

# Samad Ahadian

## List of Publications by Citations

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121  
papers

4,021  
citations

35  
h-index

60  
g-index

132  
ext. papers

5,180  
ext. citations

9.2  
avg, IF

5.65  
L-index

#	Paper	IF	Citations
121	Flexible shape-memory scaffold for minimally invasive delivery of functional tissues. <i>Nature Materials</i> , <b>2017</b> , 16, 1038-1046	27	217
120	Dielectrophoretically aligned carbon nanotubes to control electrical and mechanical properties of hydrogels to fabricate contractile muscle myofibers. <i>Advanced Materials</i> , <b>2013</b> , 25, 4028-34	24	200
119	Engineered contractile skeletal muscle tissue on a microgrooved methacrylated gelatin substrate. <i>Tissue Engineering - Part A</i> , <b>2012</b> , 18, 2453-65	3.9	169
118	Skeletal muscle tissue engineering: methods to form skeletal myotubes and their applications. <i>Tissue Engineering - Part B: Reviews</i> , <b>2014</b> , 20, 403-36	7.9	164
117	Organ-On-A-Chip Platforms: A Convergence of Advanced Materials, Cells, and Microscale Technologies. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, 1700506	10.1	155
116	Gelatin methacrylate as a promising hydrogel for 3D microscale organization and proliferation of dielectrophoretically patterned cells. <i>Lab on A Chip</i> , <b>2012</b> , 12, 2959-69	7.2	135
115	Gelatin-polysaccharide composite scaffolds for 3D cell culture and tissue engineering: Towards natural therapeutics. <i>Bioengineering and Translational Medicine</i> , <b>2019</b> , 4, 96-115	14.8	121
114	Hybrid hydrogel-aligned carbon nanotube scaffolds to enhance cardiac differentiation of embryoid bodies. <i>Acta Biomaterialia</i> , <b>2016</b> , 31, 134-143	10.8	110
113	Advances and Future Perspectives in 4D Bioprinting. <i>Biotechnology Journal</i> , <b>2018</b> , 13, e1800148	5.6	109
112	Facile and green production of aqueous graphene dispersions for biomedical applications. <i>Nanoscale</i> , <b>2015</b> , 7, 6436-43	7.7	97
111	Room-Temperature-Formed PEDOT:PSS Hydrogels Enable Injectable, Soft, and Healable Organic Bioelectronics. <i>Advanced Materials</i> , <b>2020</b> , 32, e1904752	24	97
110	Moldable elastomeric polyester-carbon nanotube scaffolds for cardiac tissue engineering. <i>Acta Biomaterialia</i> , <b>2017</b> , 52, 81-91	10.8	91
109	Bioconjugated Hydrogels for Tissue Engineering and Regenerative Medicine. <i>Bioconjugate Chemistry</i> , <b>2015</b> , 26, 1984-2001	6.3	90
108	Interdigitated array of Pt electrodes for electrical stimulation and engineering of aligned muscle tissue. <i>Lab on A Chip</i> , <b>2012</b> , 12, 3491-503	7.2	89
107	Cardiovascular disease models: A game changing paradigm in drug discovery and screening. <i>Biomaterials</i> , <b>2019</b> , 198, 3-26	15.6	88
106	Electrically conductive nanomaterials for cardiac tissue engineering. <i>Advanced Drug Delivery Reviews</i> , <b>2019</b> , 144, 162-179	18.5	81
105	Minimally Invasive and Regenerative Therapeutics. <i>Advanced Materials</i> , <b>2019</b> , 31, e1804041	24	80

