Mohsen Akbari

List of Publications by Citations

112 papers	5,536 citations	37 h-index	73 g-index
122 ext. papers	6,643 ext. citations	7.7 avg, IF	5.83 L-index

#	Paper	IF	Citations
112	25th anniversary article: Rational design and applications of hydrogels in regenerative medicine. *Advanced Materials*, **2014**, 26, 85-123	24	895
111	Graphene-based materials for tissue engineering. *Advanced Drug Delivery Reviews*, **2016**, 105, 255-274	18.5	404
110	Fiber-based tissue engineering: Progress, challenges, and opportunities. *Biotechnology Advances*, **2013**, 31, 669-87	17.8	330
109	Reduced Graphene Oxide-GelMA Hybrid Hydrogels as Scaffolds for Cardiac Tissue Engineering. *Small*, **2016**, 12, 3677-89	11	283
108	Emerging Biofabrication Strategies for Engineering Complex Tissue Constructs. *Advanced Materials*, **2017**, 29, 1606061	24	209
107	Glioblastoma and chemoresistance to alkylating agents: Involvement of apoptosis, autophagy, and unfolded protein response. *Pharmacology & Therapeutics*, **2018**, 184, 13-41	13.9	161
106	Self-Healing Hydrogels: The Next Paradigm Shift in Tissue Engineering?. *Advanced Science*, **2019**, 6, 1801664	9.6	160
105	A Bioactive Carbon Nanotube-Based Ink for Printing 2D and 3D Flexible Electronics. *Advanced Materials*, **2016**, 28, 3280-9	24	156
104	Textile Technologies and Tissue Engineering: A Path Toward Organ Weaving. *Advanced Healthcare Materials*, **2016**, 5, 751-66	10.1	125
103	A toolkit of thread-based microfluidics, sensors, and electronics for 3D tissue embedding for medical diagnostics. *Microsystems and Nanoengineering*, **2016**, 2, 16039	7.7	124
102	Microfluidic approaches for isolation, detection, and characterization of extracellular vesicles: Current status and future directions. *Biosensors and Bioelectronics*, **2017**, 91, 588-605	11.8	122
101	Flexible pH-Sensing Hydrogel Fibers for Epidermal Applications. *Advanced Healthcare Materials*, **2016**, 5, 711-9	10.1	122
100	Composite Living Fibers for Creating Tissue Constructs Using Textile Techniques. *Advanced Functional Materials*, **2014**, 24, 4060-4067	15.6	118
99	An Advanced Multifunctional Hydrogel-Based Dressing for Wound Monitoring and Drug Delivery. *Advanced Healthcare Materials*, **2017**, 6, 1700718	10.1	112
98	Hydrogel Templates for Rapid Manufacturing of Bioactive Fibers and 3D Constructs. *Advanced Healthcare Materials*, **2015**, 4, 2146-2153	10.1	109
97	An injectable shear-thinning biomaterial for endovascular embolization. *Science Translational Medicine*, **2016**, 8, 365ra156	17.5	101
96	Biodegradable nanofibrous polymeric substrates for generating elastic and flexible electronics. *Advanced Materials*, **2014**, 26, 5823-30	24	100

