  | 59        |
| 1526 | New Treatment Modalities for the Management of Peritoneal Metastases. , 2018, , 469-506.  |      | 4         |
| 1527 | Advances in Biomaterials for Drug Delivery. <i>Advanced Materials</i> , 2018, 30, e1705328.   | 11.1 | 565       |
| 1528 | Hydrogels for biomedical applications. , 2018, , 403-438.   |      | 32        |
| 1529 | Self-Assembled Peptide and Protein Nanofibers for Biomedical Applications. , 2018, , 569-598.   |      | 11        |
| 1530 | An alginate-based hydrogel composite obtained by UV radiation and its release of 5-fluorouracil. <i>Polymer Bulletin</i> , 2019, 76, 1167-1182.   | 1.7  | 9         |
| 1531 | The effect of complexation with cyclodextrins on the antioxidant and antimicrobial activity of ellagic acid. <i>Pharmaceutical Development and Technology</i> , 2019, 24, 410-418.                                  | 1.1  | 42        |
| 1532 | Development of external coincidence ERDA: Hydrogen analysis of moist samples. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2019, 450, 304-309.  | 0.6  | 1         |
| 1533 | Development of gelatin hydrogel pads incorporated with Eupatorium adenophorum essential oil as antibacterial wound dressing. <i>Polymer Bulletin</i> , 2019, 76, 701-724.   | 1.7  | 28        |
| 1534 | pH-sensitive hydrogel based on carboxymethyl chitosan/sodium alginate and its application for drug delivery. <i>Journal of Applied Polymer Science</i> , 2019, 136, 46911.  | 1.3  | 36        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1535 | Differences in Zwitterionic Sulfobetaine and Carboxybetaine Dextran-Based Hydrogels. <i>Langmuir</i> , 2019, 35, 1475-1482.   | 1.6 | 15        |
| 1536 | Preparation, characterization and controlled-release property of Fe <sup>3+</sup> cross-linked hydrogels based on peach gum polysaccharide. <i>Food Hydrocolloids</i> , 2019, 87, 260-269.  | 5.6 | 37        |
| 1537 | Application of different nanocarriers for encapsulation of curcumin. <i>Critical Reviews in Food Science and Nutrition</i> , 2019, 59, 3468-3497.   | 5.4 | 161       |
| 1538 | Hydrogel vehicles for sequential delivery of protein drugs to promote vascular regeneration. <i>Advanced Drug Delivery Reviews</i> , 2019, 149-150, 95-106.   | 6.6 | 52        |
| 1539 | An in vitro Assessment of Thermo-Reversible Gel Formulation Containing Sunitinib Nanoparticles for Neovascular Age-Related Macular Degeneration. <i>AAPS PharmSciTech</i> , 2019, 20, 281.  | 1.5 | 37        |
| 1540 | Soft Nanoparticle Functionalization of Natural Hydrogels for Tissue Engineering Applications. <i>Advanced Healthcare Materials</i> , 2019, 8, e1900506.   | 3.9 | 95        |
| 1541 | A Mixed Thermosensitive Hydrogel System for Sustained Delivery of Tacrolimus for Immunosuppressive Therapy. <i>Pharmaceutics</i> , 2019, 11, 413.   | 2.0 | 19        |
| 1542 | Cellulose-based injectable hydrogel composite for pH-responsive and controllable drug delivery. <i>Carbohydrate Polymers</i> , 2019, 225, 115207.   | 5.1 | 86        |
| 1543 | <i>In situ</i> composite ion-triggered gellan gum gel incorporating amino methacrylate copolymer microparticles: a therapeutic modality for buccal applicability. <i>Pharmaceutical Development and Technology</i> , 2019, 24, 1258-1271. | 1.1 | 15        |
| 1544 | Self-curing super-stretchable polymer/microgel complex coacervate gels without covalent bond formation. <i>Chemical Science</i> , 2019, 10, 8832-8839.  | 3.7 | 15        |
| 1545 | HYDROGEL: AN UPDATED PRIMER. <i>Journal of Critical Reviews</i> , 0, , 1-10.  | 0.7 | 10        |
| 1546 | Preparation and characterization of chitosan based hydrogels containing cyclodextrin inclusion compounds or nanoemulsions of thyme oil. <i>Polymer International</i> , 2019, 68, 1891-1902.   | 1.6 | 35        |
| 1547 | Materials as Bioinks and Bioink Design. , 2019, , 67-100.   |     | 7         |
| 1548 | Injectable thermosensitive gels for the localized and controlled delivery of biomolecules in tissue engineering/regenerative medicine. <i>Biomedical Science and Engineering</i> , 2019, 3, .   | 0.0 | 8         |
| 1549 | Thermo-sensitive hydrogels for delivering biotherapeutic molecules: A review. <i>Saudi Pharmaceutical Journal</i> , 2019, 27, 990-999.  | 1.2 | 155       |
| 1550 | Characterising the throat diameter of through-pores in network structures using a percolation criterion. <i>Molecular Physics</i> , 2019, 117, 3614-3622.   | 0.8 | 1         |
| 1551 | Tailoring the Chemical Modification of Chitosan Hydrogels to Fine-Tune the Release of a Synergistic Combination of Chemotherapeutics. <i>Biomacromolecules</i> , 2019, 20, 3126-3141.   | 2.6 | 25        |
| 1552 | Stimuli-Responsive Hydrogels: An Interdisciplinary Overview. , 0, , .   |     | 11        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1553 | Flow induced stability of pluronic hydrogels: Injectable and unencapsulated nucleus pulposus replacement. <i>Acta Biomaterialia</i> , 2019, 96, 295-302.  | 4.1 | 16        |
| 1554 | Sewing Hydrogels: Adhesion of Hydrogels Utilizing in Situ Polymerization of Linear Polymers inside Gel Networks. <i>Macromolecules</i> , 2019, 52, 5690-5697.   | 2.2 | 22        |
| 1555 | Self-assembled hydrogels constructed via host-guest polymers with highly efficient dye removal capability for wastewater treatment. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 579, 123670.  | 2.3 | 21        |
| 1556 | Preparation of microemulsions and nanoemulsions by membrane emulsification. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 579, 123709.  | 2.3 | 71        |
| 1557 | Review of Stimuli-Responsive Polymers in Drug Delivery and Textile Application. <i>Molecules</i> , 2019, 24, 2547.  | 1.7 | 115       |
| 1558 | Sodium alginate in drug delivery and biomedical areas. , 2019, , 59-100.  |     | 27        |
| 1559 | An ingenious non-spherical mesoporous silica nanoparticle cargo with curcumin induces mitochondria-mediated apoptosis in breast cancer (MCF-7) cells. <i>Oncotarget</i> , 2019, 10, 1193-1208.  | 0.8 | 31        |
| 1560 | Thermal- and salt-activated shape memory hydrogels based on a gelatin/polyacrylamide double network. <i>RSC Advances</i> , 2019, 9, 18619-18626.  | 1.7 | 26        |
| 1561 | Understanding the Phase and Morphological Behavior of Dispersions of Synergistic Dual-Stimuli-Responsive Poly( <i>N</i> -isopropylacrylamide) Nanogels. <i>Journal of Physical Chemistry B</i> , 2019, 123, 6303-6313.  | 1.2 | 24        |
| 1562 | Comparison of the Efficacy and Safety Profiles of a Mixed 0.75% Ropivacaine HCl™ and 0.75% Ropivacaine HCl™ Versus a 0.75% Ropivacaine HCl™ and No Treatment Group: A Randomized, Single-Blind, Single-Institution Pilot Study. <i>Journal of Korean Society of Spine Surgery</i> , 2019, 26, 11. | 0.1 | 1         |
| 1563 | Microbial exopolysaccharides for biomedical applications. , 2019, , 165-219.  |     | 3         |
| 1564 | Controlling the porous structure of alginate ferrogel for anticancer drug delivery under magnetic stimulation. <i>Carbohydrate Polymers</i> , 2019, 223, 115045.  | 5.1 | 46        |
| 1565 | Influence of ions to modulate hydrazone and oxime reaction kinetics to obtain dynamically cross-linked hyaluronic acid hydrogels. <i>Polymer Chemistry</i> , 2019, 10, 4322-4327.   | 1.9 | 20        |
| 1566 | Superstrong and Tough Hydrogel through Physical Cross-Linking and Molecular Alignment. <i>Biomacromolecules</i> , 2019, 20, 4476-4484.  | 2.6 | 83        |
| 1567 | Hydrogels as an Emerging Material Platform for Solar Water Purification. <i>Accounts of Chemical Research</i> , 2019, 52, 3244-3253.  | 7.6 | 392       |
| 1568 | PolyethyleneGlycolBased Thermoreversible Biscarbamate Hydrogels and Metallogels Synthesized through NonIsocyanate Route. <i>ChemistrySelect</i> , 2019, 4, 11052-11060.   | 0.7 | 6         |
| 1569 | A review on recent development of theoretical modeling of hydrogel phase behavior subject to mechanics and multiphysics coupled effects. <i>Mechanics of Soft Materials</i> , 2019, 1, 1.   | 0.4 | 1         |
| 1570 | Alkaline monomer for mechanical enhanced and self-healing hydrogels based on dynamic borate ester bonds. <i>Polymer</i> , 2019, 184, 121882.  | 1.8 | 34        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1572 | Polyphenolic Fraction from Olive Mill Wastewater: Scale-Up and in Vitro Studies for Ophthalmic Nutraceutical Applications. <i>Antioxidants</i> , 2019, 8, 462.  | 2.2 | 31        |
| 1573 | Cold atmospheric plasma surface nanoengineered carboxymethyl cellulose hydrogels as oral ibuprofen carriers. <i>SN Applied Sciences</i> , 2019, 1, 1.   | 1.5 | 3         |
| 1574 | Aptamer-Functionalized Fibrin Hydrogel Improves Vascular Endothelial Growth Factor Release Kinetics and Enhances Angiogenesis and Osteogenesis in Critically Sized Cranial Defects. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 6152-6160.                       | 2.6 | 23        |
| 1575 | Gel composition and brine concentration effect on hydrogel dehydration subjected to uniaxial compression. <i>Journal of Petroleum Science and Engineering</i> , 2019, 182, 106358.  | 2.1 | 12        |
| 1576 | Microcapsules with Distinct Dual-Layer Shells and Their Applications for the Encapsulation, Preservation, and Slow Release of Hydrophilic Small Molecules. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 41640-41648.   | 4.0 | 9         |
| 1577 | Effect of nanodiamond surface chemistry on adsorption and release of tiopronin. <i>Diamond and Related Materials</i> , 2019, 100, 107590.   | 1.8 | 29        |
| 1578 | Multiple Physically Cross-Linked F127 $\alpha$ -CD Hydrogels: Preparation, Sol-Gel Transformation, and Controlled Release of 5-Fluorouracil. <i>ACS Applied Bio Materials</i> , 2019, 2, 527-532.   | 2.3 | 11        |
| 1579 | Controlling Fluid Diffusion and Release through Mixed-Molecular-Weight Poly(ethylene) Glycol Diacrylate (PEGDA) Hydrogels. <i>Materials</i> , 2019, 12, 3381.   | 1.3 | 16        |
| 1580 | Screening and optimization through response surface methodology for synthesis of pH, temperature and salt-sensitive <i>Aloe vera</i> -acrylic acid-based biodegradable hydrogel: Its evaluation as dye adsorbent. <i>Polymer Engineering and Science</i> , 2019, 59, 2323-2334. | 1.5 | 10        |
| 1581 | Biological and Bio-inspired Nanomaterials. <i>Advances in Experimental Medicine and Biology</i> , 2019, , .   | 0.8 | 8         |
| 1582 | Polymer-Mediated Penetration-Independent Cancer Therapy. <i>Biomacromolecules</i> , 2019, 20, 4258-4271.  | 2.6 | 38        |
| 1583 | Swelling thermodynamics and phase transitions of polymer gels. <i>Nano Futures</i> , 2019, 3, 042001.   | 1.0 | 22        |
| 1585 | One-Step Preparation of Nickel Nanoparticle-Based Magnetic Poly(Vinyl Alcohol) Gels. <i>Coatings</i> , 2019, 9, 744.  | 1.2 | 8         |
| 1586 | Bioactuators based on stimulus-responsive hydrogels and their emerging biomedical applications. <i>NPG Asia Materials</i> , 2019, 11, .   | 3.8 | 202       |
| 1588 | Localized controlled release of bevacizumab and doxorubicin by thermo-sensitive hydrogel for normalization of tumor vasculature and to enhance the efficacy of chemotherapy. <i>International Journal of Pharmaceutics</i> , 2019, 572, 118799.                                 | 2.6 | 41        |
| 1589 | Injectable Hydrogel through Hydrophobic Grafting on Chitosan for Controlled Drug Delivery. <i>ACS Applied Bio Materials</i> , 2019, 2, 5415-5426.   | 2.3 | 35        |
| 1590 | Thermodynamic and Kinetic Investigation of Water Absorption by PAM Composite Hydrogel. , 2019, , .  |     | 6         |
| 1591 | Structural changes and crosslinking modulated functional properties of oxi-HA/ADH hydrogels useful for regenerative purposes. <i>European Polymer Journal</i> , 2019, 121, 109288.  | 2.6 | 13        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1594 | Influence of side-chain length on long-term release kinetics from poly(2-oxazoline)-drug conjugate networks. <i>European Polymer Journal</i> , 2019, 120, 109217.   | 2.6 | 18        |
| 1595 | Self-Assembly of PEGylated Diphenylalanines into Photoluminescent Fibrillary Aggregates. <i>ChemPhysChem</i> , 2019, 20, 2774-2782.   | 1.0 | 22        |
| 1596 | Dual-Action Pesticide Carrier That Continuously Induces Plant Resistance, Enhances Plant Anti-Tobacco Mosaic Virus Activity, and Promotes Plant Growth. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 10000-10009.        | 2.4 | 39        |
| 1597 | Cryogel scaffolds for regionally constrained delivery of lysophosphatidylcholine to central nervous system slice cultures: A model of focal demyelination for multiple sclerosis research. <i>Acta Biomaterialia</i> , 2019, 97, 216-229. | 4.1 | 15        |
| 1598 | In Situ Forming Depot as Sustained-Release Drug Delivery Systems. <i>Critical Reviews in Therapeutic Drug Carrier Systems</i> , 2019, 36, 93-136.   | 1.2 | 32        |
| 1599 | Film Dressings Based on Hydrogels: Simultaneous and Sustained-Release of Bioactive Compounds with Wound Healing Properties. <i>Pharmaceutics</i> , 2019, 11, 447.   | 2.0 | 30        |
| 1600 | Nucleic Acid-Based Dual Cross-Linked Hydrogels for <i>in Situ</i> Tissue Repair via Directional Stem Cell Migration. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 34621-34633.   | 4.0 | 27        |
| 1601 | Nanosystems as Vehicles for the Delivery of Antimicrobial Peptides (AMPs). <i>Pharmaceutics</i> , 2019, 11, 448.  | 2.0 | 86        |
| 1602 | Biomaterial-based platforms for in situ dendritic cell programming and their use in antitumor immunotherapy. , 2019, 7, 238.  |     | 33        |
| 1603 | Biotechnical Properties of Poly(HEMA-co-HPMA) Hydrogels Are Governed by Distribution among Water States. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 4994-5004.  | 2.6 | 14        |
| 1604 | Chitosan hydrogel micro-bio-devices with complex capillary patterns via reactive-diffusive self-assembly. <i>Acta Biomaterialia</i> , 2019, 99, 211-219.  | 4.1 | 7         |
| 1605 | A highly efficient thermo responsive palladium nanoparticles incorporated guar gum hydrogel for effective catalytic reactions. <i>Carbohydrate Polymers</i> , 2019, 226, 115289.  | 5.1 | 22        |
| 1606 | Construction of a biomimetic chemokine reservoir stimulates rapid in situ wound repair and regeneration. <i>International Journal of Pharmaceutics</i> , 2019, 570, 118648.   | 2.6 | 10        |
| 1607 | A stimuli responsive two component supramolecular hydrogelator with aggregation-induced emission properties. <i>Soft Matter</i> , 2019, 15, 7117-7121.  | 1.2 | 9         |
| 1608 | Synthesis and Characterisation of Novel Temperature and pH Sensitive Physically Cross-Linked Poly (N-vinylcaprolactam-co-itaconic Acid) Hydrogels for Drug Delivery. <i>Gels</i> , 2019, 5, 41.   | 2.1 | 22        |
| 1609 | Peptide-/Drug-Directed Self-Assembly of Hybrid Polyurethane Hydrogels for Wound Healing. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 37147-37155.   | 4.0 | 81        |
| 1610 | Synthesis and characterization of gold/silica hybrid nanoparticles incorporated gelatin methacrylate conductive hydrogels for H9C2 cardiac cell compatibility study. <i>Composites Part B: Engineering</i> , 2019, 177, 107415.           | 5.9 | 51        |
| 1611 | Utilization of NaHCO <sub>3</sub> as Foam Additive in Synthesis of Superporous Hydrogels. <i>Materials Today: Proceedings</i> , 2019, 17, 995-1000.   | 0.9 | 2         |



| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1612 | A Modular and Practical Synthesis of Zwitterionic Hydrogels through Sequential Amine-Epoxy "Click" Chemistry and N-Alkylation Reaction. <i>Polymers</i> , 2019, 11, 1491.  | 2.0 | 19        |
| 1613 | Preparation and applications of peptide-based injectable hydrogels. <i>RSC Advances</i> , 2019, 9, 28299-28311.  | 1.7 | 54        |
| 1614 | Versatile biomanufacturing through stimulus-responsive cell-material feedback. <i>Nature Chemical Biology</i> , 2019, 15, 1017-1024.   | 3.9 | 50        |
| 1616 | Effect of Structure Heterogeneity on Mechanical Performance of Physical Polyampholytes Hydrogels. <i>Macromolecules</i> , 2019, 52, 7369-7378.   | 2.2 | 42        |
| 1617 | Novel Nanocomposites Based on Functionalized Magnetic Nanoparticles and Polyacrylamide: Preparation and Complex Characterization. <i>Nanomaterials</i> , 2019, 9, 1384.  | 1.9 | 19        |
| 1618 | First Aldol Cross-Linked Hyaluronic Acid Hydrogel: Fast and Hydrolytically Stable Hydrogel with Tissue Adhesive Properties. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 38232-38239.                               | 4.0 | 34        |
| 1619 | Direct Observation of Spatiotemporal Heterogeneous Gelation by Rotational Tracking of a Single Anisotropic Nanoprobe. <i>ACS Nano</i> , 2019, 13, 11334-11342.   | 7.3 | 22        |
| 1620 | How small can poly(N-isopropylacrylamide) nanogels be prepared by controlling the size with surfactant?. <i>Journal of Colloid and Interface Science</i> , 2019, 557, 793-806.   | 5.0 | 18        |
| 1621 | Encapsulation of florfenicol by in situ crystallization into novel alginate-Eudragit RS <sup>®</sup> blended matrix for pH modulated release. <i>Journal of Drug Delivery Science and Technology</i> , 2019, 54, 101241.         | 1.4 | 11        |
| 1622 | Synthesis of high payload nanohydrogels for the encapsulation of hydrophilic molecules via inverse miniemulsion polymerization: caffeine as a case study. <i>Drug Development and Industrial Pharmacy</i> , 2019, 45, 1862-1870. | 0.9 | 10        |
| 1623 | Non-thermal plasma assisted surface nano-textured carboxymethyl guar gum/chitosan hydrogels for biomedical applications. <i>RSC Advances</i> , 2019, 9, 1705-1716.   | 1.7 | 19        |
| 1624 | A DOPA-functionalized chondroitin sulfate-based adhesive hydrogel as a promising multi-functional bioadhesive. <i>Journal of Materials Chemistry B</i> , 2019, 7, 1741-1752.   | 2.9 | 38        |
| 1625 | Biocatalytic characterization of free and immobilized laccase from <i>Trametes versicolor</i> in its activation zone. <i>International Journal of Biological Macromolecules</i> , 2019, 128, 681-691.                            | 3.6 | 18        |
| 1626 | Liposomal doxorubicin loaded PLGA-PEG-PLGA based thermogel for sustained local drug delivery for the treatment of breast cancer. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2019, 47, 181-191.                    | 1.9 | 85        |
| 1627 | Self-Healing Polymeric Hydrogel Formed by Metal-Ligand Coordination Assembly: Design, Fabrication, and Biomedical Applications. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1800837.                                 | 2.0 | 183       |
| 1628 | Injectable thermosensitive hydrogel systems based on functional PEG/PCL block polymer for local drug delivery. <i>Journal of Controlled Release</i> , 2019, 297, 60-70.  | 4.8 | 106       |
| 1629 | CO <sub>2</sub> Sequestration by Bile Salt Aqueous Solutions and Formation of Supramolecular Hydrogels. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 3949-3955.   | 3.2 | 17        |
| 1631 | Poly (N-isopropylacrylamide) based hydrogels as novel precipitation and stabilization media for solid lipid nanoparticles (SLNs). <i>Journal of Colloid and Interface Science</i> , 2019, 541, 454-460.                          | 5.0 | 16        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1632 | An injectable sulfonated reversible thermal gel for therapeutic angiogenesis to protect cardiac function after a myocardial infarction. <i>Journal of Biological Engineering</i> , 2019, 13, 6.   | 2.0 | 19        |
| 1633 | Polyhydroxyalkanoates Applications in Drug Carriers. , 2019, , 77-124.  |     | 6         |
| 1634 | Atomic force microscopy-indentation demonstrates that alginate beads are mechanically stable under cell culture conditions. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 93, 61-69.                                | 1.5 | 18        |
| 1635 | Surfactant-free fabrication of pNIPAAm microgels in microfluidic devices. <i>Journal of Materials Research</i> , 2019, 34, 206-213.   | 1.2 | 11        |
| 1636 | Logical stimuli-triggered delivery of small molecules from hydrogel biomaterials. <i>Biomaterials Science</i> , 2019, 7, 542-546.   | 2.6 | 33        |
| 1637 | Logical design and application of prodrug platforms. <i>Polymer Chemistry</i> , 2019, 10, 306-324.  | 1.9 | 58        |
| 1638 | Modulating stiffness with photo-switchable supramolecular hydrogels. <i>Polymer Chemistry</i> , 2019, 10, 467-472.  | 1.9 | 48        |
| 1639 | Modern Strategies To Achieve Tissue-Mimetic, Mechanically Robust Hydrogels. <i>ACS Macro Letters</i> , 2019, 8, 705-713.  | 2.3 | 106       |
| 1640 | Evaluation of proanthocyanidin-crosslinked sericin/alginate blend for ketoprofen extended release. <i>Advanced Powder Technology</i> , 2019, 30, 1531-1543.   | 2.0 | 24        |
| 1641 | Self-powered, on-demand transdermal drug delivery system driven by triboelectric nanogenerator. <i>Nano Energy</i> , 2019, 62, 610-619.   | 8.2 | 99        |
| 1642 | In Situ Forming, Dual-Crosslink Network, Self-Healing Hydrogel Enabled by a Bioorthogonal Nopoldiolâ€“Benzoxaborolate Click Reaction with a Wide pH Range. <i>Chemistry of Materials</i> , 2019, 31, 4092-4102.                                 | 3.2 | 64        |
| 1643 | Carbon-based hydrogels: synthesis and their recent energy applications. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15491-15518.   | 5.2 | 124       |
| 1644 | Gum ghatti based hydrogel: Microwave synthesis, characterization, 5-Fluorouracil encapsulation and â€“in vitroâ€“ drug release evaluation. <i>Carbohydrate Polymers</i> , 2019, 222, 114979.  | 5.1 | 41        |
| 1645 | Antibacterial-Agent-Immobilized Gelatin Hydrogel as a 3D Scaffold for Natural and Bioengineered Tissues. <i>Gels</i> , 2019, 5, 32.   | 2.1 | 3         |
| 1646 | Drug Delivery: Polymers in the Development of Controlled Release Systems. <i>Polymers and Polymeric Composites</i> , 2019, , 719-747.   | 0.6 | 2         |
| 1647 | Application of carboxymethyl cellulose-g-poly(acrylic acid-co-acrylamide) hydrogel sponges for improvement of efficiency, reusability and thermal stability of a recombinant xylanase. <i>Chemical Engineering Journal</i> , 2019, 375, 122022. | 6.6 | 44        |
| 1648 | A review on latest innovations in natural gums based hydrogels: Preparations & applications. <i>International Journal of Biological Macromolecules</i> , 2019, 136, 870-890.  | 3.6 | 204       |
| 1649 | Ocular Drug Delivery: A Special Focus on the Thermosensitive Approach. <i>Nanomaterials</i> , 2019, 9, 884.   | 1.9 | 36        |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1650 | Interpenetrating polysaccharide networks as oral drug delivery modalities. , 2019, , 319-338.   |      | 0         |
| 1651 | Synthesis of poly(acrylic acid)-Fe <sup>3+</sup> /gelatin/poly(vinyl alcohol) triple-network supramolecular hydrogels with high toughness, high strength and self-healing properties. Polymer International, 2019, 68, 1710-1721.     | 1.6  | 27        |
| 1652 | Layered Double Hydroxide-Decorated Hydrogel for Biomedical Applications. , 2019, , 367-383.   |      | 1         |
| 1653 | Hybrid hydrogels for biomedical applications. Current Opinion in Chemical Engineering, 2019, 24, 143-157.   | 3.8  | 131       |
| 1654 | Mucoadhesive thermosensitive hydrogel for the intra-tumoral delivery of immunomodulatory agents, in vivo evidence of adhesion by means of non-invasive imaging techniques. International Journal of Pharmaceutics, 2019, 567, 118421. | 2.6  | 13        |
| 1655 | Novel biodegradable pH-sensitive hydrogels: An efficient controlled release system to manage ulcerative colitis. International Journal of Biological Macromolecules, 2019, 136, 83-96.  | 3.6  | 45        |
| 1656 | Mimicking the Dissolution Mechanisms of pH-Responsive Drug Release Formulations in Atomistic MD Simulations. Advanced Theory and Simulations, 2019, 2, 1900053.   | 1.3  | 6         |
| 1657 | Extending the Phantom Network Theory to Account for Cooperative Effect of Defects. Macromolecular Symposia, 2019, 385, 1900010.   | 0.4  | 6         |
| 1658 | Nanostructuring lipid carriers using <i>Ridolfia segetum</i> (L.) Moris essential oil. Materials Science and Engineering C, 2019, 103, 109804.  | 3.8  | 24        |
| 1659 | Advances in Biomaterials and Technologies for Vascular Embolization. Advanced Materials, 2019, 31, e1901071.  | 11.1 | 133       |
| 1660 | Ploxamer-based in situ gelling thermoresponsive systems for ocular drug delivery applications. Drug Discovery Today, 2019, 24, 1575-1586.   | 3.2  | 101       |
| 1661 | Injectable biomaterials for translational medicine. Materials Today, 2019, 28, 81-97.   | 8.3  | 82        |
| 1662 | Hydrogel-based ocular drug delivery systems: Emerging fabrication strategies, applications, and bench-to bedside manufacturing considerations. Journal of Controlled Release, 2019, 306, 29-39.                                       | 4.8  | 97        |
| 1663 | Printing Therapeutic Proteins in 3D using Nanoengineered Bioink to Control and Direct Cell Migration. Advanced Healthcare Materials, 2019, 8, e1801553.   | 3.9  | 61        |
| 1664 | Hydrogel Synthesis and Design. Polymers and Polymeric Composites, 2019, , 239-278.  | 0.6  | 4         |
| 1665 | PVA Cryogel as model hydrogel for iontophoretic transdermal drug delivery investigations. Comparison with PAA/PVA and PAA/PVP interpenetrating networks. Colloids and Surfaces B: Biointerfaces, 2019, 180, 441-448.                  | 2.5  | 41        |
| 1666 | An Injectable ROS-Responsive Self-Healing Hydrogel Based on tetra-epoly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 107 Td (g 1900106.   | 1.1  | 9         |
| 1667 | Peroxidase-Sensitive Tyramine Carboxymethyl Xylan Hydrogels for Enzyme Encapsulation. Macromolecular Research, 2019, 27, 764-771.   | 1.0  | 5         |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 1668 | Design of self-assembly dipeptide hydrogels and machine learning via their chemical features. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11259-11264.                         | 3.3  | 95        |
| 1669 | Altering the release of tobramycin by incorporating poly(ethylene glycol) into model silicone hydrogel contact lens materials. Journal of Biomaterials Science, Polymer Edition, 2019, 30, 1115-1141.                          | 1.9  | 5         |
| 1670 | NMR cryoporometry of polymers: Cross-linking, porosity and the importance of probe liquid. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 575, 256-263.   | 2.3  | 13        |
| 1671 | Preparation of luliconazole nanocrystals loaded hydrogel for improvement of dissolution and antifungal activity. Heliyon, 2019, 5, e01688.   | 1.4  | 58        |
| 1672 | Hydrogel-based transparent soils for root phenotyping in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11063-11068.  | 3.3  | 58        |
| 1673 | Enhancing cell seeding and osteogenesis of MSCs on 3D printed scaffolds through injectable BMP2 immobilized ECM-Mimetic gel. Dental Materials, 2019, 35, 990-1006.   | 1.6  | 48        |
| 1674 | Macroscale biomaterials strategies for local immunomodulation. Nature Reviews Materials, 2019, 4, 379-397.   | 23.3 | 172       |
| 1675 | Synergistic Tricolor Emission-Based White Light from Supramolecular Organic-Inorganic Hybrid Gel. Langmuir, 2019, 35, 6453-6459.   | 1.6  | 11        |
| 1676 | Numerical Estimates of the Topological Effects in the Elasticity of Gaussian Polymer Networks and Their Exact Theoretical Description. Macromolecules, 2019, 52, 3244-3251.  | 2.2  | 27        |
| 1677 | Exploring the cell-protein-mineral interfaces: Interplay of silica (nano)rods@collagen biocomposites with human dermal fibroblasts. Materials Today Bio, 2019, 1, 100004.  | 2.6  | 7         |
| 1678 | One-step wettability patterning of PDMS microchannels for generation of monodisperse alginate microbeads by in Situ external gelation in double emulsion microdroplets. Sensors and Actuators B: Chemical, 2019, 291, 418-425. | 4.0  | 48        |
| 1679 | Charge and Peptide Concentration as Determinants of the Hydrogel Internal Aqueous Environment. Materials, 2019, 12, 832.   | 1.3  | 7         |
| 1680 | Clinical Translation of Nanomaterials. , 2019, , 75-111.   |      | 0         |
| 1681 | Release of Pharmaceutical Peptides in an Aggregated State: Using Fibrillar Polymorphism to Modulate Release Levels. Colloids and Interfaces, 2019, 3, 42.  | 0.9  | 5         |
| 1682 | Superabsorbent polymers: A review on the characteristics and applications of synthetic, polysaccharide-based, semi-synthetic and "smart" derivatives. European Polymer Journal, 2019, 117, 165-178.                            | 2.6  | 168       |
| 1683 | A review on recent advancements in ophthalmology devices: Currently in market and under clinical trials. Journal of Drug Delivery Science and Technology, 2019, 52, 334-345.   | 1.4  | 10        |
| 1684 | Ulvan, a bioactive marine sulphated polysaccharide as a key constituent of hybrid biomaterials: A review. Carbohydrate Polymers, 2019, 218, 355-370.   | 5.1  | 146       |
| 1685 | Hydrogel and nanocomposite hydrogel drug-delivery systems for treatment of cancers. , 2019, , 293-329.   |      | 8         |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1686 | PLGA scaffolds: building blocks for new age therapeutics. , 2019, , 155-201.  |      | 3         |
| 1687 | Recent advances of chitosan composites in artificial skin: the next era for potential biomedical application. , 2019, , 97-119.   |      | 15        |
| 1688 | Mechanical and tribological assessment of silica nanoparticle-alginate-polyacrylamide nanocomposite hydrogels as a cartilage replacement. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 95, 196-204.  | 1.5  | 47        |
| 1689 | Tissue Response and Biodistribution of Injectable Cellulose Nanocrystal Composite Hydrogels. ACS Biomaterials Science and Engineering, 2019, 5, 2235-2246.  | 2.6  | 46        |
| 1690 | Dual Aptamer-Functionalized in Situ Injectable Fibrin Hydrogel for Promotion of Angiogenesis via Codelivery of Vascular Endothelial Growth Factor and Platelet-Derived Growth Factor- $\beta\beta$ . ACS Applied Materials & Interfaces, 2019, 11, 18123-18132. | 4.0  | 54        |
| 1691 | Stimulus-Responsive Hydrogel for Ophthalmic Drug Delivery. Macromolecular Bioscience, 2019, 19, e1900001.   | 2.1  | 42        |
| 1692 | Chitosan-based hydrogel to support the paracrine activity of mesenchymal stem cells in spinal cord injury treatment. Scientific Reports, 2019, 9, 6402.   | 1.6  | 96        |
| 1693 | pH-responsive chitosan based hydrogels affect the release of dapsone: Design, set-up, and physicochemical characterization. International Journal of Biological Macromolecules, 2019, 133, 1268-1279.   | 3.6  | 39        |
| 1694 | Novel dehydropolypeptide-based magnetogels containing manganese ferrite nanoparticles as antitumor drug nanocarriers. Physical Chemistry Chemical Physics, 2019, 21, 10377-10390.   | 1.3  | 17        |
| 1695 | Ultrasonic Generation of Pulsatile and Sequential Therapeutic Delivery Profiles from Calcium-Crosslinked Alginate Hydrogels. Molecules, 2019, 24, 1048.   | 1.7  | 19        |
| 1696 | A green strategy to endow superabsorbents with stretchability and self-healability. Chemical Engineering Journal, 2019, 370, 274-286.   | 6.6  | 14        |
| 1697 | Injectable microgel-hydrogel composites - a new system for prolonged drug delivery. , 2019, , 343-372.  |      | 8         |
