Alireza Dolatshahi-Pirouz

List of Publications by Year
in descending order

90 papers	5,046 citations	81434 41 h-index	104191 69 g-index
91 all docs	91 docs citations	91 times ranked	8784 citing authors

#	Article	IF	Citations
1	Electroconductive biomaterials for cardiac tissue engineering. Acta Biomaterialia, 2022, 139, 118-140.	4.1	61
2	Injectable and adhesive hydrogels for dealing with wounds. Expert Opinion on Biological Therapy, 2022, 22, 519-533.	1.4	13
3	Bioinspired gelatin/bioceramic composites loaded with bone morphogenetic protein-2 (BMP-2) promote osteoporotic bone repair. Materials Science and Engineering C, 2022, 134, 112539.	3.8	13
4	The 3D Bioprinted Scaffolds for Wound Healing. Pharmaceutics, 2022, 14, 464.	2.0	35
5	Electrospun Silk Fibroin/kappa-Carrageenan Hybrid Nanofibers with Enhanced Osteogenic Properties for Bone Regeneration Applications. Biology, 2022, 11, 751.	1.3	14
6	Progress in Gelatin as Biomaterial for Tissue Engineering. Pharmaceutics, 2022, 14, 1177.	2.0	63
7	Nanoclay-reinforced HA/alginate scaffolds as cell carriers and SDF-1 delivery-platforms for bone tissue engineering. International Journal of Pharmaceutics, 2022, 623, 121895.	2.6	4
8	Combinatorial fluorapatite-based scaffolds substituted with strontium, magnesium and silicon ions for mending bone defects. Materials Science and Engineering C, 2021, 120, 111611.	3.8	20
9	Imaging therapeutic peptide transport across intestinal barriers. RSC Chemical Biology, 2021, 2, 1115-1143.	2.0	10
10	Design and construction of a novel measurement device for mechanical characterization of hydrogels: A case study. PLoS ONE, 2021, 16, e0247727.	1.1	6
11	Soft Electronic Materials with Combinatorial Properties Generated <i>via</i> Mussel-Inspired Chemistry and Halloysite Nanotube Reinforcement. ACS Nano, 2021, 15, 9531-9549.	7.3	46
12	Oxygen releasing hydrogels for beta cell assisted therapy. International Journal of Pharmaceutics, 2021, 602, 120595.	2.6	9
13	Nanoclay Reinforced Biomaterials for Mending Musculoskeletal Tissue Disorders. Advanced Healthcare Materials, 2021, 10, e2100217.	3.9	23
14	The Manufacture of Unbreakable Bionics via Multifunctional and Selfâ€Healing Silkâ€“Graphene Hydrogels. Advanced Materials, 2021, 33, e2100047.	11.1	87
15	A self assembled dextran-stearic acid-spermine nanocarrier for delivery of rapamycin as a hydrophobic drug. Journal of Drug Delivery Science and Technology, 2021, 66, 102768.	1.4	5
16	Rheological characterization of 3D printable geopolymers. Cement and Concrete Research, 2021, 147, 106498.	4.6	35
17	3Dâ€Printed Regenerative Magnesium Phosphate Implant Ensures Stability and Restoration of Hip Dysplasia. Advanced Healthcare Materials, 2021, 10, e2101051.	3.9	15
18	AIE-featured tetraphenylethylene nanoarchitectures in biomedical application: Bioimaging, drug delivery and disease treatment. Coordination Chemistry Reviews, 2021, 447, 214135.	9.5	59