95	Electrically conductive nanomaterials for cardiac tissue engineering. *Advanced Drug Delivery Reviews*, **2019**, 144, 162-179	18.5	81
94	Self-Healable Hydrogels: Self-Healing Hydrogels: The Next Paradigm Shift in Tissue Engineering? (Adv. Sci. 16/2019). *Advanced Science*, **2019**, 6, 1970094	13.6	78
93	Dermal Patch with Integrated Flexible Heater for on Demand Drug Delivery. *Advanced Healthcare Materials*, **2016**, 5, 175-84	10.1	77
92	Microfluidic systems for stem cell-based neural tissue engineering. *Lab on A Chip*, **2016**, 16, 2551-71	7.2	75
91	In vitro and in vivo evaluation of chitosan-alginate/gentamicin wound dressing nanofibrous with high antibacterial performance. *Polymer Testing*, **2020**, 82, 106298	4.5	71
90	Biodegradable elastic nanofibrous platforms with integrated flexible heaters for on-demand drug delivery. *Scientific Reports*, **2017**, 7, 9220	4.9	67
89	Development of the PVA/CS nanofibers containing silk protein sericin as a wound dressing: In vitro and in vivo assessment. *International Journal of Biological Macromolecules*, **2020**, 149, 513-521	7.9	66
88	Hyaluronic Acid (HA)-Based Silk Fibroin/Zinc Oxide Core-Shell Electrospun Dressing for Burn Wound Management. *Macromolecular Bioscience*, **2020**, 20, e1900328	5.5	62
87	Microfluidic direct writer with integrated declogging mechanism for fabricating cell-laden hydrogel constructs. *Biomedical Microdevices*, **2014**, 16, 387-95	3.7	57
86	Blending Electronics with the Human Body: A Pathway toward a Cybernetic Future. *Advanced Science*, **2018**, 5, 1700931	13.6	57
85	Coating biodegradable magnesium alloys with electrospun poly-L-lactic acid-□ermanite-doxycycline nanofibers for enhanced biocompatibility, antibacterial activity, and corrosion resistance. *Surface and Coatings Technology*, **2019**, 377, 124898	4.4	49
84	Microfluidic technologies for anticancer drug studies. *Drug Discovery Today*, **2017**, 22, 1654-1670	8.8	48
83	Skin Diseases Modeling using Combined Tissue Engineering and Microfluidic Technologies. *Advanced Healthcare Materials*, **2016**, 5, 2459-2480	10.1	46
82	Simvastatin increases temozolomide-induced cell death by targeting the fusion of autophagosomes and lysosomes. *FEBS Journal*, **2020**, 287, 1005-1034	5.7	45
81	Skin Tissue Substitutes and Biomaterial Risk Assessment and Testing. *Frontiers in Bioengineering and Biotechnology*, **2018**, 6, 86	5.8	43
80	Nano-Enabled Approaches for Stem Cell-Based Cardiac Tissue Engineering. *Advanced Healthcare Materials*, **2016**, 5, 1533-53	10.1	43
79	Viscous flow in variable cross-section microchannels of arbitrary shapes. *International Journal of Heat and Mass Transfer*, **2011**, 54, 3970-3978	4.9	41
78	Bioprinting technologies for disease modeling. *Biotechnology Letters*, **2017**, 39, 1279-1290	3	39