| 1698 | Supramolecular phenoxy-alkyl maleate-based hydrogels and their enzyme/pH-responsive curcumin release. New Journal of Chemistry, 2019, 43, 5559-5567.  | 1.4  | 14        |
| 1699 | Efficient weapon for protracted warfare to malaria: A chondroitin sulfate derivatives-containing injectable, ultra-long-lasting meshy-gel system. Carbohydrate Polymers, 2019, 214, 131-141.  | 5.1  | 7         |
| 1700 | Preparation of thermosensitive biodegradable hydrogel using poly(5-[2-(2-(2-methoxyethoxy)ethoxy)-ethoxymethyl]-5-methyl-1,3-dioxo-2-one) derivatives. Materialia, 2019, 5, 100178.   | 1.3  | 11        |
| 1701 | Stimuli-responsive injectable cellulose thixogel for cell encapsulation. International Journal of Biological Macromolecules, 2019, 130, 1009-1017.  | 3.6  | 28        |
| 1702 | Homogeneous hydrogels made with acrylic acid, acrylamide and chemically functionalized carbon nanotubes. Journal of Macromolecular Science - Pure and Applied Chemistry, 2019, 56, 417-428.   | 1.2  | 3         |
| 1703 | Design and Applications of Photoresponsive Hydrogels. Advanced Materials, 2019, 31, e1807333.   | 11.1 | 353       |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1704 | Magneto- and photo-responsive hydrogels from the co-assembly of peptides, cyclodextrins, and superparamagnetic nanoparticles. <i>Faraday Discussions</i> , 2019, 219, 220-228.                                    | 1.6 | 23        |
| 1705 | Scaffold-mediated sequential drug/gene delivery to promote nerve regeneration and remyelination following traumatic nerve injuries. <i>Advanced Drug Delivery Reviews</i> , 2019, 149-150, 19-48.                 | 6.6 | 31        |
| 1706 | Nanofiber Dressings Topically Delivering Molecularly Engineered Human Cathelicidin Peptides for the Treatment of Biofilms in Chronic Wounds. <i>Molecular Pharmaceutics</i> , 2019, 16, 2011-2020.                | 2.3 | 42        |
| 1707 | Hydrogel Dressings for Advanced Wound Management. <i>Current Medicinal Chemistry</i> , 2019, 25, 5782-5797.   | 1.2 | 165       |
| 1708 | Printing Hydrogels and Elastomers in Arbitrary Sequence with Strong Adhesion. <i>Advanced Functional Materials</i> , 2019, 29, 1901721.   | 7.8 | 101       |
| 1709 | Microfluidic assembly of food-grade delivery systems: Toward functional delivery structure design. <i>Trends in Food Science and Technology</i> , 2019, 86, 465-478.  | 7.8 | 26        |
| 1710 | Engineering nanocellulose hydrogels for biomedical applications. <i>Advances in Colloid and Interface Science</i> , 2019, 267, 47-61.   | 7.0 | 286       |
| 1711 | Advances in atom-transfer radical polymerization for drug delivery applications. <i>European Polymer Journal</i> , 2019, 115, 45-58.  | 2.6 | 39        |
| 1712 | Stem cell paracrine effect and delivery strategies for spinal cord injury regeneration. <i>Journal of Controlled Release</i> , 2019, 300, 141-153.  | 4.8 | 56        |
| 1713 | Sterilization Procedure for Temperature-Sensitive Hydrogels Loaded with Silver Nanoparticles for Clinical Applications. <i>Nanomaterials</i> , 2019, 9, 380.  | 1.9 | 21        |
| 1714 | Electrophoretic fabrication of an active and selective wrinkle surface on hydrogels. <i>Chemical Communications</i> , 2019, 55, 4170-4173.  | 2.2 | 14        |
| 1715 | Biomaterial surfaces self-defensive against bacteria by contact transfer of antimicrobials. <i>Biomaterials</i> , 2019, 204, 25-35.   | 5.7 | 24        |
| 1716 | A pH-responsive hydrogel system based on cellulose and dopamine with controlled hydrophobic drug delivery ability and long-term bacteriostatic property. <i>Colloid and Polymer Science</i> , 2019, 297, 705-717. | 1.0 | 26        |
| 1717 | Amphiphilic hydrogels for biomedical applications. <i>Journal of Materials Chemistry B</i> , 2019, 7, 2899-2910.  | 2.9 | 54        |
| 1718 | Dynamics of water and xanthan chains in hydrogels studied by NMR relaxometry and their influence on drug release. <i>International Journal of Pharmaceutics</i> , 2019, 563, 373-383.                             | 2.6 | 25        |
| 1719 | Polymers for extended-release administration. <i>Biomedical Microdevices</i> , 2019, 21, 45.  | 1.4 | 21        |
| 1720 | Redox Polyion Complex Micelle-Based Injectable Hydrogel as Local Reactive Oxygen Species Scavenging Therapeutics. <i>ACS Symposium Series</i> , 2019, , 287-307.  | 0.5 | 1         |
| 1721 | Cell Encapsulation. <i>Polymers and Polymeric Composites</i> , 2019, , 377-427.   | 0.6 | 2         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1722 | Polysaccharide-Based Hybrid Self-Healing Hydrogel Supports the Paracrine Response of Mesenchymal Stem Cells. ACS Applied Bio Materials, 2019, 2, 2013-2027.   | 2.3 | 35        |
| 1723 | Applications of Hydrogels. Polymers and Polymeric Composites, 2019, , 453-490.  | 0.6 | 16        |
| 1724 | Effect of graphene-derivatives on the responsivity of PNIPAM-based thermosensitive nanocomposites “A review. European Polymer Journal, 2019, 116, 106-116.  | 2.6 | 21        |
| 1725 | Injectable Carbon Nanotube Impregnated Silk Based Multifunctional Hydrogel for Localized Targeted and On-Demand Anticancer Drug Delivery. ACS Biomaterials Science and Engineering, 2019, 5, 2365-2381. | 2.6 | 57        |
| 1726 | Electrodeposition-based rapid bioprinting of 3D-designed hydrogels with a pin art device. Biofabrication, 2019, 11, 035018.   | 3.7 | 13        |
| 1727 | Advanced Hydrogel Structures. Polymers and Polymeric Composites, 2019, , 279-305.   | 0.6 | 1         |
| 1728 | Targeting drug delivery within the suprachoroidal space. Drug Discovery Today, 2019, 24, 1654-1659.   | 3.2 | 24        |
| 1729 | Sustained Releasing of Methotrexate from Injectable and Thermosensitive Chitosan“Carbon Nanotube Hybrid Hydrogels Effectively Controls Tumor Cell Growth. ACS Omega, 2019, 4, 4040-4048.                | 1.6 | 59        |
| 1730 | Revisiting the Elasticity Theory for Real Gaussian Phantom Networks. Macromolecules, 2019, 52, 1685-1694.   | 2.2 | 57        |
| 1731 | Inductive co-crosslinking of cellulose nanocrystal/chitosan hydrogels for the treatment of vertebral compression fractures. International Journal of Biological Macromolecules, 2019, 130, 88-98.       | 3.6 | 32        |
| 1732 | Inorganic Nanocomposite Hydrogels: Present Knowledge and Future Challenge. , 2019, , 805-853.   |     | 3         |
| 1733 | Drug Delivery: Polymers in the Development of Controlled Release Systems. Polymers and Polymeric Composites, 2019, , 1-29.  | 0.6 | 2         |
| 1734 | Membrane Emulsification in Pharmaceuticals and Biotechnology. , 2019, , 167-222.  |     | 3         |
| 1735 | Design of ruthenium-albumin hydrogel for cancer therapeutics and luminescent imaging. Journal of Inorganic Biochemistry, 2019, 194, 19-25.  | 1.5 | 22        |
| 1736 | Controlling methacryloyl substitution of chondroitin sulfate: injectable hydrogels with tunable long-term drug release profiles. Journal of Materials Chemistry B, 2019, 7, 2151-2161.                  | 2.9 | 45        |
| 1737 | Nanoparticle-Hydrogel Composites: From Molecular Interactions to Macroscopic Behavior. Polymers, 2019, 11, 275.   | 2.0 | 142       |
| 1738 | Transformer Hydrogels: A Review. Advanced Materials Technologies, 2019, 4, 1900043.   | 3.0 | 207       |
| 1739 | Pluronic F127 gels fabricated by thiol“ene click chemistry: preparation, gelation dynamics, swelling behaviors and mechanical properties. Polymer Bulletin, 2019, 76, 6049-6061.                        | 1.7 | 8         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1740 | P-NIPAM in water- $\alpha$ -acetone mixtures: experiments and simulations. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 5106-5116.  | 1.3 | 17        |
| 1741 | Hydrogel-Based Drug Delivery for Lung Cancer. , 2019, , 293-310.  |     | 1         |
| 1742 | Electroconductive materials as biomimetic platforms for tissue regeneration. <i>Biotechnology Advances</i> , 2019, 37, 444-458.   | 6.0 | 32        |
| 1743 | Free-standing microchamber arrays as a biodegradable drug depot system for implant coatings. <i>European Polymer Journal</i> , 2019, 114, 72-80.  | 2.6 | 28        |
| 1744 | Multi-modal characterization of polymeric gels to determine the influence of testing method on observed elastic modulus. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 92, 152-161.   | 1.5 | 14        |
| 1745 | Direct Monitoring of Microgel Formation during Precipitation Polymerization of <i>N</i> -Isopropylacrylamide Using in Situ SANS. <i>ACS Omega</i> , 2019, 4, 3690-3699.   | 1.6 | 21        |
| 1746 | Advances in immunotherapy delivery from implantable and injectable biomaterials. <i>Acta Biomaterialia</i> , 2019, 88, 15-31.   | 4.1 | 127       |
| 1747 | Hydrogels and Their Applications in Targeted Drug Delivery. <i>Molecules</i> , 2019, 24, 603.   | 1.7 | 439       |
| 1748 | Magnetic bio-metal-organic framework nanocomposites decorated with folic acid conjugated chitosan as a promising biocompatible targeted theranostic system for cancer treatment. <i>Materials Science and Engineering C</i> , 2019, 99, 805-815.  | 3.8 | 95        |
| 1749 | Natamycin niosomes as a promising ocular nanosized delivery system with ketorolac tromethamine for dual effects for treatment of candida rabbit keratitis; <i>in vitro</i> and <i>in vivo</i> and histopathological studies. <i>Drug Development and Industrial Pharmacy</i> , 2019, 45, 922-936. | 0.9 | 40        |
| 1750 | Nanovector-Mediated Drug Delivery in Spinal Cord Injury: A Multitarget Approach. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1173-1182.  | 1.7 | 20        |
| 1751 | Emerging Biomedical Applications of Algal Polysaccharides. <i>Current Pharmaceutical Design</i> , 2019, 25, 1335-1344.  | 0.9 | 23        |
| 1752 | Bio-hydrogel for Prolonged Controlled Gastro-retentive Drug Dispenser. , 2019, , .  |     | 0         |
| 1753 | Developments in Bio-Inspired Nanomaterials for Therapeutic Delivery to Treat Hearing Loss. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 493.   | 1.8 | 26        |
| 1754 | Effect of Silica Nanoparticles on Wear Mechanism of Alginate-Polyacrylamide Hydrogel Matrix as a Load-Bearing Biomaterial. <i>Key Engineering Materials</i> , 2019, 823, 15-20.   | 0.4 | 4         |
| 1755 | Stiffness of thermoresponsive gelatin-based dynamic hydrogels affects fibroblast activation. <i>Polymer Chemistry</i> , 2019, 10, 6360-6367.  | 1.9 | 16        |
| 1756 | Tuning Mechanical Properties of Pseudopeptide Supramolecular Hydrogels by Graphene Doping. <i>Molecules</i> , 2019, 24, 4345.   | 1.7 | 11        |
| 1757 | Molecular Dynamics Validation and Applications of the Maximum Entropy Homogenization Procedure for Predicting the Elastic Properties of Gaussian Polymer Networks. <i>Macromolecules</i> , 2019, 52, 9445-9455.   | 2.2 | 15        |



| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 1758 | Effects of vitamin D <sub>3</sub> release from 3D printed calcium phosphate scaffolds on osteoblast and osteoclast cell proliferation for bone tissue engineering. <i>RSC Advances</i> , 2019, 9, 34847-34853.   | 1.7  | 10        |
| 1759 | Effect of water concentration on the shock response of polyethylene glycol diacrylate (PEGDA) hydrogels: A molecular dynamics study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 90, 30-39.  | 1.5  | 17        |
| 1760 | Molecular dynamics of the diffusion of natural bioactive compounds from high-solid biopolymer matrices for the design of functional foods. <i>Food Hydrocolloids</i> , 2019, 88, 301-319.  | 5.6  | 16        |
| 1761 | Chemical modification of alginate with cysteine and its application for the removal of Pb(II) from aqueous solutions. <i>International Journal of Biological Macromolecules</i> , 2019, 129, 1056-1068.  | 3.6  | 35        |
| 1762 | Electrically conductive hydrogels for flexible energy storage systems. <i>Progress in Polymer Science</i> , 2019, 88, 220-240.   | 11.8 | 260       |
| 1763 | Voltammetric and electrosynthetic triggered gel formation. <i>Electrochimica Acta</i> , 2019, 296, 1095-1101.  | 2.6  | 1         |
| 1764 | Synthesis, physicochemical, rheological and in-vitro characterization of double-crosslinked hyaluronic acid hydrogels containing dexamethasone and PLGA/dexamethasone nanoparticles as hybrid systems for specific medical applications. <i>International Journal of Biological Macromolecules</i> , 2019, 126, 193-208. | 3.6  | 41        |
| 1765 | Synthesis and rheological characterization of a novel thermostable quick setting composite hydrogel of gellan and pullulan. <i>International Journal of Biological Macromolecules</i> , 2019, 125, 979-988.  | 3.6  | 36        |
| 1766 | Cartilage-targeting dexamethasone prodrugs increase the efficacy of dexamethasone. <i>Journal of Controlled Release</i> , 2019, 295, 118-129.  | 4.8  | 45        |
| 1767 | The production and application of hydrogels for wound management: A review. <i>European Polymer Journal</i> , 2019, 111, 134-151.  | 2.6  | 193       |
| 1768 | Meningeal inflammatory response and fibrous tissue remodeling around intracortical implants: An in vivo two-photon imaging study. <i>Biomaterials</i> , 2019, 195, 111-123.  | 5.7  | 37        |
| 1769 | Morpholino Oligonucleotide Cross-Linked Hydrogels as Portable Optical Oligonucleotide Biosensors. <i>ACS Sensors</i> , 2019, 4, 185-191.   | 4.0  | 14        |
| 1770 | Influence of Hydrophobic Cross-Linkers on Carboxybetaine Copolymer Stimuli Response and Hydrogel Biological Properties. <i>Langmuir</i> , 2019, 35, 1631-1641.   | 1.6  | 17        |
| 1771 | Drug and Gene Delivery for Regenerative Engineering. , 2019, , 565-583.  |      | 1         |
| 1772 | Nanoparticle eluting-angioplasty balloons to treat cardiovascular diseases. <i>International Journal of Pharmaceutics</i> , 2019, 554, 212-223.  | 2.6  | 25        |
| 1773 | In vitro genotoxicity assessment of an oxidized dextrin-based hydrogel for biomedical applications. <i>Journal of Applied Toxicology</i> , 2019, 39, 639-649.  | 1.4  | 7         |
| 1774 | Casein-based hydrogel carrying insulin: preparation, in vitro evaluation and in vivo assessment. <i>Journal of Pharmaceutical Investigation</i> , 2019, 49, 635-641.   | 2.7  | 18        |
| 1775 | Interpenetrating thermophobic and thermophilic dual responsive networks. <i>Journal of Polymer Science Part A</i> , 2019, 57, 539-544.   | 2.5  | 4         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1776 | Photoinduced Hydrogel Formation Based on $\gamma$ -Crosslinked 3D Framework for UV Protection Application. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1800500.                                | 1.7 | 26        |
| 1777 | Microwave assisted $\beta$ -carrageenan capped silver nanocomposites for eradication of bacterial biofilms. <i>Carbohydrate Polymers</i> , 2019, 206, 854-862.  | 5.1 | 45        |
| 1778 | Effects of pH, extrusion tip size and storage protocol on the structural properties of Ca(II)-alginate beads. <i>Carbohydrate Polymers</i> , 2019, 206, 749-756.  | 5.1 | 33        |
| 1779 | Improved Efficacy of Antibody Cancer Immunotherapeutics through Local and Sustained Delivery. <i>ChemBioChem</i> , 2019, 20, 747-753.   | 1.3 | 12        |
| 1780 | Revisiting the insights and applications of protein engineered hydrogels. <i>Materials Science and Engineering C</i> , 2019, 95, 312-327.   | 3.8 | 17        |
| 1781 | Synthesis of polyhedral oligomeric silsesquioxane nano-crosslinked poly(ethylene glycol)-based hybrid hydrogels for drug delivery and antibacterial activity. <i>Polymer International</i> , 2019, 68, 667-674. | 1.6 | 24        |
| 1782 | Triiodothyronine impregnated alginate/gelatin/polyvinyl alcohol composite scaffold designed for exudate-intensive wound therapy. <i>European Polymer Journal</i> , 2019, 110, 252-264.                          | 2.6 | 28        |
| 1783 | Matryoshka-Inspired Micro-Origami Capsules to Enhance Loading, Encapsulation, and Transport of Drugs. <i>Soft Robotics</i> , 2019, 6, 150-159.  | 4.6 | 25        |
| 1784 | Photopolymerized Micelle-Laden Hydrogels Can Simultaneously Form and Encapsulate Nanocrystals to Improve Drug Substance Solubility and Expedite Drug Product Design. <i>Small</i> , 2019, 15, e1803372.         | 5.2 | 20        |
| 1785 | Beta-glucan and arabinogalactan-based xerogels for abuse-deterrent opioid formulations. <i>European Journal of Pharmaceutical Sciences</i> , 2019, 129, 132-139.  | 1.9 | 7         |
| 1786 | Cellulose-Based Hydrogels for Pharmaceutical and Biomedical Applications. <i>Polymers and Polymeric Composites</i> , 2019, , 1103-1130.   | 0.6 | 2         |
| 1787 | Cellulose-Based Hydrogels as Biomaterials. <i>Polymers and Polymeric Composites</i> , 2019, , 1177-1203.  | 0.6 | 2         |
| 1788 | Cellulose-Based Hydrogels in Topical Drug Delivery: A Challenge in Medical Devices. <i>Polymers and Polymeric Composites</i> , 2019, , 1205-1233.   | 0.6 | 2         |
| 1789 | Polysaccharide-Based Superabsorbents: Synthesis, Properties, and Applications. <i>Polymers and Polymeric Composites</i> , 2019, , 1393-1431.  | 0.6 | 10        |
| 1790 | Biodegradable Hydrogels for Controlled Drug Delivery. <i>Polymers and Polymeric Composites</i> , 2019, , 1433-1472.   | 0.6 | 2         |
| 1791 | Gelatin-Based Hydrogels. <i>Polymers and Polymeric Composites</i> , 2019, , 1601-1641.  | 0.6 | 12        |
| 1792 | Novel Superabsorbent Cellulose-Based Hydrogels: Present Status, Synthesis, Characterization, and Application Prospects. <i>Polymers and Polymeric Composites</i> , 2019, , 155-195.                             | 0.6 | 4         |
| 1793 | Drug-Loaded Biocompatible Nanocarriers Embedded in Poloxamer 407 Hydrogels as Therapeutic Formulations. <i>Medicines (Basel, Switzerland)</i> , 2019, 6, 7.   | 0.7 | 47        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1794 | Poly(methyl vinyl ether-co-maleic acid) Hydrogels Containing Cyclodextrins and Tween 85 for Potential Application as Hydrophobic Drug Delivery Systems. <i>Macromolecular Research</i> , 2019, 27, 396-403.   | 1.0 | 14        |
| 1795 | Covalently crosslinked organophosphorous derivatives-chitosan hydrogel as a drug delivery system for oral administration of camptothecin. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2019, 136, 174-183.                           | 2.0 | 45        |
| 1796 | Alginate-Based Delivery Systems for Bevacizumab Local Therapy: In Vitro Structural Features and Release Properties. <i>Journal of Pharmaceutical Sciences</i> , 2019, 108, 1559-1568.   | 1.6 | 18        |
| 1797 | A Review on Bioengineering Approaches to Insulin Delivery: A Pharmaceutical and Engineering Perspective. <i>Macromolecular Bioscience</i> , 2019, 19, e1800458.   | 2.1 | 36        |
| 1798 | Light emitting self-healable hydrogel with bio-degradability prepared from pectin and Tetraphenylethylene bearing polymer. <i>Journal of Polymer Research</i> , 2019, 26, 1.  | 1.2 | 19        |
| 1799 | Cellulose nanocrystals and cellulose nanofibrils based hydrogels for biomedical applications. <i>Carbohydrate Polymers</i> , 2019, 209, 130-144.  | 5.1 | 647       |
| 1800 | Osmosis effect on protein sustained release of Agarose hydrogel for anti-friction performance. <i>Tribology International</i> , 2019, 132, 108-117.   | 3.0 | 7         |
| 1801 | Thiolation of arabinoxylan and its application in the fabrication of pH-sensitive thiolated arabinoxylan grafted acrylic acid copolymer. <i>Drug Development and Industrial Pharmacy</i> , 2019, 45, 754-766.   | 0.9 | 26        |
| 1802 | Injectable Slippery Lubricant-Coated Spiky Microparticles with Persistent and Exceptional Biofouling-Resistance. <i>ACS Central Science</i> , 2019, 5, 250-258.   | 5.3 | 15        |
| 1803 | Development of gelatin/chitosan/PVA hydrogels: Thermal stability, water state, viscoelasticity, and cytotoxicity assays. <i>Journal of Applied Polymer Science</i> , 2019, 136, 47149.  | 1.3 | 66        |
| 1804 | Thermoresponsive Drug Delivery Systems, Characterization, and Applications. , 2019, , 351-373.  |     | 1         |
| 1805 | Investigating the effect of tetracycline addition on nanocomposite hydrogels based on polyvinyl alcohol and chitosan nanoparticles for specific medical applications. <i>International Journal of Biological Macromolecules</i> , 2019, 121, 1061-1069. | 3.6 | 58        |
| 1806 | Hydrogel Nanocomposite Systems. , 2019, , 81-131.   |     | 13        |
| 1807 | Microfluidic fabrication of wrinkled protein microcapsules and their nanomechanical properties affected by protein secondary structure. <i>Journal of Food Engineering</i> , 2019, 246, 102-110.  | 2.7 | 18        |
| 1808 | Injectable angiogenic and osteogenic carrageenan nanocomposite hydrogel for bone tissue engineering. <i>International Journal of Biological Macromolecules</i> , 2019, 122, 320-328.  | 3.6 | 74        |
| 1809 | Degradable and Injectable Hydrogel for Drug Delivery in Soft Tissues. <i>Biomacromolecules</i> , 2019, 20, 149-163.   | 2.6 | 85        |
| 1810 | Nanotechnology in Targeted Drug Delivery and Therapeutics. , 2019, , 357-409.   |     | 17        |
| 1811 | Natural hydrogels for cartilage regeneration: Modification, preparation and application. <i>Journal of Orthopaedic Translation</i> , 2019, 17, 26-41.   | 1.9 | 94        |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1812 | Poly(lactic acid) based hydrogels: formation, characteristics and biomedical applications. Journal of Porous Materials, 2019, 26, 881-901.  | 1.3  | 59        |
| 1813 | A pH-Responsive Molecularly Imprinted Hydrogel for Dexamethasone Release. Journal of Inorganic and Organometallic Polymers and Materials, 2019, 29, 659-666.  | 1.9  | 23        |
| 1814 | Fatigue of hydrogels. European Journal of Mechanics, A/Solids, 2019, 74, 337-370.   | 2.1  | 206       |
| 1815 | Background-Free Fluorescence-Decay-Time Sensing and Imaging of pH with Highly Photostable Diazaoxotriangulenium Dyes. Analytical Chemistry, 2019, 91, 808-816.  | 3.2  | 24        |
| 1816 | General Principle for Fabricating Natural Globular Protein-Based Double-Network Hydrogels with Integrated Highly Mechanical Properties and Surface Adhesion on Solid Surfaces. Chemistry of Materials, 2019, 31, 179-189. | 3.2  | 102       |
| 1817 | Controlled delivery of ibuprofen from poly(vinyl alcohol)-poly(ethylene glycol) interpenetrating polymeric network hydrogels. Journal of Pharmaceutical Analysis, 2019, 9, 108-116.                                       | 2.4  | 36        |
| 1818 | Controlling the degradation of an oxidized dextran-based hydrogel independent of the mechanical properties. Carbohydrate Polymers, 2019, 204, 131-141.  | 5.1  | 52        |
| 1819 | Controlled release of Montelukast Sodium from pH-sensitive injectable hydrogels. Polymer-Plastics Technology and Materials, 2019, 58, 948-956.  | 0.6  | 0         |
| 1820 | Hydrogel as an alternative structure for food packaging systems. Carbohydrate Polymers, 2019, 205, 106-116.   | 5.1  | 162       |
| 1821 | Controlled release of cephadrine by biopolymers based target specific crosslinked hydrogels. International Journal of Biological Macromolecules, 2019, 121, 104-112.  | 3.6  | 39        |
| 1822 | Effects of high temperature and ultraviolet radiation on polymer composites. , 2019, , 407-426.   |      | 26        |
| 1823 | Pharmaceutical challenges and perspectives in developing ophthalmic drug formulations. Journal of Pharmaceutical Investigation, 2019, 49, 215-228.  | 2.7  | 28        |
| 1824 | Medical Applications of Polymer/Functionalized Nanoparticle Systems. , 2019, , 381-404.   |      | 3         |
| 1825 | Influence of alginate backbone on efficacy of thermo-responsive alginate-g-P(NIPAAm) hydrogel as a vehicle for sustained and controlled gene delivery. Materials Science and Engineering C, 2019, 95, 409-421.            | 3.8  | 43        |
| 1826 | Morphologies and functionalities of polymeric nanocarriers as chemical tools for drug delivery: A review. Journal of King Saud University - Science, 2019, 31, 398-411.   | 1.6  | 85        |
| 1827 | Hydrogels for Advanced Stem Cell Therapies: A Biomimetic Materials Approach for Enhancing Natural Tissue Function. IEEE Reviews in Biomedical Engineering, 2019, 12, 333-351.   | 13.1 | 38        |
| 1828 | Interpenetrating networks hydrogels based on hyaluronic acid for drug delivery and tissue engineering. International Journal of Polymeric Materials and Polymeric Biomaterials, 2019, 68, 442-451.                        | 1.8  | 15        |
| 1829 | Natural and synthetic polymer-based smart biomaterials for management of ulcerative colitis: a review of recent developments and future prospects. Drug Delivery and Translational Research, 2019, 9, 595-614.            | 3.0  | 55        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1830 | Stimuli-responsive nanotherapeutics for precision drug delivery and cancer therapy. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2019, 11, e1527.   | 3.3 | 231       |
| 1831 | Emerging role of nanomedicine in the treatment of neuropathic pain. Journal of Drug Targeting, 2020, 28, 11-22.   | 2.1 | 9         |
| 1832 | Polymeric microgels for bone tissue engineering applications – a review. International Journal of Polymeric Materials and Polymeric Biomaterials, 2020, 69, 381-397.  | 1.8 | 31        |
| 1833 | In vitro toxicity assessment of hydrogel patches obtained by cation-induced crosslinking of rod-like cellulose nanocrystals. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 687-697.  | 1.6 | 18        |
| 1834 | Hydrogel Adhesion: A Supramolecular Synergy of Chemistry, Topology, and Mechanics. Advanced Functional Materials, 2020, 30, 1901693.  | 7.8 | 507       |
| 1835 | pH-sensitive free AgNPs composite and nanocomposite beads based on starch as drug delivery systems. Polymer Bulletin, 2020, 77, 1255-1279.  | 1.7 | 9         |
| 1836 | Polyamide fabric coated with a dihydroxyacetone-loaded chitosan hydrogel for a cosmeto-textile application. Journal of Industrial Textiles, 2020, 50, 526-542.  | 1.1 | 3         |
| 1837 | Composite hydrogels based on gelatin, chitosan and polyvinyl alcohol to biomedical applications: a review. International Journal of Polymeric Materials and Polymeric Biomaterials, 2020, 69, 1-20.   | 1.8 | 163       |
| 1838 | Design of gel structures in water and oil phases for improved delivery of bioactive food ingredients. Critical Reviews in Food Science and Nutrition, 2020, 60, 1651-1666.  | 5.4 | 113       |
| 1839 | Ascorbic acid derivative-loaded modified aspasomes: formulation, <i>in vitro</i> , <i>ex vivo</i> and clinical evaluation for melasma treatment. Journal of Liposome Research, 2020, 30, 54-67.   | 1.5 | 31        |
| 1840 | Neural tissue engineering with structured hydrogels in CNS models and therapies. Biotechnology Advances, 2020, 42, 107370.  | 6.0 | 78        |
| 1841 | Swelling and drug delivery kinetics of click-synthesized hydrogels based on various combinations of PEG and star-shaped PCL: influence of network parameters on swelling and release behavior. Polymer Bulletin, 2020, 77, 3989-4010.   | 1.7 | 34        |
| 1842 | Synthesis and Characterization of Carboxymethyl Cellulose/β <sup>2</sup> -Cyclodextrin/Chitosan Hydrogels and Investigating the Effect of Magnetic Nanoparticles (Fe <sub>3</sub> O <sub>4</sub> ) on a Novel Carrier for a Controlled Release of Methotrexate as Drug Delivery. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 1339-1351. | 1.9 | 40        |
| 1843 | Poly(ethylene glycol) Composite Hydrogels with Natural Zeolite as Filler for Controlled Delivery Applications. Macromolecular Research, 2020, 28, 211-220.  | 1.0 | 11        |
| 1844 | Exploring the gel phase of cationic glycyllalanyl glycine in ethanol/water. I. Rheology and microscopy studies. Journal of Colloid and Interface Science, 2020, 564, 499-509.   | 5.0 | 13        |
| 1845 | Chitosan-based hydrogels loading with thyme oil cyclodextrin inclusion compounds: From preparation to characterization. European Polymer Journal, 2020, 122, 109303.  | 2.6 | 40        |
| 1846 | Tunable, Functional Diblock Copolypeptide Hydrogels Based on Methionine Homologs. Macromolecular Bioscience, 2020, 20, 1900243.   | 2.1 | 4         |
| 1847 | Tunable Two-Compartment On-Demand Sustained Drug Release Based on Lipid Gels. Journal of Pharmaceutical Sciences, 2020, 109, 1059-1067.   | 1.6 | 7         |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1848 | Naturally biomimicked smart shape memory hydrogels for biomedical functions. <i>Chemical Engineering Journal</i> , 2020, 379, 122430.   | 6.6  | 112       |
| 1849 | Lidocaine Microemulsion-Laden Organogels as Lipid-Based Systems for Topical Delivery. <i>Journal of Pharmaceutical Innovation</i> , 2020, 15, 521-534.  | 1.1  | 16        |
| 1850 | Practical approaches on the long-acting injections. <i>Journal of Pharmaceutical Investigation</i> , 2020, 50, 147-157.   | 2.7  | 32        |
| 1851 | Glucosamine-grafted methacrylated gelatin hydrogels as potential biomaterials for cartilage repair. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 990-999.         | 1.6  | 19        |
| 1852 | Phosphonium Polyelectrolyte Complexes for the Encapsulation and Slow Release of Ionic Cargo. <i>Biomacromolecules</i> , 2020, 21, 152-162.  | 2.6  | 10        |
| 1853 | Prediction of the deswelling behaviors of pH- and temperature-responsive poly(NIPAAm-co-AAc) IPN hydrogel by artificial intelligence techniques. <i>Research on Chemical Intermediates</i> , 2020, 46, 409-428. | 1.3  | 22        |
| 1854 | In situ facile-forming chitosan hydrogels with tunable physicochemical and tissue adhesive properties by polymer graft architecture. <i>Carbohydrate Polymers</i> , 2020, 229, 115538.                          | 5.1  | 24        |
| 1855 | Hydrogel microparticles for biomedical applications. <i>Nature Reviews Materials</i> , 2020, 5, 20-43.  | 23.3 | 646       |
| 1856 | Ferritin Nanocage Conjugated Hybrid Hydrogel for Tissue Engineering and Drug Delivery Applications. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 277-287.   | 2.6  | 25        |
| 1857 | Nanotechnology platforms for cancer immunotherapy. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2020, 12, e1590.  | 3.3  | 82        |
| 1858 | Preparation of hydrogels based on natural polymers via chemical reaction and cross-Linking. , 2020, , 91-118.   |      | 9         |
| 1859 | A review of current and future food applications of natural hydrocolloids. <i>International Journal of Food Science and Technology</i> , 2020, 55, 1389-1406.   | 1.3  | 71        |
| 1860 | Temperature/pH/magnetic triple-sensitive nanogel-hydrogel nanocomposite for release of anticancer drug. <i>Polymer International</i> , 2020, 69, 156-164.   | 1.6  | 19        |
| 1861 | Enhanced mechanical properties and self-healing behavior of PNIPAM nanocomposite hydrogel by using POSS as a physical crosslinker. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48486.                | 1.3  | 14        |
| 1862 | Self-healing PEG-poly(aspartic acid) hydrogel with rapid shape recovery and drug release. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 185, 110601.  | 2.5  | 36        |
| 1863 | Effect of pH on Molecular Structures and Network of Glycol Chitosan. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 298-307.  | 2.6  | 21        |
| 1864 | Xanthan Gum-Konjac Glucomannan Blend Hydrogel for Wound Healing. <i>Polymers</i> , 2020, 12, 99.  | 2.0  | 60        |