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19	Injectable Hydrogels for Improving Cardiac Cell Therapyâ€"In Vivo Evidence and Translational Challenges. Gels, 2021, 7, 7.	2.1	24
20	Dual-Material 3D-Printed Intestinal Model Devices with Integrated Villi-like Scaffolds. ACS Applied Materials & Interfaces, 2021, 13, 58434-58446.	4.0	14
21	The fate of mesenchymal stem cells is greatly influenced by the surface chemistry of silica nanoparticles in 3D hydrogel-based culture systems. Materials Science and Engineering C, 2020, 106, 110259.	3.8	17
22	A New Era for Cyborg Science Is Emerging: The Promise of Cyborganic Beings. Advanced Healthcare Materials, 2020, 9, e1901023.	3.9	11
23	Tough magnesium phosphate-based 3D-printed implants induce bone regeneration in an equine defect model. Biomaterials, 2020, 261, 120302.	5.7	87
24	Flexible and Green Electronics Manufactured by Origami Folding of Nanosilicate-Reinforced Cellulose Paper. ACS Applied Materials & Interfaces, 2020, 12, 48027-48039.	4.0	24
25	A self-healable, moldable and bioactive biomaterial gum for personalised and wearable drug delivery. Journal of Materials Chemistry B, 2020, 8, 4340-4356.	2.9	7
26	Hacking Human Beings with Machine Biology to Increase Lifespan. Trends in Biotechnology, 2020, 38, 1312-1315.	4.9	0
27	Cell-laden alginate hydrogels for the treatment of diabetes. Expert Opinion on Drug Delivery, 2020, 17, 1113-1118.	2.4	9
28	An innovative and eco-friendly modality for synthesis of highly fluorinated graphene by an acidic ionic liquid: Making of an efficacious vehicle for anti-cancer drug delivery. Applied Surface Science, 2020, 515, 146071.	3.1	35
29	Induced cell migration based on a bioactive hydrogel sheet combined with a perfused microfluidic system. Biomedical Materials (Bristol), 2020, 15, 045010.	1.7	3
30	Hyaluronic Acid (HA)â€Based Silk Fibroin/Zinc Oxide Coreâ€"Shell Electrospun Dressing for Burn Wound Management. Macromolecular Bioscience, 2020, 20, e1900328.	2.1	110
31	Facile Method for Fabrication of Meter-Long Multifunctional Hydrogel Fibers with Controllable Biophysical and Biochemical Features. ACS Applied Materials & Interfaces, 2020, 12, 9080-9089.	4.0	40
32	In vitro disease and organ model. , 2020, , 629-668.		0
33	Advances in cell-laden hydrogels for delivering therapeutics. Expert Opinion on Biological Therapy, 2019, 19, 1219-1222.	1.4	3
34	Selfâ€Healable Hydrogels: Selfâ€Healing Hydrogels: The Next Paradigm Shift in Tissue Engineering? (Adv.) Tj ETQq0 0 0 rgBT /Overlock 1	5.6	0
35	Silica nanoparticle surface chemistry: An important trait affecting cellular biocompatibility in two and three dimensional culture systems. Colloids and Surfaces B: Biointerfaces, 2019, 182, 110353.	2.5	18
36	Can 4D bioprinting revolutionize drug development?. Expert Opinion on Drug Discovery, 2019, 14, 953-956.	2.5	22

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37	Selfâ€Healing Hydrogels: The Next Paradigm Shift in Tissue Engineering?. Advanced Science, 2019, 6, 1801664.	5.6	314
38	Sulfated polysaccharide-based scaffolds for orthopaedic tissue engineering. Biomaterials, 2019, 214, 119214.	5.7	92
39	Recent advances in gelatin-based therapeutics. Expert Opinion on Biological Therapy, 2019, 19, 773-779.	1.4	85
40	Enzymatic crosslinked gelatin 3D scaffolds for bone tissue engineering. International Journal of Pharmaceutics, 2019, 562, 151-161.	2.6	46
41	Pectin Methacrylate (PEMA) and Gelatin-Based Hydrogels for Cell Delivery: Converting Waste Materials into Biomaterials. ACS Applied Materials & Interfaces, 2019, 11, 12283-12297.	4.0	61
42	3D-printed bioactive scaffolds from nanosilicates and PEOT/PBT for bone tissue engineering. International Journal of Energy Production and Management, 2019, 6, 29-37.	1.9	30
43	Combating Microbial Contamination with Robust Polymeric Nanofibers: Elemental Effect on the Mussel-Inspired Cross-Linking of Electrospun Gelatin. ACS Applied Bio Materials, 2019, 2, 807-823.	2.3	13
44	A Proteinâ€Based, Waterâ€Insoluble, and Bendable Polymer with Ionic Conductivity: A Roadmap for Flexible and Green Electronics. Advanced Science, 2019, 6, 1801241.	5.6	34
45	3D cell-laden polymers to release bioactive products in the eye. Progress in Retinal and Eye Research, 2019, 68, 67-82.	7.3	15
46	Nanoengineered biomaterials for cardiac regeneration. , 2019, , 95-124.		4
47	Stability and Antimicrobial Activity of Nisin-Loaded Mesoporous Silica Nanoparticles: A Game-Changer in the War against Maleficent Microbes. Journal of Agricultural and Food Chemistry, 2018, 66, 4233-4243.	2.4	31
48	Self-assembled amphiphilic-dextran nanomicelles for delivery of rapamycin. Journal of Drug Delivery Science and Technology, 2018, 44, 333-341.	1.4	25
49	Flexible Bioelectronics: Blending Electronics with the Human Body: A Pathway toward a Cybernetic Future (Adv. Sci. 10/2018). Advanced Science, 2018, 5, 1870059.	5.6	1
50	Blending Electronics with the Human Body: A Pathway toward a Cybernetic Future. Advanced Science, 2018, 5, 1700931.	5.6	83
51	Combinatorial Screening of Nanoclay-Reinforced Hydrogels: A Glimpse of the â€œHoly Grailâ€• in Orthopedic Stem Cell Therapy?. ACS Applied Materials & Interfaces, 2018, 10, 34924-34941.	4.0	54
52	Biopolymers for Antitumor Implantable Drug Delivery Systems: Recent Advances and Future Outlook. Advanced Materials, 2018, 30, e1706665.	11.1	147
53	Advances in stem cell therapy for cartilage regeneration in osteoarthritis. Expert Opinion on Biological Therapy, 2018, 18, 883-896.	1.4	21
54	Experimental study on heat transfer augmentation of graphene based ferrofluids in presence of magnetic field. Applied Thermal Engineering, 2017, 114, 415-427.	3.0	56