104	Engineered nanomembranes for directing cellular organization toward flexible biodevices. <i>Nano Letters</i> , <b>2013</b> , 13, 3185-92	11.5	78
103	3D-Printed Ultra-Robust Surface-Doped Porous Silicone Sensors for Wearable Biomonitoring. <i>ACS Nano</i> , <b>2020</b> , 14, 1520-1532	16.7	76
102	Extrusion and Microfluidic-based Bioprinting to Fabricate Biomimetic Tissues and Organs. <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 1901044	6.8	57
101	Three-dimensional co-culture of C2C12/PC12 cells improves skeletal muscle tissue formation and function. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2017</b> , 11, 582-595	4.4	55
100	Gelatin Methacryloyl Microneedle Patches for Minimally Invasive Extraction of Skin Interstitial Fluid. <i>Small</i> , <b>2020</b> , 16, e1905910	11	54
99	Electrical stimulation as a biomimicry tool for regulating muscle cell behavior. <i>Organogenesis</i> , <b>2013</b> , 9, 87-92	1.7	53
98	Electrically regulated differentiation of skeletal muscle cells on ultrathin graphene-based films. <i>RSC Advances</i> , <b>2014</b> , 4, 9534	3.7	52
97	Three-Dimensional Bioprinting of Functional Skeletal Muscle Tissue Using GelatinMethacryloyl-Alginate Bioinks. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	48
96	The emergence of 3D bioprinting in organ-on-chip systems. <i>Progress in Biomedical Engineering</i> , <b>2019</b> , 1, 012001	7.2	47
95	A Perspective on 3D Bioprinting in Tissue Regeneration. <i>Bio-Design and Manufacturing</i> , <b>2018</b> , 1, 157-160	4.7	46
94	Non-transdermal microneedles for advanced drug delivery. <i>Advanced Drug Delivery Reviews</i> , <b>2020</b> , 165-166, 41-59	18.5	46
93	Controlling Differentiation of Stem Cells for Developing Personalized Organ-on-Chip Platforms. <i>Advanced Healthcare Materials</i> , <b>2018</b> , 7, 1700426	10.1	45
92	Micro and nanoscale technologies in oral drug delivery. <i>Advanced Drug Delivery Reviews</i> , <b>2020</b> , 157, 37-62	18.5	45
91	In situ three-dimensional printing for reparative and regenerative therapy. <i>Biomedical Microdevices</i> , <b>2019</b> , 21, 42	3.7	41
90	Gelatin methacryloyl-based tactile sensors for medical wearables. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2003601	15.6	41
89	Electrochemical cytosensors for detection of breast cancer cells. <i>Biosensors and Bioelectronics</i> , <b>2020</b> , 151, 111984	11.8	39
88	A Patch of Detachable Hybrid Microneedle Depot for Localized Delivery of Mesenchymal Stem Cells in Regeneration Therapy. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2000086	15.6	38
87	Smart scaffolds in tissue regeneration. <i>International Journal of Energy Production and Management</i> , <b>2018</b> , 5, 125-128	5.3	36

86	Biodegradable $\beta$ -Cyclodextrin Conjugated Gelatin Methacryloyl Microneedle for Delivery of Water-Insoluble Drug. <i>Advanced Healthcare Materials</i> , <b>2020</b> , 9, e2000527	10.1	35
85	Type V Collagen in Scar Tissue Regulates the Size of Scar after Heart Injury. <i>Cell</i> , <b>2020</b> , 182, 545-562.e23	56.2	35
84	Fiber-assisted molding (FAM) of surfaces with tunable curvature to guide cell alignment and complex tissue architecture. <i>Small</i> , <b>2014</b> , 10, 4851-7	11	35
83	A Human Liver-on-a-Chip Platform for Modeling Nonalcoholic Fatty Liver Disease. <i>Advanced Biology</i> , <b>2019</b> , 3, e1900104	3-5	34
82	Graphene induces spontaneous cardiac differentiation in embryoid bodies. <i>Nanoscale</i> , <b>2016</b> , 8, 7075-84	7-7	32
81	Hydrogel-Enabled Transfer-Printing of Conducting Polymer Films for Soft Organic Bioelectronics. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1906016	15.6	32
80	A contactless electrical stimulator: application to fabricate functional skeletal muscle tissue. <i>Biomedical Microdevices</i> , <b>2013</b> , 15, 109-15	3-7	31
79	Facile and rapid generation of 3D chemical gradients within hydrogels for high-throughput drug screening applications. <i>Biosensors and Bioelectronics</i> , <b>2014</b> , 59, 166-73	11.8	30
78	Gelatin methacryloyl hydrogel for glucose biosensing using Ni nanoparticles-reduced graphene oxide: An experimental and modeling study. <i>Electrochimica Acta</i> , <b>2018</b> , 261, 275-283	6.7	28
77	Ranking proposed models for attaining surface free energy of powders using contact angle measurements. <i>International Journal of Adhesion and Adhesives</i> , <b>2009</b> , 29, 458-469	3-4	25
76	On the kinetics of the capillary imbibition of a simple fluid through a designed nanochannel using the molecular dynamics simulation approach. <i>Journal of Colloid and Interface Science</i> , <b>2010</b> , 352, 566-72	9-3	24
75	In Vitro Human Liver Model of Nonalcoholic Steatohepatitis by Coculturing Hepatocytes, Endothelial Cells, and Kupffer Cells. <i>Advanced Healthcare Materials</i> , <b>2019</b> , 8, e1901379	10.1	24
74	Applications of carbon nanotubes in stem cell research. <i>Journal of Biomedical Nanotechnology</i> , <b>2014</b> , 10, 2539-61	4	22
73	Hydrogels containing metallic glass sub-micron wires for regulating skeletal muscle cell behaviour. <i>Biomaterials Science</i> , <b>2015</b> , 3, 1449-58	7.4	21
72	Rapid and high-throughput formation of 3D embryoid bodies in hydrogels using the dielectrophoresis technique. <i>Lab on A Chip</i> , <b>2014</b> , 14, 3690-4	7.2	21
71	The use of microtechnology and nanotechnology in fabricating vascularized tissues. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2014</b> , 14, 487-500	1-3	21
70	Mesoporous silica rods with cone shaped pores modulate inflammation and deliver BMP-2 for bone regeneration. <i>Nano Research</i> , <b>2020</b> , 13, 2323-2331	10	21
69	Carbon Nanotubes and Graphene-Based Nanomaterials for Stem Cell Differentiation and Tissue Regeneration. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2016</b> , 16, 8862-8880	1-3	20