| 1865 | Hybrid Erythrocyte Liposomes: Functionalized Red Blood Cell Membranes for Molecule Encapsulation. <i>Advanced Biology</i> , 2020, 4, e1900185.  | 3.0  | 17        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1866 | PCL microsphere/PEG-based composite hydrogels for sustained release of methadone hydrochloride. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48967.   | 1.3 | 15        |
| 1867 | Hydrogels for Medical and Environmental Applications. <i>Small Methods</i> , 2020, 4, 1900735.  | 4.6 | 71        |
| 1868 | pH-responsive hybrid hydrogels: Chondroitin sulfate/casein trapped silica nanospheres for controlled drug release. <i>International Journal of Biological Macromolecules</i> , 2020, 148, 302-315.  | 3.6 | 22        |
| 1869 | Graphitic carbon nitride and polymers: a mutual combination for advanced properties. <i>Materials Horizons</i> , 2020, 7, 762-786.  | 6.4 | 130       |
| 1870 | Finite deformation swelling of a temperature-sensitive hydrogel cylinder under combined extension-torsion. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2020, 41, 409-424.  | 1.9 | 11        |
| 1871 | Tough hydrogel module towards an implantable remote and controlled release device. <i>Biomaterials Science</i> , 2020, 8, 960-972.  | 2.6 | 19        |
| 1872 | Soft temperature-responsive microgels of complex shape in stop-flow lithography. <i>Lab on A Chip</i> , 2020, 20, 285-295.  | 3.1 | 34        |
| 1873 | Immobilization of Bacterial Cells in Hydrogels Prepared by Gamma Irradiation for Bioremoval of Strontium Ions. <i>Water, Air, and Soil Pollution</i> , 2020, 231, 1.  | 1.1 | 5         |
| 1874 | High-strength and high-toughness sodium alginate/polyacrylamide double physically crosslinked network hydrogel with superior self-healing and self-recovery properties prepared by a one-pot method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 589, 124402. | 2.3 | 65        |
| 1875 | Simultaneously improved strength and toughness in $\hat{\text{I}}^{\text{9}}$ -carrageenan/polyacrylamide double network hydrogel via synergistic interaction. <i>Carbohydrate Polymers</i> , 2020, 230, 115596.  | 5.1 | 27        |
| 1876 | A glance over doxorubicin based-nanotherapeutics: From proof-of-concept studies to solutions in the market. <i>Journal of Controlled Release</i> , 2020, 317, 347-374.  | 4.8 | 53        |
| 1877 | Label-Free Analysis of Multivalent Protein Binding Using Bioresponsive Nanogels and Surface Plasmon Resonance (SPR). <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 5413-5419.   | 4.0 | 20        |
| 1878 | <i>In situ</i> synthesis of protein-loaded hydrogels via biocatalytic ATRP. <i>Polymer Chemistry</i> , 2020, 11, 1525-1532.   | 1.9 | 11        |
| 1879 | Rapid photothermal actuation of light-addressable, arrayed hydrogel columns in a macroporous silicon membrane. <i>Sensors and Actuators A: Physical</i> , 2020, 301, 111729.  | 2.0 | 9         |
| 1880 | Multiple Physical Bonds to Realize Highly Tough and Self-Adhesive Double-Network Hydrogels. <i>ACS Applied Polymer Materials</i> , 2020, 2, 1031-1042.  | 2.0 | 39        |
| 1881 | Mechanically Reinforced Injectable Hydrogels. <i>ACS Applied Polymer Materials</i> , 2020, 2, 1016-1030.  | 2.0 | 54        |
| 1882 | Computational-Based Design of Hydrogels with Predictable Mesh Properties. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 308-319.   | 2.6 | 19        |
| 1883 | A thermoresponsive hydrophobically modified hydroxypropylmethylcellulose/cyclodextrin injectable hydrogel for the sustained release of drugs. <i>International Journal of Pharmaceutics</i> , 2020, 575, 118845.  | 2.6 | 30        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1884 | Aqueous-Phase Synthesis of Hyaluronic Acid-Based Hydrogel Nanoparticles for Molecular Storage and Enzymatic Release. <i>ACS Applied Polymer Materials</i> , 2020, 2, 342-350.   | 2.0 | 5         |
| 1885 | Specialty Tough Hydrogels and Their Biomedical Applications. <i>Advanced Healthcare Materials</i> , 2020, 9, e1901396.  | 3.9 | 120       |
| 1886 | Eco-Friendly Synthesis of Hydrogels from Starch, Citric Acid, and Itaconic Acid: Swelling Capacity and Metal Chelation Properties. <i>Starch/Staerke</i> , 2020, 72, 1900008.   | 1.1 | 12        |
| 1887 | Multifunctional temperature-responsive polymers as advanced biomaterials and beyond. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48770.  | 1.3 | 47        |
| 1888 | Synthesis of a novel magnetic starch-alginic acid-based biomaterial for drug delivery. <i>Carbohydrate Research</i> , 2020, 487, 107889.  | 1.1 | 36        |
| 1889 | Facile Preparation of Carboxymethyl Cellulose/Cu Bio-Nanocomposite Hydrogels for Controlled Release of Ibuprofen. <i>Regenerative Engineering and Translational Medicine</i> , 2020, 6, 115-124.  | 1.6 | 16        |
| 1890 | Ionic equilibria and swelling of soft permeable particles in electrolyte solutions. <i>Soft Matter</i> , 2020, 16, 929-938.   | 1.2 | 6         |
| 1891 | Alteration of the groove width of DNA induced by the multimodal hydrogen bonding of denaturants with DNA bases in its grooves affects their stability. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2020, 1864, 129498.                                | 1.1 | 8         |
| 1892 | Polymeric Nanoparticles. , 2020, , 303-324.   |     | 23        |
| 1893 | Oligonucleotide-functionalized hydrogels for sustained release of small molecule (aptamer) therapeutics. <i>Acta Biomaterialia</i> , 2020, 102, 315-325.  | 4.1 | 16        |
| 1894 | Pyrene-based fluorescent supramolecular hydrogel: scaffold for nanoparticle synthesis. <i>Journal of Physical Organic Chemistry</i> , 2020, 33, e4026.  | 0.9 | 7         |
| 1895 | Polysaccharide-Based In Situ Self-Healing Hydrogels for Tissue Engineering Applications. <i>Polymers</i> , 2020, 12, 2261.  | 2.0 | 34        |
| 1896 | EXTRACTION, MODIFICATION, AND CHARACTERIZATION OF NATURAL POLYMERS USED IN TRANSDERMAL DRUG DELIVERY SYSTEM: AN UPDATED REVIEW. <i>Asian Journal of Pharmaceutical and Clinical Research</i> , 0, , 10-20.  | 0.3 | 4         |
| 1897 | Bioengineered elastin- and silk-biomaterials for drug and gene delivery. <i>Advanced Drug Delivery Reviews</i> , 2020, 160, 186-198.  | 6.6 | 56        |
| 1898 | Injectable corilagin/low molecular weight chitosan/PLGA-PEG-PLGA thermosensitive hydrogels for localized cancer therapy and promoting drug infiltration by modulation of tumor microenvironment. <i>International Journal of Pharmaceutics</i> , 2020, 589, 119772. | 2.6 | 22        |
| 1899 | LCST polymers: Thermoresponsive nanostructured assemblies towards bioapplications. <i>Polymer</i> , 2020, 211, 123146.  | 1.8 | 95        |
| 1900 | Local and Targeted Delivery of Immune Checkpoint Blockade Therapeutics. <i>Accounts of Chemical Research</i> , 2020, 53, 2521-2533.   | 7.6 | 81        |
| 1901 | A modular design strategy to integrate mechanotransduction concepts in scaffold-based bone tissue engineering. <i>Acta Biomaterialia</i> , 2020, 118, 100-112.  | 4.1 | 23        |



| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1902 | Drug delivery in intervertebral disc degeneration and osteoarthritis: Selecting the optimal platform for the delivery of disease-modifying agents. <i>Journal of Controlled Release</i> , 2020, 328, 985-999.  | 4.8 | 33        |
| 1903 | Nanodelivery of Resveratrol-Loaded PLGA Nanoparticles for Age-Related Macular Degeneration. <i>AAPS PharmSciTech</i> , 2020, 21, 291.  | 1.5 | 41        |
| 1904 | Application of Hydrogel-Based Delivery System in Endometrial Repair. <i>ACS Applied Bio Materials</i> , 2020, 3, 7278-7290.  | 2.3 | 14        |
| 1905 | Improving sciatic nerve regeneration by using alginate/chitosan hydrogel containing berberine. <i>Drug Delivery and Translational Research</i> , 2021, 11, 1983-1993.  | 3.0 | 21        |
| 1906 | Construction and Functional Properties of Multifunctional Chitosan Hydrogel. <i>Polymer Science - Series A</i> , 2020, 62, 494-501.  | 0.4 | 0         |
| 1907 | Stereocomplexation of Poly(lactic acid) and Chemical Crosslinking of Ethylene Glycol Dimethacrylate (EGDMA) Double-Crosslinked Temperature/pH Dual Responsive Hydrogels. <i>Polymers</i> , 2020, 12, 2204.   | 2.0 | 10        |
| 1908 | Mechanical enhancement of hydrophobically associating hydrogels by solvent-regulated phase separation. <i>Polymer</i> , 2020, 210, 123042.   | 1.8 | 20        |
| 1909 | Controlled release of ciprofloxacin and ceftriaxone from a single ototopical administration of antibiotic-loaded polymer microspheres and thermoresponsive gel. <i>PLoS ONE</i> , 2020, 15, e0240535.  | 1.1 | 9         |
| 1910 | Colloidal lipid nanodispersion enriched hydrogel of antifungal agent for management of fungal infections: Comparative in-vitro, ex-vivo and in-vivo evaluation for oral and topical application. <i>Chemistry and Physics of Lipids</i> , 2020, 233, 104981. | 1.5 | 18        |
| 1911 | A summary on non-viral systems for gene delivery based on natural and synthetic polymers. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2022, 71, 246-265.  | 1.8 | 26        |
| 1912 | Advanced Polymer-Based Drug Delivery Strategies for Meniscal Regeneration. <i>Tissue Engineering - Part B: Reviews</i> , 2021, 27, 266-293.  | 2.5 | 7         |
| 1913 | Effect of galactose side-chain on the self-assembly of xyloglucan macromolecule. <i>Carbohydrate Polymers</i> , 2020, 246, 116577.   | 5.1 | 25        |
| 1914 | Thermo- and pH-sensitive glycosaminoglycans derivatives obtained by controlled grafting of poly(N-isopropylacrylamide). <i>Carbohydrate Polymers</i> , 2020, 248, 116764.  | 5.1 | 21        |
| 1915 | Acrylic acid/acrylamide based hydrogels and its properties - A review. <i>Polymer Degradation and Stability</i> , 2020, 180, 109308.   | 2.7 | 142       |
| 1916 | Evaluating effect of alginate/chitosan hydrogel containing 4-Methylcatechol on peripheral nerve regeneration in rat model. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2021, 70, 1248-1257.                             | 1.8 | 13        |
| 1917 | Thermoresponsive Nanogels Based on Different Polymeric Moieties for Biomedical Applications. <i>Gels</i> , 2020, 6, 20.  | 2.1 | 34        |
| 1918 | Geometry Control of Wrinkle Structures Aligned on Hydrogel Surfaces. <i>Langmuir</i> , 2020, 36, 1467-1473.  | 1.6 | 15        |
| 1919 | Mussel-Inspired Biocompatible PAADOPA/PAAm Hydrogel Adhesive for Amoxicillin Delivery. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 13556-13563.   | 1.8 | 14        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1920 | Photoresponsive hybrid hydrogel with a dual network of agarose and a self-assembling peptide. <i>Soft Matter</i> , 2020, 16, 7299-7304.  | 1.2 | 25        |
| 1921 | Synthesis of Polymers Containing Potassium Acyltrifluoroborates (KATs) and Post-polymerization Ligation and Conjugation. <i>Angewandte Chemie</i> , 2020, 132, 14764-14771.  | 1.6 | 5         |
| 1922 | Microparticles. , 2020, , 431-451.   |     | 2         |
| 1923 | Multiscale Experimental Evaluation of Agarose-Based Semi-Interpenetrating Polymer Network Hydrogels as Materials with Tunable Rheological and Transport Performance. <i>Polymers</i> , 2020, 12, 2561.   | 2.0 | 9         |
| 1924 | Thermosensitive hydrogels for local delivery of 5-fluorouracil as neoadjuvant or adjuvant therapy in colorectal cancer. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2020, 157, 154-164.  | 2.0 | 28        |
| 1925 | Cellulose-Based Hydrogels as Sustained Drug-Delivery Systems. <i>Materials</i> , 2020, 13, 5270.   | 1.3 | 96        |
| 1926 | Formation and Stability of Smooth Thin Films with Soft Microgels Made of Poly(N-Isopropylacrylamide) and Poly(Acrylic Acid). <i>Polymers</i> , 2020, 12, 2638.   | 2.0 | 6         |
| 1927 | Porous Nanocomposites with Monolayer Nano-SiO <sub>2</sub> Coated Skeleton from Interfacial Nanoparticle-Anchored Cocontinuous Polymer Blends. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5735-5742.  | 2.0 | 8         |
| 1928 | Calcium peroxide-mediated <i>in situ</i> formation of multifunctional hydrogels with enhanced mesenchymal stem cell behaviors and antibacterial properties. <i>Journal of Materials Chemistry B</i> , 2020, 8, 11033-11043.  | 2.9 | 23        |
| 1929 | Alignment of magnetic particles in hydrogel matrix: A novel anisotropic magnetic hydrogels for soft robotics. <i>Journal of Intelligent Material Systems and Structures</i> , 2021, 32, 1432-1440.   | 1.4 | 6         |
| 1930 | Creating Structured Hydrogel Microenvironments for Regulating Stem Cell Differentiation. <i>Gels</i> , 2020, 6, 47.  | 2.1 | 13        |
| 1931 | Plasma-Activated Polyvinyl Alcohol Foils for Cell Growth. <i>Coatings</i> , 2020, 10, 1083.  | 1.2 | 3         |
| 1932 | pH-Sensitive Biomaterials for Drug Delivery. <i>Molecules</i> , 2020, 25, 5649.  | 1.7 | 104       |
| 1933 | Crosslinking Dynamics and Gelation Characteristics of Photo- and Thermally Polymerized Poly(Ethylene Glycol) Hydrogels. <i>Materials</i> , 2020, 13, 3277.   | 1.3 | 12        |
| 1934 | Preparation of crystalline nanocellulose/hydroxypropyl $\beta$ -cyclodextrin/carboxymethyl cellulose polyelectrolyte complexes and their controlled release of neohesperidin-copper (II) <i>in vitro</i> . <i>International Journal of Biological Macromolecules</i> , 2020, 163, 1518-1528. | 3.6 | 25        |
| 1935 | The effect of hydrogen bonding on diffusion and permeability in UV-cured Polyacrylate-based networks for controlled release. <i>Journal of Controlled Release</i> , 2020, 327, 150-160.  | 4.8 | 12        |
| 1936 | Hybrid Antimicrobial Hydrogel as Injectable Therapeutics for Oral Infection Ablation. <i>Biomacromolecules</i> , 2020, 21, 3945-3956.  | 2.6 | 49        |
| 1937 | On an effective approach to improve the properties and the drug release of chitosan-based microparticles. <i>International Journal of Biological Macromolecules</i> , 2020, 163, 393-401.  | 3.6 | 11        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 1938 | Intravitreal hydrogels for sustained release of therapeutic proteins. <i>Journal of Controlled Release</i> , 2020, 326, 419-441.  | 4.8 | 76        |
| 1939 | pH-Triggered Adhesiveness and Cohesiveness of Chondroitin Sulfate-Catechol Biopolymer for Biomedical Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 712. | 2.0 | 17        |
| 1940 | Ion Exchange Controlled Drug Release from Polymerized Ionic Liquids. <i>Macromolecular Bioscience</i> , 2020, 20, e2000152.   | 2.1 | 17        |
| 1941 | Biomaterial Based Strategies for Engineering New Lymphatic Vasculature. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000895.   | 3.9 | 15        |
| 1942 | Alginate-based hydrogel systems for drug releasing in wound healing. , 2020, , 323-358.   |     | 27        |
| 1943 | Medical application of exopolymers produced by marine bacteria. <i>Bulletin of the National Research Centre</i> , 2020, 44, .   | 0.7 | 12        |
| 1944 | Smart soft photonic dressing toward fast drug release and visualized self-monitoring. <i>Journal of Colloid and Interface Science</i> , 2020, 580, 681-689.                             | 5.0 | 14        |
| 1945 | Smart Polymers for Advanced Applications: A Mechanical Perspective Review. <i>Frontiers in Materials</i> , 2020, 7, .   | 1.2 | 40        |
| 1946 | Design of Hydrolytically Degradable Polyethylene Glycol Crosslinkers for Facile Control of Hydrogel Degradation. <i>Macromolecular Bioscience</i> , 2020, 20, 2000085.                  | 2.1 | 14        |
| 1947 | Hydrogel-based ocular drug delivery systems for hydrophobic drugs. <i>European Journal of Pharmaceutical Sciences</i> , 2020, 154, 105503.  | 1.9 | 53        |
| 1948 | Fabrication of three-dimensional calcium alginate hydrogels using sacrificial templates of sugar. <i>Journal of Bioscience and Bioengineering</i> , 2020, 130, 539-544.                 | 1.1 | 14        |
| 1949 | Î <sup>2</sup> -Glycerol phosphate/genipin chitosan hydrogels: A comparative study of their properties and diclofenac delivery. <i>Carbohydrate Polymers</i> , 2020, 248, 116811.       | 5.1 | 35        |
| 1950 | Topological adhesion II. Stretchable adhesion. <i>Extreme Mechanics Letters</i> , 2020, 40, 100891.   | 2.0 | 25        |
| 1951 | The gamut of perspectives, challenges, and recent trends for <i>in situ</i> hydrogels: a smart ophthalmic drug delivery vehicle. <i>Biomaterials Science</i> , 2020, 8, 4665-4691.      | 2.6 | 15        |
| 1952 | Micro-Clotting of Platelet-Rich Plasma Upon Loading in Hydrogel Microspheres Leads to Prolonged Protein Release and Slower Microsphere Degradation. <i>Polymers</i> , 2020, 12, 1712.   | 2.0 | 13        |
| 1953 | Design of Thermoresponsive Polyamine Cross-Linked Perfluoropolyether Hydrogels for Imaging and Delivery Applications. <i>ACS Medicinal Chemistry Letters</i> , 2020, 11, 2032-2040.     | 1.3 | 8         |
| 1954 | Dynamic,3DSchiff base networks for medical applications. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49756.  | 1.3 | 3         |
| 1955 | Silk fibroin and silk-based biomaterial derivatives for ideal wound dressings. <i>International Journal of Biological Macromolecules</i> , 2020, 164, 4613-4627.                        | 3.6 | 92        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 1956 | Nanoparticles Formulations of Artemisinin and Derivatives as Potential Therapeutics for the Treatment of Cancer, Leishmaniasis and Malaria. <i>Pharmaceutics</i> , 2020, 12, 748.  | 2.0 | 25        |
| 1957 | Manipulating the Deformation of Swelling Hydrogel Models by Microparticles. <i>Multiscale Science and Engineering</i> , 2020, 2, 107-113.  | 0.9 | 0         |
| 1958 | Synthesis of polyacrylamide (PAM) beads in microreactors. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 157, 108105.   | 1.8 | 13        |
| 1959 | Characterization of <i>N</i> -phenylmaleimide-terminated poly(ethylene glycol)s and their application to a tetra-arm poly(ethylene glycol) gel. <i>Soft Matter</i> , 2020, 16, 10869-10875.  | 1.2 | 8         |
| 1960 | Synthesis of three-dimensional hydrogels based on poly(glycidyl methacrylate-alt-maleic anhydride): Characterization and study of furosemide drug release. <i>Arabian Journal of Chemistry</i> , 2020, 13, 8723-8733.  | 2.3 | 8         |
| 1961 | Shear sensitive injectable hydrogels of cross-linked tragacanthic acid for ocular drug delivery: Rheological and biological evaluation. <i>International Journal of Biological Macromolecules</i> , 2020, 165, 2789-2804.  | 3.6 | 17        |
| 1962 | Polyelectrolyte multilayers for drug delivery. , 2020, , 183-209.  |     | 4         |
| 1963 | Effects of intraperitoneal injection of magnetic graphene oxide on the improvement of acute liver injury induced by CCl <sub>4</sub> . <i>Biomaterials Research</i> , 2020, 24, 14.  | 3.2 | 13        |
| 1964 | Chitosan: A Natural Biopolymer with a Wide and Varied Range of Applications. <i>Molecules</i> , 2020, 25, 3981.  | 1.7 | 246       |
| 1966 | Comb Architecture to Control the Selective Diffusivity of a Double Network Hydrogel. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5269-5277.  | 2.0 | 7         |
| 1967 | Degradation-Dependent Protein Release from Enzyme Sensitive Injectable Glycol Chitosan Hydrogel. <i>Tissue Engineering - Part A</i> , 2021, 27, 867-880.   | 1.6 | 13        |
| 1968 | Nanostructured Biomaterials for Bone Regeneration. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 922.  | 2.0 | 72        |
| 1969 | Histopathological Evaluation of Spinal Cord with Experimental Traumatic Injury Following Implantation of a Controlled Released Drug Delivery System of Chitosan Hydrogel Loaded with Selenium Nanoparticle. <i>Biological Trace Element Research</i> , 2021, 199, 2677-2686. | 1.9 | 11        |
| 1970 | Conducting polymer hydrogels for electrically responsive drug delivery. <i>Journal of Controlled Release</i> , 2020, 328, 192-209.   | 4.8 | 67        |
| 1971 | Zero-order drug delivery: State of the art and future prospects. <i>Journal of Controlled Release</i> , 2020, 327, 834-856.  | 4.8 | 126       |
| 1972 | High-throughput, aseptic production of injectable Tetra-PEG hydrogel microspheres for delivery of releasable covalently bound drugs. <i>Engineering Reports</i> , 2020, 2, e12213.   | 0.9 | 7         |
| 1973 | Malleable Hydrogel Embedded with Micellar Cargo Expellers as a Prompt Transdermal Patch. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000876.   | 3.9 | 13        |
| 1974 | The application of three-dimensional cell culture in clinical medicine. <i>Biotechnology Letters</i> , 2020, 42, 2071-2082.  | 1.1 | 5         |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1975 | Hydrogel based biopolymers for regenerative medicine applications: a critical review. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2022, 71, 155-172.   | 1.8  | 19        |
| 1976 | Enzymatically crosslinked tyramine-gellan gum hydrogels as drug delivery system for rheumatoid arthritis treatment. <i>Drug Delivery and Translational Research</i> , 2021, 11, 1288-1300.  | 3.0  | 26        |
| 1977 | Controlling Helical Pitch of Chiral Supramolecular Nanofibers Composed of Two Amphiphiles. <i>Bulletin of the Chemical Society of Japan</i> , 2020, 93, 1150-1154.  | 2.0  | 7         |
| 1978 | Reduction Triggered <i>In Situ</i> Polymerization in Living Mice. <i>Journal of the American Chemical Society</i> , 2020, 142, 15575-15584.   | 6.6  | 42        |
| 1979 | Low molecular weight self-assembling peptide-based materials for cell culture, antimicrobial, anti-inflammatory, wound healing, anticancer, drug delivery, bioimaging and 3D bioprinting applications. <i>Soft Matter</i> , 2020, 16, 10065-10095.  | 1.2  | 62        |
| 1980 | Adhesive Hydrogel Patch with Enhanced Strength and Adhesiveness to Skin for Transdermal Drug Delivery. <i>Advanced Functional Materials</i> , 2020, 30, 2004407.  | 7.8  | 142       |
| 1981 | Fracture of Polymer Networks Containing Topological Defects. <i>Macromolecules</i> , 2020, 53, 7346-7355.   | 2.2  | 29        |
| 1982 | 3D Nanostructures for Tissue Engineering, Cancer Therapy, and Gene Delivery. <i>Journal of Nanomaterials</i> , 2020, 2020, 1-24.  | 1.5  | 45        |
| 1983 | 3-Dimensional membrane capsules: Synthesis modulations for the remediation of environmental pollutants – A critical review. <i>Critical Reviews in Environmental Science and Technology</i> , 2022, 52, 1092-1153.                                  | 6.6  | 6         |
| 1984 | Application of Poly(N-isopropylacrylamide) As Thermosensitive Smart Materials. <i>Journal of Physics: Conference Series</i> , 2020, 1676, 012063.   | 0.3  | 12        |
| 1985 | Photothermally Active Cryogel Devices for Effective Release of Antimicrobial Peptides: On-Demand Treatment of Infections. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 56805-56814.  | 4.0  | 22        |
| 1986 | Antibacterial Properties and pH Sensitive Swelling of Insitu Formed Silver-Curcumin Nanocomposite Based Chitosan Hydrogel. <i>Polymers</i> , 2020, 12, 2451.  | 2.0  | 35        |
| 1987 | Optical Sensing and Imaging of pH Values: Spectroscopies, Materials, and Applications. <i>Chemical Reviews</i> , 2020, 120, 12357-12489.  | 23.0 | 299       |
| 1988 | Degradation of methoxy-poly (ethylene glycol)-block-poly( $\beta$ -carboxyl- $\epsilon$ -caprolactone)/magnetite nanocomposites in <i>in vitro</i> polymer degradation and stability. <i>Polymer Degradation and Stability</i> , 2020, 177, 109191. | 2.7  | 5         |
| 1989 | Effects of the Starch Types and the Grafting Conditions on the <i>In Vitro</i> Mucoadhesiveness of the Starch-graft-Poly(Methacrylic Acid) Hydrogels. <i>Starch/Staerke</i> , 2020, 72, 1900266.  | 1.1  | 7         |
| 1990 | Bacterial Cellulose-Based Composite Scaffolds for Biomedical Applications: A Review. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7536-7562.   | 3.2  | 293       |
| 1991 | Double-network gels as polyelectrolyte gels with salt-insensitive swelling properties. <i>Soft Matter</i> , 2020, 16, 5487-5496.  | 1.2  | 11        |
| 1992 | Simulation of interpenetrating networks microgel synthesis. <i>Soft Matter</i> , 2020, 16, 4858-4865.   | 1.2  | 7         |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 1993 | Synthesis of Polymers Containing Potassium Acyltrifluoroborates (KATs) and Post-polymerization Ligation and Conjugation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 14656-14663.                  | 7.2  | 18        |
| 1994 | Sustained Drug-Releasing Systems Using Temperature-Responsive Injectable Polymers Containing Liposomes. <i>ACS Symposium Series</i> , 2020, , 35-45.  | 0.5  | 3         |
| 1995 | Graphene oxide-incorporated hydrogels for biomedical applications. <i>Polymer Journal</i> , 2020, 52, 823-837.  | 1.3  | 78        |
| 1996 | Exogenous Signaling Molecules Released from Aptamer-Functionalized Hydrogels Promote the Survival of Mesenchymal Stem Cell Spheroids. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 24599-24610.        | 4.0  | 15        |
| 1997 | Electrofluidic control of bioactive molecule delivery into soft tissue models based on gelatin methacryloyl hydrogels using threads and surgical sutures. <i>Scientific Reports</i> , 2020, 10, 7120.               | 1.6  | 15        |
| 1998 | Niosomes: Do They Increase the Potency of Topical Natamycin Ketorolac Formula in Treating Aspergillus Keratitis? An Experimental Study. <i>Journal of Ocular Pharmacology and Therapeutics</i> , 2020, 36, 545-554. | 0.6  | 2         |
| 1999 | Nanocellulose and nanohydrogel matrices as sustainable biomass materials: structure, properties, present status, and future prospects in construction and other engineering. , 2020, , 177-195.                     |      | 2         |
| 2000 | Recent developments in nanocellulose and nanohydrogel matrices towards stem cell research and development. , 2020, , 315-328.   |      | 2         |
| 2001 | Biofunctional hydrogels based on host-guest interactions. <i>Polymer Journal</i> , 2020, 52, 839-859.   | 1.3  | 45        |
| 2002 | Zinc Oxide Nanoparticles Functionalized on Hydrogel Grafted Silk Fibroin Fabrics as Efficient Composite Dressing. <i>Biomolecules</i> , 2020, 10, 710.  | 1.8  | 39        |
| 2003 | The effect of print speed and material aging on the mechanical properties of a self-healing nanocomposite hydrogel. <i>Additive Manufacturing</i> , 2020, 35, 101253.   | 1.7  | 4         |
| 2004 | Nanoparticle-hydrogel superstructures for biomedical applications. <i>Journal of Controlled Release</i> , 2020, 324, 505-521.   | 4.8  | 117       |
| 2005 | Stimuli-responsive sugar-derived hydrogels: A modern approach in cancer biology. , 2020, , 617-649.   |      | 5         |
| 2006 | Albumin affibody-outfitted injectable gel enabling extended release of urate oxidase-albumin conjugates for hyperuricemia treatment. <i>Journal of Controlled Release</i> , 2020, 324, 532-544.                     | 4.8  | 17        |
| 2007 | Polymeric Systems for Bioprinting. <i>Chemical Reviews</i> , 2020, 120, 10744-10792.  | 23.0 | 161       |
| 2008 | A novel pH-sensitive and magnetic starch-based nanocomposite hydrogel as a controlled drug delivery system for wound healing. <i>Polymer Degradation and Stability</i> , 2020, 179, 109255.                         | 2.7  | 41        |
| 2009 | Mechanical versus calorimetric glass transition temperature in the diffusion of nicotinic acid from a condensed gelatin/glucose syrup system. <i>Food Hydrocolloids</i> , 2020, 109, 106046.                        | 5.6  | 6         |
| 2010 | Phosphonium versus Ammonium Compact Polyelectrolyte Complex Networks with Alginate Comparing Their Properties and Cargo Encapsulation. <i>Langmuir</i> , 2020, 36, 8253-8264.                                       | 1.6  | 3         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2011 | &lt;p&gt;Healthcare Applications of pH-Sensitive Hydrogel-Based Devices: A Review&lt;/p&gt;. International Journal of Nanomedicine, 2020, Volume 15, 3887-3901.   | 3.3 | 79        |
| 2012 | Synthesis and Evaluation of a Thermoresponsive Degradable Chitosan-Grafted PNIPAAm Hydrogel as a "Smart" Gene Delivery System. Materials, 2020, 13, 2530.   | 1.3 | 22        |
| 2013 | Topological adhesion. I. Rapid and strong topohesives. Extreme Mechanics Letters, 2020, 39, 100803.   | 2.0 | 43        |
| 2014 | Development of zinc-loaded nanoparticle hydrogel made from sugarcane bagasse for special medical application. Journal of Material Cycles and Waste Management, 2020, 22, 1723-1733.                     | 1.6 | 15        |
| 2015 | Starch as oral colon-specific nano- and microparticulate drug carriers. , 2020, , 287-330.  |     | 5         |
| 2016 | Laccase-mediated construction of flexible double-network hydrogels based on silk fibroin and tyramine-modified hyaluronic acid. International Journal of Biological Macromolecules, 2020, 160, 795-805. | 3.6 | 38        |
| 2017 | Chitosan hydrogels for sustained drug delivery. Journal of Controlled Release, 2020, 326, 150-163.  | 4.8 | 239       |
| 2018 | Thermosensitive Micellar Hydrogels as Vehicles to Deliver Drugs With Different Wettability. Frontiers in Bioengineering and Biotechnology, 2020, 8, 708.  | 2.0 | 20        |
| 2019 | Fatigue-resistant adhesion I. Long-chain polymers as elastic dissipaters. Extreme Mechanics Letters, 2020, 39, 100813.  | 2.0 | 29        |
| 2020 | Comparative study of robotic artificial actuators and biological muscle. Advances in Mechanical Engineering, 2020, 12, 168781402093340.   | 0.8 | 41        |
| 2021 | Self healing hydrogels: A new paradigm immunoadjuvant for delivering peptide vaccine. Colloids and Surfaces B: Biointerfaces, 2020, 194, 111171.  | 2.5 | 19        |
| 2022 | Modification of relevant polymeric materials for medical applications and devices. Medical Devices & Sensors, 2020, 3, e10073.  | 2.7 | 4         |
| 2023 | Some cetyltrimethylammonium bromide modified polysaccharide supports as sustained release systems for curcumin. International Journal of Biological Macromolecules, 2020, 154, 361-370.                 | 3.6 | 24        |
| 2024 | Tuning the porosity of biofabricated chitosan membranes in microfluidics with co-assembled nanoparticles as templates. Materials Advances, 2020, 1, 34-44.  | 2.6 | 14        |
| 2025 | Poly(ethylene glycol) "interpenetrated genipin" crosslinked chitosan hydrogels: Structure, pH responsiveness, gelation kinetics, and rheology. Journal of Applied Polymer Science, 2020, 137, 49259.    | 1.3 | 19        |
| 2026 | Temperature- and pH-responsive chitosan-based injectable hydrogels for bone tissue engineering. Materials Science and Engineering C, 2020, 111, 110862.   | 3.8 | 129       |
| 2027 | Hydrogel Biomaterials for Application in Ocular Drug Delivery. Frontiers in Bioengineering and Biotechnology, 2020, 8, 228.   | 2.0 | 122       |
| 2028 | Noble Metals and Soft Bio-Inspired Nanoparticles in Retinal Diseases Treatment: A Perspective. Cells, 2020, 9, 679.   | 1.8 | 34        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2029 | Probing the microenvironment of polyacrylamide hydrogel matrix using turbidity and fluorescence recovery after photobleaching: One versus Two phases. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 593, 124618. | 2.3 | 7         |
| 2030 | Developing Continuous Submicron-Scale Conductive Interpenetrating Hydrogel Network in Polyethylene Matrices through Controlled Crazing and Polymerization. <i>Industrial &amp; Engineering Chemistry Research</i> , 2020, 59, 6609-6616.           | 1.8 | 2         |