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55	Bioprinting technologies for disease modeling. Biotechnology Letters, 2017, 39, 1279-1290.	1.1	53
56	Emerging Biofabrication Strategies for Engineering Complex Tissue Constructs. Advanced Materials, 2017, 29, 1606061.	11.1	307
57	Nanoreinforced Hydrogels for Tissue Engineering: Biomaterials that are Compatible with Loadâ€Bearing and Electroactive Tissues. Advanced Materials, 2017, 29, 1603612.	11.1	261
58	3D Biomaterial Microarrays for Regenerative Medicine: Current Stateâ€ofâ€theâ€Art, Emerging Directions and Future Trends. Advanced Materials, 2016, 28, 771-781.	11.1	80
59	Injectable shear-thinning nanoengineered hydrogels for stem cell delivery. Nanoscale, 2016, 8, 12362-12372.	2.8	150
60	Incorporation of mesoporous silica nanoparticles into random electrospun PLGA and PLGA/gelatin nanofibrous scaffolds enhances mechanical and cell proliferation properties. Materials Science and Engineering C, 2016, 66, 25-32.	3.8	85
61	An ecofriendly graphene-based nanofluid for heat transfer applications. Journal of Cleaner Production, 2016, 137, 555-566.	4.6	72
62	Engineering complex tissue-like microgel arrays for evaluating stem cell differentiation. Scientific Reports, 2016, 6, 30445.	1.6	31
63	3D Printed Siliconeâ€"Hydrogel Scaffold with Enhanced Physicochemical Properties. Biomacromolecules, 2016, 17, 1321-1329.	2.6	53
64	Electrophoretic deposition of calcium silicateâ€"reduced graphene oxide composites on titanium substrate. Journal of the European Ceramic Society, 2016, 36, 319-332.	2.8	67
65	Elastomeric nanocomposite scaffolds made from poly(glycerol sebacate) chemically crosslinked with carbon nanotubes. Biomaterials Science, 2015, 3, 46-58.	2.6	85
66	Synthesis of Nanoâ€•and Microâ€Scale Topographies by Combining Colloidal Lithography and Glancing Angle Deposition (GLAD). Advanced Engineering Materials, 2015, 17, 8-13.	1.6	8
67	Layerâ€byâ€Layer Assembly of 3D Tissue Constructs with Functionalized Graphene. Advanced Functional Materials, 2014, 24, 6136-6144.	7.8	151
68	Nanoclay-Enriched Poly(É›-caprolactone) Electrospun Scaffolds for Osteogenic Differentiation of Human Mesenchymal Stem Cells. Tissue Engineering - Part A, 2014, 20, 2088-2101.	1.6	133
69	A combinatorial cell-laden gel microarray for inducing osteogenic differentiation of human mesenchymal stem cells. Scientific Reports, 2014, 4, 3896.	1.6	123
70	Growth Characteristics Of Glancing Angle Deposited (GLAD) Thin Films. Advanced Materials Letters, 2014, 5, 634-638.	0.3	2
71	Directed endothelial cell morphogenesis in micropatterned gelatin methacrylate hydrogels. Biomaterials, 2012, 33, 9009-9018.	5.7	221
72	Micro- and Nanoengineering Approaches to Control Stem Cell-Biomaterial Interactions. Journal of Functional Biomaterials, 2011, 2, 88-106.	1.8	47