77	Pressure Drop in Rectangular Microchannels as Compared With Theory Based on Arbitrary Cross Section. *Journal of Fluids Engineering, Transactions of the ASME*, **2009**, 131,	2.1	39
76	Co-incorporation of graphene oxide/silver nanoparticle into poly-L-lactic acid fibrous: A route toward the development of cytocompatible and antibacterial coating layer on magnesium implants. *Materials Science and Engineering C*, **2020**, 111, 110812	8.3	38
75	Fabrication of Nanofibrous PVA/Alginate-Sulfate Substrates for Growth Factor Delivery. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 403-413	5.4	36
74	Self-filling microwell arrays (SFMAs) for tumor spheroid formation. *Lab on A Chip*, **2018**, 18, 3516-3528	7.2	33
73	Antibacterial activity and in vivo wound healing evaluation of polycaprolactone-gelatin methacryloyl-cephalexin electrospun nanofibrous. *Materials Letters*, **2019**, 256, 126618	3.3	30
72	Microfluidic-Mass Spectrometry Interfaces for Translational Proteomics. *Trends in Biotechnology*, **2017**, 35, 954-970	15.1	30
71	Translational models of tumor angiogenesis: A nexus of in silico and in vitro models. *Biotechnology Advances*, **2018**, 36, 880-893	17.8	29
70	Measurement of pressure drop and flow resistance in microchannels with integrated micropillars. *Microfluidics and Nanofluidics*, **2013**, 14, 711-721	2.8	27
69	Microfluidic-Based Multi-Organ Platforms for Drug Discovery. *Micromachines*, **2016**, 7,	3.3	27
68	Smart Shear-Thinning Hydrogels as Injectable Drug Delivery Systems. *Polymers*, **2018**, 10,	4.5	27
67	Autophagy modulates temozolomide-induced cell death in alveolar Rhabdomyosarcoma cells. *Cell Death Discovery*, **2018**, 4, 52	6.9	27
66	Mechanisms of simvastatin myotoxicity: The role of autophagy flux inhibition. *European Journal of Pharmacology*, **2019**, 862, 172616	5.3	25
65	Facile Method for Fabrication of Meter-Long Multifunctional Hydrogel Fibers with Controllable Biophysical and Biochemical Features. *ACS Applied Materials & Interfaces*, **2020**, 12, 9080-9089	9.5	25
64	A 3D bioprinted hydrogel mesh loaded with all-trans retinoic acid for treatment of glioblastoma. *European Journal of Pharmacology*, **2019**, 854, 201-212	5.3	22
63	Gelatin-Based Biomaterials For Tissue Engineering And Stem Cell Bioengineering **2016**, 37-62		21
62	Laminar Fully Developed Flow in Periodically Converging□Diverging Microtubes. *Heat Transfer Engineering*, **2010**, 31, 628-634	1.7	21
61	Mitochondrial oxidative stress and dysfunction induced by single- and multiwall carbon nanotubes: A comparative study. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 2047-2055	5.4	20
60	A Protein-Based, Water-Insoluble, and Bendable Polymer with Ionic Conductivity: A Roadmap for Flexible and Green Electronics. *Advanced Science*, **2019**, 6, 1801241	13.6	20

59	Cell-laden composite suture threads for repairing damaged tendons. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 1039-1048	4.4	20
58	Low Reynolds number flows across ordered arrays of micro-cylinders embedded in a rectangular micro/minichannel. *International Journal of Heat and Mass Transfer*, **2013**, 58, 420-426	4.9	19
57	Customizable Composite Fibers for Engineering Skeletal Muscle Models. *ACS Biomaterials Science and Engineering*, **2020**, 6, 1112-1123	5.5	18
56	Stimuli-Responsive Hydrogels for Local Post-Surgical Drug Delivery. *Gels*, **2020**, 6,	4.2	17
55	Woven gas diffusion layers for polymer electrolyte membrane fuel cells: Liquid water transport and conductivity trade-offs. *Journal of Power Sources*, **2018**, 403, 192-198	8.9	17
54	Investigating Programmed Cell Death and Tumor Invasion in a Three-Dimensional (3D) Microfluidic Model of Glioblastoma. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	15
53	Biocompatibility assessment of titanium dioxide nanoparticles in mice fetoplacental unit. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 580-589	5.4	15
52	Optothermal sample preconcentration and manipulation with temperature gradient focusing. *Microfluidics and Nanofluidics*, **2012**, 12, 221-228	2.8	15
51	Thermal Assessment of Convective Heat Transfer in Air- Cooled PEMFC Stacks: An Experimental Study. *Energy Procedia*, **2012**, 29, 1-11	2.3	15
50	A fluorescence-based pH sensor with microfluidic mixing and fiber optic detection for wide range pH measurements. *Sensors and Actuators A: Physical*, **2019**, 297, 111507	3.9	13
49	A Drug-Eluting 3D-Printed Mesh (GlioMesh) for Management of Glioblastoma. *Advanced Therapeutics*, **2019**, 2, 1900113	4.9	12
48	Flexible and Green Electronics Manufactured by Origami Folding of Nanosilicate-Reinforced Cellulose Paper. *ACS Applied Materials & Interfaces*, **2020**, 12, 48027-48039	9.5	12
47	Effective thermal conductivity of two-dimensional anisotropic two-phase media. *International Journal of Heat and Mass Transfer*, **2013**, 63, 41-50	4.9	11
46	Collagen Type I-Gelatin Methacryloyl Composites: Mimicking the Tumor Microenvironment. *ACS Biomaterials Science and Engineering*, **2019**, 5, 2887-2898	5.5	10
45	Multifunctional Hybrid Magnetic Microgel Synthesis for Immune-Based Isolation and Post-Isolation Culture of Tumor Cells. *ACS Applied Materials & Interfaces*, **2019**, 11, 24945-24958	9.5	10
44	Geometrical Effects on the Temperature Distribution in a Half-Space Due to a Moving Heat Source. *Journal of Heat Transfer*, **2011**, 133,	1.8	9
43	An Engineered Infected Epidermis Model for In Vitro Study of the Skin\'s Pro-Inflammatory Response. *Micromachines*, **2020**, 11,	3.3	8
42	The role of biomaterials and three dimensional (3D) in vitro tissue models in fighting against COVID-19. *Biomaterials Science*, **2021**, 9, 1217-1226	7.4	8

