V Prasad Shastri

List of Publications by Year
in descending order

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92 papers	4,355 citations	126907 33 h-index	110387 64 g-index
94 all docs	94 docs citations	94 times ranked	7261 citing authors

#	Article	IF	Citations
1	Biobridge: An Outlook on Translational Bioinks for 3D Bioprinting. Advanced Science, 2022, 9, e2103469.	11.2	21
2	Biobridge: An Outlook on Translational Bioinks for 3D Bioprinting (Adv. Sci. 3/2022). Advanced Science, 2022, 9, 2270018.	11.2	0
3	Reversible, Î²-sheet-dependent self-assembly of the phosphoprotein phosvitin is controlled by concentration and valency of cations. Physical Chemistry Chemical Physics, 2022, 24, 11791-11800.	2.8	0
4	Hydrogel-Forming Algae Polysaccharides: From Seaweed to Biomedical Applications. Biomacromolecules, 2021, 22, 1027-1052.	5.4	138
5	Extrusion-Based 3D Bioprinting of Gradients of Stiffness, Cell Density, and Immobilized Peptide Using Thermogelling Hydrogels. ACS Biomaterials Science and Engineering, 2021, 7, 2192-2197.	5.2	26
6	Towards microstructure-informed material models for human brain tissue. Acta Biomaterialia, 2020, 104, 53-65.	8.3	57
7	Renal clearance of polymeric nanoparticles by mimicry of glycan surface of viruses. Biomaterials, 2020, 230, 119643.	11.4	30
8	Unraveling the role of Î²1 integrin isoforms in cRGD-mediated uptake of nanoparticles bearing hydrophilized alkyne moieties in epithelial and endothelial cells. Acta Biomaterialia, 2020, 116, 344-355.	8.3	4
9	Advanced Bioink for 3D Bioprinting of Complex Free-Standing Structures with High Stiffness. Bioengineering, 2020, 7, 141.	3.5	30
10	Transparent, Pliable, Antimicrobial Hydrogels for Ocular Wound Dressings. Applied Sciences (Switzerland), 2020, 10, 7548.	2.5	2
11	In vivo engineering of organs. , 2020, , 259-272.		0
12	Architecture-inspired paradigm for 3D bioprinting of vessel-like structures using extrudable carboxylated agarose hydrogels. Emergent Materials, 2019, 2, 233-243.	5.7	25
13	Autophagy inhibition enhances Matrine derivative MASM induced apoptosis in cancer cells via a mechanism involving reactive oxygen species-mediated PI3K/Akt/mTOR and Erk/p38 signaling. BMC Cancer, 2019, 19, 949.	2.6	21
14	Silencing of GFP expression in human mesenchymal stem cells using quaternary polyplexes of siRNA-PEI with glycosaminoglycans and albumin. Acta Biomaterialia, 2019, 99, 397-411.	8.3	4
15	RGDSP functionalized carboxylated agarose as extrudable carriers for chondrocyte delivery. Materials Science and Engineering C, 2019, 99, 103-111.	7.3	26
16	Biotin-Avidin-Mediated Capture of Microspheres on Polymer Fibers. Molecules, 2019, 24, 2036.	3.8	2
17	Stable Angiogenesis: Mechanically Defined Microenvironment Promotes Stabilization of Microvasculature, Which Correlates with the Enrichment of a Novel Piezoâ€1 + Population of Circulating CD11b + /CD115 + Monocytes (Adv. Mater. 21/2019). Advanced Materials, 2019, 31, 1970150.	21.0	0
18	Mechanically Defined Microenvironment Promotes Stabilization of Microvasculature, Which Correlates with the Enrichment of a Novel Piezoâ€1⁺Population of Circulating CD11b⁺/CD115⁺Monocytes. Advanced Materials, 2019, 31, e1808050.	21.0	23

