Jae Young Lee

List of Publications by Year in descending order

85 papers	4,197 citations	126708 33 h-index	118652 62 g-index
86 all docs	86 docs citations	86 times ranked	5931 citing authors

#	Article	IF	Citations
1	Towards the translation of electroconductive organic materials for regeneration of neural tissues. Acta Biomaterialia, 2022, 139, 22-42.	4.1	31
2	Highly Optimized Iron Oxide Embedded Poly(Lactic Acid) Nanocomposites for Effective Magnetic Hyperthermia and Biosecurity. International Journal of Nanomedicine, 2022, Volume 17, 31-44.	3.3	8
3	Hyaluronan-coated Prussian blue nanoparticles relieve LPS-induced peritonitis by suppressing oxidative species generation in tissue-resident macrophages. Biomaterials Science, 2022, 10, 1248-1256.	2.6	16
4	Biomimetic polypyrrole/hyaluronic acid electrodes integrated with hyaluronidase inhibitors offer persistent electroactivity and resistance to cell binding. Journal of Materials Chemistry B, 2022, 10, 1591-1600.	2.9	3
5	Three-dimensional bioprinting of mesenchymal stem cells using an osteoinductive bioink containing alginate and BMP-2-loaded PLGA nanoparticles for bone tissue engineering. , 2022, 136, 212789.		18
6	An osteogenic bioink composed of alginate, cellulose nanofibrils, and polydopamine nanoparticles for 3D bioprinting and bone tissue engineering. International Journal of Biological Macromolecules, 2022, 205, 520-529.	3.6	33
7	High-Performance Implantable Bioelectrodes with Immunocompatible Topography for Modulation of Macrophage Responses. ACS Nano, 2022, 16, 7471-7485.	7.3	13
8	From Low to High Saturation Magnetization in Magnetite Nanoparticles: The Crucial Role of the Molar Ratios Between the Chemicals. ACS Omega, 2022, 7, 15996-16012.	1.6	34
9	Conductive hydrogel constructs with three-dimensionally connected graphene networks for biomedical applications. Chemical Engineering Journal, 2022, 446, 137344.	6.6	29
10	Antioxidant and anti-inflammatory activities of Prussian blue nanozyme promotes full-thickness skin wound healing. Materials Science and Engineering C, 2021, 119, 111596.	3.8	63
11	Surface modification of a three-dimensional polycaprolactone scaffold by polydopamine, biomineralization, and BMP-2 immobilization for potential bone tissue applications. Colloids and Surfaces B: Biointerfaces, 2021, 199, 111528.	2.5	30
12	The Heating Efficiency and Imaging Performance of Magnesium Iron Oxide@tetramethyl Ammonium Hydroxide Nanoparticles for Biomedical Applications. Nanomaterials, 2021, 11, 1096.	1.9	10
13	One-Pot electrochemical fabrication of high performance amperometric enzymatic biosensors using polypyrrole and polydopamine. Journal of Industrial and Engineering Chemistry, 2021, 97, 316-325.	2.9	13
14	Enhanced three-dimensional printing scaffold for osteogenesis using a mussel-inspired graphene oxide coating. Materials and Design, 2021, 209, 109941.	3.3	11
15	Vimentin Targeted Nano-gene Carrier for Treatment of Renal Diseases. Journal of Korean Medical Science, 2021, 36, e333.	1.1	1
16	Gamma Ray-Induced Polymerization and Cross-Linking for Optimization of PPy/PVP Hydrogel as Biomaterial. Polymers, 2020, 12, 111.	2.0	38
17	Universal surface modification using dopamine-hyaluronic acid conjugates for anti-biofouling. International Journal of Biological Macromolecules, 2020, 151, 1314-1321.	3.6	29
18	Preparation of Radiation Cross-Linked Poly(Acrylic Acid) Hydrogel Containing Metronidazole with Enhanced Antibacterial Activity. International Journal of Molecular Sciences, 2020, 21, 187.	1.8	32