| 2031 | Magnetic proline-based ionic liquid surfactant as a nano-carrier for hydrophobic drug delivery. <i>Journal of Materials Chemistry B</i> , 2020, 8, 3050-3057.  | 2.9 | 30        |
| 2032 | Targeted Drug Delivery via the Use of ECM-Mimetic Materials. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 69.   | 2.0 | 37        |
| 2033 | A PEGDA/DNA Hybrid Hydrogel for Cell-Free Protein Synthesis. <i>Frontiers in Chemistry</i> , 2020, 8, 28.  | 1.8 | 26        |
| 2034 | Preparation of slow release encapsulated insecticide and fertilizer based on superabsorbent polysaccharide microbeads. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49177.   | 1.3 | 17        |
| 2035 | Multi-stimuli responsive nanogel/hydrogel nanocomposites based on $\hat{\text{e}}$ -carrageenan for prolonged release of levodopa as model drug. <i>International Journal of Biological Macromolecules</i> , 2020, 153, 180-189.                   | 3.6 | 42        |
| 2036 | Fabrication of Hydrogels via Host-Guest Polymers as Highly Efficient Organic Dye Adsorbents for Wastewater Treatment. <i>ACS Omega</i> , 2020, 5, 5470-5479.   | 1.6 | 20        |
| 2037 | Physical entanglement hydrogels: ultrahigh water content but good toughness and stretchability. <i>Polymer Chemistry</i> , 2020, 11, 2339-2345.  | 1.9 | 24        |
| 2038 | Designing a novel and versatile multi-layered nanofibrous structure loaded with MTX and 5-FU for the targeted delivery of anticancer drugs. <i>Polymer Degradation and Stability</i> , 2020, 179, 109275.  | 2.7 | 18        |
| 2039 | In Situ Forming Glucose-Responsive Hydrogel from Hyaluronic Acid Modified with a Boronic Acid Derivative. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 2000055.  | 1.1 | 12        |
| 2040 | Thiolated cyclodextrins: New perspectives for old excipients. <i>Coordination Chemistry Reviews</i> , 2020, 420, 213433.   | 9.5 | 22        |
| 2041 | Stimulus-responsive sequential release systems for drug and gene delivery. <i>Nano Today</i> , 2020, 34, 100914.   | 6.2 | 125       |
| 2042 | $\hat{\text{e}}$ -pH-Independent and Biocompatible Hydrogels Formed by Copolymers of Long-Chain Alkyl Glycidyl Ethers and Ethylene Oxide. <i>Biomacromolecules</i> , 2020, 21, 3152-3162.  | 2.6 | 8         |
| 2043 | Localised delivery of quercetin by thermo-sensitive PLGA-PEG-PLGA hydrogels for the treatment of brachial plexus avulsion. <i>Artificial Cells, Nanomedicine and Biotechnology</i> , 2020, 48, 1010-1021.  | 1.9 | 18        |
| 2044 | Intelligent drug delivery systems. , 2020, , 163-184.  |     | 0         |
| 2045 | A dual pH and redox-responsive Ag/AgO/carboxymethyl chitosan composite hydrogel for controlled dual drug delivery. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2020, 31, 1706-1721.  | 1.9 | 8         |
| 2046 | Natural polymers-based light-induced hydrogels: Promising biomaterials for biomedical applications. <i>Coordination Chemistry Reviews</i> , 2020, 420, 213432.   | 9.5 | 116       |



| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2047 | Controlled release of anti-cancer drug from the shell and hollow cavities of poly(N-isopropylacrylamide) hydrogel particles synthesized via reversible addition-fragmentation chain transfer polymerization. <i>European Polymer Journal</i> , 2020, 135, 109877.   | 2.6 | 20        |
| 2048 | Phase Separation Behavior in Tough and Self-Healing Polyampholyte Hydrogels. <i>Macromolecules</i> , 2020, 53, 5116-5126.   | 2.2 | 49        |
| 2049 | Evaluation of the thermal antinociceptive effects of subcutaneous administration of butorphanol tartrate or butorphanol tartrate in a sustained-release poloxamer 407 gel formulation to orange-winged Amazon parrots ( <i>Amazona amazonica</i> ). <i>American Journal of Veterinary Research</i> , 2020, 81, 543-550. | 0.3 | 3         |
| 2050 | Iodine ions sensing based on fluorescence quenching method and hydrogel fiber doped with fluorescein. <i>Optics Communications</i> , 2020, 475, 126225.   | 1.0 | 12        |
| 2051 | Citric acid crosslinked natural bi-polymer-based composite hydrogels: Effect of polymer ratio and beta-cyclodextrin on hydrogel microstructure. <i>Reactive and Functional Polymers</i> , 2020, 154, 104682.  | 2.0 | 27        |
| 2052 | Bioinspired Biomaterials. <i>Advances in Experimental Medicine and Biology</i> , 2020, , .  | 0.8 | 5         |
| 2053 | Encapsulation of water-soluble drugs in Poly (vinyl alcohol) (PVA)- microparticles via membrane emulsification: Influence of process and formulation parameters on structural and functional properties. <i>Materials Today Communications</i> , 2020, 24, 100967.  | 0.9 | 15        |
| 2054 | CEST MRI detectable liposomal hydrogels for multiparametric monitoring in the brain at 3T. <i>Theranostics</i> , 2020, 10, 2215-2228.   | 4.6 | 26        |
| 2055 | Polysaccharide as renewable responsive biopolymer for in situ gel in the delivery of drug through ocular route. <i>International Journal of Biological Macromolecules</i> , 2020, 150, 559-572.   | 3.6 | 75        |
| 2056 | Interpenetrating Polymer Network: Biomedical Applications. , 2020, , .  |     | 5         |
| 2057 | Material, Immunological, and Practical Perspectives on Eye Drop Formulation. <i>Advanced Functional Materials</i> , 2020, 30, 1908476.  | 7.8 | 16        |
| 2058 | Formulation strategies to modulate drug release from poloxamer based in situ gelling systems. <i>Expert Opinion on Drug Delivery</i> , 2020, 17, 495-509.   | 2.4 | 53        |
| 2059 | Controlled Release of 5-Fluorouracil from Alginate Hydrogels by Cold HMDSO Plasma Surface Engineering. <i>ChemistrySelect</i> , 2020, 5, 2168-2178.   | 0.7 | 13        |
| 2060 | Intranasal delivery system of bacterial antigen using thermosensitive hydrogels based on a Pluronic-Gantrez conjugate. <i>International Journal of Pharmaceutics</i> , 2020, 579, 119154.   | 2.6 | 18        |
| 2061 | Thermoresponsive poly(N-isopropylacrylamide) copolymer networks for galantamine hydrobromide delivery. <i>Colloid and Polymer Science</i> , 2020, 298, 377-384.   | 1.0 | 7         |
| 2062 | Investigations of the Influences of Processing Conditions on the Properties of Spray Dried Chitosan-Tripolyphosphate Particles loaded with Theophylline. <i>Scientific Reports</i> , 2020, 10, 1155.  | 1.6 | 27        |
| 2063 | Designer DNA-silica/carbon nanotube nanocomposites for traceable and targeted drug delivery. <i>Journal of Materials Chemistry B</i> , 2020, 8, 2250-2255.  | 2.9 | 35        |
| 2064 | Thermal responsive poly(N-isopropylacrylamide) grafted chicken feather keratin prepared via surface initiated aqueous Cu(0)-mediated RDRP: Synthesis and properties. <i>International Journal of Biological Macromolecules</i> , 2020, 153, 364-372.  | 3.6 | 6         |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 2065 | Mitigation of shock loading on structures using aqueous methylcellulose solution. <i>International Journal of Impact Engineering</i> , 2020, 140, 103547.  | 2.4  | 4         |
| 2066 | Nanocarriers for the Delivery of Medical, Veterinary, and Agricultural Active Ingredients. <i>ACS Nano</i> , 2020, 14, 2678-2701.  | 7.3  | 113       |
| 2067 | Recent Advances in Mechano-Responsive Hydrogels for Biomedical Applications. <i>ACS Applied Polymer Materials</i> , 2020, 2, 1092-1107.  | 2.0  | 59        |
| 2068 | An Interpenetrating Alginate/Gelatin Network for Three-Dimensional (3D) Cell Cultures and Organ Bioprinting. <i>Molecules</i> , 2020, 25, 756.   | 1.7  | 45        |
| 2069 | Catechol-functionalized hydrogels: biomimetic design, adhesion mechanism, and biomedical applications. <i>Chemical Society Reviews</i> , 2020, 49, 433-464.  | 18.7 | 517       |
| 2070 | In situ reduction of silver nanoparticles by sodium alginate to obtain silver-loaded composite wound dressing with enhanced mechanical and antimicrobial property. <i>International Journal of Biological Macromolecules</i> , 2020, 148, 501-509. | 3.6  | 144       |
| 2071 | Preparation and characterization of sodium alginate/polyvinyl alcohol hydrogel containing drug-loaded chitosan nanoparticles as a drug delivery system. <i>Journal of Drug Delivery Science and Technology</i> , 2020, 56, 101530.                 | 1.4  | 54        |
| 2072 | Self-healing injectable gelatin hydrogels for localized therapeutic cell delivery. <i>Journal of Biomedical Materials Research - Part A</i> , 2020, 108, 1112-1121.  | 2.1  | 55        |
| 2073 | Engineered Dynamic Boronate Ester-Mediated Self-Healable Biocompatible G-Quadruplex Hydrogels for Sustained Release of Vitamins. <i>Langmuir</i> , 2020, 36, 1574-1584.  | 1.6  | 42        |
| 2074 | Emerging Applications of Drug Delivery Systems in Oral Infectious Diseases Prevention and Treatment. <i>Molecules</i> , 2020, 25, 516.   | 1.7  | 64        |
| 2075 | Strategies toward development of biodegradable hydrogels for biomedical applications. <i>Polymer-Plastics Technology and Materials</i> , 2020, 59, 911-927.  | 0.6  | 10        |
| 2076 | A review on grafting of hydroxyethylcellulose for versatile applications. <i>International Journal of Biological Macromolecules</i> , 2020, 150, 289-303.  | 3.6  | 33        |
| 2077 | Thermosensitive Hydrogel Based on Poly(2-Ethyl-2-Oxazoline)-Poly(D,L-Lactide)-Poly(2-Ethyl-2-Oxazoline) for Sustained Salmon Calcitonin Delivery. <i>AAPS PharmSciTech</i> , 2020, 21, 71.   | 1.5  | 10        |
| 2078 | Prolonged Local In Vivo Delivery of Stimuli-Responsive Nanogels That Rapidly Release Doxorubicin in Triple-Negative Breast Cancer Cells. <i>Advanced Healthcare Materials</i> , 2020, 9, e1901101.   | 3.9  | 36        |
| 2079 | Conversion of an Injectable MMP-Degradable Hydrogel into Core-Cross-Linked Micelles. <i>Biomacromolecules</i> , 2020, 21, 1739-1751.   | 2.6  | 16        |
| 2080 | Inputs of Macromolecular Engineering in the Design of Injectable Hydrogels Based on Synthetic Thermoresponsive Polymers. <i>Macromolecules</i> , 2020, 53, 682-692.  | 2.2  | 20        |
| 2081 | Design Considerations for Hydrogel Wound Dressings: Strategic and Molecular Advances. <i>Tissue Engineering - Part B: Reviews</i> , 2020, 26, 230-248.   | 2.5  | 153       |
| 2082 | A novel dual action monolithic thermosetting hydrogel loaded with lidocaine and metronidazole as a potential treatment for alveolar osteitis. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2020, 149, 85-94.                    | 2.0  | 8         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2083 | Advances in Extrusion 3D Bioprinting: A Focus on Multicomponent Hydrogel-Based Bioinks. <i>Advanced Healthcare Materials</i> , 2020, 9, e1901648.   | 3.9 | 190       |
| 2084 | How to Design Both Mechanically Strong and Self-Healable Hydrogels?. <i>Advances in Polymer Science</i> , 2020, , 21-62.  | 0.4 | 8         |
| 2085 | New Developments in Medical Applications of Hybrid Hydrogels Containing Natural Polymers. <i>Molecules</i> , 2020, 25, 1539.  | 1.7 | 161       |
| 2086 | Research progress in bio-based self-healing materials. <i>European Polymer Journal</i> , 2020, 129, 109651.   | 2.6 | 71        |
| 2087 | Hyaluronic acid microneedles-based collagen cryogel plugs for ocular drug delivery. <i>Journal of Applied Polymer Science</i> , 2020, 137, 49285.   | 1.3 | 23        |
| 2088 | Drug Release from Polymer Thin Films and Gel Pellets: Insights from Programmed Microplate Electroanalysis. <i>ChemPlusChem</i> , 2020, 85, 627-633.   | 1.3 | 4         |
| 2089 | Encapsulation of diagnostic dyes in the polysaccharide matrix modified by carbon nanotubes. <i>Russian Chemical Bulletin</i> , 2020, 69, 590-595.   | 0.4 | 14        |
| 2090 | A promising wound dressing based on alginate hydrogels containing vitamin D3 cross-linked by calcium carbonate/d-glucono- $\delta$ -lactone. <i>Biomedical Engineering Letters</i> , 2020, 10, 309-319.   | 2.1 | 53        |
| 2091 | Formulation development and characterization. , 2020, , 43-70.  |     | 0         |
| 2092 | Structuring hydrophobic domains in Poly(N-isopropylacrylamide-co-Methacrylic acid) hydrogels. <i>European Polymer Journal</i> , 2020, 131, 109695.  | 2.6 | 3         |
| 2093 | Commercial hydrogels for biomedical applications. <i>Heliyon</i> , 2020, 6, e03719.   | 1.4 | 266       |
| 2094 | Composite hydrogels reinforced by cellulose-based supramolecular filler. <i>Polymer Degradation and Stability</i> , 2020, 177, 109157.  | 2.7 | 22        |
| 2095 | Configuration-Controlled Crystal and/or Gel Formation of Protected d-Glucosamines Supported by Promiscuous Interaction Surfaces and a Conformationally Heterogeneous Solution State. <i>Chemistry - A European Journal</i> , 2020, 26, 11643-11655. | 1.7 | 3         |
| 2096 | Hyaluronic acid-Based wound dressings: A review. <i>Carbohydrate Polymers</i> , 2020, 241, 116364.  | 5.1 | 387       |
| 2097 | Thermodynamic framework for switching the lower critical solution temperature of thermo-sensitive particle gels in aqueous solvent. <i>Polymer</i> , 2020, 195, 122428.   | 1.8 | 17        |
| 2098 | Injectable and Self-Healing Nanocomposite Hydrogels with Ultrasensitive pH-Responsiveness and Tunable Mechanical Properties: Implications for Controlled Drug Delivery. <i>Biomacromolecules</i> , 2020, 21, 2409-2420.                             | 2.6 | 107       |
| 2099 | Self-Avoiding Random Walks as a Model to Study Athermal Linear Polymers under Extreme Plate Confinement. <i>Polymers</i> , 2020, 12, 799.   | 2.0 | 3         |
| 2100 | An overview of hydrogels and their role in transdermal drug delivery. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2021, 70, 574-584.   | 1.8 | 52        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2101 | Synthesis and characterization of carbomer-based hydrogels for drug delivery applications. International Journal of Polymeric Materials and Polymeric Biomaterials, 2021, 70, 743-753.   | 1.8 | 5         |
| 2102 | Hesperidin promotes peripheral nerve regeneration based on tissue engineering strategy using alginate/chitosan hydrogel: <i>in vitro</i> and <i>in vivo</i> study. International Journal of Polymeric Materials and Polymeric Biomaterials, 2021, 70, 299-308. | 1.8 | 20        |
| 2103 | Highly stretchable, smooth, and biodegradable hydrogel films based on chitosan as safety food packaging. Polymers and Polymer Composites, 2021, 29, 563-573.   | 1.0 | 10        |
| 2104 | Graphene-laden hydrogels: A strategy for thermally triggered drug delivery. Materials Science and Engineering C, 2021, 118, 111353.  | 3.8 | 22        |
| 2105 | Injectable <i>in-situ</i> gel depot system for targeted delivery of biologics to the retina. Journal of Drug Targeting, 2021, 29, 46-59.   | 2.1 | 7         |
| 2106 | Experimental models of glaucoma filtration surgery. Acta Ophthalmologica, 2021, 99, 9-15.  | 0.6 | 9         |
| 2107 | A nonlinear visco-poroelasticity model for transversely isotropic gels. Meccanica, 2021, 56, 1483-1504.  | 1.2 | 5         |
| 2108 | On-demand release of CO <sub>2</sub> from photothermal hydrogels for accelerating skin wound healing. Chemical Engineering Journal, 2021, 403, 126353.   | 6.6 | 38        |
| 2109 | A novel $\beta$ -PGA composite gellan membrane containing glycerol for guided bone regeneration. Materials Science and Engineering C, 2021, 118, 111404.   | 3.8 | 14        |
| 2110 | The intrasulcular application effect of bisphosphonate hydrogel toward osteoclast activity and relapse movement. Saudi Dental Journal, 2021, 33, 292-298.  | 0.5 | 8         |
| 2111 | Nanoporous silicon microparticles embedded into oxidized hyaluronic acid/adipic acid dihydrazide hydrogel for enhanced controlled drug delivery. Microporous and Mesoporous Materials, 2021, 310, 110634.  | 2.2 | 14        |
| 2112 | Therapeutic effect of decellularized extracellular matrix-based hydrogel for radiation esophagitis by 3D printed esophageal stent. Biomaterials, 2021, 266, 120477.  | 5.7 | 44        |
| 2113 | Gelatin/Cellulose nanowhiskers hydrogels intended for the administration of drugs in dental treatments: Study of lidocaine as model case. Journal of Drug Delivery Science and Technology, 2021, 61, 101886.   | 1.4 | 9         |
| 2114 | Advances of nanomaterial applications in oral and maxillofacial tissue regeneration and disease treatment. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2021, 13, e1669.   | 3.3 | 29        |
| 2115 | 3D integration of pH-cleavable drug-hydrogel conjugates on magnetically driven smart microtransporters. Materials and Design, 2021, 197, 109212.   | 3.3 | 14        |
| 2116 | Patient-Friendly, Olfactory-Targeted, Stimuli-Responsive Hydrogels for Cerebral Degenerative Disorders Ensured $\approx 400\%$ Brain Targeting Efficiency in Rats. AAPS PharmSciTech, 2021, 22, 6.   | 1.5 | 10        |
| 2117 | Hydrogel-Forming Microneedles: Current Advancements and Future Trends. Macromolecular Bioscience, 2021, 21, e2000307.  | 2.1 | 160       |
| 2118 | Hydrogel-Based Diffractive Optical Elements (hDOEs) Using Rapid Digital Photopatterning. Advanced Optical Materials, 2021, 9, 2001217.   | 3.6 | 34        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2119 | Effect of network connectivity on the mechanical and transport properties of block copolymer gels. <i>Journal of Polymer Science</i> , 2021, 59, 34-42.  | 2.0 | 7         |
| 2121 | pH-responsive injectable polysaccharide hydrogels with self-healing, enhanced mechanical properties based on POSS. <i>Reactive and Functional Polymers</i> , 2021, 158, 104773.                        | 2.0 | 14        |
| 2122 | Hybrid microgels produced via droplet microfluidics for sustainable delivery of hydrophobic and hydrophilic model nanocarriers. <i>Materials Science and Engineering C</i> , 2021, 118, 111467.        | 3.8 | 15        |
| 2123 | Biomaterial based strategies to reconstruct the nigrostriatal pathway in organotypic slice co-cultures. <i>Acta Biomaterialia</i> , 2021, 121, 250-262.  | 4.1 | 25        |
| 2124 | Hydrogel beads-based nanocomposites in novel drug delivery platforms: Recent trends and developments. <i>Advances in Colloid and Interface Science</i> , 2021, 288, 102316.                            | 7.0 | 46        |
| 2125 | A facile approach to incorporate silver nanoparticles into solvent-free synthesized PEG-based hydrogels for antibacterial and catalytic applications. <i>Polymer Testing</i> , 2021, 101, 106909.      | 2.3 | 10        |
| 2126 | Preparation of cellulose-based hydrogel: a review. <i>Journal of Materials Research and Technology</i> , 2021, 10, 935-952.  | 2.6 | 243       |
| 2127 | Synthetic hydrogels: Synthesis, novel trends, and applications. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50376.  | 1.3 | 187       |
| 2128 | Polymeric biomaterials inspired by marine mussel adhesive proteins. <i>Reactive and Functional Polymers</i> , 2021, 159, 104802.   | 2.0 | 12        |
| 2129 | Bioinspired double network hydrogels: from covalent double network hydrogels via hybrid double network hydrogels to physical double network hydrogels. <i>Materials Horizons</i> , 2021, 8, 1173-1188. | 6.4 | 230       |
| 2130 | Nanogel Encapsulated Hydrogels As Advanced Wound Dressings for the Controlled Delivery of Antibiotics. <i>Advanced Functional Materials</i> , 2021, 31, 2006453.                                       | 7.8 | 58        |
| 2131 | Nanocellulose in biomedical and biosensing applications: A review. <i>International Journal of Biological Macromolecules</i> , 2021, 166, 587-600.   | 3.6 | 62        |
| 2132 | Engineering Biofunctional Enzyme-Mimics for Catalytic Therapeutics and Diagnostics. <i>Advanced Functional Materials</i> , 2021, 31, 2007475.  | 7.8 | 47        |
| 2133 | Development of mucoadhesive hydrogels based on polyacrylic acid grafted cellulose nanocrystals for local cisplatin delivery. <i>Carbohydrate Polymers</i> , 2021, 255, 117332.                         | 5.1 | 36        |
| 2134 | Ocular films versus film-forming liquid systems for enhanced ocular drug delivery. <i>Drug Delivery and Translational Research</i> , 2021, 11, 1084-1095.  | 3.0 | 13        |
| 2135 | Synthesis of new bio-based hydrogels derived from bile acids by free radical photo-polymerization. <i>Polymers for Advanced Technologies</i> , 2021, 32, 220-227.                                      | 1.6 | 11        |
| 2136 | Stimuli-Sensitive Self-Assembled Tubules Based on Lysine-Derived Surfactants for Delivery of Antimicrobial Proteins. <i>Chemistry - A European Journal</i> , 2021, 27, 692-704.                        | 1.7 | 3         |
| 2137 | More than skin deep: using polymers to facilitate topical delivery of nitric oxide. <i>Biomaterials Science</i> , 2021, 9, 391-405.  | 2.6 | 19        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2138 | Stimuli-Responsive Polysaccharide Hydrogels for Biomedical Applications: a Review. <i>Regenerative Engineering and Translational Medicine</i> , 2021, 7, 91-114.  | 1.6 | 51        |
| 2139 | Low-pressure nitrogen and ammonia plasma treatment on carboxymethyl guar gum/PVA hydrogels: impact on drug delivery, biocompatibility and biodegradability. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2021, 70, 75-89. | 1.8 | 13        |
| 2140 | Development of cisplatin-loaded hydrogels for trans-portal vein chemoembolization in an orthotopic liver cancer mouse model. <i>Drug Delivery</i> , 2021, 28, 520-529.  | 2.5 | 6         |
| 2141 | Emerging Nano-Based Drug Delivery Approach for Cancer Therapeutics. <i>Advances in Medical Technologies and Clinical Practice Book Series</i> , 2021, , 271-293.  | 0.3 | 2         |
| 2142 | A comparative study of tough hydrogen bonding dissipating hydrogels made with different network structures. <i>Nanoscale Advances</i> , 2021, 3, 2934-2947.   | 2.2 | 14        |
| 2143 | Biopolymeric hydrogels prepared via click chemistry as carriers of therapeutic modalities. , 2021, , 463-499.   |     | 0         |
| 2144 | Soft microrobotics. <i>Advances in Chemical Engineering</i> , 2021, 57, 1-44.   | 0.5 | 3         |
| 2145 | Smart near infrared-responsive nanocomposite hydrogels for therapeutics and diagnostics. <i>Journal of Materials Chemistry B</i> , 2021, 9, 7100-7116.  | 2.9 | 21        |
| 2146 | Bioplastics Used for Controlled Drug Delivery. , 2021, , .  |     | 0         |
| 2147 | Hybrid Nanohydrogels: Design and Applications. <i>Gels Horizons: From Science To Smart Materials</i> , 2021, , 135-150.   | 0.3 | 1         |
| 2148 | Multifunctional materials based on smart hydrogels for biomedical and 4D applications. , 2021, , 407-467.   |     | 2         |
| 2149 | Advanced drug delivery applications of self-assembled nanostructures and polymeric nanoparticles. , 2021, , 297-339.  |     | 2         |
| 2150 | Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical polyampholyte (PA) gel. <i>Soft Matter</i> , 2021, 17, 4161-4169.  | 1.2 | 6         |
| 2151 | Hydrogel Composite Films for Wound Healing. , 2021, , 887-904.  |     | 2         |
| 2152 | Present and future prospective of lignin-based materials in biomedical fields. , 2021, , 395-424.   |     | 2         |
| 2153 | Facile design of lidocaine-loaded polymeric hydrogel to persuade effects of local anesthesia drug delivery system: complete <i>in vitro</i> and <i>in vivo</i> toxicity analyses. <i>Drug Delivery</i> , 2021, 28, 1080-1092.                                 | 2.5 | 9         |
| 2154 | Modified Biochanin A Release from Dual pH- and Thermo-Responsive Copolymer Hydrogels. <i>Polymers</i> , 2021, 13, 426.  | 2.0 | 8         |
| 2155 | Encountering the Survival Strategies Using Various Nano Assemblages. <i>Advances in Medical Technologies and Clinical Practice Book Series</i> , 2021, , 159-187.   | 0.3 | 0         |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 2156 | Review of Contemporary Self-Assembled Systems for the Controlled Delivery of Therapeutics in Medicine. <i>Nanomaterials</i> , 2021, 11, 278.   | 1.9  | 43        |
| 2157 | Hydrogels based on gum ghatti. , 2021, , 327-356.  |      | 0         |
| 2158 | Processing strategies of chitosan-built nano-hydrogel as smart drug carriers. , 2021, , 467-490.   |      | 1         |
| 2159 | Synthesis and characterization of photopolymerizable hydrogels based on poly (ethylene glycol) for biomedical applications. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50489.  | 1.3  | 9         |
| 2160 | Effect of Dehydrothermal Treatment on the Mechanical Properties and Biocompatibility of Plaster of Parisâ€“CaCO <sub>3</sub> Hydrogel Loaded With Cinnamaldehyde for Biomedical Purposes. <i>Natural Product Communications</i> , 2021, 16, 1934578X2098460. | 0.2  | 0         |
| 2161 | Optimized ciprofloxacin release from citric acid crosslinked starch-PVA hydrogel film: modelling with mixture design. <i>Journal of Polymer Research</i> , 2021, 28, 1.  | 1.2  | 8         |
| 2162 | Biodegradable hydrogels. , 2021, , 395-419.  |      | 11        |
| 2163 | Green Hydrogels. <i>Materials Horizons</i> , 2021, , 225-249.  | 0.3  | 2         |
| 2164 | Graphitic Carbon Nitride-polymer Hybrids: A Winâ€“Win Combination with Advanced Properties for Different Applications. <i>RSC Nanoscience and Nanotechnology</i> , 2021, , 174-220.  | 0.2  | 0         |
| 2165 | A review of the properties and applications of bioadhesive hydrogels. <i>Polymer Chemistry</i> , 2021, 12, 3721-3739.  | 1.9  | 78        |
| 2166 | Stimuli-Controlled Fluid Control and Microvehicle Movement in Microfluidic Channels. , 2022, , 128-157.  |      | 0         |
| 2167 | Recent advances in the structure, synthesis, and applications of natural polymeric hydrogels. <i>Critical Reviews in Food Science and Nutrition</i> , 2022, 62, 3817-3832.   | 5.4  | 36        |
| 2168 | Biomaterials and Its Advances for Delivering Anticancer Drugs. <i>Gels Horizons: From Science To Smart Materials</i> , 2021, , 21-56.  | 0.3  | 0         |
| 2169 | Harnessing the physicochemical properties of DNA as a multifunctional biomaterial for biomedical and other applications. <i>Chemical Society Reviews</i> , 2021, 50, 7779-7819.  | 18.7 | 23        |
| 2170 | <i>In vitro</i> study of alginateâ€“gelatin scaffolds incorporated with silica NPs as injectable, biodegradable hydrogels. <i>RSC Advances</i> , 2021, 11, 16688-16697.  | 1.7  | 29        |
| 2171 | A dual stimuli responsive natural polymer based superabsorbent hydrogel engineered through a novel cross-linker. <i>Polymer Chemistry</i> , 2021, 12, 2404-2420.   | 1.9  | 16        |
| 2172 | Load-bearing hydrogels ionically reinforced through competitive ligand exchanges. <i>Biomaterials Science</i> , 2021, 9, 6753-6762.  | 2.6  | 4         |
| 2173 | Hydrogels: Biomaterials for Sustained and Localized Drug Delivery. <i>Springer Series in Biomaterials Science and Engineering</i> , 2021, , 211-252.   | 0.7  | 0         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2174 | Effect of Alkyl Chain Length on Adsorption and Release of Hydrophobic Drug to/from Hydrophobically-modified Gelatin Hydrogel. MATEC Web of Conferences, 2021, 333, 11008.  | 0.1 | 1         |
| 2175 | Emerging Trends in the Synthesis, Properties and Applications of Nanogels Derived from Pullulan, Collagen and Gelatin. Gels Horizons: From Science To Smart Materials, 2021, , 59-79.  | 0.3 | 0         |
| 2176 | Self-Healing Hydrogels for Analyte Sensing. , 2021, , .  |     | 0         |
| 2177 | 3D bioprinting. , 2021, , 599-633.   |     | 5         |
| 2178 | Potential Advanced Drug Delivery Systems Based on Hydrogels in 3D Printing Technology for Cancer Treatment. Materials Forming, Machining and Tribology, 2021, , 323-348.   | 0.7 | 0         |
| 2179 | Applications of alginate-based bionanocomposites in drug delivery. , 2021, , 399-416.  |     | 3         |
| 2180 | Polysaccharide-based polymeric gels as drug delivery vehicles. , 2021, , 283-325.  |     | 2         |
| 2181 | Novel Hydrogels of Chitosan and Poly(vinyl alcohol) Reinforced with Inorganic Particles of Bioactive Glass. Polymers, 2021, 13, 691.   | 2.0 | 14        |
| 2182 | Challenges of Dissolution Methods Development for Soft Gelatin Capsules. Pharmaceutics, 2021, 13, 214.   | 2.0 | 20        |
| 2183 | Review on the advancements of magnetic gels: towards multifunctional magnetic liposome-hydrogel composites for biomedical applications. Advances in Colloid and Interface Science, 2021, 288, 102351.  | 7.0 | 35        |
| 2184 | A poroelastic master curve for time-dependent and multiscale mechanics of hydrogels. Journal of Materials Research, 2021, 36, 2582-2590.   | 1.2 | 8         |
| 2185 | RSM-CCD optimized microwave assisted synthesis of chitosan and sodium alginate based nanocomposite containing inclusion complexes of $\beta$ -cyclodextrin and amlodipine besylate for sustained drug delivery systems. Journal of Drug Delivery Science and Technology, 2021, 61, 102325. | 1.4 | 39        |
| 2186 | Design and Development of Hybrid Hydrogels for Biomedical Applications: Recent Trends in Anticancer Drug Delivery and Tissue Engineering. Frontiers in Bioengineering and Biotechnology, 2021, 9, 630943.  | 2.0 | 63        |
| 2187 | Preparation of Self-Healable and Spinnable Hydrogel by Dynamic Boronate Ester Bond from Hyperbranched Polyglycerol and Boronic Acid-Containing Polymer. Macromolecular Research, 2021, 29, 140-148.  | 1.0 | 8         |
| 2188 | Fatigue-resistant adhesion II: Swell tolerance. Extreme Mechanics Letters, 2021, 43, 101182.   | 2.0 | 8         |
| 2189 | Wielding the Double-Edged Sword of Inflammation: Building Biomaterial-Based Strategies for Immunomodulation in Ischemic Stroke Treatment. Advanced Functional Materials, 2021, 31, 2010674.  | 7.8 | 10        |
| 2190 | Crosslinking strategies for silk fibroin hydrogels: promising biomedical materials. Biomedical Materials (Bristol), 2021, 16, 022004.  | 1.7 | 37        |
| 2191 | Cyclic Thiosulfinates as a Novel Class of Disulfide Cleavable Cross-Linkers for Rapid Hydrogel Synthesis. Bioconjugate Chemistry, 2021, 32, 584-594.   | 1.8 | 10        |



| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2192 | Thiolated polymeric hydrogels for biomedical application: Cross-linking mechanisms. <i>Journal of Controlled Release</i> , 2021, 330, 470-482.   | 4.8 | 90        |
| 2193 | Structural characterization and developability assessment of sustained release hydrogels for rapid implementation during preclinical studies. <i>European Journal of Pharmaceutical Sciences</i> , 2021, 158, 105689.        | 1.9 | 8         |
| 2194 | Artificial Bioaugmentation of Biomacromolecules and Living Organisms for Biomedical Applications. <i>ACS Nano</i> , 2021, 15, 3900-3926.   | 7.3 | 28        |
| 2195 | Nanoparticle-mediated pulmonary drug delivery: state of the art towards efficient treatment of recalcitrant respiratory tract bacterial infections. <i>Drug Delivery and Translational Research</i> , 2021, 11, 1634-1654.   | 3.0 | 33        |
| 2196 | Drug penetration in pediatric brain tumors: Challenges and opportunities. <i>Pediatric Blood and Cancer</i> , 2021, 68, e28983.  | 0.8 | 10        |
| 2197 | Physicochemical modification of hydroxylated polymers to develop thermosensitive double network hydrogels. <i>Journal of Applied Polymer Science</i> , 2021, 138, 50778.   | 1.3 | 2         |
| 2198 | A freeze-thawing method applied to the fabrication of 3-d curdlan/polyvinyl alcohol hydrogels as scaffolds for cell culture. <i>International Journal of Biological Macromolecules</i> , 2021, 174, 101-109.                 | 3.6 | 26        |