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73	Interfacial Fibrin Polymerization and Fibrillation Kinetics Is Influenced by Nanoscale Roughness and Fibrinogen-Fibrin Cleavage in Solution. Journal of Physical Chemistry C, 2011, 115, 13617-13623.	1.5	10
74	Cell shape and spreading of stromal (mesenchymal) stem cells cultured on fibronectin coated gold and hydroxyapatite surfaces. Colloids and Surfaces B: Biointerfaces, 2011, 84, 18-25.	2.5	41
75	Osteopontin functionalization of hydroxyapatite nanoparticles in a PDLLA matrix promotes bone formation. Journal of Biomedical Materials Research - Part A, 2011, 99A, 94-101.	2.1	44
76	Nanoscale topography reduces fibroblast growth, focal adhesion size and migration-related gene expression on platinum surfaces. Colloids and Surfaces B: Biointerfaces, 2011, 85, 189-197.	2.5	60
77	Growth characteristics of inclined columns produced by Glancing Angle Deposition (GLAD) and colloidal lithography. Applied Surface Science, 2011, 257, 2226-2230.	3.1	26
78	The adsorption characteristics of osteopontin on hydroxyapatite and gold. Materials Science and Engineering C, 2011, 31, 514-522.	3.8	4
79	Interaction of human mesenchymal stem cells with osteopontin coated hydroxyapatite surfaces. Colloids and Surfaces B: Biointerfaces, 2010, 75, 186-193.	2.5	38
80	Hydroxyapatite nanoparticles in polyâ€<scp>D</scp>,<scp>L</scp>â€lactic acid coatings on porous titanium implants conducts bone formation. Journal of Biomedical Materials Research - Part A, 2010, 95A, 665-672.	2.1	36
81	Synthesis of Functional Nanomaterials via Colloidal Mask Templating and Glancing Angle Deposition (GLAD). Advanced Engineering Materials, 2010, 12, 899-905.	1.6	18
82	A combinatorial screening of human fibroblast responses on micro-structured surfaces. Biomaterials, 2010, 31, 9182-9191.	5.7	70
83	Fibronectin Adsorption, Cell Adhesion, and Proliferation on Nanostructured Tantalum Surfaces. ACS Nano, 2010, 4, 2874-2882.	7.3	163
84	Responses of fibroblasts and glial cells to nanostructured platinum surfaces. Nanotechnology, 2009, 20, 385103.	1.3	42
85	The influence of glancing angle deposited nano-rough platinum surfaces on the adsorption of fibrinogen and the proliferation of primary human fibroblasts. Nanotechnology, 2009, 20, 095101.	1.3	52
86	Enhanced Surface Activation of Fibronectin upon Adsorption on Hydroxyapatite. Langmuir, 2009, 25, 2971-2978.	1.6	74
87	Influence of Nanoroughness and Detailed Surface Morphology on Structural Properties and Water-Coupling Capabilities of Surface-Bound Fibrinogen Films. Journal of Physical Chemistry C, 2009, 113, 4406-4412.	1.5	37
88	Bovine serum albumin adsorption on nano-rough platinum surfaces studied by QCM-D. Colloids and Surfaces B: Biointerfaces, 2008, 66, 53-59.	2.5	140
89	Morphology, proliferation, and osteogenic differentiation of mesenchymal stem cells cultured on titanium, tantalum, and chromium surfaces. Journal of Biomedical Materials Research - Part A, 2008, 86A, 448-458.	2.1	106
90	Scaling behavior of the surface roughness of platinum films grown by oblique angle deposition. Physical Review B, 2008, 77, .	1.1	57