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19	In Situ Formation of Proangiogenic Mesenchymal Stem Cell Spheroids in Hyaluronic Acid/Alginate Coreâ€“Shell Microcapsules. ACS Biomaterials Science and Engineering, 2020, 6, 6938-6948.	2.6	12
20	Electrically Conductive Hydrogel Nerve Guidance Conduits for Peripheral Nerve Regeneration. Advanced Functional Materials, 2020, 30, 2003759.	7.8	118
21	Graphene oxide-incorporated hydrogels for biomedical applications. Polymer Journal, 2020, 52, 823-837.	1.3	78
22	Facilitated Transdermal Drug Delivery Using Nanocarriers-Embedded Electroconductive Hydrogel Coupled with Reverse Electrodialysis-Driven Iontophoresis. ACS Nano, 2020, 14, 4523-4535.	7.3	83
23	Photothermal Polymerization Using Graphene Oxide for Robust Hydrogelation with Various Light Sources. ACS Biomaterials Science and Engineering, 2020, 6, 1931-1939.	2.6	8
24	Biomimetic nonbiofouling polypyrrole electrodes grafted with zwitterionic polymer using gamma rays. Journal of Materials Chemistry B, 2020, 8, 7225-7232.	2.9	15
25	Engineering Core-Shell Structures of Magnetic Ferrite Nanoparticles for High Hyperthermia Performance. Nanomaterials, 2020, 10, 991.	1.9	33
26	Synthesis of Magnetic Ferrite Nanoparticles with High Hyperthermia Performance via a Controlled Co-Precipitation Method. Nanomaterials, 2019, 9, 1176.	1.9	89
27	Micropatterned conductive hydrogels as multifunctional muscle-mimicking biomaterials: Graphene-incorporated hydrogels directly patterned with femtosecond laser ablation. Acta Biomaterialia, 2019, 97, 141-153.	4.1	67
28	Anti-oxidant activity reinforced reduced graphene oxide/alginate microgels: Mesenchymal stem cell encapsulation and regeneration of infarcted hearts. Biomaterials, 2019, 225, 119513.	5.7	110
29	Electrochemical Co-deposition of Polydopamine/Hyaluronic Acid for Anti-biofouling Bioelectrodes. Frontiers in Chemistry, 2019, 7, 262.	1.8	24
30	Hyaluronan-Stabilized Redox-Sensitive Nanoassembly for Chemo-Gene Therapy and Dual T1/T2 MR Imaging in Drug-Resistant Breast Cancer Cells. Molecular Pharmaceutics, 2019, 16, 2226-2234.	2.3	21
31	Monolithic carbon xerogel with co-continuous hierarchical porosity via one-step, template- and catalyst-free hydrothermal reaction with resorcinol and formaldehyde. RSC Advances, 2019, 9, 9480-9485.	1.7	6
32	Graphene oxide/alginate composites as novel bioinks for three-dimensional mesenchymal stem cell printing and bone regeneration applications. Nanoscale, 2019, 11, 23275-23285.	2.8	129
33	A Novel Conductive and Micropatterned PEG-Based Hydrogel Enabling the Topographical and Electrical Stimulation of Myoblasts. ACS Applied Materials & Interfaces, 2019, 11, 47695-47706.	4.0	44
34	Studies on the effects of microencapsulated human mesenchymal stem cells in RGD-modified alginate on cardiomyocytes under oxidative stress conditions using in vitro biomimetic co-culture system. International Journal of Biological Macromolecules, 2019, 123, 512-520.	3.6	32
35	On-demand generation of heat and free radicals for dual cancer therapy using thermal initiator- and gold nanorod-embedded PLGA nanocomplexes. Journal of Industrial and Engineering Chemistry, 2019, 69, 405-413.	2.9	13
36	Effective gamma-ray sterilization and characterization of conductive polypyrrole biomaterials. Scientific Reports, 2018, 8, 3721.	1.6	31