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19	Generation of 3D Soluble Signal Gradients in Cellâ€Laden Hydrogels Using Passive Diffusion. Advanced Biology, 2019, 3, 1800237.	3.0	6
20	Cell number in mesenchymal stem cell aggregates dictates cell stiffness and chondrogenesis. Stem Cell Research and Therapy, 2019, 10, 10.	5.5	42
21	Liposomal Treatment of Cancer Cells Modulates Uptake Pathway of Polymeric Nanoparticles by Altering Membrane Stiffness. Small, 2018, 14, e1704245.	10.0	19
22	A long-lasting oral preformulation of the angiotensin II AT1 receptor antagonist losartan. Drug Development and Industrial Pharmacy, 2018, 44, 1498-1505.	2.0	9
23	Interplay between stiffness and degradation of architectured gelatin hydrogels leads to differential modulation of chondrogenesis in vitro and in vivo. Acta Biomaterialia, 2018, 69, 83-94.	8.3	52
24	Hyperstimulation of CaSR in human MSCs by biomimetic apatite inhibits endochondral ossification via temporal down-regulation of PTH1R. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6135-E6144.	7.1	23
25	Direct quantification of dual protein adsorption dynamics in three dimensional systems in presence of cells. Acta Biomaterialia, 2017, 57, 285-292.	8.3	3
26	<sup />Injectable Graft Substitute Active on Bone Tissue Regeneration. Tissue Engineering - Part A, 2017, 23, 1413-1422.	3.1	18
27	Unravelling a Direct Role for Polysaccharide Î²â€Strands in the Higher Order Structure of Physical Hydrogels. Angewandte Chemie - International Edition, 2017, 56, 4603-4607.	13.8	27
28	Unravelling a Direct Role for Polysaccharide Î²â€Strands in the Higher Order Structure of Physical Hydrogels. Angewandte Chemie, 2017, 129, 4674-4678.	2.0	8
29	Mechanically Tunable Bioink for 3D Bioprinting of Human Cells. Advanced Healthcare Materials, 2017, 6, 1700255.	7.6	86
30	Disordered Conformation with Low Pii Helix in Phosphoproteins Orchestrates Biomimetic Apatite Formation. Advanced Materials, 2017, 29, 1701629.	21.0	19
31	Gelatin device for the delivery of growth factors involved in endochondral ossification. PLoS ONE, 2017, 12, e0175095.	2.5	6
32	Recapitulating epithelial tumor microenvironment in vitro using three dimensional tri-culture of human epithelial, endothelial, and mesenchymal cells. BMC Cancer, 2016, 16, 581.	2.6	58
33	Tripod USPIONs with high aspect ratio show enhanced T2 relaxation and cytocompatibility. Nanomedicine, 2016, 11, 1017-1030.	3.3	12
34	Antibacterial and Anti-Inflammatory pH-Responsive Tannic Acid-Carboxylated Agarose Composite Hydrogels for Wound Healing. ACS Applied Materials & Interfaces, 2016, 8, 28511-28521.	8.0	464
35	Nanoprobes for Multimodal Visualization of Bone Mineral Phase in Magnetic Resonance and Near-Infrared Optical Imaging. ACS Omega, 2016, 1, 182-192.	3.5	11
36	Nonwoven Carboxylated Agarose-Based Fiber Meshes with Antimicrobial Properties. Biomacromolecules, 2016, 17, 4021-4026.	5.4	36