| 2199 | Nanoindentation for Monitoring the Time-Variant Mechanical Strength of Drug-Loaded Collagen Hydrogel Regulated by Hydroxyapatite Nanoparticles. <i>ACS Omega</i> , 2021, 6, 9269-9278.                                       | 1.6 | 12        |
| 2200 | Recent Advances in Fiber-Composite Hydrogel Composites for Wound Healing and Drug Delivery Systems. <i>Antibiotics</i> , 2021, 10, 248.  | 1.5 | 33        |
| 2201 | Development of a Mechanically Strong Nondegradable Protein Hydrogel with a Sponge-Like Morphology. <i>Macromolecular Bioscience</i> , 2021, 21, e2000396.  | 2.1 | 9         |
| 2202 | Synergistic effect of palygorskite nanorods and ion crosslinking to enhance sodium alginate-based hydrogels. <i>European Polymer Journal</i> , 2021, 147, 110306.  | 2.6 | 16        |
| 2203 | Polymer-matrix stabilized metal nanoparticles: Synthesis, characterizations and insight into molecular interactions between metal ions, atoms and polymer moieties. <i>Journal of Molecular Liquids</i> , 2021, 325, 115135. | 2.3 | 17        |
| 2204 | Research on Preparation of 5-ASA Colon-Specific Hydrogel Delivery System without Crosslinking Agent by Mechanochemical Method. <i>Pharmaceutical Research</i> , 2021, 38, 693-706.   | 1.7 | 11        |
| 2205 | Etodolac nanosuspension based gel for enhanced dermal delivery: <i>in vitro</i> and <i>in vivo</i> evaluation. <i>Journal of Microencapsulation</i> , 2021, 38, 218-232.   | 1.2 | 11        |
| 2206 | Poly(Vinyl Alcohol) Cryogel Membranes Loaded with Resveratrol as Potential Active Wound Dressings. <i>AAPS PharmSciTech</i> , 2021, 22, 109.   | 1.5 | 18        |
| 2207 | Self-assembling micellar system based on Pluronic and pyrazole-dithiocarbamate-conjugate stimulates production of nitric oxide from macrophages. <i>Colloids and Interface Science Communications</i> , 2021, 41, 100378.    | 2.0 | 5         |
| 2208 | Injectable DMEM-induced phenylboronic acid-modified hyaluronic acid self-crosslinking hydrogel for potential applications in tissue repair. <i>Carbohydrate Polymers</i> , 2021, 258, 117663.                                | 5.1 | 25        |
| 2209 | Experimental Verification of the Balance between Elastic Pressure and Ionic Osmotic Pressure of Highly Swollen Charged Gels. <i>Gels</i> , 2021, 7, 39.  | 2.1 | 6         |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 2210 | Kinetic Release Studies of Antibiotic Patches for Local Transdermal Delivery. <i>Pharmaceutics</i> , 2021, 13, 613.  | 2.0  | 32        |
| 2211 | Polyphenols against infectious diseases: Controlled release nano-formulations. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 161, 66-79.                                   | 2.0  | 17        |
| 2212 | Integrin receptor mediated pH-responsive nano-hydrogel based on histidine-modified poly(aminoethyl) Tj ETQq0 0 0 rgBT /Overlock 10 T Technology, 2021, 62, 102402.                                 | 1.4  | 17        |
| 2213 | Soft Materials by Design: Unconventional Polymer Networks Give Extreme Properties. <i>Chemical Reviews</i> , 2021, 121, 4309-4372.   | 23.0 | 472       |
| 2214 | Conductive Hydrogels with Dynamic Reversible Networks for Biomedical Applications. <i>Advanced Healthcare Materials</i> , 2021, 10, e2100012.  | 3.9  | 47        |
| 2215 | Strontium ranelate-laden near-infrared photothermal-inspired methylcellulose hydrogel for arthritis treatment. <i>Materials Science and Engineering C</i> , 2021, 123, 111980.                     | 3.8  | 25        |
| 2216 | The effect of ion pairs on coacervate-driven self-assembly of block polyelectrolytes. <i>Journal of Chemical Physics</i> , 2021, 154, 144903.  | 1.2  | 5         |
| 2217 | A one-pot synthesis of thermosensitive PNIPAAm interpenetration polymer networks(IPN) hydrogels. <i>Jcis Open</i> , 2021, 1, 100002.   | 1.5  | 5         |
| 2218 | Ultralight and Mechanically Robust Fibrous Sponges Tailored by Semi-Interpenetrating Polymer Networks for Warmth Retention. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 18165-18174. | 4.0  | 19        |
| 2219 | Targeting drug delivery with light: A highly focused approach. <i>Advanced Drug Delivery Reviews</i> , 2021, 171, 94-107.  | 6.6  | 90        |
| 2220 | Conductive GelMAâ€“Collagenâ€“AgNW Blended Hydrogel for Smart Actuator. <i>Polymers</i> , 2021, 13, 1217.  | 2.0  | 12        |
| 2221 | Bio-polymeric hydrogels for regeneration of corneal epithelial tissue*. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 0, , 1-18.                                | 1.8  | 3         |
| 2222 | Development of a Cleavable Biotinâ€“Drug Conjugate Hydrogelator for the Controlled and Dual Delivery of Anticancer Drugs. <i>ChemistrySelect</i> , 2021, 6, 3256-3261.                             | 0.7  | 2         |
| 2223 | Recent Advances in Design Strategies for Tough and Stretchable Hydrogels. <i>ChemPlusChem</i> , 2021, 86, 601-611.   | 1.3  | 17        |
| 2224 | Facile synthesis and application of aluminum oxide nanoparticle based biodegradable film. <i>Polymer Composites</i> , 2021, 42, 3899-3910.   | 2.3  | 4         |
| 2225 | A rechargeable drug delivery system based on <scp>pNIPAM</scp> hydrogel for the local release of curcumin. <i>Journal of Applied Polymer Science</i> , 2021, 138, 51167.                           | 1.3  | 23        |
| 2226 | Hydrogels as potential drug-delivery systems: network design and applications. <i>Therapeutic Delivery</i> , 2021, 12, 375-396.  | 1.2  | 35        |
| 2227 | Cellulose-based scaffolds enhance pseudoislets formation and functionality. <i>Biofabrication</i> , 2021, 13, 035044.  | 3.7  | 13        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2228 | Injectability of Biosynthetic Hydrogels: Consideration for Minimally Invasive Surgical Procedures and 3D Bioprinting. <i>Advanced Functional Materials</i> , 2021, 31, 2100628.   | 7.8 | 24        |
| 2229 | Smart and Functionalized Development of Nucleic Acid-Based Hydrogels: Assembly Strategies, Recent Advances, and Challenges. <i>Advanced Science</i> , 2021, 8, 2100216.   | 5.6 | 38        |
| 2230 | Assessing monocyte phenotype in poly( $\beta$ -glutamic acid) hydrogels formed by orthogonal thiol- $\alpha$ -norbornene chemistry. <i>Biomedical Materials (Bristol)</i> , 2021, 16, 045027.   | 1.7 | 5         |
| 2231 | Hydroxyethyl Methacrylate Hydrogels for Local Drug Delivery: Study of Topotecan and Vincristine Sorption/Desorption Kinetics and Polymer-Drug Interaction by ATR-FTIR Spectroscopy. <i>Macromolecular Chemistry and Physics</i> , 2021, 222, 2100086. | 1.1 | 13        |
| 2232 | Hydrogels: A Promising Vehicle for the Topical Management of Atopic Dermatitis. <i>Advanced Therapeutics</i> , 2021, 4, 2100028.  | 1.6 | 12        |
| 2233 | In Vitro Bioaccessibility Assessment as a Tool to Predict the Toxicity of Bioremediation Products. <i>IOP Conference Series: Earth and Environmental Science</i> , 2021, 761, 012027.   | 0.2 | 2         |
| 2234 | Bio-Inspired Amphoteric Polymer for Triggered-Release Drug Delivery on Breast Cancer Cells Based on Metal Coordination. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 25663-25673.  | 4.0 | 21        |
| 2235 | Agarose, Alginate and Chitosan Nanostructured Aerogels for Pharmaceutical Applications: A Short Review. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 688477.   | 2.0 | 29        |
| 2236 | Native Spider Silk-Based Antimicrobial Hydrogels for Biomedical Applications. <i>Polymers</i> , 2021, 13, 1796.   | 2.0 | 9         |
| 2237 | Microfabrication of cellulose nanofiber-reinforced hydrogel by multiphoton polymerization. <i>Scientific Reports</i> , 2021, 11, 10892.   | 1.6 | 3         |
| 2238 | Tunable macroporous D-galactose based hydrogels for controlled release of a hydrophilic drug. <i>European Polymer Journal</i> , 2021, 150, 110409.  | 2.6 | 18        |
| 2239 | Hydrogels in the treatment of rheumatoid arthritis: drug delivery systems and artificial matrices for dynamic in vitro models. <i>Journal of Materials Science: Materials in Medicine</i> , 2021, 32, 74.   | 1.7 | 20        |
| 2240 | Bioinspired organohydrogels with heterostructures: Fabrications, performances, and applications. <i>Advances in Colloid and Interface Science</i> , 2021, 292, 102408.  | 7.0 | 22        |
| 2241 | Oxygen releasing hydrogels for beta cell assisted therapy. <i>International Journal of Pharmaceutics</i> , 2021, 602, 120595.   | 2.6 | 9         |
| 2242 | Preparation and In Vitro Evaluation of Aspartic/Alginic Acid Based Semi-Interpenetrating Network Hydrogels for Controlled Release of Ibuprofen. <i>Gels</i> , 2021, 7, 68.  | 2.1 | 18        |
| 2243 | Synthesis of carboxymethyl Xanthan/ double-walled carbon nanotube hybrid hydrogel nanocomposite for transdermal release of drug. <i>Soft Materials</i> , 0, , 1-15.   | 0.8 | 4         |
| 2244 | A Review of Design and Fabrication Methods for Nanoparticle Network Hydrogels for Biomedical, Environmental, and Industrial Applications. <i>Advanced Functional Materials</i> , 2021, 31, 2102355.   | 7.8 | 46        |
| 2245 | An Overview on Starch-Based Sustainable Hydrogels: Potential Applications and Aspects. <i>Journal of Polymers and the Environment</i> , 2022, 30, 19-50.  | 2.4 | 58        |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 2246 | Trends of Chitosan Based Delivery Systems in Neuroregeneration and Functional Recovery in Spinal Cord Injuries. <i>Polysaccharides</i> , 2021, 2, 519-537.  | 2.1  | 8         |
| 2247 | Formulation of Novel Wound Healing Hydrogel Using Extracts of <i>Padina Tetrastromatica</i> and Determining its Antibacterial Activity against Wound Pathogens. <i>Shanghai Ligong Daxue Xuebao/Journal of University of Shanghai for Science and Technology</i> , 2021, 23, 966-982. | 0.1  | 0         |
| 2248 | Protein Hydrogels: The Swiss Army Knife for Enhanced Mechanical and Bioactive Properties of Biomaterials. <i>Nanomaterials</i> , 2021, 11, 1656.  | 1.9  | 27        |
| 2249 | Design and Use of a Thermogelling Methylcellulose Nanoemulsion to Formulate Nanocrystalline Oral Dosage Forms. <i>Advanced Materials</i> , 2021, 33, e2008618.  | 11.1 | 11        |
| 2250 | Review of Applications and Future Prospects of Stimuli-Responsive Hydrogel Based on Thermo-Responsive Biopolymers in Drug Delivery Systems. <i>Polymers</i> , 2021, 13, 2086.   | 2.0  | 64        |
| 2251 | Permeation of polyethylene glycols across the tympanic membrane. <i>Giant</i> , 2021, 6, 100057.  | 2.5  | 4         |
| 2252 | Development of cress seed gum hydrogel and investigation of its potential application in the delivery of curcumin. <i>Journal of the Science of Food and Agriculture</i> , 2021, 101, 6505-6513.  | 1.7  | 26        |
| 2253 | Ultrasound-assisted synthesis of MIL-88(Fe) coordinated to carboxymethyl cellulose fibers: A safe carrier for highly sustained release of tetracycline. <i>International Journal of Biological Macromolecules</i> , 2021, 181, 937-944.   | 3.6  | 42        |
| 2254 | Oxi-HA/ADH Hydrogels: A Novel Approach in Tissue Engineering and Regenerative Medicine. <i>Polysaccharides</i> , 2021, 2, 477-496.  | 2.1  | 7         |
| 2255 | On shockwave propagation and attenuation in poly(ethylene glycol) diacrylate hydrogels. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 118, 104423.  | 1.5  | 3         |
| 2256 | Recent Progress on Polysaccharide-Based Hydrogels for Controlled Delivery of Therapeutic Biomolecules. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 4102-4127.  | 2.6  | 64        |
| 2257 | Alginate hydrogels functionalized with $\beta$ -cyclodextrin as a local paclitaxel delivery system. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 2625-2639.  | 2.1  | 18        |
| 2258 | Engineered nanocellulose-based hydrogels for smart drug delivery applications. <i>International Journal of Biological Macromolecules</i> , 2021, 181, 275-290.  | 3.6  | 55        |
| 2259 | Tailoring Therapeutic Responses via Engineering Microenvironments with a Novel Synthetic Fluid Gel. <i>Advanced Healthcare Materials</i> , 2021, 10, 2100622.   | 3.9  | 3         |
| 2260 | Protein-Based Nanohydrogels for Bioactive Delivery. <i>Frontiers in Chemistry</i> , 2021, 9, 573748.  | 1.8  | 32        |
| 2261 | Preparation, Properties and Cell Biocompatibility of Room Temperature LCST-Hydrogels Based on Thermoresponsive PEO Stars. <i>Gels</i> , 2021, 7, 84.  | 2.1  | 2         |
| 2262 | A review on preparations, properties, and applications of cis-ortho-hydroxyl polysaccharides hydrogels crosslinked with borax. <i>International Journal of Biological Macromolecules</i> , 2021, 182, 1179-1191.  | 3.6  | 27        |
| 2263 | Cryogel biomaterials for neuroscience applications. <i>Neurochemistry International</i> , 2021, 147, 105012.  | 1.9  | 24        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2264 | Salinity durable self-healing hydrogels as functional biomimetic systems based on the intercalation of polymer ions into mica. <i>Polymer</i> , 2021, 228, 123870.  | 1.8 | 2         |
| 2265 | Drug delivery to the pediatric upper airway. <i>Advanced Drug Delivery Reviews</i> , 2021, 174, 168-189.  | 6.6 | 2         |
| 2266 | Magnetic-responsive hydrogels: From strategic design to biomedical applications. <i>Journal of Controlled Release</i> , 2021, 335, 541-556.   | 4.8 | 72        |
| 2267 | Microfluidic fabrication of imageable and resorbable polyethylene glycol microspheres for catheter embolization. <i>Journal of Biomedical Materials Research - Part A</i> , 2022, 110, 131-142.                     | 2.1 | 5         |
| 2268 | Tunable and Large-Scale Model Network StarPEG-DNA Hydrogels. <i>Macromolecules</i> , 2021, 54, 7125-7133.   | 2.2 | 12        |
| 2269 | Effects of synthesis-solvent polarity on the physicochemical and rheological properties of poly(N-isopropylacrylamide) (PNIPAm) hydrogels. <i>Journal of Materials Research and Technology</i> , 2021, 13, 769-786. | 2.6 | 14        |
| 2270 | Polysaccharide-Peptides-Based Microgels: Characterization, In Vitro Digestibility, and Rheological Behavior of their Suspensions. <i>Food Biophysics</i> , 2021, 16, 440-450.                                       | 1.4 | 3         |
| 2271 | A Simple Way to Synthesize a Protective "Skin" around Any Hydrogel. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 37645-37654.  | 4.0 | 18        |
| 2272 | Locust bean gum-polyvinyl alcohol hydrogels: Synthesis, characterization, swelling behaviors, and mathematical models. <i>Journal of Applied Polymer Science</i> , 2022, 139, 51498.                                | 1.3 | 10        |
| 2273 | Bioactive Films from Willow Bark Extract and Nanocellulose Double Network Hydrogels. <i>Frontiers in Chemical Engineering</i> , 2021, 3, .  | 1.3 | 7         |
| 2274 | Hydrogel foams from liquid foam templates: Properties and optimisation. <i>Advances in Colloid and Interface Science</i> , 2021, 294, 102478.   | 7.0 | 24        |
| 2275 | Bioactive Hydrogels: Design and Characterization of Cellulose-Derived Injectable Composites. <i>Materials</i> , 2021, 14, 4511.   | 1.3 | 7         |
| 2276 | Anticancer Effect of Alginate-chitosan Hydrogel Loaded with Curcumin and Chrysin on Lung and Breast Cancer Cell Lines. <i>Current Drug Delivery</i> , 2022, 19, 600-613.  | 0.8 | 15        |
| 2277 | Glassy Polymers' Diffusion, Sorption, Ageing and Applications. <i>Coatings</i> , 2021, 11, 1049.  | 1.2 | 12        |
| 2278 | Extended-release of therapeutic microRNA via a host-guest supramolecular hydrogel to locally alleviate renal interstitial fibrosis. <i>Biomaterials</i> , 2021, 275, 120902.  | 5.7 | 13        |
| 2279 | Transpiration through hydrogels. <i>Journal of Fluid Mechanics</i> , 2021, 925, .   | 1.4 | 9         |
| 2280 | Evaluating Release Kinetics from Alginate Beads Coated with Polyelectrolyte Layers for Sustained Drug Delivery. <i>ACS Applied Bio Materials</i> , 2021, 4, 6719-6731.  | 2.3 | 17        |
| 2281 | Molecular Descriptor Analysis of Certain Isomeric Natural Polymers. <i>Journal of Chemistry</i> , 2021, 2021, 1-26.   | 0.9 | 4         |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 2282 | Opportunities and challenges of hydrogel microspheres for tendonâ€‘bone healing after anterior cruciate ligament reconstruction. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2022, 110, 289-301. | 1.6  | 9         |
| 2283 | Fabrication and Characterization of Porous Flow-Assembled Chitosan Membranes in Microfluidics. <i>IFMBE Proceedings</i> , 2022, , 383-392.   | 0.2  | 0         |
| 2284 | Recent developments in citrus bioflavonoid encapsulation to reinforce controlled antioxidant delivery and generate therapeutic uses: Review. <i>Critical Reviews in Food Science and Nutrition</i> , 2023, 63, 1187-1207.            | 5.4  | 14        |
| 2285 | Hybrid Self-Assembled Gel Beads for Tuneable pH-Controlled Rosuvastatin Delivery. <i>Chemistry - A European Journal</i> , 2021, 27, 13203-13210.   | 1.7  | 9         |
| 2286 | Comprehensive review on ultrasound-responsive theranostic nanomaterials: mechanisms, structures and medical applications. <i>Beilstein Journal of Nanotechnology</i> , 2021, 12, 808-862.  | 1.5  | 22        |
| 2287 | Fabrication and In Vitro Evaluation of pH-Sensitive Polymeric Hydrogels as Controlled Release Carriers. <i>Gels</i> , 2021, 7, 110.  | 2.1  | 14        |
| 2288 | White-Light-Emitting Supramolecular Polymer Gel Based on $\beta$ -CD and NDI Host-Guest Inclusion Complex. <i>Polymers</i> , 2021, 13, 2762.   | 2.0  | 4         |
| 2289 | Preliminary Animal Study on Bone Formation Ability of Commercialized Particle-Type Bone Graft with Increased Operability by Hydrogel. <i>Materials</i> , 2021, 14, 4464.   | 1.3  | 4         |
| 2290 | Polypseudorotaxane and polydopamine linkage-based hyaluronic acid hydrogel network with a single syringe injection for sustained drug delivery. <i>Carbohydrate Polymers</i> , 2021, 266, 118104.                                    | 5.1  | 29        |
| 2291 | Advances in versatile anti-swelling polymer hydrogels. <i>Materials Science and Engineering C</i> , 2021, 127, 112208.   | 3.8  | 93        |
| 2292 | Closed-Loop Controlled Photopolymerization of Hydrogels. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 40365-40378.  | 4.0  | 8         |
| 2293 | Dual-Crosslinked Dynamic Hydrogel Incorporating $\{Mo_{154}\}$ with pH and NIR Responsiveness for Chemo-Photothermal Therapy. <i>Advanced Materials</i> , 2021, 33, e2007761.  | 11.1 | 73        |
| 2294 | Thermo-responsive hydrogels for cancer local therapy: Challenges and state-of-art. <i>International Journal of Pharmaceutics</i> , 2021, 606, 120954.  | 2.6  | 34        |
| 2295 | Polymeric Nanoparticle Based Diagnosis and Nanomedicine for Treatment and Development of Vaccines for Cerebral Malaria: A Review on Recent Advancement. <i>ACS Applied Bio Materials</i> , 2021, 4, 7342-7365.                       | 2.3  | 14        |
| 2296 | Modulation of Conductivity of Alginate Hydrogels Containing Reduced Graphene Oxide through the Addition of Proteins. <i>Pharmaceutics</i> , 2021, 13, 1473.  | 2.0  | 5         |
| 2297 | Preparation of Centella asiatica loaded gelatin/chitosan/nonwoven fabric composite hydrogel wound dressing with antibacterial property. <i>International Journal of Biological Macromolecules</i> , 2021, 192, 350-359.              | 3.6  | 23        |
| 2298 | Development of a Polysaccharide-Based Hydrogel Drug Delivery System (DDS): An Update. <i>Gels</i> , 2021, 7, 153.  | 2.1  | 45        |
| 2299 | Super absorbent chitosan-based hydrogel sponges as carriers for caspofungin antifungal drug. <i>International Journal of Pharmaceutics</i> , 2021, 606, 120925.  | 2.6  | 19        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2300 | Fabrication and characterisation of a wound dressing composed of polyvinyl alcohol and quince seed mucilage. <i>Journal of Wound Care</i> , 2021, 30, XIII-XIIIx.  | 0.5 | 5         |
| 2301 | PF-127 based vildagliptin loaded polymeric hydrogels prepared by aqueous polymerization technique for treatment of diabetes mellitus. <i>Journal of Polymer Research</i> , 2021, 28, 1.  | 1.2 | 1         |
| 2302 | Silver nanoparticles as an effective antimicrobial against otitis media pathogens. <i>AICHE Journal</i> , 2021, 67, e17468.  | 1.8 | 6         |
| 2303 | Injectable Micelle-Incorporated Hydrogels for the Localized Chemo-Immunotherapy of Breast Tumors. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 46270-46281.   | 4.0 | 11        |
| 2304 | Affinity-Controlled Double-Network Hydrogel Facilitates Long-Term Release of Anti-Human Papillomavirus Protein. <i>Biomedicines</i> , 2021, 9, 1298.   | 1.4 | 9         |
| 2305 | Oxygen-generating microparticles in chondrocytes-laden hydrogels by facile and versatile click chemistry strategy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 205, 111850.  | 2.5 | 16        |
| 2306 | Antimicrobial peptides “Unleashing their therapeutic potential using nanotechnology.”, 2022, 232, 107990.  |     | 44        |
| 2307 | Polymeric materials reinforced by noncovalent aggregates of polymer chains. <i>Aggregate</i> , 2021, 2, e109.  | 5.2 | 28        |
| 2308 | Controlled Drug Delivery Systems: Current Status and Future Directions. <i>Molecules</i> , 2021, 26, 5905.   | 1.7 | 388       |
| 2309 | Thermally tunable hydrogel crosslinking mediated by temperature sensitive liposome. <i>Biomedical Materials (Bristol)</i> , 2021, 16, 065026.  | 1.7 | 2         |
| 2310 | Preparation of hydroxybutyl starch with a high degree of substitution and its application in temperature-sensitive hydrogels. <i>Food Chemistry</i> , 2021, 355, 129472.   | 4.2 | 20        |
| 2311 | Preparation and characterization of methylene bisacrylamide crosslinked pectin/acrylamide hydrogels. <i>Polymer Bulletin</i> , 2022, 79, 7655-7677.  | 1.7 | 12        |
| 2312 | Synthesis, physical and mechanical properties of amphiphilic hydrogels based on polycaprolactone and polyethylene glycol for bioapplications: A review. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 101, 307-323. | 2.9 | 31        |
| 2313 | Nonlinear poroviscoelastic behavior of gelatin-based hydrogel. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 158, 104650.  | 2.3 | 11        |
| 2314 | Improving the Antitumor Activity and Bioavailability of Sonidegib for the Treatment of Skin Cancer. <i>Pharmaceutics</i> , 2021, 13, 1560.   | 2.0 | 17        |
| 2315 | <scp>Nanocarrierâ€hydrogel</scp> composite delivery systems for precision drug release. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2022, 14, e1756.  | 3.3 | 40        |
| 2316 | Dual Cross-Linked Chitosan/PVA Hydrogels Containing Silver Nanoparticles with Antimicrobial Properties. <i>Pharmaceutics</i> , 2021, 13, 1461.   | 2.0 | 42        |
| 2317 | Antimicrobial Peptides and Their Applications in Biomedical Sector. <i>Antibiotics</i> , 2021, 10, 1094.   | 1.5 | 17        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2318 | In-situ silver nanoparticles incorporated N, O-carboxymethyl chitosan based adhesive, self-healing, conductive, antibacterial and anti-biofilm hydrogel. <i>International Journal of Biological Macromolecules</i> , 2021, 188, 501-511.  | 3.6 | 34        |
| 2319 | Viscoelastic behaviour of rapid and slow self-healing hydrogels formed by densely branched arabinoxylans from <i>Plantago ovata</i> seed mucilage. <i>Carbohydrate Polymers</i> , 2021, 269, 118318.  | 5.1 | 9         |
| 2320 | Discerning the self-healing, shear-thinning characteristics and therapeutic efficacy of hydrogel drug carriers migrating through constricted microchannel resembling blood microcapillary. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 626, 127070. | 2.3 | 6         |
| 2321 | Ultrasound-triggered nicotine release from nicotine-loaded cellulose hydrogel. <i>Ultrasonics Sonochemistry</i> , 2021, 78, 105710.   | 3.8 | 12        |
| 2322 | Modulating degradation of sodium alginate/bioglass hydrogel for improving tissue infiltration and promoting wound healing. <i>Bioactive Materials</i> , 2021, 6, 3692-3704.   | 8.6 | 67        |
| 2323 | Local delivery strategies to restore immune homeostasis in the context of inflammation. <i>Advanced Drug Delivery Reviews</i> , 2021, 178, 113971.  | 6.6 | 17        |
| 2324 | Diffusion-controlled release of the theranostic protein-photosensitizer Azulitox from composite of Fmoc-Phenylalanine Fibrils encapsulated with BSA hydrogels. <i>Journal of Biotechnology</i> , 2021, 341, 51-62.  | 1.9 | 3         |
| 2325 | Biosynthesis and physico-chemical characterization of high performing peptide hydrogels@graphene oxide composites. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 207, 111989.   | 2.5 | 6         |
| 2326 | Bacterial cellulose nanofibrils-reinforced composite hydrogels for mechanical compression-responsive on-demand drug release. <i>Carbohydrate Polymers</i> , 2021, 272, 118459.  | 5.1 | 33        |
| 2327 | Poly(allylamine)/tripolyphosphate coacervates for encapsulation and long-term release of cetylpyridinium chloride. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 629, 127490.   | 2.3 | 5         |
| 2328 | Formulation of pH responsive multilamellar vesicles for targeted delivery of hydrophilic antibiotics. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 207, 112043.  | 2.5 | 10        |
| 2329 | Novel graphene oxide loaded sodium alginate hydrogels cross-linked with tetraethyl orthosilicate for cephadrine release analysis. <i>Journal of Drug Delivery Science and Technology</i> , 2021, 66, 102784.  | 1.4 | 7         |
| 2330 | Modified hydroxyapatite nanoparticles reinforced nanocomposite hydrogels based on gelatin/oxidized alginate via Schiff base reaction. <i>Carbohydrate Polymer Technologies and Applications</i> , 2021, 2, 100056.  | 1.6 | 16        |
| 2331 | The design and green nanofabrication of noble hydrogel systems with encapsulation of doped bioactive hydroxyapatite toward sustained drug delivery. <i>Journal of Molecular Liquids</i> , 2021, 343, 117598.  | 2.3 | 5         |
| 2332 | Influence of water content on the mechanical behavior of gelatin based hydrogels: Synthesis, characterization, and modeling. <i>International Journal of Solids and Structures</i> , 2021, 233, 111219.   | 1.3 | 27        |
| 2333 | Multifunctional GelMA platforms with nanomaterials for advanced tissue therapeutics. <i>Bioactive Materials</i> , 2022, 8, 267-295.   | 8.6 | 153       |
| 2334 | Challenges and recent trends with the development of hydrogel fiber for biomedical applications. <i>Chemosphere</i> , 2022, 287, 131956.  | 4.2 | 18        |
| 2335 | Sodium alginate-chitosan nanocomposite as a novel carrier agent for cinnamaldehyde: characterisation and release studies. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 980, 012017.  | 0.3 | 1         |



| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2336 | Stimuli-responsive Drug Delivery Hydrogels. RSC Soft Matter, 2021, , 542-565.   | 0.2 | 3         |
| 2337 | Production of hydrogel microparticles in microfluidic devices: a review. Microfluidics and Nanofluidics, 2021, 25, 1.   | 1.0 | 20        |
| 2338 | Composite hydrogels of pectin and alginate. , 2021, , 507-533.  |     | 0         |
| 2339 | Optimizing the heterogeneous network structure to achieve polymer nanocomposites with excellent mechanical properties. Physical Chemistry Chemical Physics, 2021, 23, 4437-4452.  | 1.3 | 4         |
| 2340 | Synthesis, Structural Modification and Physiochemical Response of Chitosan Built Nanohydrogel for Control Drug Delivery Applications. Gels Horizons: From Science To Smart Materials, 2021, , 263-280.                        | 0.3 | 0         |
| 2341 | The impact of substitution of two hydrophobic moieties on the properties of guar gum based hydrogels. Pigment and Resin Technology, 2021, ahead-of-print, .   | 0.5 | 0         |
| 2342 | Photosensitizer-loaded hydrogels for photodynamic inactivation of multiresistant bacteria in wounds. RSC Advances, 2021, 11, 7600-7609.   | 1.7 | 15        |
| 2343 | Tailored natural polymers: a useful eco-friendly sustainable tool for the mitigation of emerging pollutants: a review. International Journal of Environmental Science and Technology, 2021, 18, 2491-2510.                    | 1.8 | 14        |
| 2344 | Selective and Improved Photoannealing of Microporous Annealed Particle (MAP) Scaffolds. ACS Biomaterials Science and Engineering, 2021, 7, 422-427.   | 2.6 | 14        |
| 2345 | Progress on Preparation of pH/Temperature-Sensitive Intelligent Hydrogels and Applications in Target Transport and Controlled Release of Drugs. International Journal of Polymer Science, 2021, 2021, 1-14.                   | 1.2 | 20        |
| 2346 | Gel-based delivery of neurotherapeutics via naso-brain pathways. , 2021, , 225-245.   |     | 0         |
| 2347 | Synthesis and efficacy of norfloxacin loaded onto magnetic hydrogel nanocomposites. RSC Advances, 2021, 11, 30183-30194.  | 1.7 | 5         |
| 2348 | Cancer theranostic platforms based on injectable polymer hydrogels. Biomaterials Science, 2021, 9, 3543-3575.   | 2.6 | 16        |
| 2349 | Mucoadhesive Poloxamer-Based Hydrogels for the Release of HP- $\beta$ -CD-Complexed Dexamethasone in the Treatment of Buccal Diseases. Pharmaceutics, 2021, 13, 117.  | 2.0 | 16        |
| 2350 | Synthesis-Structure Relationship of Chitosan Based Hydrogels. Advances in Polymer Science, 2021, , 105-129.   | 0.4 | 6         |
| 2351 | Tissue engineering applications. , 2021, , 323-347.   |     | 0         |
| 2352 | Effect of Pluronic F127 on the 3D pore morphology of poly( N -isopropylacrylamide-co -acrylic acid) hydrogels and their nitric oxide release from S-nitrosoglutathione. Journal of Applied Polymer Science, 2020, 137, 49056. | 1.3 | 8         |
| 2353 | Dual Stimuli-Responsive Self-Assembly Behavior of a Tailor-Made ABC-Type Amphiphilic Tri-Block Copolymer. Journal of Polymer Science, 2020, 58, 843-851.  | 2.0 | 4         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2354 | Antimicrobial Hydrogels: Key Considerations and Engineering Strategies for Biomedical Applications. , 2020, , 511-542.  |     | 6         |
| 2355 | The Future of Glass-ionomers. , 2016, , 125-148.  |     | 1         |
| 2356 | Fabrication and Printing of Multi-material Hydrogels. , 2016, , 1-34.   |     | 3         |
| 2357 | Functional Nanofibers Containing Cyclodextrins. , 2018, , 29-62.  |     | 2         |
| 2358 | Porosity in Biomaterials: A Key Factor in the Development of Applied Materials in Biomedicine. , 2019, , 3503-3522.   |     | 4         |
| 2359 | Polymeric Hydrogel: A Flexible Carrier System for Drug Delivery. Gels Horizons: From Science To Smart Materials, 2018, , 141-184.   | 0.3 | 2         |
| 2360 | Protein Microgels from Amyloid Fibril Networks. Advances in Experimental Medicine and Biology, 2019, 1174, 223-263.   | 0.8 | 10        |
| 2361 | Chitosan-Based Hydrogels for Drug Delivery. , 2019, , 163-190.  |     | 4         |
| 2362 | Fabrication Technology of Chitosan-Based IPN: Drug Delivery Application. , 2020, , 55-78.   |     | 3         |
| 2363 | Developing Transdermal Applications of Ketorolac Tromethamine Entrapped in Stimuli Sensitive Block Copolymer Hydrogels. Pharmaceutical Research, 2017, 34, 1728-1740.   | 1.7 | 37        |
| 2364 | Nanocomposite hydrogels for tissue engineering applications. , 2020, , 499-528.   |     | 5         |