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37	Improved near infrared-mediated hydrogel formation using diacrylated Pluronic F127-coated upconversion nanoparticles. Materials Science and Engineering C, 2018, 90, 77-84.	3.8	42
38	Single-Step LRET Aptasensor for Rapid Mycotoxin Detection. Analytical Chemistry, 2018, 90, 716-722.	3.2	49
39	Millstone Exfoliation: a True Shear Exfoliation for Large-Size Few-Layer Graphene Oxide. Nanoscale Research Letters, 2018, 13, 186.	3.1	2
40	Biodegradable Nerve Guidance Conduit with Microporous and Micropatterned Poly(lacticâ€coâ€glycolic acid)â€Accelerated Sciatic Nerve Regeneration. Macromolecular Bioscience, 2018, 18, e1800290.	2.1	29
41	Hydrogel Biomaterials for Stem Cell Microencapsulation. Polymers, 2018, 10, 997.	2.0	101
42	Versatile biomimetic conductive polypyrrole films doped with hyaluronic acid of different molecular weights. Acta Biomaterialia, 2018, 80, 258-268.	4.1	33
43	Electrically Conductive Polydopamineâ€“Polypyrrole as High Performance Biomaterials for Cell Stimulation in Vitro and Electrical Signal Recording in Vivo. ACS Applied Materials & Interfaces, 2018, 10, 33032-33042.	4.0	84
44	Three dimensional cell printing with sulfated alginate for improved bone morphogenetic protein-2 delivery and osteogenesis in bone tissue engineering. Carbohydrate Polymers, 2018, 196, 217-224.	5.1	77
45	Remote induction of in situ hydrogelation in a deep tissue, using an alternating magnetic field and superparamagnetic nanoparticles. Nano Research, 2018, 11, 5997-6009.	5.8	17
46	Magnetic field-inducible drug-eluting nanoparticles for image-guided thermo-chemotherapy. Biomaterials, 2018, 180, 240-252.	5.7	82
47	Template-free synthesis of monolithic carbon xerogels with hierarchical porosity from resorcinol and formaldehyde via hydrothermal reaction. RSC Advances, 2018, 8, 21326-21331.	1.7	3
48	Selfâ€assembling Helical Rodâ€“Coil Peptoid Amphiphiles. Bulletin of the Korean Chemical Society, 2017, 38, 38-43.	1.0	2
49	Development and characterization of heparin-immobilized polycaprolactone nanofibrous scaffolds for tissue engineering using gamma-irradiation. RSC Advances, 2017, 7, 8963-8972.	1.7	20
50	Electrochemical deposition of dopamineâ€“hyaluronic acid conjugates for anti-biofouling bioelectrodes. Journal of Materials Chemistry B, 2017, 5, 4507-4513.	2.9	32
51	Facile and controllable electrochemical fabrication of cell-adhesive polypyrrole electrodes using pyrrole-RGD peptides. Biofabrication, 2017, 9, 045007.	3.7	13
52	Asymmetric Nanocrescent Antenna on Upconversion Nanocrystal. Nano Letters, 2017, 17, 6583-6590.	4.5	24
53	Novel reverse electrodialysis-driven iontophoretic system for topical and transdermal delivery of poorly permeable therapeutic agents. Drug Delivery, 2017, 24, 1204-1215.	2.5	12
54	Few-layer-graphene with high yield and low sheet resistance via mild oxidation of natural graphite. RSC Advances, 2017, 7, 35717-35723.	1.7	8