41	In vitro and in vivo evaluation of silk fibroin-hardystonite-gentamicin nanofibrous scaffold for tissue engineering applications. *Polymer Testing*, **2020**, 91, 106698	4.5	7
40	Smart flexible wound dressing with wireless drug delivery **2015**,		7
39	Emerging Advances of Nanotechnology in Drug and Vaccine Delivery against Viral Associated Respiratory Infectious Diseases (VARID). *International Journal of Molecular Sciences*, **2021**, 22,	6.3	7
38	Myocardial Cell Signaling During the Transition to Heart Failure: Cellular Signaling and Therapeutic Approaches. *Comprehensive Physiology*, **2018**, 9, 75-125	7.7	6
37	Efficient targeted cancer cell detection, isolation and enumeration using immuno-nano/hybrid magnetic microgels. *Biomaterials Science*, **2019**, 7, 3359-3372	7.4	5
36	Synthesis of nano-niosomal deferoxamine and evaluation of its functional characteristics to apply as an iron-chelating agent. *Canadian Journal of Chemical Engineering*, **2018**, 96, 107-112	2.3	5
35	A bioengineering method for modeling alveolar Rhabdomyosarcoma and assessing chemotherapy responses. *MethodsX*, **2021**, 8, 101473	1.9	5
34	Multifunctional Thermoresponsive Microcarriers for High-Throughput Cell Culture and Enzyme-Free Cell Harvesting. *Small*, **2021**, 17, e2103192	11	5
33	Fiber-based microphysiological systems: a powerful tool for high throughput drug screening. *Microphysiological Systems*, **2019**, 3, 3-3	1.3	4
32	Chapter 1:Microtechnologies in the Fabrication of Fibers for Tissue Engineering. *RSC Nanoscience and Nanotechnology*, **2014**, 1-18		4
31	Nanofibers Fabrication by Blown-Centrifugal Spinning. *Macromolecular Materials and Engineering*,2100368	3.9	4
30	Chemoattraction of Neoplastic Glial Cells with CXCL10, CCL2 and CCL11 as a Paradigm for a Promising Therapeutic Approach for Primary Brain Tumors. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	4
29	Microfluidic-Based Oxygen (O) Sensors for On-Chip Monitoring of Cell, Tissue and Organ Metabolism.. *Biosensors*, **2021**, 12,	5.9	4
28	3D printing for the future of medicine. *Journal of 3D Printing in Medicine*, **2020**, 4, 45-67	1.5	3
27	Flexible Electronic Devices for Biomedical Applications. *Microsystems and Nanosystems*, **2017**, 341-366	0.4	3
26	Creeping Flow Through Microchannels With Integrated Micro-Pillars **2012**,		3
25	Microfluidic 3D Printing of a Photo-Cross-Linkable Bioink Using Insights from Computational Modeling. *ACS Biomaterials Science and Engineering*, **2021**, 7, 3269-3280	5.5	3
24	Modeling of Tumor Spheroid Formation and Growth. *Micromachines*, **2021**, 12,	3.3	3