| 2365 | General introduction on sustainable nanocellulose and nanohydrogel matrices. , 2020, , 1-31.  |     | 5         |
| 2366 | The mutual effect of the crosslinker and biopolymer concentration on the desired hydrogel properties. International Journal of Biological Macromolecules, 2020, 159, 557-569.   | 3.6 | 35        |
| 2367 | Hybrid dual crosslinked polyacrylic acid hydrogels with ultrahigh mechanical strength, toughness and self-healing properties via soaking salt solution. Polymer, 2017, 121, 55-63.  | 1.8 | 64        |
| 2368 | Characterization of High Molecular Weight Multi-Arm Functionalized PEGâ€“Maleimide for Protein Conjugation by Charge-Reduction Mass Spectrometry Coupled to Two-Dimensional Liquid Chromatography. Analytical Chemistry, 2020, 92, 8584-8590. | 3.2 | 7         |
| 2369 | Cationic, Anionic, and Amphoteric Dual pH/Temperature-Responsive Degradable Microgels via Self-Assembly of Functionalized Oligomeric Precursor Polymers. Macromolecules, 2021, 54, 351-363.   | 2.2 | 15        |
| 2370 | Towards Cyclodextrin-Based Supramolecular Materials. RSC Polymer Chemistry Series, 2016, , 154-177.   | 0.1 | 4         |
| 2371 | Nanogels in the Diagnosis and Treatment of Tuberculosis. RSC Smart Materials, 2017, , 53-76.  | 0.1 | 1         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2372 | Injectable Nanogels in Drug Delivery. RSC Smart Materials, 2017, , 181-209.  | 0.1 | 1         |
| 2373 | Overview of Antimicrobial Resistance and Nanoparticulate Drug Delivery Approach to Combat Antimicrobial Resistance. Biomaterials Science Series, 2019, , 481-516.  | 0.1 | 1         |
| 2374 | Magnetic Resonance Micro-imaging of Hydrogels. New Developments in NMR, 2020, , 110-173.   | 0.1 | 1         |
| 2375 | CHAPTER 19. Elastin-like Hydrogels and Self-assembled Nanostructures for Drug Delivery. RSC Smart Materials, 2013, , 180-198.  | 0.1 | 3         |
| 2376 | CHAPTER 20. Multiple Stimuli-responsive Hydrogels Based on Î±-Amino Acid Residues for Drug Delivery. RSC Smart Materials, 2013, , 199-227.   | 0.1 | 1         |
| 2377 | Synthesis of co-polymeric network of carbopol-g-methacrylic acid nanogels drug carrier system for gastro-protective delivery of ketoprofen and its evaluation. Polymer-Plastics Technology and Materials, 2020, 59, 1109-1123. | 0.6 | 10        |
| 2378 | Chitosan-Based Gels: Drug Delivery Systems. , 0, , 1546-1577.  |     | 1         |
| 2379 | Dual drug delivery system based on pH-sensitive silk fibroin/alginate nanoparticles entrapped in PNIPAM hydrogel for treating severe infected burn wound. Biofabrication, 2021, 13, 015005.                                    | 3.7 | 49        |
| 2381 | Kinetics of Polyelectrolyte Gels. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .   | 1.1 | 20        |
| 2382 | Nonlinear Visco-Poroelasticity of Gels With Different Rheological Parts. Journal of Applied Mechanics, Transactions ASME, 2020, 87, .  | 1.1 | 13        |
| 2383 | Surface-Mediated Drug Delivery. Regenerative Medicine, Artificial Cells and Nanomedicine, 2013, , 195-217.   | 0.7 | 2         |
| 2384 | Metformin-loaded Citric Acid Cross-linked Agarose Films in the Prevention of Postoperative Abdominal Adhesion. Anatomy & Biological Anthropology, 2019, 32, 129.   | 0.1 | 2         |
| 2385 | Prodrugs and Bioconjugate Hydrogels: A Valuable Strategy for the Prolonged-Delivery of Drugs. , 2017, , 88-112.  |     | 1         |
| 2386 | Characterization of Macroporous Gels. , 2009, , 211-235.   |     | 2         |
| 2387 | Effect of Chemical Crosslinking on Properties of Polymer Microbeads: A Review. Canadian Chemical Transactions, 0, , 473-485.   | 0.2 | 30        |
| 2388 | Substrate Mediated Enzyme Prodrug Therapy. PLoS ONE, 2012, 7, e49619.  | 1.1 | 21        |
| 2389 | Hyaluronidase Modulates Inflammatory Response and Accelerates the Cutaneous Wound Healing. PLoS ONE, 2014, 9, e112297.   | 1.1 | 55        |
| 2390 | Energy Landscape of Alginate-Epimerase Interactions Assessed by Optical Tweezers and Atomic Force Microscopy. PLoS ONE, 2015, 10, e0141237.  | 1.1 | 7         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2391 | Evaluation of a novel biodegradable thermosensitive keto-hydrogel for improving postoperative pain in a rat model. PLoS ONE, 2017, 12, e0186784.  | 1.1 | 10        |
| 2392 | Mechanical and Swelling Properties of Poly (vinyl alcohol) and Hyaluronic Acid Gels used in Biomaterial Systems - a Comparative Study. Defence Science Journal, 2014, 64, 222-229.                          | 0.5 | 16        |
| 2393 | Stimuli-responsive Hydrogels for Textile Functionalisation: A Review. Tekstilec, 2017, 60, 76-96.   | 0.3 | 12        |
| 2394 | Fmoc-diphenylalanine-based hydrogels as a potential carrier for drug delivery. E-Polymers, 2020, 20, 458-468.   | 1.3 | 18        |
| 2395 | Novel Pentablock Copolymers as Thermosensitive Self-Assembling Micelles for Ocular Drug Delivery. Advanced Pharmaceutical Bulletin, 2017, 7, 11-20.   | 0.6 | 31        |
| 2396 | Preparation and Characterization of Silk Fibroin Nanoparticles as a Potential Drug Delivery System for 5-Fluorouracil. Advanced Pharmaceutical Bulletin, 2019, 9, 601-608.                                  | 0.6 | 30        |
| 2397 | Physical Properties of Radiation-Crosslinked Polyvinyl Alcohol-Polyethylene Glycol Hydrogels from the Viewpoint of Their Application as Medical Dressings. Ukrainian Journal of Physics, 2017, 62, 402-412. | 0.1 | 5         |
| 2398 | A poroelastic master curve for time-dependent and multiscale mechanics of hydrogels. Journal of Materials Research, 2021, 36, 1-9.  | 1.2 | 1         |
| 2399 | Sustained-Release Injectable Hydrogel Formulations for Administration of Sodium Salicylate in Broiler Chickens. , 2018, 32, 294.  |     | 1         |
| 2400 | Similarity in Linear Viscoelastic Behaviors of Network Formation and Degradation Processes. Nihon Reoroji Gakkaishi, 2020, 48, 191-198.   | 0.2 | 2         |
| 2401 | Hydrogels: a smart drug delivery device. Asian Pacific Journal of Health Sciences, 2014, , 92-105.  | 0.0 | 4         |
| 2403 | Hemicellulose from Plant Biomass in Medical and Pharmaceutical Application: A Critical Review. Current Medicinal Chemistry, 2019, 26, 2430-2455.  | 1.2 | 60        |
| 2404 | Chitosan-based Polymer Matrix for Pharmaceutical Excipients and Drug Delivery. Current Medicinal Chemistry, 2019, 26, 2502-2513.  | 1.2 | 32        |
| 2405 | Natural Hydrogels Applied in Photodynamic Therapy. Current Medicinal Chemistry, 2020, 27, 2681-2703.  | 1.2 | 7         |
| 2406 | Current Trends in Drug Delivery System of Curcumin and its Therapeutic Applications. Mini-Reviews in Medicinal Chemistry, 2020, 20, 1190-1232.  | 1.1 | 19        |
| 2407 | Syringeable Self-Assembled Cyclodextrin Gels for Drug Delivery. Current Topics in Medicinal Chemistry, 2014, 14, 494-509.   | 1.0 | 27        |
| 2408 | The Patenting and Technological Trends in Candidiasis Treatment: A Systematic Review (2014-2018). Current Topics in Medicinal Chemistry, 2019, 19, 2629-2639.   | 1.0 | 5         |
| 2409 | Microemulsions Based Transdermal Drug Delivery Systems. Current Drug Discovery Technologies, 2014, 11, 169-180.   | 0.6 | 19        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2410 | Advanced Hydrogels Based Drug Delivery Systems for Ophthalmic Delivery. Recent Patents on Drug Delivery and Formulation, 2020, 13, 291-300.  | 2.1 | 15        |
| 2411 | Sertaconazole-Loaded Cyclodextrin - Polysaccharide Hydrogels as Antifungal Devices. Open Drug Delivery Journal, 2009, 3, 1-9.  | 2.0 | 20        |
| 2412 | Development of Capsaicin Loaded Hydrogel Beads for <i>In vivo</i> Lipid Lowering Activities of Hyperlipidemic Rats. Drug Delivery Letters, 2019, 9, 108-115.   | 0.2 | 3         |
| 2413 | Solubility Enhancement of Simvastatin through Surfactant Addition for Development of Hydrophobic Drug-Loaded Gelatin Hydrogel. Indonesian Journal of Chemistry, 2019, 19, 920.   | 0.3 | 4         |
| 2414 | Innovations in Poly(Vinyl Alcohol) Derived Nanomaterials. Advances in Materials Science, 2020, 20, 5-22.   | 0.4 | 8         |
| 2415 | New Horizons in Hydrogels for Methotrexate Delivery. Gels, 2021, 7, 2.   | 2.1 | 20        |
| 2416 | SYNTHESIS AND CHARACTERIZATION OF ORGANIC-INORGANIC HYBRID HYDROGELS BASED ON OCTAVINYLL POLYHEDRAL OLIGOMERIC SILSESQUIOXANE AND <i>N</i> -ISOPROPYLACRYLAMIDE COPOLYMER. Acta Polymerica Sinica, 2010, 010, 1023-1029.   | 0.0 | 1         |
| 2417 | Biomaterials-based Hydrogels and their Drug Delivery Potentialities. International Journal of Pharmacology, 2017, 13, 864-873.   | 0.1 | 17        |
| 2418 | Oral Delivery of Insulin for Treatment of Diabetes: Classical Challenges and Current Opportunities. Journal of Medical Sciences (Faisalabad, Pakistan), 2015, 15, 209-220.   | 0.0 | 13        |
| 2419 | Collagen for brain repair: therapeutic perspectives. Neural Regeneration Research, 2018, 13, 595.  | 1.6 | 46        |
| 2420 | Polymer Nanoparticles: Newer Strategies towards Targeted Cancer Therapy. , 2013, 03, .   |     | 5         |
| 2421 | Polymers in Drug Delivery. Journal of Biosciences and Medicines, 2016, 04, 69-84.  | 0.1 | 51        |
| 2422 | Modular Hydrogels for Drug Delivery. Journal of Biomaterials and Nanobiotechnology, 2012, 03, 185-199.   | 1.0 | 53        |
| 2423 | Miscibility Behavior of Polyacrylamides Poly(Ethylene Glycol) Blends: Flory Huggins Interaction Parameter Determined by Thermal Analysis. Journal of Modern Physics, 2013, 04, 45-51.                                      | 0.3 | 6         |
| 2424 | Cross-Linked Alginate Film Pore Size Determination Using Atomic Force Microscopy and Validation Using Diffusivity Determinations. Journal of Surface Engineered Materials and Advanced Technology, 2013, 03, 1-12.         | 0.2 | 28        |
| 2425 | Hydrogel Fibre: Future Material of Interest for Biomedical Applications. Journal of Textile Science and Technology, 2019, 05, 92-107.  | 0.2 | 6         |
| 2426 | Coronary Angiography for Follow-up of Heart Transplant Recipients: Usefulness of the Gensini Score. Experimental and Clinical Transplantation, 2020, 18, 99-104.   | 0.2 | 3         |
| 2427 | Physicochemical Characteristics of Fe <sub>3</sub> O <sub>4</sub> Magnetic Nanocomposites Based on Poly(N-isopropylacrylamide) for Anti-cancer Drug Delivery. Asian Pacific Journal of Cancer Prevention, 2014, 15, 49-54. | 0.5 | 66        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2428 | Superporous Hydrogel Composites of Acrylamide Using Starch-silicone Dioxide Coprecipitate as Composite Agent. <i>British Journal of Pharmaceutical Research</i> , 2014, 4, 338-351.                                  | 0.4 | 2         |
| 2429 | Derivatisation of Cashew Gum via Cross-linking with Citric Acid: Characterisation and Preliminary Evaluation of Tableting Properties. <i>British Journal of Pharmaceutical Research</i> , 2015, 6, 22-34.            | 0.4 | 3         |
| 2430 | Derivatisation of Cashew Gum by Esterification Using Citric Acid and Glycerol. <i>British Journal of Pharmaceutical Research</i> , 2015, 6, 155-165.   | 0.4 | 2         |
| 2431 | Fabrication of Chitosan-Based Biomaterials: Techniques and Designs. , 2021, , 455-518.   |     | 4         |
| 2432 | Ian Situ Tissue Engineering: A New Dimension. , 2021, , 325-350.   |     | 2         |
| 2433 | Synthesis, classification and properties of hydrogels: their applications in drug delivery and agriculture. <i>Journal of Materials Chemistry B</i> , 2022, 10, 170-203.   | 2.9 | 60        |
| 2434 | pH-Sensitive silica-based core-shell nanogel prepared via RAFT polymerization: investigation of the core size effect on the release profile of doxorubicin. <i>New Journal of Chemistry</i> , 2021, 45, 21824-21833. | 1.4 | 6         |
| 2435 | Biphasic Porous Structures formed by Monomer/Water Interface Stabilization with Colloidal Nanoparticles. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100991.  | 1.9 | 4         |
| 2436 | Quantification and characterization of water within drug-eluting beads. <i>Polymer</i> , 2021, 235, 124287.  | 1.8 | 4         |
| 2437 | Light manipulation for fabrication of hydrogels and their biological applications. <i>Acta Biomaterialia</i> , 2022, 137, 20-43.   | 4.1 | 18        |
| 2438 | Effect of crosslink-induced heterogeneities on the transport and deformation behavior of hydrophilic ionic polymer membranes. <i>Polymer Journal</i> , 0, , .  | 1.3 | 1         |
| 2439 | An Insight into Skeletal Networks Analysis for Smart Hydrogels. <i>Advanced Functional Materials</i> , 2022, 32, 2108489.  | 7.8 | 10        |
| 2440 | Cisplatin uptake and release assessment from hydrogel synthesized in acidic and neutral medium: An experimental and molecular dynamics simulation study. <i>Journal of Molecular Liquids</i> , 2021, 344, 117890.    | 2.3 | 16        |
| 2442 | The Impact of Improving Dermal Permeation on the Efficacy and Targeting of Liposome Nanoparticles as a Potential Treatment for Breast Cancer. <i>Pharmaceutics</i> , 2021, 13, 1633.                                 | 2.0 | 9         |
| 2443 | Advances in Hyaluronic Acid-Based (Nano)Devices for Cancer Therapy. <i>Macromolecular Bioscience</i> , 2022, 22, e2100304.   | 2.1 | 16        |
| 2444 | Layer-by-Layer Fabrication of Hydrogel Microsystems for Controlled Drug Delivery From Untethered Microrobots. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 692648.                                | 2.0 | 3         |
| 2445 | Perspective Insights to Bio-Nanomaterials for the Treatment of Neurological Disorders. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 724158.   | 2.0 | 17        |
| 2446 | Hydrogels Classification According to the Physical or Chemical Interactions and as Stimuli-Sensitive Materials. <i>Gels</i> , 2021, 7, 182.  | 2.1 | 101       |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2447 | Emulsions of hydrolyzable oils for the zero-order release of hydrophobic drugs. <i>Journal of Controlled Release</i> , 2021, 339, 498-505.  | 4.8 | 17        |
| 2448 | Biomedical applications of hydrogels in drug delivery system: An update. <i>Journal of Drug Delivery Science and Technology</i> , 2021, 66, 102914.   | 1.4 | 68        |
| 2449 | Synthesis of core-shell structure based on silica nanoparticles and methacrylic acid via RAFT method: An efficient pH-sensitive hydrogel for prolonging doxorubicin release. <i>Journal of Drug Delivery Science and Technology</i> , 2021, 66, 102896. | 1.4 | 2         |
| 2450 | The influence of composition of poly(n-isopropylacrylamide-co-itaconic acid) hydrogel on immobilized <i>Candida rugosa</i> lipase activity. <i>Hemijaska Industrija</i> , 2008, 62, 339-344.  | 0.3 | 1         |
| 2451 | Cytotoxicity Evaluation on Hydrogels for Medical Devices based on the International Organization for Standardization. <i>Journal of Korean Pharmaceutical Sciences</i> , 2009, 39, 127-131.   | 0.1 | 1         |
| 2452 | The mechanical behavior and elastic response of a non-uniformly swollen cylindrical sample of polymer gel with axisymmetrical distribution of a solvent. <i>Computational Continuum Mechanics</i> , 2012, 5, 178-183.                                   | 0.1 | 0         |
| 2453 | Enzymatically Triggered in situ Gel-Forming Biomaterials for Regenerative Medicine. , 2012, , 111-126.  |     | 0         |
| 2454 | Comportamiento reológico de geles biodegradables para aplicaciones en medicina regenerativa. <i>Biomecánica</i> , 2012, 20, .   | 0.1 | 0         |
| 2455 | Development of Poly(Vinyl Alcohol) Cryo-Systems with Medicines and Their Comparative Study of Antimicrobial Activity and Cytotoxicity. <i>IFMBE Proceedings</i> , 2013, , 113-118.  | 0.2 | 0         |
| 2456 | Liposomal Gels in Enhancing Skin Delivery of Drugs. , 2015, , 329-341.  |     | 5         |
| 2457 | ESTUDO EXPERIMENTAL E MODELAGEM MATEMÁTICA DA COPOLIMERIZAÇÃO DE ÁCIDO ACRÍLICO COM TRIMETILOLPROPANO TRIACRILATO INCLUINDO O PERÍODO DE PÓS-GELIFICAÇÃO. , 0, , .  |     | 0         |
| 2458 | Field-Based Simulations of Nanostructured Polyelectrolyte Gels. , 2016, , 1-9.  |     | 0         |
| 2460 | Comparison of Pectin Hydrogel Collection Methods in Microfluidic Device. <i>Korean Chemical Engineering Research</i> , 2015, 53, 740-745.   | 0.2 | 0         |
| 2461 | Hydrogels: Smart Cationic Interpenetrating Networks. , 0, , 4011-4024.  |     | 0         |
| 2462 | Novel Method to Monitor the De-Swelling of PNIPAAm Hydrogels of Different Cross-Link Density. <i>American Journal of Analytical Chemistry</i> , 2016, 07, 306-317.  | 0.3 | 0         |
| 2463 | Barriers to Glaucoma Drug Delivery and Resolving the Challenges Using Nanotechnology. , 2016, , 389-406.  |     | 1         |
| 2464 | Liver trauma: An Insight into Therapeutic Approach. <i>Journal of Nanotechnology and Materials Science</i> , 2016, 3, 1-3.  | 0.1 | 0         |
| 2465 | Hyaluronic Acid: Regenerative Medicine and Drug Delivery. , 0, , 3778-3788.   |     | 0         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2466 | Hydrogels, Multi-Component Anionic: Swelling and Controlled Release. , 0, , 3951-3969.   |     | 0         |
| 2467 | Emerging Technologies of Polymers for Nanomedicine Applications. , 2016, , 1-19.   |     | 0         |
| 2468 | Self-Healing Hydrogels as Biomedical Scaffolds for Cell, Gene and Drug Delivery. Research & Reviews Journal of Material Sciences, 2017, 05, .  | 0.1 | 0         |
| 2469 | FORMULATION DEVELOPMENT AND EVALUATION OF AN IN SITU OPHTHALMIC GELLING SYSTEM OF BRIMONIDINE TARTRATE AND TIMOLOL MALEATE FOR THE TREATMENT OF GLAUCOMA. Indian Drugs, 2017, 54, 76-78.                     | 0.1 | 0         |
| 2472 | Molecularly Imprinted Hydrogels for the Selective Release of Therapeutics. , 2017, , 64-87.  |     | 0         |
| 2473 | Molecularly Imprinted Hydrogels for the Selective Release of Therapeutics. , 2017, , 64-87.  |     | 0         |
| 2474 | Vesicles, Micelles and Cyclodextrins Immobilized into Hydrogel: Multi-component Devices for Controlled Drug Delivery. , 2017, , 52-63.   |     | 0         |
| 2475 | Hydrogels for Vaginal Drug Delivery. , 2017, , 259-302.  |     | 0         |
| 2476 | Design of Stimuli-Responsive Drug Delivery Hydrogels: Synthesis and Applications. , 2017, , 1-23.  |     | 0         |
| 2477 | Nanocomposite Hydrogels as Drug Delivery Systems. , 2017, , 24-51.   |     | 0         |
| 2478 | Hydrogels for Vaginal Drug Delivery. , 2017, , 259-302.  |     | 0         |
| 2479 | Biopolymer-based Interpenetrating Network Hydrogels for Oral Drug Delivery. , 2017, , 197-233.   |     | 0         |
| 2480 | Primjena polimera u farmaceutskoj industriji. Kemija U Industriji, 2017, 66, 505-518.  | 0.2 | 0         |
| 2481 | Tailored Hydrogel Microbeads of Sodium Carboxymethylcellulose as a Carrier to Deliver Mefenamic Acid: Transmucosal Administration. Jundishapur Journal of Natural Pharmaceutical Products, 2017, In Press, . | 0.3 | 1         |
| 2482 | Polysaccharide-Based Polymer Gels. Gels Horizons: From Science To Smart Materials, 2018, , 147-229.  | 0.3 | 3         |
| 2483 | Swelling Behavior and Drug Release of Interpenetrating Network Composed of PVA and Chitosan. Ibn Al-Haitham Journal for Pure and Applied Sciences, 2018, 31, 145.  | 0.1 | 1         |
| 2484 | Sustained-Release Injectable Hydrogel Formulations for Administration of Sodium Salicylate in Broiler Chickens. , 2018, 32, 294.   |     | 0         |
| 2485 | NON-ACETYLATED HEMICELLULOSE-BASED HYDROGEL PREPARATION FOR SUSTAINED AND TARGETED DELIVERY OF DRUGS. Journal of Innovation in Applied Research, 2018, 1, 1.   | 0.0 | 0         |



| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2486 | Chitosan-Based Interpenetrating Polymer Networks: Drug Delivery Application. , 2019, , 269-295.  |     | 3         |
| 2487 | Chapter 6. Cucurbituril-assisted Supramolecular Polymeric Hydrogels. RSC Smart Materials, 2019, , 120-148.   | 0.1 | 2         |
| 2488 | PLASMIDS - VECTORS FOR GENE THERAPY. Postepy Mikrobiologii, 2019, 56, 214-225.   | 0.1 | 2         |
| 2489 | Fabrication and Characterizations of Interpenetrating Polymer Network Hydrogel Membrane Containing Hydrogel Beads. Membrane Journal, 2019, 29, 231-236.  | 0.2 | 0         |
| 2492 | Application of Gellan Gum-Based Scaffold for Regenerative Medicine. Advances in Experimental Medicine and Biology, 2020, 1249, 15-37.  | 0.8 | 3         |
| 2493 | Smart microgel-metal hybrid particles of PNIPAM-co-PAA@AgAu: synthesis, characterizations and modulated catalytic activity. Journal of Physics Condensed Matter, 2020, 33, 084002.   | 0.7 | 12        |
| 2494 | ĐžĐ;ĐžĐ'Đ>Đ~ĐžĐ;ĐčĐ† ĐœĐžĐ>Đ•ĐšĐłĐ>Đ~ĐĐĐžĐœĐĐ;ĐžĐ'ĐžĐ"Đž ĐĐžĐ—ĐŸĐžĐ"Đ†Đ>Đł ĐĐ>ĐłĐžĐĐ•ĐĐ Đ•Đ†ĐĐ'ĐœĐ†Đ   |     |           |
| 2495 | Compressive failure of hydrogel spheres. Journal of Materials Research, 2020, 35, 1227-1235.   | 1.2 | 11        |
| 2496 | Harmonious Biomaterials for Development of In situ Approaches for Locoregional Delivery of Anti-cancer Drugs: Current Trends. Current Medicinal Chemistry, 2020, 27, 3463-3498.  | 1.2 | 3         |
| 2497 | Gelatin and Glycerine-Based Bioadhesive Vaginal Hydrogel. Current Drug Delivery, 2020, 17, 303-311.  | 0.8 | 9         |
| 2498 | In situ Crosslinking System of Gelatin with Acrylated Î <sup>2</sup> -cyclodextrin Towards the Fabrication of Hydrogels for Sustained Drug Release. Journal of the Turkish Chemical Society, Section A: Chemistry, 2020, 7, 597-608. | 0.4 | 2         |
| 2499 | Swelling and inflation of a toroidal gel balloon. International Journal of Non-Linear Mechanics, 2021, 138, 103838.  | 1.4 | 0         |
| 2500 | Chitosanâ€Based Smart Polymeric Hydrogels and Their Prospective Applications in Biomedicine. Starch/Staerke, 2024, 76, 2100150.  | 1.1 | 10        |
| 2501 | Guar Gel Binders for Silicon Nanoparticle Anodes: Relating Binder Rheology to Electrode Performance. ACS Applied Materials & Interfaces, 2021, 13, 51403-51413.  | 4.0 | 9         |
| 2502 | 3D printing nanocomposite hydrogels with lattice vascular networks using stereolithography. Journal of Materials Research, 2021, 36, 4249-4261.  | 1.2 | 14        |
| 2503 | Role of crosslinkers for synthesizing biocompatible, biodegradable and mechanically strong hydrogels with desired release profile. Polymer Bulletin, 2022, 79, 9199-9219.  | 1.7 | 8         |
| 2504 | Formation of pH-Responsive Supramolecular Hydrogels in Basic Buffers: Self-assembly of Amphiphilic Tris-Urea. Chemical and Pharmaceutical Bulletin, 2021, 69, 1131-1135.   | 0.6 | 2         |
| 2505 | Hydrogels: A Novel Drug Delivery System. Journal of Biomedical Research & Environmental Sciences, 2020, 1, 439-451.  | 0.1 | 4         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2506 | Effect of Starch Oxidation Degree on the Properties of Hydrogels from Dialdehyde Starch and Polyvinyl Alcohol. <i>Advances in Science, Technology and Engineering Systems</i> , 2020, 5, 1372-1380.    | 0.4 | 0         |
| 2507 | Synthesis and characterization of a novel pH-responsive drug-releasing nanocomposite hydrogel for skin cancer therapy and wound healing. <i>Journal of Materials Chemistry B</i> , 2021, 9, 9533-9546. | 2.9 | 21        |
| 2508 | Hydrogels for pulmonary drug delivery. , 2020, , 441-474.  |     | 1         |
| 2509 | Recent Developments in Nanocarrier-Based Nutraceuticals for Therapeutic Purposes. , 2020, , 371-391.   |     | 2         |
| 2510 | Hyaluronic acid-based hydrogels for tissue engineering. , 2020, , 551-565.   |     | 5         |
| 2511 | Tailor-made polysaccharide-based hydrogels for biomedical applications. , 2020, , 101-132.   |     | 2         |
| 2512 | Use of nanoscale-delivery systems in tissue/organ regeneration. , 2020, , 113-162.   |     | 0         |
| 2513 | Lignocellulosics and Their Use in Functional Materials and Nanotechnology. , 2020, , 1-16.   |     | 0         |
| 2514 | Visible Light-Curable Hydrogel Systems for Tissue Engineering and Drug Delivery. <i>Advances in Experimental Medicine and Biology</i> , 2020, 1249, 85-93.   | 0.8 | 8         |
| 2515 | pH Sensed Interpenetrating Polymeric Network: Application in Drug Delivery. , 2020, , 119-141.   |     | 1         |
| 2517 | Valorization of Marine Waste: Use of Industrial By-Products and Beach Wrack Towards the Production of High Added-Value Products. <i>Frontiers in Marine Science</i> , 2021, 8, .                       | 1.2 | 35        |
| 2518 | State-of-the-Art Irradiation Technology for Polymeric Hydrogel Fabrication and Application in Drug Release System. <i>Frontiers in Materials</i> , 2021, 8, .  | 1.2 | 7         |
| 2519 | A Review of Sustained Drug Release Studies from Nanofiber Hydrogels. <i>Biomedicines</i> , 2021, 9, 1612.  | 1.4 | 22        |
| 2520 | Current Advances in Lipid and Polymeric Antimicrobial Peptide Delivery Systems and Coatings for the Prevention and Treatment of Bacterial Infections. <i>Pharmaceutics</i> , 2021, 13, 1840.           | 2.0 | 36        |
| 2521 | Peptide hydrogels for affinity-controlled release of therapeutic cargo: Current and potential strategies. <i>Journal of Peptide Science</i> , 2022, 28, e3377.   | 0.8 | 16        |
| 2523 | Synthesis and Applications of Hydrogels in Cancer Therapy. <i>Anti-Cancer Agents in Medicinal Chemistry</i> , 2020, 20, 1431-1446.   | 0.9 | 4         |
| 2524 | Structural-rheological properties of systems based on polymeric hydrogels and anionic surfactants. , 2020, 64, 551-557.  | 0.0 | 0         |
| 2526 | Hyaluronic acid-based hydrogels loaded with chemoattractant and anticancer drug – new formulation for attracting and tackling glioma cells. <i>Soft Matter</i> , 2021, 17, 10846-10861.                | 1.2 | 9         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2527 | Biological macromolecules for nutrients delivery. , 2022, , 455-477.   |     | 4         |
| 2528 | Fabricating scalable, personalized wound dressings with customizable drug loadings via 3D printing. Journal of Controlled Release, 2022, 341, 80-94.   | 4.8 | 40        |
| 2529 | Polymer optical fiber for monitoring human physiological and body function: A comprehensive review on mechanisms, materials, and applications. Optics and Laser Technology, 2022, 147, 107626. | 2.2 | 43        |
| 2530 | Tunable Hydrogels with Improved Viscoelastic Properties from Hybrid Polypeptides. Macromolecules, 2021, 54, 10786-10800.   | 2.2 | 10        |
| 2531 | Biomedical Application, Patent Repository, Clinical Trial and Regulatory Updates on Hydrogel: An Extensive Review. Gels, 2021, 7, 207.   | 2.1 | 32        |
| 2532 | Facile Preparation of Drug-Releasing Supramolecular Hydrogel for Preventing Postoperative Peritoneal Adhesion. ACS Applied Materials & Interfaces, 2021, 13, 56881-56891.                      | 4.0 | 17        |
| 2533 | Topical Delivery of Niacinamide to Skin Using Hybrid Nanogels Enhances Photoprotection Effect. Pharmaceutics, 2021, 13, 1968.  | 2.0 | 13        |
| 2534 | Thermosensitive Polyester Hydrogel for Application of Immunosuppressive Drug Delivery System in Skin Allograft. Gels, 2021, 7, 229.  | 2.1 | 5         |
| 2535 | Polysaccharide-based hydrogels crosslink density equation: A rheological and LF-NMR study of polymer-polymer interactions. Carbohydrate Polymers, 2022, 277, 118895.                           | 5.1 | 26        |
| 2536 | Advanced biomedical hydrogels: molecular architecture and its impact on medical applications. International Journal of Energy Production and Management, 2021, 8, rbab060.                     | 1.9 | 36        |
| 2537 | Hydrogels: 3D Drug Delivery Systems for Nanoparticles and Extracellular Vesicles. Biomedicines, 2021, 9, 1694.   | 1.4 | 19        |
| 2538 | A review on carboxylic acid cross-linked polyvinyl alcohol: Properties and applications. Polymer Engineering and Science, 2022, 62, 225-246.   | 1.5 | 65        |
| 2539 | Study the Effects of Supramolecular Interaction on Diffusion Kinetics in Hybrid Hydrogels of Zwitterionic Polymers and CNTs. Macromolecular Chemistry and Physics, 0, , 2100348.               | 1.1 | 3         |
| 2540 | Polymer Nanofibers for Biomedical Applications: Advances in Electrospinning. Current Applied Polymer Science, 2021, 4, 190-209.  | 0.2 | 2         |
| 2541 | New Hydrogel Network Based on Alginate and a Spiroacetal Copolymer. Gels, 2021, 7, 241.  | 2.1 | 5         |
| 2542 | Multiple Stimuli-Responsive MXene-Based Hydrogel as Intelligent Drug Delivery Carriers for Deep Chronic Wound Healing. Small, 2022, 18, e2104368.  | 5.2 | 104       |
| 2544 | Formulation and In vitro Percutaneous Permeation and Skin accumulation of Voriconazole Microemulsified Hydrogel. Asian Journal of Pharmacy and Technology, 2021, , 267-272.                    | 0.2 | 1         |
| 2545 | Reversible Shielding and Immobilization of Liposomes and Viral Vectors by Tailored Antibody-Ligand Interactions. Small, 2022, 18, e2105157.  | 5.2 | 3         |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 2546 | Bioinspired tunable hydrogels: An update on methods of preparation, classification, and biomedical and therapeutic applications. <i>International Journal of Pharmaceutics</i> , 2022, 612, 121368.                             | 2.6  | 15        |
| 2547 | Development and Evaluation of Clove and Cinnamon Supercritical Fluid Extracts-Loaded Emulgel for Antifungal Activity in Denture Stomatitis. <i>Gels</i> , 2022, 8, 33.  | 2.1  | 8         |
| 2548 | Injectable glycol chitosan thermogel formulation for efficient inner ear drug delivery. <i>Carbohydrate Polymers</i> , 2022, 278, 118969.   | 5.1  | 15        |
| 2549 | Factors influencing the swelling behaviour of polymethyl vinyl ether-co-maleic acid hydrogels crosslinked by polyethylene glycol. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 68, 103080.                    | 1.4  | 4         |
| 2550 | Magnetically responsive hydrophobic pockets for onâ€“off drug release. <i>Materials Today Chemistry</i> , 2022, 23, 100702.   | 1.7  | 5         |
| 2551 | Magnetoâ€“electroâ€“responsive polymers toward manufacturing, characterization, and biomedical/ soft robotic applications. <i>Applied Materials Today</i> , 2022, 26, 101306.   | 2.3  | 70        |
| 2552 | Preparation of silane-dispersed graphene crosslinked vinyl carboxymethyl chitosan temperature-responsive hydrogel with antibacterial properties. <i>International Journal of Biological Macromolecules</i> , 2022, 200, 99-109. | 3.6  | 14        |
| 2553 | Glass transition effects on the molecular transport of caffeine from condensed k-carrageenan/polydextrose systems. <i>Food Hydrocolloids</i> , 2022, 126, 107401.   | 5.6  | 3         |
| 2554 | Preparation and Characterization of Cellulose Nanocrystals Reinforced Poly (vinyl alcohol) Based Hydrogels for Drug Delivery System. <i>Journal of the Korean Wood Science and Technology</i> , 2020, 48, 431-449.              | 0.8  | 2         |
| 2556 | Optical Hydrogel Detector for pH Measurements. <i>Biosensors</i> , 2022, 12, 40.  | 2.3  | 7         |
| 2557 | Hydrogels. , 2022, , 221-242.   |      | 0         |
| 2558 | Clinical translation of long-acting drug delivery formulations. <i>Nature Reviews Materials</i> , 2022, 7, 406-420.   | 23.3 | 60        |
| 2559 | Hierarchy of relaxation times in supramolecular polymer model networks. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 4859-4870.   | 1.3  | 2         |
| 2560 | The influence of Ca/Mg ratio on autogelation of hydrogel biomaterials with bioceramic compounds. <i>Materials Science and Engineering C</i> , 2022, 133, 112632.  | 3.8  | 4         |