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55	Fabrication and characterization of 3D-printed bone-like Î²-tricalcium phosphate/polycaprolactone scaffolds for dental tissue engineering. Journal of Industrial and Engineering Chemistry, 2017, 46, 175-181.	2.9	83
56	Cell-laden 3D bioprinting hydrogel matrix depending on different compositions for soft tissue engineering: Characterization and evaluation. Materials Science and Engineering C, 2017, 71, 678-684.	3.8	120
57	Electrically conductive graphene/polyacrylamide hydrogels produced by mild chemical reduction for enhanced myoblast growth and differentiation. Acta Biomaterialia, 2017, 48, 100-109.	4.1	142
58	ZOT-derived peptide and chitosan functionalized nanocarrier for oral delivery of protein drug. Biomaterials, 2016, 103, 160-169.	5.7	45
59	Nearâ€Infraredâ€Lightâ€Assisted Photothermal Polymerization for Transdermal Hydrogelation and Cell Delivery. Advanced Healthcare Materials, 2016, 5, 1638-1645.	3.9	25
60	Research trends in biomimetic medical materials for tissue engineering: commentary. Biomaterials Research, 2016, 20, 8.	3.2	7
61	Polypyrrole/Alginate Hybrid Hydrogels: Electrically Conductive and Soft Biomaterials for Human Mesenchymal Stem Cell Culture and Potential Neural Tissue Engineering Applications. Macromolecular Bioscience, 2016, 16, 1653-1661.	2.1	133
62	Dual transcript and protein quantification in a massive single cell array. Lab on A Chip, 2016, 16, 3682-3688.	3.1	22
63	Polypyrrole-incorporated conductive hyaluronic acid hydrogels. Biomaterials Research, 2016, 20, 31.	3.2	52
64	Electrochemical deposition of conductive and adhesive polypyrrole-dopamine films. Scientific Reports, 2016, 6, 30475.	1.6	86
65	Transdermal thiolâ€“acrylate polyethylene glycol hydrogel synthesis using near infrared light. Nanoscale, 2016, 8, 14213-14221.	2.8	27
66	Surface modification of neural electrodes with a pyrrole-hyaluronic acid conjugate to attenuate reactive astrogliosis in vivo. RSC Advances, 2015, 5, 39228-39231.	1.7	19
67	Real-time investigation of cytochrome c release profiles in living neuronal cells undergoing amyloid beta oligomer-induced apoptosis. Nanoscale, 2015, 7, 10340-10343.	2.8	14
68	Reduction of graphene oxide/alginate composite hydrogels for enhanced adsorption of hydrophobic compounds. Nanotechnology, 2015, 26, 405602.	1.3	26
69	Formulation of glutathione responsive anti-proliferative nanoparticles from thiolated Akt1 siRNA and disulfide-crosslinked PEI for efficient anti-cancer gene therapy. Colloids and Surfaces B: Biointerfaces, 2015, 126, 322-327.	2.5	24
70	Facile Synthesis of Conductive Polypyrrole Wrinkle Topographies on Polydimethylsiloxane via a Swellingâ€“Deswelling Process and Their Potential Uses in Tissue Engineering. ACS Applied Materials & Interfaces, 2015, 7, 23454-23463.	4.0	39
71	Amineâ€functionalized polypyrrole: Inherently cell adhesive conducting polymer. Journal of Biomedical Materials Research - Part A, 2015, 103, 2126-2132.	2.1	31
72	Bioactive conducting scaffolds: Active ester-functionalized polyterthiophene. Synthetic Metals, 2013, 185-186, 66-70.	2.1	9

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73	Electrically Conducting Polymer-Based Nanofibrous Scaffolds for Tissue Engineering Applications. Polymer Reviews, 2013, 53, 443-459.	5.3	33
74	A chemically polymerized electrically conducting composite of polypyrrole nanoparticles and polyurethane for tissue engineering. Journal of Biomedical Materials Research - Part A, 2011, 98A, 509-516.	2.1	72
75	Enhanced polarization of embryonic hippocampal neurons on micron scale electrospun fibers. Journal of Biomedical Materials Research - Part A, 2010, 92A, 1398-1406.	2.1	32
76	Effect of hydrogen partial pressure on a polymer electrolyte fuel cell performance. Korean Journal of Chemical Engineering, 2010, 27, 843-847.	1.2	3
77	Pyrroleâ€“hyaluronic acid conjugates for decreasing cell binding to metals and conducting polymers. Acta Biomaterialia, 2010, 6, 4396-4404.	4.1	42
78	Hippocampal neurons respond uniquely to topographies of various sizes and shapes. Biofabrication, 2010, 2, 035005.	3.7	57
79	Neuroactive conducting scaffolds: nerve growth factor conjugation on active ester-functionalized polypyrrole. Journal of the Royal Society Interface, 2009, 6, 801-810.	1.5	95
80	Polypyrrole-coated electrospun PLGA nanofibers for neural tissue applications. Biomaterials, 2009, 30, 4325-4335.	5.7	659
81	Nano-opto-mechanical characterization of neuron membrane mechanics under cellular growth and differentiation. Biomedical Microdevices, 2008, 10, 611-622.	1.4	9
82	Micropatterned Polypyrrole: A Combination of Electrical and Topographical Characteristics for the Stimulation of Cells. Advanced Functional Materials, 2007, 17, 1645-1653.	7.8	185
83	Effect of a global regulatory gene, afsR2, from Streptomyces lividans on avermectin production in Streptomyces avermitilis. Journal of Bioscience and Bioengineering, 2000, 89, 606-608.	1.1	30
84	A Mï¿½ssbauer spectroscopy investigation of the Intergrowth Phases LaSr3Fe3?xMx010?? (M = Al, Cu). Zeitschrift Fur Anorganische Und Allgemeine Chemie, 1992, 616, 172-176.	0.6	3
85	The crystal structure of the 1212 nonsuperconductor phase (Pb_{0.71}Cu_{0.29})Sr₂(Y_{0.73}Ca_{0.27})Cu₂O_z Journal of Materials Research, 1989, 4, 763-766.	1.2	71