23	pH-Sensing Hydrogel Fibers: Flexible pH-Sensing Hydrogel Fibers for Epidermal Applications (Adv. Healthcare Mater. 6/2016). *Advanced Healthcare Materials*, **2016**, 5, 624-624	10.1	3
22	Nanoengineered biomaterials for cardiac regeneration **2019**, 95-124		3
21	Assessment of the Impact of Decellularization Methods on Mechanical Properties of Biocomposites Used as Skin Substitute. *Materials*, **2021**, 14,	3.5	3
20	Bioactive Fibers: Hydrogel Templates for Rapid Manufacturing of Bioactive Fibers and 3D Constructs (Adv. Healthcare Mater. 14/2015). *Advanced Healthcare Materials*, **2015**, 4, 2050	10.1	2
19	Instantaneous Erasures in Oversampled Filter Banks: Conditions for Output Perfect Reconstruction. *IEEE Transactions on Signal Processing*, **2011**, 59, 5800-5813	4.8	2
18	Silicate-Based Electro-Conductive Inks for Printing Soft Electronics and Tissue Engineering.. *Gels*, **2021**, 7,	4.2	2
17	Organ-On-Chip Platforms: Skin Diseases Modeling using Combined Tissue Engineering and Microfluidic Technologies (Adv. Healthcare Mater. 19/2016). *Advanced Healthcare Materials*, **2016**, 5, 2454-2454	10.1	2
16	Tissue Engineering: Nano-Enabled Approaches for Stem Cell-Based Cardiac Tissue Engineering(Adv. Healthcare Mater. 13/2016). *Advanced Healthcare Materials*, **2016**, 5, 1532-1532	10.1	2
15	Characterization and biological properties of nanostructured clinoenstatite scaffolds for bone tissue engineering applications. *Materials Chemistry and Physics*, **2021**, 259, 123969	4.4	2
14	Management of Coronavirus Disease 2019 (COVID-19) Pandemic: From Diagnosis to Treatment Strategies. *Advanced Therapeutics*, **2020**, 4, 2000173	4.9	2
13	Wound Dressings: An Advanced Multifunctional Hydrogel-Based Dressing for Wound Monitoring and Drug Delivery (Adv. Healthcare Mater. 19/2017). *Advanced Healthcare Materials*, **2017**, 6,	10.1	1
12	Moving Heat Sources in a Half Space: Effect of Source Geometry **2009**,		1
11	Electrode-Integrated Textile-Based Sensors for In Situ Temperature and Relative Humidity Monitoring in Electrochemical Cells. *ACS Omega*, **2021**, 6, 9509-9519	3.9	1
10	Smart Thread Based pH Sensitive Antimicrobial Wound Dressing **2019**,		1
9	Bioengineered tissue models for the development of dynamic immuno-associated tumor models and high-throughput immunotherapy cytotoxicity assays. *Drug Discovery Today*, **2021**, 26, 455-473	8.8	1
8	Flexible Bioelectronics: Blending Electronics with the Human Body: A Pathway toward a Cybernetic Future (Adv. Sci. 10/2018). *Advanced Science*, **2018**, 5, 1870059	13.6	1
7	Non-destructive mechanical assessment for optimization of 3D bioprinted soft tissue scaffolds.. *IScience*, **2022**, 25, 104251	6.1	1
6	Tissue-engineered heart chambers as a platform technology for drug discovery and disease modeling **2022**, 212916		1

5	Flexible Electronics: A Protein-Based, Water-Insoluble, and Bendable Polymer with Ionic Conductivity: A Roadmap for Flexible and Green Electronics (Adv. Sci. 5/2019). *Advanced Science*, **2019**, 6, 1970026	13.6	0
4	Role of apoptosis, autophagy, and the unfolded protein response in glioblastoma chemoresistance **2021**, 201-242		0
3	Multifunctional Thermoresponsive Microcarriers for High-Throughput Cell Culture and Enzyme-Free Cell Harvesting (Small 44/2021). *Small*, **2021**, 17, 2170232	11	
2	In vitro disease and organ model **2020**, 629-668		
1	In Vitro Brain Organoids and Computational Models to Study Cell Death in Brain Diseases. *Methods in Molecular Biology*, **2022**, 281-296	1.4	