| 2561 | Hydrogels differentiated by length scales: A review of biopolymer-based hydrogel preparation methods, characterization techniques, and targeted applications. <i>European Polymer Journal</i> , 2022, 163, 110935.              | 2.6  | 25        |
| 2562 | Polyelectrolyte Multilayered Capsules as Biomedical Tools. <i>Polymers</i> , 2022, 14, 479.   | 2.0  | 14        |
| 2563 | 3D printed cellulose based product applications. <i>Materials Chemistry Frontiers</i> , 2022, 6, 254-279.   | 3.2  | 25        |
| 2564 | Nanostructured Lipid Carriers-Hydrogels System for Drug Delivery: Nanohybrid Technology Perspective. <i>Molecules</i> , 2022, 27, 289.  | 1.7  | 17        |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 2565 | Metal substrate catalysis in the confined space for platinum drug delivery. <i>Chemical Science</i> , 2021, 13, 59-67.  | 3.7  | 5         |
| 2566 | Advanced Microfluidic Technologies for Lipid Nano-Microsystems from Synthesis to Biological Application. <i>Pharmaceutics</i> , 2022, 14, 141.  | 2.0  | 35        |
| 2567 | Adsorption and Sustained Delivery of Small Molecules from Nanosilicate Hydrogel Composites. <i>Pharmaceutics</i> , 2022, 15, 56.  | 1.7  | 5         |
| 2568 | Multicompartment Hydrogels. <i>Macromolecular Rapid Communications</i> , 2022, 43, e2100895.  | 2.0  | 19        |
| 2569 | Environment tolerant, adaptable and stretchable organohydrogels: preparation, optimization, and applications. <i>Materials Horizons</i> , 2022, 9, 1356-1386.   | 6.4  | 75        |
| 2570 | Hydrogels and Cubic Liquid Crystals for Non-Invasive Sampling of Low-Molecular-Weight Biomarkers—An Explorative In Vivo Study. <i>Pharmaceutics</i> , 2022, 14, 313.  | 2.0  | 1         |
| 2571 | Constructing an on-demand drug release system composed of thermosensitive PPP hydrogel and drug-laden alginate/graphene microspheres to treat tumorous defect. <i>Journal of Materials Science</i> , 2022, 57, 4754-4770.       | 1.7  | 3         |
| 2572 | Transport phenomena in drug delivery membrane systems. , 2022, , 231-245.   |      | 0         |
| 2573 | Novel hydrophobically modified agarose cryogels fabricated using dimethyl sulfoxide. <i>Journal of Bioscience and Bioengineering</i> , 2022, 133, 390-395.  | 1.1  | 7         |
| 2574 | Fenugreek seed mucilage grafted poly methacrylate pH-responsive hydrogel: A promising tool to enhance the oral bioavailability of methotrexate. <i>International Journal of Biological Macromolecules</i> , 2022, 202, 332-344. | 3.6  | 14        |
| 2575 | Characterization of cubosomes immobilized in hydrogels of hyaluronic acid and their use for diclofenac controlled delivery. <i>Colloids and Surfaces B: Biointerfaces</i> , 2022, 212, 112352.                                  | 2.5  | 12        |
| 2576 | Injectable Extracellular Matrix Microparticles Promote Heart Regeneration in Mice with Post-Ischemic Heart Injury. <i>Advanced Healthcare Materials</i> , 2022, 11, e2102265.   | 3.9  | 13        |
| 2577 | Thermoresponsive Hydrogels Reinforced with Supramolecular Cellulose Filler. <i>Chemistry Letters</i> , 2022, 51, 145-148.   | 0.7  | 2         |
| 2578 | Synthesis and Characterization of Cationic Hydrogels from Thiolated Copolymers for Independent Manipulation of Mechanical and Chemical Properties of Cell Substrates. <i>Macromolecular Bioscience</i> , 2022, , 2100453.       | 2.1  | 2         |
| 2579 | Adhesive hydrogels with toughness, stretchability, and conductivity performances for motion monitoring. <i>Polymer Bulletin</i> , 0, , 1.   | 1.7  | 0         |
| 2580 | Lab-on-a-Chip Contact Lens: Recent Advances and Future Opportunities in Diagnostics and Therapeutics. <i>Advanced Materials</i> , 2022, 34, e2108389.   | 11.1 | 48        |
| 2581 | Phosphorogenic Iridium(III) bis-Tetrazine Complexes for Bioorthogonal Peptide Stapling, Bioimaging, Photocytotoxic Applications, and the Construction of Nanosized Hydrogels. <i>Angewandte Chemie</i> , 2022, 134, .           | 1.6  | 5         |
| 2582 | Challenges in delivering therapeutic peptides and proteins: A silk-based solution. <i>Journal of Controlled Release</i> , 2022, 345, 176-189.   | 4.8  | 28        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2583 | Phosphorogenic Iridium(III) <i>bis</i> -Tetrazine Complexes for Bioorthogonal Peptide Stapling, Bioimaging, Photocytotoxic Applications, and the Construction of Nanosized Hydrogels. <i>Angewandte Chemie - International Edition</i> , 2022, 61, . | 7.2 | 20        |
| 2584 | A hydrogel sheet mask with tea tree essential oil entrapment and targeted dose delivery capability. <i>Materials Today: Proceedings</i> , 2022, , .  | 0.9 | 4         |
| 2585 | Marine Polysaccharides for Skin Drug Delivery: Hydrogels and Microneedle Solutions. , 2022, , 209-250.   |     | 1         |
| 2586 | Stimuli-Responsive Hydrogels in Drug Delivery. , 2022, , 75-103.   |     | 2         |
| 2587 | Cellulose: a fascinating biopolymer for hydrogel synthesis. <i>Journal of Materials Chemistry B</i> , 2022, 10, 1923-1945.   | 2.9 | 60        |
| 2588 | Chitosan based injectable hydrogels for smart drug delivery applications. <i>Sensors International</i> , 2022, 3, 100168.  | 4.9 | 21        |
| 2589 | Radiation synthesis of poly(N-vinyl pyrrolidonechitosanitaconic acidZnO) nanocomposite hydrogel for antimicrobial activity and controlled release of amoxicillin. <i>Polymers and Polymer Composites</i> , 2022, 30, 096739112210878.                | 1.0 | 4         |
| 2590 | Ion-Triggered Hydrogels Self-Assembled from Statistical Copolypeptides. <i>ACS Macro Letters</i> , 2022, 11, 323-328.  | 2.3 | 6         |
| 2591 | 4D printing of core-shell hydrogel capsules for smart controlled drug release. <i>Bio-Design and Manufacturing</i> , 2022, 5, 294-304.   | 3.9 | 28        |
| 2592 | Miconazole Nitrate-loaded Solid Lipid Nanoparticle-Based Hydrogel Ameliorate <i>Candida albicans</i> Induced Mycoses in Experimental Animals. <i>BioNanoScience</i> , 2022, 12, 512.   | 1.5 | 4         |
| 2593 | Engineering Hydrogels for the Development of Three-Dimensional In Vitro Models. <i>International Journal of Molecular Sciences</i> , 2022, 23, 2662.   | 1.8 | 23        |
| 2594 | Chitin-Glucan Complex Hydrogels: Optimization of Gel Formation and Demonstration of Drug Loading and Release Ability. <i>Polymers</i> , 2022, 14, 785.   | 2.0 | 10        |
| 2595 | PROBLEMS OF THE MECHANICS OF POLYMER GELS WITH UNILATERAL CONSTRAINTS. <i>Mechanics of Solids</i> , 2022, 57, 292-306.   | 0.3 | 1         |
| 2596 | Smart 3D Printed Hydrogel Skin Wound Bandages: A Review. <i>Polymers</i> , 2022, 14, 1012.   | 2.0 | 54        |
| 2597 | Recent Developments and Current Applications of Hydrogels in Osteoarthritis. <i>Bioengineering</i> , 2022, 9, 132.   | 1.6 | 12        |
| 2598 | Peripheral nerve regeneration by thiolated chitosan hydrogel containing Taurine: In vitro and in vivo study. <i>Journal of Bioactive and Compatible Polymers</i> , 2022, 37, 85-97.  | 0.8 | 4         |
| 2600 | On Computation of Entropy Measures and Molecular Descriptors for Isomeric Natural Polymers. <i>Journal of Mathematics</i> , 2022, 2022, 1-27.  | 0.5 | 3         |
| 2601 | Light-induced synthesis and characterization of "clickable" polyacrylamide hydrogels. <i>European Polymer Journal</i> , 2022, 167, 111062.   | 2.6 | 9         |

| #    | ARTICLE  | IF   | CITATIONS |
|------|--|------|-----------|
| 2602 | Drug Delivery Strategies and Biomedical Significance of Hydrogels: Translational Considerations. <i>Pharmaceutics</i> , 2022, 14, 574.   | 2.0  | 23        |
| 2603 | Optimization of the Elasticity and Adhesion of Catechol- or Dopamine-Loaded Gelatin Gels under Oxidative Conditions. <i>Gels</i> , 2022, 8, 210.   | 2.1  | 5         |
| 2604 | Implantation of injectable SF hydrogel with sustained hydrogen sulfide delivery reduces neuronal pyroptosis and enhances functional recovery after severe intracerebral hemorrhage. , 2022, 135, 212743.                     |      | 11        |
| 2605 | Versatility of Hydrogels: From Synthetic Strategies, Classification, and Properties to Biomedical Applications. <i>Gels</i> , 2022, 8, 167.  | 2.1  | 75        |
| 2606 | Hydrogel Biomaterials for Drug Delivery: Mechanisms, Design, and Drugs. , 0, , .   |      | 2         |
| 2607 | Graphene Oxide-Based Multi-Component Antimicrobial Hydrogels. <i>Bulletin of the Chemical Society of Japan</i> , 2022, 95, 713-720.  | 2.0  | 3         |
| 2608 | On physical analysis of topological indices via curve fitting for natural polymer of cellulose network. <i>European Physical Journal Plus</i> , 2022, 137, 410.  | 1.2  | 8         |
| 2609 | Spontaneous Gelation of Adhesive Catechol Modified Hyaluronic Acid and Chitosan. <i>Polymers</i> , 2022, 14, 1209.   | 2.0  | 3         |
| 2610 | A Bi-layer Hydrogel Cardiac Patch Made of Recombinant Functional Proteins. <i>Advanced Materials</i> , 2022, 34, e2201411.   | 11.1 | 24        |
| 2611 | Safety, efficacy and delivery of multiple nucleoside analogs via drug encapsulated carbon (DECON) based sustained drug release platform. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2022, 173, 150-159. | 2.0  | 1         |
| 2612 | Synthesis of Bioactive Materials by In Situ One-Step Direct Loading of <i>Syzygium aromaticum</i> Essential Oil into Chitosan-Based Hydrogels. <i>Gels</i> , 2022, 8, 225.   | 2.1  | 11        |
| 2613 | Novel porphyrin-containing hydrogels obtained by frontal polymerization: Synthesis, characterization and optical properties. <i>Polymer</i> , 2022, 247, 124785.   | 1.8  | 9         |
| 2614 | Nutraceutical Concepts and Dextrin-Based Delivery Systems. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4102.  | 1.8  | 18        |
| 2615 | Designing electrospun fiber platforms for efficient delivery of genetic material and genome editing tools. <i>Advanced Drug Delivery Reviews</i> , 2022, 183, 114161.  | 6.6  | 21        |
| 2616 | Role of Polymer Concentration and Crosslinking Density on Release Rates of Small Molecule Drugs. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4118.  | 1.8  | 17        |
| 2617 | Injectable immunogel based on polymerized phenylboronic acid and mannan for cancer immunotherapy. <i>Journal of Controlled Release</i> , 2022, 345, 138-146.   | 4.8  | 7         |
| 2618 | A bioinspired 4D printed hydrogel capsule for smart controlled drug release. <i>Materials Today Chemistry</i> , 2022, 24, 100789.  | 1.7  | 21        |
| 2619 | Effectiveness of a Nanohydroxyapatite-Based Hydrogel on Alveolar Bone Regeneration in Post-Extraction Sockets of Dogs with Naturally Occurring Periodontitis. <i>Veterinary Sciences</i> , 2022, 9, 7.                       | 0.6  | 3         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2621 | Delayed Swelling and Dissolution of Hydrophobically Associated Hydrogel Coatings by Dilute Aqueous Surfactants. <i>ACS Applied Polymer Materials</i> , 2022, 4, 250-259.  | 2.0 | 3         |
| 2622 | Anisotropic Hydrogels with a Multiscale Hierarchical Structure Exhibiting High Strength and Toughness for Mimicking Tendons. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 4479-4489.   | 4.0 | 28        |
| 2623 | Cell-Based Therapy for the Treatment of Glioblastoma: An Update from Preclinical to Clinical Studies. <i>Cells</i> , 2022, 11, 116.   | 1.8 | 9         |
| 2624 | In Vitro Wound Dressing Stack Model as a First Step to Evaluate the Behavior of Dressing Materials in Wound Bed—An Assessment of Mass Transport Phenomena in Hydrogel Wound Dressings. <i>Materials</i> , 2021, 14, 7702.                       | 1.3 | 1         |
| 2625 | Drug-Induced Phase Separation in Polyelectrolyte Microgels. <i>Gels</i> , 2022, 8, 4.   | 2.1 | 6         |
| 2627 | Current hydrogel advances in physicochemical and biological response-driven biomedical application diversity. <i>Signal Transduction and Targeted Therapy</i> , 2021, 6, 426.   | 7.1 | 274       |
| 2628 | Hyaluronic acid based nanomedicines as promising wound healers for acute-to-chronic wounds: a review of recent updates and emerging trends. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2023, 72, 252-270. | 1.8 | 2         |
| 2629 | New materials and their application in the design and production of high-performance textile products. <i>Journal of Textile Engineering &amp; Fashion Technology</i> , 2021, 7, 195-202.   | 0.1 | 0         |
| 2630 | Composite Nanocellulose Fibers-Based Hydrogels Loading Clindamycin HCl with Ca <sup>2+</sup> and Citric Acid as Crosslinking Agents for Pharmaceutical Applications. <i>Polymers</i> , 2021, 13, 4423.  | 2.0 | 12        |
| 2631 | Development of di(2-ethylhexyl) phthalate-containing thioglycolic acid immobilized chitosan mucoadhesive gel as an alternative hormone therapy for menopausal syndrome. <i>Bioengineering and Translational Medicine</i> , 2022, 7, .           | 3.9 | 7         |
| 2632 | Dual crosslinking hydrogels with tunable injectability and stability for bone repair. <i>Journal of Materials Chemistry B</i> , 2022, 10, 4386-4394.  | 2.9 | 5         |
| 2633 | Dexamethasone: Insights into Pharmacological Aspects, Therapeutic Mechanisms, and Delivery Systems. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 1763-1790.   | 2.6 | 37        |
| 2634 | 45S5 Bioglass® works synergistically with siRNA to downregulate the expression of matrix metalloproteinase-9 in diabetic wounds. <i>Acta Biomaterialia</i> , 2022, 145, 372-389.  | 4.1 | 21        |
| 2635 | Islet Encapsulation: New Developments for the Treatment of Type 1 Diabetes. <i>Frontiers in Immunology</i> , 2022, 13, 869984.  | 2.2 | 21        |
| 2636 | Nanocarriers for Drug Delivery: An Overview with Emphasis on Vitamin D and K Transportation. <i>Nanomaterials</i> , 2022, 12, 1376.   | 1.9 | 9         |
| 2637 | Nanoparticle-reinforced polyacrylamide hydrogel composites for clinical applications: a review. <i>Journal of Materials Science</i> , 2022, 57, 8041-8063.  | 1.7 | 15        |
| 2638 | Design of a new light curable starch-based hydrogel drug delivery system to improve the release rate of quercetin as a poorly water-soluble drug. <i>European Journal of Pharmaceutical Sciences</i> , 2022, 174, 106191.                       | 1.9 | 10        |
| 2648 | Alginate-Based Hydrogels and Tubes, as Biological Macromolecule-Based Platforms for Peripheral Nerve Tissue Engineering: A Review. <i>Annals of Biomedical Engineering</i> , 2022, 50, 628-653.   | 1.3 | 32        |



| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 2649 | Self-assembled polyelectrolyte complexes of chitosan and fucoidan for sustained growth factor release from PRP enhance proliferation and collagen deposition in diabetic mice. <i>Drug Delivery and Translational Research</i> , 2022, 12, 2838-2855. | 3.0  | 7         |
| 2650 | PEGDA hydrogel structure from semi-dilute concentrations: insights from experiments and molecular simulations. <i>Soft Matter</i> , 2022, 18, 3565-3574.  | 1.2  | 9         |
| 2652 | Role of stereocomplex in advancing mass transport and thermomechanical properties of polylactide. <i>Green Chemistry</i> , 2022, 24, 3416-3432.   | 4.6  | 14        |
| 2653 | Controlled Drug Delivery Systems. <i>Advances in Bioinformatics and Biomedical Engineering Book Series</i> , 2022, , 184-204.   | 0.2  | 0         |
| 2654 | Understanding Hydrogels and Insight on the Latest Hydrogel Applications in Pharmaceutical and Allied Sciences. <i>Advances in Bioinformatics and Biomedical Engineering Book Series</i> , 2022, , 281-308.  | 0.2  | 0         |
| 2655 | Nanotechnological Advances for Nose to Brain Delivery of Therapeutics to Improve the Parkinson Therapy. <i>Current Neuropharmacology</i> , 2023, 21, 493-516.   | 1.4  | 15        |
| 2656 | Recent Updates on Supramolecular-Based Drug Delivery –“ Macrocycles and Supramolecular Gels. <i>Chemical Record</i> , 2022, 22, e202200053.   | 2.9  | 16        |
| 2657 | Robust gelatin hydrogels for local sustained release of bupivacaine following spinal surgery. <i>Acta Biomaterialia</i> , 2022, 146, 145-158.   | 4.1  | 5         |
| 2658 | NOVEL APPROACHES IN OCULAR DRUG DELIVERY-A REVOLUTION. <i>International Journal of Applied Pharmaceutics</i> , 0, , 1-11.   | 0.3  | 1         |
| 2659 | Discovery of protein-based natural hydrogel from the girdle of the sea cockroach™ <i>Chiton articulatus</i> (Chitonida: Chitonidae). <i>PeerJ</i> , 2022, 10, e13386.   | 0.9  | 1         |
| 2660 | Thermosensitive injectable graphene oxide/chitosan-based nanocomposite hydrogels for controlling the in vivo release of bupivacaine hydrochloride. <i>International Journal of Pharmaceutics</i> , 2022, 621, 121786.                                 | 2.6  | 15        |
| 2661 | Injectable and self-healing double network polysaccharide hydrogel as a minimally-invasive delivery platform. <i>Carbohydrate Polymers</i> , 2022, 291, 119585.   | 5.1  | 28        |
| 2662 | A DFT approach towards therapeutic potential of phosphorene as a novel carrier for the delivery of felodipine (cardiovascular drug). <i>Computational and Theoretical Chemistry</i> , 2022, 1212, 113724.   | 1.1  | 7         |
| 2663 | The influence of poly(allylamine hydrochloride) hydrogel crosslinking density on its thermal and phosphate binding properties. <i>International Journal of Pharmaceutics</i> , 2022, 621, 121806.   | 2.6  | 3         |
| 2664 | Multiphysics modeling and experiments on ultrasound-triggered drug delivery from silk fibroin hydrogel for Wilms tumor. <i>International Journal of Pharmaceutics</i> , 2022, 621, 121787.  | 2.6  | 22        |
| 2665 | Magnetically Actuated Medical Robots: An in vivo Perspective. <i>Proceedings of the IEEE</i> , 2022, 110, 1028-1037.  | 16.4 | 36        |
| 2666 | 3D Printing of Noncytotoxic High-Resolution Microchannels in Bisphenol-A Ethoxylate Dimethacrylate Tissue-Mimicking Materials. <i>3D Printing and Additive Manufacturing</i> , 2023, 10, 1101-1109.   | 1.4  | 0         |
| 2667 | Polymer based sustained drug delivery to the ocular posterior segment: barriers and future opportunities for the treatment of neovascular pathologies. <i>Advanced Drug Delivery Reviews</i> , 2022, 187, 114342.                                     | 6.6  | 29        |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2668 | Recent Research on Hybrid Hydrogels for Infection Treatment and Bone Repair. <i>Gels</i> , 2022, 8, 306.   | 2.1 | 3         |
| 2669 | Design of hydrogel-microgel composites with tailored small molecule release profiles. <i>Journal of Materials Chemistry B</i> , 2022, , .  | 2.9 | 1         |
| 2670 | Generation of Self-Assembled Structures Composed of Amphipathic, Charged Tripeptides for Intracellular Delivery of Pro-Apoptotic Chemotherapeutics. <i>Israel Journal of Chemistry</i> , 2022, 62, .   | 1.0 | 3         |
| 2671 | A review on hydrogels classification and recent developments in biomedical applications. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2023, 72, 1059-1069.   | 1.8 | 14        |
| 2673 | Leveraging Affinity Interactions to Prolong Drug Delivery of Protein Therapeutics. <i>Pharmaceutics</i> , 2022, 14, 1088.  | 2.0 | 7         |
| 2674 | <sc>Energy-Dissipative</sc> and Soften Resistant Hydrogels Based on Chitosan Physical Network: From Construction to Application. <i>Chinese Journal of Chemistry</i> , 2022, 40, 2118-2134.  | 2.6 | 11        |
| 2675 | Relationship between Gel Mesh and Particle Size in Determining Nanoparticle Diffusion in Hydrogel Nanocomposites. <i>Journal of Physical Chemistry B</i> , 2022, 126, 4132-4142.   | 1.2 | 14        |
| 2676 | Role of nanomaterials with special reference to pharmaceutical technology. <i>International Journal of Health Sciences</i> , 0, , 7210-7227.   | 0.0 | 0         |
| 2677 | Poly(sulfobetaine)-Based Diblock Copolymer Thin Films in Water/Acetone Atmosphere: Modulation of Water Hydration and Co-nonsolvency-Triggered Film Contraction. <i>Langmuir</i> , 2022, 38, 6934-6948.   | 1.6 | 7         |
| 2678 | Formulation of the Polymeric Double Networks (DNs) for Biomedical Applications with Physicochemical Properties to Resemble a Biological Tissue. <i>Sustainable Chemistry</i> , 2022, 3, 248-258.   | 2.2 | 0         |
| 2679 | Polyelectrolyte Complex-Covalent Interpenetrating Polymer Network Hydrogels. <i>Macromolecules</i> , 2022, 55, 4481-4491.  | 2.2 | 10        |
| 2680 | In vitro-studies of adenosine-12-cyclodextrin inclusion complexes loaded into chitosan, sodium alginate and bentonite-based nanocomposite optimized by RSM as a sustained release system. <i>Journal of Applied Polymer Science</i> , 2022, 139, . | 1.3 | 0         |
| 2681 | Hydrogel-based scaffolds for bone and cartilage tissue engineering and regeneration. <i>Reactive and Functional Polymers</i> , 2022, 177, 105313.  | 2.0 | 14        |
| 2684 | Biomass-derived isosorbide-based thermoresponsive hydrogel for drug delivery. <i>Soft Matter</i> , 2022, 18, 4963-4972.  | 1.2 | 6         |
| 2685 | Applications of nanocrystals for antimicrobials. , 2022, , 367-399.  |     | 0         |
| 2686 | Advanced triboelectric nanogenerator-driven drug delivery systems for targeted therapies. <i>Drug Delivery and Translational Research</i> , 2023, 13, 54-78.   | 3.0 | 4         |
| 2687 | In Vitro Evaluation of Smart and pH-Sensitive Chondroitin Sulfate/Sodium Polystyrene Sulfonate Hydrogels for Controlled Drug Delivery. <i>Gels</i> , 2022, 8, 406.   | 2.1 | 6         |
| 2688 | pH-Responsive Hydrogel Beads Based on Alginate, $\beta$ -Carrageenan and Pluronic for Enhanced Curcumin, Natural Bioactive Compound, Encapsulation and Controlled Release Efficiency. <i>Molecules</i> , 2022, 27, 4045.                           | 1.7 | 14        |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2689 | Fabrication, characterization and toxicological evaluation of polyethylene glycol/sodium polystyrene sulfonate hydrogels for controlled delivery of Acetaminophen. <i>Journal of Materials Research and Technology</i> , 2022, 19, 3073-3087. | 2.6 | 3         |
| 2690 | Advances in Cellulose-Based Hydrogels for Biomedical Engineering: A Review Summary. <i>Gels</i> , 2022, 8, 364.   | 2.1 | 22        |
| 2691 | Controlled drug delivery: A review on the applications of smart hydrogel. <i>Materials Today: Proceedings</i> , 2022, , .   | 0.9 | 3         |
| 2692 | A Lattice Kinetic Monte Carlo method to study drug release from swelling porous delivery systems. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2022, 603, 127775.   | 1.2 | 2         |
| 2693 | Microfluidics Fabrication of Micrometer-Sized Hydrogels with Precisely Controlled Geometries for Biomedical Applications. <i>Advanced Healthcare Materials</i> , 2022, 11, .  | 3.9 | 22        |
| 2695 | Natural-based biomaterials for drug delivery wound healing patches. , 2022, , 51-73.  |     | 1         |
| 2696 | Recent advances in various stimuli-responsive hydrogels: from synthetic designs to emerging healthcare applications. <i>Materials Chemistry Frontiers</i> , 2022, 6, 2338-2385.   | 3.2 | 36        |
| 2697 | Algae-based biomaterials for biomedicines. , 2022, , 251-276.   |     | 0         |
| 2698 | PVP/PVA blended hydrogels as a biofilm for use in food packaging applications. <i>Food and Health</i> , 2022, 8, 172-180.   | 0.2 | 4         |
| 2699 | Nanocarriers System for Vitamin D as Nutraceutical in Type 2 Diabetes: A Review. <i>Open Access Macedonian Journal of Medical Sciences</i> , 2022, 10, 427-436.   | 0.1 | 0         |
| 2700 | Synthesis and Gelling Performances of 4-Biphenylcarboxy Protected Dipeptide. <i>Journal of Molecular and Engineering Materials</i> , 0, , .   | 0.9 | 0         |
| 2701 | Influence of Gel Stage from Cellulose Dissolution in NaOH-Water System on the Performances of Cellulose Allomorphs-Based Hydrogels. <i>Gels</i> , 2022, 8, 410.   | 2.1 | 4         |
| 2702 | Transient swelling of cylindrical hydrogels under coupled extension-torsion: Analytical and 3D FEM solutions. <i>Journal of Intelligent Material Systems and Structures</i> , 2023, 34, 415-424.  | 1.4 | 2         |
| 2703 | Recent progress in therapeutic strategies and biomimetic nanomedicines for rheumatoid arthritis treatment. <i>Expert Opinion on Drug Delivery</i> , 0, , 1-16.  | 2.4 | 8         |
| 2704 | A two-phase model that unifies and extends the classical models of membrane transport. <i>Science</i> , 2022, 377, 186-191.   | 6.0 | 22        |
| 2705 | Protein and polypeptide mediated delivery to the eye. <i>Advanced Drug Delivery Reviews</i> , 2022, 188, 114441.  | 6.6 | 13        |
| 2706 | Calcium Phosphate/Hyaluronic Acid Composite Hydrogels for Local Antiosteoporotic Drug Delivery. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .   | 2.0 | 5         |
| 2707 | Carbon quantum dots improve the mechanical behavior of polyvinyl alcohol/polyethylene glycol hydrogel. <i>Journal of Applied Polymer Science</i> , 2022, 139, .   | 1.3 | 7         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2708 | Fundamentals of Hydrogel-Based Valves and Chemofluidic Transistors for Lab-on-a-Chip Technology: A Tutorial Review. <i>Advanced Materials Technologies</i> , 2023, 8, .  | 3.0 | 10        |
| 2709 | Deciphering the focuses and trends in skin regeneration research through bibliometric analyses. <i>Frontiers in Medicine</i> , 0, 9, .   | 1.2 | 2         |
| 2710 | EQUILIBRIUM OF POLYMER GELS IN THE FIELD OF BODY FORCES. <i>Mechanics of Solids</i> , 2022, 57, 683-700.   | 0.3 | 0         |
| 2711 | Hydrogels: Smart Materials in Drug Delivery. , 0, , .  |     | 1         |
| 2712 | updated overview. <i>International Journal of Health Sciences</i> , 0, , 9610-9618.  | 0.0 | 0         |
| 2713 | Photo-responsive hydrogel-based re-programmable metamaterials. <i>Scientific Reports</i> , 2022, 12, .   | 1.6 | 10        |
| 2714 | Dynamic and Self-Healable Chitosan/Hyaluronic Acid-Based In Situ-Forming Hydrogels. <i>Gels</i> , 2022, 8, 477.  | 2.1 | 5         |
| 2715 | Poly(N-isopropylacrylamide)-Based Hydrogels for Biomedical Applications: A Review of the State-of-the-Art. <i>Gels</i> , 2022, 8, 454.   | 2.1 | 54        |
| 2716 | A review on facile synthesis of nanoparticles made from biomass wastes. <i>Nanotechnology for Environmental Engineering</i> , 2022, 7, 783-796.  | 2.0 | 3         |
| 2717 | Synthesis and Applications of Carboxymethyl Cellulose Hydrogels. <i>Gels</i> , 2022, 8, 529.   | 2.1 | 25        |
| 2718 | ComABAN: refining molecular representation with the graph attention mechanism to accelerate drug discovery. <i>Briefings in Bioinformatics</i> , 2022, 23, .   | 3.2 | 1         |
| 2719 | Inflammation-triggered dual release of nitroxide radical and growth factor from heparin mimicking hydrogel-tissue composite as cardiovascular implants for anti-coagulation, endothelialization, anti-inflammation, and anti-calcification. <i>Biomaterials</i> , 2022, 289, 121761. | 5.7 | 17        |
| 2720 | Marine Bioactive Compounds Derived from Macroalgae as New Potential Players in Drug Delivery Systems: A Review. <i>Pharmaceutics</i> , 2022, 14, 1781.   | 2.0 | 13        |
| 2721 | Injectable Hybrid-Crosslinked Hydrogels as Fatigue-Resistant and Shape-Stable Skin Depots. <i>Biomacromolecules</i> , 2022, 23, 3698-3712.   | 2.6 | 7         |
| 2722 | Injectable Adhesive Hydrogels for Soft tissue Reconstruction: A Materials Chemistry Perspective. <i>Chemical Record</i> , 2022, 22, .  | 2.9 | 8         |
| 2723 | Investigating the Kinetics and Structure of Network Formation in Ultraviolet-Photopolymerizable Starch Nanogel Network Hydrogels via Very Small-Angle Neutron Scattering and Small-Amplitude Oscillatory Shear Rheology. <i>Macromolecules</i> , 2022, 55, 7303-7317.                | 2.2 | 2         |
| 2724 | Biopolymer coating for particle surface engineering and their biomedical applications. <i>Materials Today Bio</i> , 2022, 16, 100407.  | 2.6 | 9         |
| 2725 | MAGL inhibitor NanoMicellar formulation (MAGL-NanoMicellar) for the development of an antiglaucoma eye drop. <i>International Journal of Pharmaceutics</i> , 2022, 625, 122078.  | 2.6 | 3         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2726 | Towards a chemo-mechanical coupled theory of physical hydrogel for sol-gel transition identified by crosslink density. <i>International Journal of Solids and Structures</i> , 2022, 254-255, 111921.                       | 1.3 | 0         |
| 2727 | Effect of the molecular structure and mechanical properties of plant-based hydrogels in food systems to deliver probiotics: an updated review. <i>Critical Reviews in Food Science and Nutrition</i> , 2024, 64, 2130-2156. | 5.4 | 9         |
| 2728 | Nano-Formulation Based Intravesical Drug Delivery Systems: An Overview of Versatile Approaches to Improve Urinary Bladder Diseases. <i>Pharmaceutics</i> , 2022, 14, 1909.  | 2.0 | 14        |
| 2729 | Recent advances in polymeric hydrogel nanoarchitectures for drug delivery applications. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2024, 73, 1-32.                                    | 1.8 | 16        |
| 2730 | Reprogramming dysfunctional dendritic cells by a versatile metabolism nano-intervenor for enhancing cancer combinatorial immunotherapy. <i>Nano Today</i> , 2022, 46, 101618.   | 6.2 | 5         |
| 2731 | Long-acting formulation strategies for protein and peptide delivery in the treatment of PSED. <i>Journal of Controlled Release</i> , 2022, 350, 538-568.  | 4.8 | 5         |
| 2732 | Injectable amphiphilic hydrogel systems from the self-assembly of partially alkylated poly(2-dimethyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf European Polymer Journal, 2022, 179, 111559.                                       | 2.6 | 0         |
| 2733 | Formation of biocompatible MgO/cellulose grafted hydrogel for efficient bactericidal and controlled release of doxorubicin. <i>International Journal of Biological Macromolecules</i> , 2022, 220, 1277-1286.               | 3.6 | 68        |
| 2734 | Investigating the antibacterial activity of carboxymethyl cellulose films treated with novel Ag@GO decorated SiO <sub>2</sub> nanohybrids. <i>Carbohydrate Polymers</i> , 2022, 298, 120077.                                | 5.1 | 12        |
| 2735 | Hydrogel based 3D printing: Bio ink for tissue engineering. <i>Journal of Molecular Liquids</i> , 2022, 367, 120390.  | 2.3 | 12        |
| 2736 | Carboxymethylated polysaccharides in drug delivery. , 2023, , 63-81.  |     | 1         |
| 2737 | Cellulose composites containing active constituents of coffee and tea: a prospective novel wound dressing. <i>Materials Advances</i> , 2022, 3, 7463-7483.  | 2.6 | 4         |
| 2738 | Modeling of stimuli-responsive hydrogels: a transient analysis. , 2022, , 223-268.  |     | 0         |
| 2739 | Structure, controlled release mechanisms and health benefits of pectins as an encapsulation material for bioactive food components. <i>Food and Function</i> , 2022, 13, 10870-10881.                                       | 2.1 | 8         |
| 2740 | Development of a hydrocolloid bio-ink for 3D bioprinting. <i>Biomaterials Science</i> , 2022, 10, 6707-6717.  | 2.6 | 7         |
| 2741 | Ultrasound triggered nanovesicular drug delivery systems. , 2022, , 403-418.  |     | 0         |
| 2742 | Effective pH-regulated release of covalently conjugated antibiotics from antibacterial hydrogels. <i>Polymer Chemistry</i> , 2022, 13, 5234-5242.   | 1.9 | 2         |