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37	Nanofibers of Elastin and Hydrophilic Segmented Polyurethane Solution Blends Show Enhanced Mechanical Properties through Intermolecular Proteinâ€“Polymer H Bonding. Biomacromolecules, 2016, 17, 1312-1320.	5.4	10
38	Albumin Incorporation in Polyethylenimineâ€“DNA Polyplexes Influences Transfection Efficiency. Biomacromolecules, 2016, 17, 200-207.	5.4	25
39	Chemical vapour deposition of soluble poly(p-xylylene) copolymers with tuneable properties. Polymer Chemistry, 2016, 7, 54-62.	3.9	4
40	Biomineralization: A confluence of materials science, biophysics, proteomics, and evolutionary biology. MRS Bulletin, 2015, 40, 473-477.	3.5	16
41	Macromol. Rapid Commun. 2/2015. Macromolecular Rapid Communications, 2015, 36, 195-195.	3.9	0
42	Glycosaminoglycan-functionalized poly-lactide-co-glycolide nanoparticles: synthesis, characterization, cytocompatibility, and cellular uptake. International Journal of Nanomedicine, 2015, 10, 775.	6.7	12
43	Cyclic Comonomers for the Synthesis of Carboxylic Acid and Amine Functionalized Poly(l-Lactic Acid). Molecules, 2015, 20, 4764-4779.	3.8	8
44	Enhanced Gene Silencing through Human Serum Albumin-Mediated Delivery of Polyethylenimine-siRNA Polyplexes. PLoS ONE, 2015, 10, e0122581.	2.5	33
45	Non-Invasive In Vivo Imaging and Quantification of Tumor Growth and Metastasis in Rats Using Cells Expressing Far-Red Fluorescence Protein. PLoS ONE, 2015, 10, e0132725.	2.5	34
46	Mechanically Tailored Agarose Hydrogels through Molecular Alloying with Î²â€Sheet Polysaccharides. Macromolecular Rapid Communications, 2015, 36, 196-203.	3.9	40
47	Enhanced cellular uptake of nanoparticles by increasing the hydrophobicity of poly(lactic acid) through copolymerization with cell-membrane-lipid components. Chemical Communications, 2015, 51, 14605-14608.	4.1	32
48	Matrix-metalloproteinase-9 is cleaved and activated by Cathepsin K. BMC Research Notes, 2015, 8, 322.	1.4	93
49	Hydrophilization of Poly(Caprolactone) Copolymers through Introduction of Oligo(Ethylene Glycol) Moieties. PLoS ONE, 2014, 9, e99157.	2.5	13
50	Validation of Fluorescence Molecular Tomography/Micro-CT Multimodal Imaging In Vivo in Rats. Molecular Imaging and Biology, 2014, 16, 350-361.	2.6	26
51	Stochastic nanoroughness modulates neuronâ€“astrocyte interactions and function via mechanosensing cation channels. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16124-16129.	7.1	124
52	Differential uptake of nanoparticles by endothelial cells through polyelectrolytes with affinity for caveolae. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2942-2947.	7.1	174
53	Clickable Degradable Aliphatic Polyesters via Copolymerization with Alkyne Epoxy Esters: Synthesis and Postfunctionalization with Organic Dyes. Journal of the American Chemical Society, 2014, 136, 10527-10533.	13.7	21
54	Investigation of the transdermal transport of charged local anesthetics in the presence of triterpene saponin glycosides. Drug Delivery and Translational Research, 2014, 4, 131-138.	5.8	9

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55	Optimization strategies on the structural modeling of gelatin/chitosan scaffolds to mimic human meniscus tissue. Materials Science and Engineering C, 2013, 33, 4777-4785.	7.3	67
56	Polysaccharide hydrogels with tunable stiffness and provasculogenic properties via Î±-helix to Î²-sheet switch in secondary structure. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12887-12892.	7.1	91
57	Surface Functionality as a Means to Impact Polymer Nanoparticle Size and Structure. Langmuir, 2013, 29, 4092-4095.	3.5	9
58	Synthesis and characterization of functionalized poly(É›-caprolactone). Journal of Polymer Science Part A, 2013, 51, 3375-3382.	2.3	13
59	FOXQ1, a Novel Target of the Wnt Pathway and a New Marker for Activation of Wnt Signaling in Solid Tumors. PLoS ONE, 2013, 8, e60051.	2.5	55
60	Glycosylation facilitates transdermal transport of macromolecules. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 21283-21288.	7.1	16
61	Influence of surface charge and protein intermediary layer on the formation of biomimetic calcium phosphate on silica nanoparticles. Journal of Materials Chemistry, 2012, 22, 19562.	6.7	10
62	Delivering regeneration. Drug Delivery and Translational Research, 2012, 2, 293-296.	5.8	1
63	Substrate elasticity modulates TGF beta stimulated re-differentiation of expanded human articular chondrocytes. Drug Delivery and Translational Research, 2012, 2, 351-362.	5.8	10
64	Engineering a Material Surface for Drug Delivery and Imaging using Layerâ€byâ€Layer Assembly of Functionalized Nanoparticles. Advanced Materials, 2010, 22, 1392-1397.	21.0	28
65	Stimuliâ€Sensitive Polymers. Advanced Materials, 2010, 22, 3344-3347.	21.0	120
66	Mechanical Regulation of Cells by Materials and Tissues. MRS Bulletin, 2010, 35, 578-583.	3.5	37
67	Engineering Materials for Regenerative Medicine. MRS Bulletin, 2010, 35, 571-577.	3.5	22
68	Autologous engineering of cartilage. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3418-3423.	7.1	73
69	Emulsion as a Means of Controlling Electrospinning of Polymers. Advanced Materials, 2009, 21, 1814-1819.	21.0	74
70	Materials in Regenerative Medicine. Advanced Materials, 2009, 21, 3231-3234.	21.0	82
71	Î¶-potential characterization of collagen and bovine serum albumin modified silica nanoparticles: a comparative study. Journal of Materials Science, 2009, 44, 1374-1380.	3.7	15
72	In vivo Engineering of Tissues: Biological Considerations, Challenges, Strategies, and Future Directions. Advanced Materials, 2009, 21, 3246-3254.	21.0	53