| 2743 | Mechanical characterization of hydrogels. , 2022, , 1-24.   |     | 0         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2744 | Fatigue of hydrogels. , 2022, , 119-138.  |     | 1         |
| 2745 | Self-healing polyacrylamide (PAAm) gels at room temperature based on complementary guanine and cytosine base pairs. <i>Soft Matter</i> , 2022, 18, 7394-7401.   | 1.2 | 1         |
| 2746 | Molecular Communication Transmitter Architectures for the Internet of Bio-Nano Things. , 2022, , .  |     | 0         |
| 2747 | The Molecular and Functional Changes of Neural Stem Cells in Alzheimer's Disease: Can They be Reinvigorated to Conduct Neurogenesis. <i>Current Stem Cell Research and Therapy</i> , 2023, 18, 580-594.   | 0.6 | 0         |
| 2748 | Anisotropic Muscle-like Conductive Composite Hydrogel Reinforced by Lignin and Cellulose Nanofibrils. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 12993-13003.   | 3.2 | 18        |
| 2749 | Fabrication and Characterization of Chicken- and Bovine-Derived Chondroitin Sulfate/Sodium Alginate Hybrid Hydrogels. <i>Gels</i> , 2022, 8, 620.   | 2.1 | 0         |
| 2750 | Hydrogels for localized drug delivery: A special emphasis on dermatologic applications. <i>Dermatologic Therapy</i> , 2022, 35, .   | 0.8 | 4         |
| 2751 | Solvent types used for the preparation of hydrogels determine their mechanical properties and influence cell viability through gelatine and calcium ions release. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2023, 111, 314-330. | 1.6 | 2         |
| 2752 | Nonwoven Membranes with Infrared Light-Controlled Permeability. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 42558-42567.  | 4.0 | 3         |
| 2753 | Investigation of Hydronium Diffusion in Poly(vinyl alcohol) Hydrogels: A Critical First Step to Describe Acid Transport for Encapsulated Bioremediation. <i>ACS ES&amp;T Engineering</i> , 2022, 2, 1896-1908.  | 3.7 | 1         |
| 2754 | Application of Nano-Inspired Scaffolds-Based Biopolymer Hydrogel for Bone and Periodontal Tissue Regeneration. <i>Polymers</i> , 2022, 14, 3791.  | 2.0 | 11        |
| 2755 | Injectable Hydrogel-Based Combination Cancer Immunotherapy for Overcoming Localized Therapeutic Efficacy. <i>Pharmaceutics</i> , 2022, 14, 1908.  | 2.0 | 7         |
| 2757 | Ionogels Derived from Fluorinated Ionic Liquids to Enhance Aqueous Drug Solubility for Local Drug Administration. <i>Gels</i> , 2022, 8, 594.   | 2.1 | 0         |
| 2758 | Therapeutic application of hydrogels for bone-related diseases. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .   | 2.0 | 3         |
| 2759 | Preparation, In Vitro Characterization, and Cytotoxicity Evaluation of Polymeric pH-Responsive Hydrogels for Controlled Drug Release. <i>Pharmaceutics</i> , 2022, 14, 1864.  | 2.0 | 6         |
| 2760 | Ploxamer-Based Hydrogel as Drug Delivery System: How Polymeric Excipients Influence the Chemical-Physical Properties. <i>Polymers</i> , 2022, 14, 3624.   | 2.0 | 17        |
| 2761 | Near-infrared light-responsive and antibacterial injectable hydrogels with antioxidant activity based on a Dopamine-functionalized Gellan Gum for wound healing. <i>International Journal of Pharmaceutics</i> , 2022, 627, 122257.                                   | 2.6 | 7         |
| 2762 | Preparation and Evaluation of a Sulfadimethoxine-Conjugated Hydrogel Based on <i>N</i> -isopropylacrylamide as a Sustained Release Drug Delivery System. <i>ChemistrySelect</i> , 2022, 7, .  | 0.7 | 2         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2763 | Cellulose and lignin as propitious candidates for preparation of hydrogels for pharmaceutical applications. <i>Materials Today Communications</i> , 2022, 33, 104617.                                  | 0.9 | 3         |
| 2764 | Nanocellulose-based hydrogels as versatile drug delivery vehicles: A review. <i>International Journal of Biological Macromolecules</i> , 2022, 222, 830-843.   | 3.6 | 22        |
| 2765 | Phenol release from pNIPAM hydrogels: scaling molecular dynamics simulations with dynamical density functional theory. <i>Soft Matter</i> , 0, , .   | 1.2 | 0         |
| 2766 | SYNTHESIS AND PROPERTIES OF CROSS-LINKED HYDROGELS BASED ON CHITOSAN AND POLYACRYLAMIDE. <i>Polymer Journal</i> , 2022, 44, 214-221.   | 0.3 | 1         |
| 2767 | Insights into current directions of protein and peptide-based hydrogel drug delivery systems for inflammation. <i>Polymer Bulletin</i> , 2023, 80, 9409-9436.  | 1.7 | 4         |
| 2768 | A comprehensive review on hydrogel materials in urology: Problems, methods, and new opportunities. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2023, 111, 730-756. | 1.6 | 4         |
| 2769 | Cytotoxicity and Biocompatibility of Biobased Materials. , 2023, , 17-34.  |     | 0         |
| 2770 | Hyaluronic Acid Scaffolds for Loco-Regional Therapy in Nervous System Related Disorders. <i>International Journal of Molecular Sciences</i> , 2022, 23, 12174.   | 1.8 | 8         |
| 2771 | Carboxymethyl cellulose-based semi-IPN hydrogel nanocomposite with improved physicochemical and mechanical properties. <i>Journal of Polymer Research</i> , 2022, 29, .                                | 1.2 | 5         |
| 2772 | Advancements and Utilizations of Scaffolds in Tissue Engineering and Drug Delivery. <i>Current Drug Targets</i> , 2023, 24, 13-40.   | 1.0 | 1         |
| 2773 | Rate-Independent Self-Healing Double Network Hydrogels Using a Thixotropic Sacrificial Network. <i>Macromolecules</i> , 2022, 55, 9547-9557.   | 2.2 | 13        |
| 2774 | Advanced Drug Delivery Platforms for the Treatment of Oral Pathogens. <i>Pharmaceutics</i> , 2022, 14, 2293.   | 2.0 | 7         |
| 2775 | Electrically Induced Bursting of Aqueous Capsules Made from Biopolymers: â€Switching Onâ€™ the Release of Payloads. <i>Advanced Functional Materials</i> , 2022, 32, .                                 | 7.8 | 2         |
| 2776 | Application of â€Clickâ€™ Chemistry in Biomedical Hydrogels. <i>ACS Omega</i> , 2022, 7, 36918-36928.  | 1.6 | 31        |
| 2777 | Gold-Nanoparticle Hybrid Nanostructures for Multimodal Cancer Therapy. <i>Nanomaterials</i> , 2022, 12, 3706.  | 1.9 | 11        |
| 2778 | Self-Healing Hydrogels: Development, Biomedical Applications, and Challenges. <i>Polymers</i> , 2022, 14, 4539.  | 2.0 | 19        |
| 2779 | Multifunctional Composite Hydrogels for Bacterial Capture, Growth/Elimination, and Sensing Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 47323-47344.                        | 4.0 | 17        |
| 2780 | Effect of cellulose nanocrystals on rheology, liquid crystal, and delivery behavior of metronidazole poloxamer-based in-situ dental medication. <i>Cellulose</i> , 2022, 29, 9511-9529.                | 2.4 | 3         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2781 | Synthesis, properties, and applications of chitosan hydrogels as anti-inflammatory drug delivery system. <i>Journal of Porous Materials</i> , 2023, 30, 655-670.   | 1.3 | 9         |
| 2782 | Peptide-Based Supramolecular Hydrogels as Drug Delivery Agents: Recent Advances. <i>Gels</i> , 2022, 8, 706.   | 2.1 | 16        |
| 2783 | An Alternative Carbon Source from Cassava Residue Saccharification Liquid for In-Situ Fabrication of Polysaccharide Macromolecule/Bacterial Cellulose Composite Hydrogel: A Comparative Study. <i>Sustainability</i> , 2022, 14, 14277.  | 1.6 | 1         |
| 2784 | A predictive mechanistic model of drug release from surface eroding polymeric nanoparticles. <i>Journal of Controlled Release</i> , 2022, 351, 883-895.  | 4.8 | 13        |
| 2785 | Silk-elastinlike protein-based hydrogels for drug delivery and embolization. <i>Advanced Drug Delivery Reviews</i> , 2022, 191, 114579.  | 6.6 | 11        |
| 2786 | Exploration of connexin-43 modulating, multifunctional silver nanocluster-hydrogel system for theranostic management of cancer. <i>Materials Today Chemistry</i> , 2022, 26, 101213.   | 1.7 | 1         |
| 2787 | Glycidyl Cinnamate: Copolymerization with Glycidyl Ethers, In-Situ NMR Kinetics, and Photocrosslinking. <i>Macromolecular Chemistry and Physics</i> , 2023, 224, .   | 1.1 | 0         |
| 2788 | Polyacrylic acid-based drug delivery systems: A comprehensive review on the state-of-art. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 78, 103988.   | 1.4 | 13        |
| 2789 | Self-Assembling Anchorage of Hyaluronic Acid on the Nanoparticle Surface Confers Superiority of Triple Negative Breast Cancer Treatment. <i>Pharmaceutics</i> , 2022, 14, 2461.  | 2.0 | 5         |
| 2790 | Mutual Jellification of Two Bactericidal Cationic Polymers: Synthesis and Physicochemical Characterization of a New Two-Component Hydrogel. <i>Pharmaceutics</i> , 2022, 14, 2444.   | 2.0 | 3         |
| 2792 | Sustained and targeted delivery of hydrophilic drug compounds: A review of existing and novel technologies from bench to bedside. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 78, 103936.   | 1.4 | 12        |
| 2793 | Exploration of hemocompatibility and intratumoral accumulation of paclitaxel after loco-regional administration of thermoresponsive hydrogel composed of poloxamer and xanthan gum: An application to dose-dense chemotherapy. <i>International Journal of Biological Macromolecules</i> , 2023, 226, 746-759. | 3.6 | 5         |
| 2794 | Composite silk fibroin hydrogel scaffolds for cartilage tissue regeneration. <i>Journal of Drug Delivery Science and Technology</i> , 2023, 79, 104018.  | 1.4 | 9         |
| 2795 | Encapsulation of cannabidiol in oil-in-water nanoemulsions and nanoemulsion-filled hydrogels: A structure and biological assessment study. <i>Journal of Colloid and Interface Science</i> , 2023, 634, 300-313.   | 5.0 | 12        |
| 2796 | Studies on release kinetics of curcumin from alginate dialdehyde hydrogel. <i>AIP Conference Proceedings</i> , 2022, , .   | 0.3 | 0         |
| 2797 | Design and evaluation of ocular hydrogel containing combination of ofloxacin and dexamethasone for the treatment of conjunctivitis. <i>Brazilian Journal of Pharmaceutical Sciences</i> , 0, 58, .   | 1.2 | 0         |
| 2798 | Advancing drug delivery to articular cartilage: From single to multiple strategies. <i>Acta Pharmaceutica Sinica B</i> , 2023, 13, 4127-4148.  | 5.7 | 5         |
| 2799 | Biopolymer derived superabsorbent for environmental sustainability: A review. <i>Environmental Quality Management</i> , 2022, 32, 177-185.   | 1.0 | 2         |



| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2800 | 3D printed multi-growth factor delivery patches fabricated using dual-crosslinked decellularized extracellular matrix-based hybrid inks to promote cerebral angiogenesis. <i>Acta Biomaterialia</i> , 2023, 157, 137-148. | 4.1 | 7         |
| 2801 | Fabricación de membranas sensibles al cambio de pH para posibles usos en tratamiento de heridas cutáneas. <i>Revista Ion</i> , 2022, 35, .  | 0.1 | 0         |
| 2802 | A Self-Forming Hydrogel from a Bactericidal Copolymer: Synthesis, Characterization, Biological Evaluations and Perspective Applications. <i>International Journal of Molecular Sciences</i> , 2022, 23, 15092.            | 1.8 | 2         |
| 2803 | Self-Forming Norbornene-Tetrazine Hydrogels with Independently Tunable Properties. <i>Macromolecular Bioscience</i> , 2023, 23, .   | 2.1 | 2         |
| 2804 | Peptide-Based Biopolymers in Biomedicine and Biotechnology. , 2023, , 1-18.   |     | 0         |
| 2805 | Formulation and rheological evaluation of liposomes-loaded carbopol hydrogels based on thermal waters. <i>Drug Development and Industrial Pharmacy</i> , 2022, 48, 635-645.   | 0.9 | 2         |
| 2806 | Rutin Nanocrystals with Enhanced Anti-Inflammatory Activity: Preparation and Ex Vivo/In Vivo Evaluation in an Inflammatory Rat Model. <i>Pharmaceutics</i> , 2022, 14, 2727.  | 2.0 | 9         |
| 2807 | pH-Responsive, Thermo-Resistant Poly(Acrylic Acid)-g-Poly(boc-L-Lysine) Hydrogel with Shear-Induced Injectability. <i>Gels</i> , 2022, 8, 817.  | 2.1 | 3         |
| 2808 | A new mathematical model derived from transient (creep) analysis to estimate the vaginal retention of semi-solid dosage forms. <i>International Journal of Pharmaceutics</i> , 2022, , 122521.                            | 2.6 | 0         |
| 2809 | Investigation of the Sorption Capacity of Polyvinylpyrrolidone Copolymers As the Basis of Hydrogel Cosmetic Masks with Plant Biomass Extracts. <i>Chemistry and Chemical Technology</i> , 2022, 16, 555-563.              | 0.2 | 0         |
| 2810 | Fabrication and characterization of a bilayered system enabling sustained release of bioflavonoids derived from mandarin biomass. <i>Food Hydrocolloids for Health</i> , 2022, , 100114.                                  | 1.6 | 2         |
| 2811 | Multilayered "SMART" hydrogel systems for on-site drug delivery applications. <i>Journal of Drug Delivery Science and Technology</i> , 2023, 80, 104111.  | 1.4 | 3         |
| 2812 | Xylan-Based Hydrogels: A Polymeric Carrier for Sustained and Targeted Delivery of Drugs. , 0, , .   |     | 0         |
| 2813 | Knowledge mapping concerning applications of nanocomposite hydrogels for drug delivery: A bibliometric and visualized study (2003-2022). <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .                  | 2.0 | 3         |
| 2814 | Implantable and in-vivo shape-recoverable nanocellulose-hyaluronic acid composite hydrogel. <i>Carbohydrate Polymers</i> , 2023, 305, 120540.   | 5.1 | 8         |
| 2815 | Microsponges: An Emerging Formulation Tool for Topical Drug Delivery. <i>Pharmacophore</i> , 2022, 13, 20-34.   | 0.2 | 1         |
| 2816 | Improve Hydrogel Adhesion by Introducing Pillar Structures at the Interface. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2023, 90, .   | 1.1 | 2         |
| 2817 | Degradable and Tunable Keratin-fibrinogen Hydrogel as Controlled Release System for Skin Tissue Regeneration. <i>Journal of Bionic Engineering</i> , 2023, 20, 1049-1059.   | 2.7 | 3         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2818 | Electron Beam Irradiation Cross-Linked Hydrogel Patches Loaded with Red Onion Peel Extract for Transdermal Drug Delivery: Formulation, Characterization, Cytocompatibility, and Skin Permeation. <i>Gels</i> , 2023, 9, 52. | 2.1 | 0         |
| 2819 | Towards the personalization of gelatin-based 3D patches: a tunable porous carrier for topical applications. <i>Drug Delivery and Translational Research</i> , 0, , .  | 3.0 | 0         |
| 2820 | Hydrogel Formulations of Antibacterial Pyrazoles Using a Synthesized Polystyrene-Based Cationic Resin as a Gelling Agent. <i>International Journal of Molecular Sciences</i> , 2023, 24, 1109.                              | 1.8 | 4         |
| 2821 | Construction of nanohydrogels for enhanced delivery of hydrophilic and hydrophobic drugs and improving chemotherapy efficacy. <i>European Polymer Journal</i> , 2023, 186, 111838.  | 2.6 | 3         |
| 2822 | Poly( <i>N</i> -allyl acrylamide) as a Reactive Platform toward Functional Hydrogels. <i>ACS Macro Letters</i> , 2023, 12, 79-85.   | 2.3 | 7         |
| 2823 | Double Stimuli-Responsive di- and Triblock Copolymers of Poly( <i>N</i> -isopropylacrylamide) and Poly(1-vinylimidazole): Synthesis and Self-Assembly. <i>International Journal of Molecular Sciences</i> , 2023, 24, 879.  | 1.8 | 0         |
| 2824 | Single-Component Physical Hydrogels of Dendritic Molecules. <i>Journal of Composites Science</i> , 2023, 7, 26.   | 1.4 | 3         |
| 2825 | Biobased polymers from lignocellulosic sources. <i>Green Chemistry Letters and Reviews</i> , 2023, 16, .  | 2.1 | 3         |
| 2826 | A Brief Review on Hydrogel. <i>Research Journal of Topical and Cosmetic Sciences</i> , 2022, , 99-100.  | 0.1 | 2         |
| 2828 | Impact of graphene oxide lateral dimensions on the properties of methacrylated gelatin nanocomposite hydrogels. <i>Journal of Materials Chemistry B</i> , 2023, 11, 1987-1997.  | 2.9 | 2         |
| 2829 | Micelle-crosslinked hydrogels with stretchable, self-healing, and selectively adhesive properties: Random copolymers work as dynamic yet self-sorting domains. <i>Aggregate</i> , 2023, 4, .                                | 5.2 | 4         |
| 2830 | CO <sub>2</sub> supercritical extraction and microencapsulation of oleoresins from rosehip fruits for getting powders with multiple applications. <i>Current Research in Food Science</i> , 2023, 6, 100449.                | 2.7 | 6         |
| 2831 | Tools and techniques for characterizing sustainable hydrogels. , 2023, , 47-77.   |     | 1         |
| 2832 | Xanthan Gum-Based Drug Delivery Systems for Respiratory Diseases. , 2023, , 279-295.  |     | 1         |
| 2833 | Sustainable hydrogels in food packaging systems. , 2023, , 355-374.   |     | 0         |
| 2834 | Neural Drug Delivery. , 2023, , 651-691.  |     | 0         |
| 2835 | Polysaccharide-Based Hydrogels and Their Application as Drug Delivery Systems in Cancer Treatment: A Review. <i>Journal of Functional Biomaterials</i> , 2023, 14, 55.  | 1.8 | 23        |
| 2836 | Polymeric Nanocomposite Hydrogel Scaffolds in Craniofacial Bone Regeneration: A Comprehensive Review. <i>Biomolecules</i> , 2023, 13, 205.  | 1.8 | 5         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 2837 | Coupled Chemo-Mechanical Swelling Behavior of PH-Sensitive Hollow Cylinder Hydrogels under Extension–Torsion and Internal Pressure: Analytical and 3D FEM Solutions. <i>International Journal of Applied Mechanics</i> , 2023, 15, . | 1.3 | 3         |
| 2838 | Nanohydrogels for achieving green economy. , 2023, , 113-136.  |     | 0         |
| 2839 | Hydrogel-based Treatment Strategies to Accelerate Diabetic Foot Ulcer Healing. <i>Current Diabetes Reviews</i> , 2023, 19, .   | 0.6 | 0         |
| 2840 | Thermosensitive Biodegradable Hydrogels for Local and Controlled Cerebral Delivery of Proteins: MRI-Based Monitoring of <i>In Vitro</i> and <i>In Vivo</i> Protein Release. <i>ACS Biomaterials Science and Engineering</i> , 0, , . | 2.6 | 1         |
| 2841 | Alginate Based Interpenetrating Polymer Network (IPN) in Drug Delivery and Biomedical Applications. , 2023, , 135-153.   |     | 0         |
| 2842 | Accelerating Payload Release from Complex Coacervates through Mechanical Stimulation. <i>Polymers</i> , 2023, 15, 586.   | 2.0 | 0         |
| 2843 | Sustained Release of Tacrolimus Embedded in a Mixed Thermosensitive Hydrogel for Improving Functional Recovery of Injured Peripheral Nerves in Extremities. <i>Pharmaceutics</i> , 2023, 15, 508.                                    | 2.0 | 2         |
| 2844 | Nanostructured Poly(ethylene glycol) Diacrylate-Based Hydrogels Printed by Focused Electron Beam-Induced Deposition: Implications for Nanosensors. <i>ACS Applied Nano Materials</i> , 2023, 6, 2366-2373.                           | 2.4 | 0         |
| 2845 | Curcumin Release from Biomaterials for Enhanced Tissue Regeneration Following Injury or Disease. <i>Bioengineering</i> , 2023, 10, 262.  | 1.6 | 6         |
| 2846 | Synthesis and Evaluation of Rutin–Hydroxypropyl $\beta$ -Cyclodextrin Inclusion Complexes Embedded in Xanthan Gum-Based (HPMC-g-AMPS) Hydrogels for Oral Controlled Drug Delivery. <i>Antioxidants</i> , 2023, 12, 552.              | 2.2 | 11        |
| 2847 | Development of Thiol-Maleimide hydrogels incorporating graphene-based nanomaterials for cancer chemo-photothermal therapy. <i>International Journal of Pharmaceutics</i> , 2023, 635, 122713.  | 2.6 | 10        |
| 2848 | NIR-light-responsive chemo-photothermal hydrogel system with controlled DOX release and photothermal effect for cancer therapy. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2023, 667, 131407.         | 2.3 | 3         |
| 2849 | Polymerized stimuli-responsive microgels for the removal of organic dye from water. <i>Journal of Molecular Liquids</i> , 2023, 375, 121267.   | 2.3 | 4         |
| 2850 | Reversible Molecular Capture and Release in Microfluidics by Host–Guest Interactions in Hydrogel Microdots. <i>Macromolecular Rapid Communications</i> , 2023, 44, .   | 2.0 | 2         |
| 2851 | Dual crosslinked injectable protein-based hydrogels with cell anti-adhesive properties. <i>Biomedical Materials (Bristol)</i> , 2023, 18, 025012.  | 1.7 | 0         |
| 2852 | Visible light laser direct-writing of high-resolution, biocompatible, super-multifunctional and tough hydrogels without photoinitiators in 30Ås. , 2023, 147, 213318.  |     | 1         |
| 2853 | Applications of functionally-adapted hydrogels in tendon repair. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 11, .   | 2.0 | 3         |
| 2854 | Impact of Poly (Vinyl Alcohol) on The Thermogelation Property and Drug Release Profile of Ophthalmic Formulations Based on Poloxamer 407. <i>ChemistrySelect</i> , 2023, 8, .  | 0.7 | 2         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2855 | Injectable Thermosensitive Nanocomposites Based on Poly( <i>N</i> -vinylcaprolactam) and Silica Particles for Localized Release of Hydrophilic and Hydrophobic Drugs. <i>Langmuir</i> , 2023, 39, 2380-2388.                              | 1.6 | 0         |
| 2856 | Freeze-thaw hydrogel fabrication method: basic principles, synthesis parameters, properties, and biomedical applications. <i>Materials Research Express</i> , 2023, 10, 024003.   | 0.8 | 19        |
| 2857 | Vitreous Substitutes from Bench to the Operating Room in a Translational Approach: Review and Future Endeavors in Vitreoretinal Surgery. <i>International Journal of Molecular Sciences</i> , 2023, 24, 3342.                             | 1.8 | 1         |
| 2858 | Structural and mechanical properties of folded protein hydrogels with embedded microbubbles. <i>Biomaterials Science</i> , 2023, 11, 2726-2737.   | 2.6 | 2         |
| 2859 | Hydrogel-mediated drug delivery for treating stroke. <i>Chinese Chemical Letters</i> , 2023, 34, 108205.  | 4.8 | 9         |
| 2860 | Polymer Gels: Classification and Recent Developments in Biomedical Applications. <i>Gels</i> , 2023, 9, 161.  | 2.1 | 22        |
| 2861 | Chitosan-based drug delivery systems for skin atopic dermatitis: recent advancements and patent trends. <i>Drug Delivery and Translational Research</i> , 2023, 13, 1436-1455.  | 3.0 | 6         |
| 2862 | Conformation of Network Strands in Polymer Gels. <i>ACS Macro Letters</i> , 2023, 12, 325-330.  | 2.3 | 6         |
| 2863 | A constitutive model for elastomers tailored by ionic bonds and entanglements. <i>Mechanics of Materials</i> , 2023, 179, 104604.   | 1.7 | 2         |
| 2864 | Antiinflammatory activity of herbal bioactive-based formulations for topical administration. , 2023, , 245-277.   |     | 0         |
| 2865 | Improving quercetin anticancer activity through a novel polyvinylpyrrolidone/polyvinyl alcohol/TiO <sub>2</sub> nanocomposite. <i>Journal of Drug Delivery Science and Technology</i> , 2023, 81, 104304.                                 | 1.4 | 15        |
| 2866 | Next-Generation Hydrogels as Biomaterials for Biomedical Applications: Exploring the Role of Curcumin. <i>ACS Omega</i> , 2023, 8, 8960-8976.   | 1.6 | 10        |
| 2867 | Nano-Biotechnology and Challenges of Drug Delivery System in Cancer Treatment Pathway: Review Article. <i>Chemistry and Biodiversity</i> , 2023, 20, .  | 1.0 | 6         |
| 2868 | Synthesis of biodegradable carboxymethyl cellulose film-loaded magnesium nanoparticles. <i>Emergent Materials</i> , 2023, 6, 561-571.   | 3.2 | 3         |
| 2869 | Injectable Self-Healing Adhesive Natural Glycyrrhizic Acid Bioactive Hydrogel for Bacteria-Infected Wound Healing. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 17562-17576.   | 4.0 | 21        |
| 2870 | Preparation of Cellulose Hydrogels and Hydrogel Nanocomposites Reinforced by Crystalline Cellulose Nanofibers (CNFs) as a Water Reservoir for Agriculture Use. <i>ACS Applied Polymer Materials</i> , 2023, 5, 2895-2904.                 | 2.0 | 10        |
| 2871 | Development of a Supramolecular Hydrogel for Intraperitoneal Injections. <i>Macromolecular Bioscience</i> , 2024, 24, .   | 2.1 | 3         |
| 2872 | Analysis of diffusion of plant metabolites from polyethylene glycol hydrogels using free volume theory. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 0, , 095441192311627. | 1.0 | 1         |

| #    | ARTICLE   | IF   | CITATIONS |
|------|---|------|-----------|
| 2873 | Hydrogels—A Promising Materials for 3D Printing Technology. <i>Gels</i> , 2023, 9, 260.   | 2.1  | 16        |
| 2874 | A gradient four-layered gelatin methacrylate/agarose construct as an injectable scaffold for mimicking osteochondral tissue. <i>Journal of Materials Science</i> , 2023, 58, 5735-5755.   | 1.7  | 4         |
| 2875 | Optimization of phosphorus-loaded Ni—ZnO crosslinked carboxy methyl cellulose-based biodegradable nanocomposite hydrogel beads for the slow release of P, Ni and Zn: a kinetic approach. <i>New Journal of Chemistry</i> , 2023, 47, 8200-8213. | 1.4  | 3         |
| 2876 | The Use of Hydrogels for the Treatment of Bone Osteosarcoma via Localized Drug-Delivery and Tissue Regeneration: A Narrative Review. <i>Gels</i> , 2023, 9, 274.  | 2.1  | 1         |
| 2877 | Experimental Demonstration of Compact Polymer Mass Transfer Device Manufactured by Additive Manufacturing with Hydrogel Integration to Bio-Mimic the Liver Functions. <i>Bioengineering</i> , 2023, 10, 416.                                    | 1.6  | 0         |
| 2878 | An Updated Review on Advances in Hydrogel-Based Nanoparticles for Liver Cancer Treatment. <i>Livers</i> , 2023, 3, 161-189.   | 0.8  | 5         |
| 2879 | Conducting gelatin/PAM DN hydrogels with high mechanical properties prepared using the photoinduced one-pot method for strain sensors. <i>New Journal of Chemistry</i> , 2023, 47, 8050-8061.   | 1.4  | 3         |
| 2880 | 3D printed superparamagnetic stimuli-responsive starfish-shaped hydrogels. <i>Heliyon</i> , 2023, 9, e14682.  | 1.4  | 7         |
| 2881 | Wood Biorefineries. <i>Springer Handbooks</i> , 2023, , 1713-1751.  | 0.3  | 0         |
| 2882 | Large amplitude oscillatory shear studies on dense PNIPAM microgel colloidal glasses. <i>Colloid and Polymer Science</i> , 0, , .   | 1.0  | 0         |
| 2883 | Hydrophobized Hydrogels: Construction Strategies, Properties, and Biomedical Applications. <i>Advanced Functional Materials</i> , 2023, 33, .   | 7.8  | 7         |
| 2884 | An injectable chitosan/laponite hydrogel synthesized via hybrid cross-linking system: A smart platform for cartilage regeneration. <i>Polymers for Advanced Technologies</i> , 2023, 34, 2298-2311.   | 1.6  | 3         |
| 2885 | Simple, Rapid, and Large-Scale Fabrication of Multi-Branched Hydrogels Based on Viscous Fingering for Cell Culture Applications. <i>Macromolecular Bioscience</i> , 0, , .  | 2.1  | 0         |
| 2886 | Advanced Formulation Approaches for Proteins. <i>Handbook of Experimental Pharmacology</i> , 2023, , .  | 0.9  | 0         |
| 2887 | Materials for Controlled Release of Local Anesthetics. <i>ChemMedChem</i> , 2023, 18, .   | 1.6  | 1         |
| 2888 | Topical effect of polyherbal flowers extract on xanthan gum hydrogel patch—induced wound healing activity in human cell lines and male BALB/c mice. <i>Biomedical Materials (Bristol)</i> , 2023, 18, 035016.                                   | 1.7  | 2         |
| 2889 | Chitosan-based hydrogels for wound healing: correspondence. <i>International Journal of Surgery</i> , 2023, 109, 1821-1822.   | 1.1  | 5         |
| 2890 | Tellurium-containing polymers: Recent developments and trends. <i>Progress in Polymer Science</i> , 2023, 141, 101678.  | 11.8 | 5         |

| #    | ARTICLE   | IF  | CITATIONS |
|------|---|-----|-----------|
| 2891 | Current advances in nanodrug delivery systems for malaria prevention and treatment. , 2023, 18, .   |     | 1         |
| 2892 | Colloidal curcumin-laden pH-responsive hydrogels: A promising approach to enhance solubility, dissolution, and permeation of hydrophobic drug. Journal of Drug Delivery Science and Technology, 2023, 84, 104471. | 1.4 | 0         |
| 2893 | Exploring the potential of antimalarial nanocarriers as a novel therapeutic approach. Journal of Molecular Graphics and Modelling, 2023, 122, 108497.   | 1.3 | 0         |
| 2900 | Peptide-Based Biopolymers in Biomedicine and Biotechnology. , 2023, , 1117-1134.  |     | 0         |
| 2903 | Therapeutic polymer gel system in neural tissue engineering. , 2023, , 151-172.   |     | 0         |
| 2909 | Hydrogels and Nanohydrogels. , 2023, , 140-182.   |     | 0         |
| 2922 | Bio-based Versus Petro-based Superabsorbent Polymers. Engineering Materials, 2023, , 51-65.   | 0.3 | 0         |
| 2924 | Alginate-based nanocomposite hydrogels for antimicrobial and antibiofilm applications. , 2023, , 363-385.   |     | 1         |
| 2930 | Hydrogels: Definition, History, Classifications, Formation, Constitutive Characteristics, and Applications. , 2023, , 1-25.   |     | 0         |
| 2931 | Toxicity, Regulatory Considerations, and Commercialization Aspects of Multi-component Hydrogels. , 2023, , 604-635.   |     | 0         |
| 2938 | An Overview on the Pharmaceutical Applications of Nanocellulose. Composites Science and Technology, 2023, , 395-411.  | 0.4 | 0         |
| 2949 | Therapeutic Potentials of Hydrogel and Nanogel in CNS Disorders. , 0, , .   |     | 0         |
| 2950 | Ultrasound-triggered drug delivery. , 2023, , 577-591.  |     | 0         |
| 2954 | Crosslinking of Starch. , 2023, , 103-125.  |     | 1         |
| 2965 | Heparin-based nanocomposite hydrogels. , 2024, , 233-248.   |     | 0         |
| 2977 | Bio-inspired drug delivery systems. , 2023, , 683-702.  |     | 0         |
| 2982 | Peptide-Based Therapeutics and Drug Delivery Systems. , 2023, , 173-211.  |     | 0         |
| 2989 | Hydrogels for Cardiac Restorative Support: Relevance of Gelation Mechanisms for Prospective Clinical Use. Current Heart Failure Reports, 2023, 20, 519-529.   | 1.3 | 1         |

| #    | ARTICLE  | IF  | CITATIONS |
|------|--|-----|-----------|
| 3002 | Hydrogels and nanogels as a promising carrier for drug delivery. , 0, , .  |     | 0         |
| 3010 | Stimuli-Responsive Interfaces. ACS Symposium Series, 0, , 149-194.   | 0.5 | 0         |
| 3024 | Influence of embedded polyelectrolyte on the structure and dynamics of polyacrylamide hydrogels. AIP Conference Proceedings, 2023, , .   | 0.3 | 0         |
| 3026 | Recent trends on hydrogel development and sustainable applications: a bibliometric analysis and concise review. Polymer Bulletin, 0, , . | 1.7 | 0         |
| 3031 | Versatile Hydrogels in Regenerative Medicine. , 2023, , 61-166.  |     | 0         |
| 3034 | A nIR fluorescent single walled carbon nanotube sensor for broad-spectrum diagnostics. Sensors & Diagnostics, 2024, 3, 203-217.          | 1.9 | 2         |
| 3050 | Cellulose Nanocrystals-Based Hydrogels for Drug Delivery. , 2024, , 50-68.   |     | 0         |
| 3052 | Nanomaterials in drug delivery. , 2024, , 297-319.   |     | 0         |
| 3053 | Hydrogel-based nanomedicines for cancer immunotherapy. , 2024, , 139-174.  |     | 0         |
| 3057 | Controlled Release of Curcumin from Hydrogels: Biomedical Applications with a Focus on Neurodegenerative Diseases. , 2023, , 403-436.    |     | 0         |
| 3059 | Physical processes of obtaining gels and hydrogels from natural polymers. , 2024, , 41-73.   |     | 0         |
| 3080 | Brief Introduction and Various Crosslinking Approaches. , 2024, , 1-27.  |     | 0         |