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73	Photocrosslinked anhydride systems for long-term protein release. Biomaterials, 2008, 29, 2400-2407.	11.4	40
74	The effect of silica nanoparticle-modified surfaces on cell morphology, cytoskeletal organization and function. Biomaterials, 2008, 29, 3836-3846.	11.4	166
75	Modulation of protein release from photocrosslinked networks by gelatin microparticles. International Journal of Pharmaceutics, 2008, 360, 107-114.	5.2	19
76	Non-covalent surface engineering of an alloplastic polymeric bone graft material for controlled protein release. Journal of Controlled Release, 2008, 126, 237-245.	9.9	11
77	Single-Step Process to Produce Surface-Functionalized Polymeric Nanoparticles. Langmuir, 2007, 23, 12275-12279.	3.5	32
78	In vitro degradation characteristics of photocrosslinked anhydride systems for bone augmentation applications. Biomaterials, 2007, 28, 5259-5270.	11.4	40
79	Future of Regenerative Medicine: Challenges and Hurdles. Artificial Organs, 2006, 30, 828-834.	1.9	34
80	Towards developing surface eroding poly(Î±-hydroxy acids). Biomaterials, 2006, 27, 3021-3030.	11.4	31
81	Evaluation of chemical enhancers in the transdermal delivery of lidocaine. International Journal of Pharmaceutics, 2006, 308, 33-39.	5.2	72
82	Micropatterned polymer surfaces improve retention of endothelial cells exposed to flow-induced shear stress. Biorheology, 2006, 43, 45-55.	0.4	22
83	Role of n-methyl Pyrrolidone in the Enhancement of Aqueous Phase Transdermal Transport. Journal of Pharmaceutical Sciences, 2005, 94, 912-917.	3.3	55
84	In vivo engineering of organs: The bone bioreactor. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11450-11455.	7.1	315
85	Functionalized Polymeric Nanoparticles. Materials Research Society Symposia Proceedings, 2004, 818, 163.	0.1	1
86	Hydraulic Elevation of the Periosteum: A Novel Technique for Periosteal Harvest. Journal of Investigative Surgery, 2004, 17, 229-233.	1.3	8
87	Degradation Behavior of Novel Poly(Î±-hydroxy acid)-Derived Polyesters. Materials Research Society Symposia Proceedings, 2004, 823, W11.10.1.	0.1	1
88	A rapid-curing alginate gel system: utility in periosteum-derived cartilage tissue engineering. Biomaterials, 2004, 25, 887-894.	11.4	263
89	A novel polymeric chlorhexidine delivery device for the treatment of periodontal disease. Biomaterials, 2004, 25, 3743-3750.	11.4	118
90	FGFâ€2 enhances TGFâ€Î²1â€induced periosteal chondrogenesis. Journal of Orthopaedic Research, 2004, 22, 1114-1119.	2.3	86

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91	Novel microemulsion enhancer formulation for simultaneous transdermal delivery of hydrophilic and hydrophobic drugs. Pharmaceutical Research, 2003, 20, 264-269.	3.5	137
92	Non-Degradable Biocompatible Polymers in Medicine: Past, Present and Future. Current Pharmaceutical Biotechnology, 2003, 4, 331-337.	1.6	114