68	Fabrication of poly(ethylene glycol) hydrogels containing vertically and horizontally aligned graphene using dielectrophoresis: An experimental and modeling study. <i>Carbon</i> , <b>2017</b> , 123, 460-470	10.4	20
67	Biochemical and Biophysical Cues in Matrix Design for Chronic and Diabetic Wound Treatment. <i>Tissue Engineering - Part B: Reviews</i> , <b>2017</b> , 23, 9-26	7.9	19
66	Incorporation of Graphene Quantum Dots, Iron, and Doxorubicin in/on Ferritin Nanocages for Bimodal Imaging and Drug Delivery. <i>Advanced Therapeutics</i> , <b>2020</b> , 3, 1900183	4.9	18
65	Biodegradable microneedle patch for transdermal gene delivery. <i>Nanoscale</i> , <b>2020</b> , 12, 16724-16729	7.7	18
64	Smart Contact Lenses for Biosensing Applications. <i>Advanced Intelligent Systems</i> , <b>2021</b> , 3, 2000263	6	18
63	Highly absorptive dressing composed of natural latex loaded with alginate for exudate control and healing of diabetic wounds. <i>Materials Science and Engineering C</i> , <b>2021</b> , 119, 111589	8.3	17
62	Biofabrication of endothelial cell, dermal fibroblast, and multilayered keratinocyte layers for skin tissue engineering. <i>Biofabrication</i> , <b>2020</b> ,	10.5	16
61	Macroporous mesh of nanoporous gold in electrochemical monitoring of superoxide release from skeletal muscle cells. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 88, 41-47	11.8	15
60	MRI-Tracking of Dental Pulp Stem Cells In Vitro and In Vivo Using Dextran-Coated Superparamagnetic Iron Oxide Nanoparticles. <i>Journal of Clinical Medicine</i> , <b>2019</b> , 8,	5.1	14
59	Mechanical Cues Regulating Proangiogenic Potential of Human Mesenchymal Stem Cells through YAP-Mediated Mechanosensing. <i>Small</i> , <b>2020</b> , 16, e2001837	11	14
58	Non-invasive measurement of glucose uptake of skeletal muscle tissue models using a glucose nanobiosensor. <i>Biosensors and Bioelectronics</i> , <b>2013</b> , 50, 194-201	11.8	14
57	Effects of hydration level, temperature, side chain and backbone flexibility of the polymer on the proton transfer in short-side-chain perfluorosulfonic acid membranes at low humidity conditions. <i>Journal of Membrane Science</i> , <b>2011</b> , 369, 339-349	9.6	14
56	Multimaterial bioprinting and combination of processing techniques towards the fabrication of biomimetic tissues and organs. <i>Biofabrication</i> , <b>2021</b> , 13,	10.5	14
55	Harnessing the Wide-range Strain Sensitivity of Bilayered PEDOT:PSS Films for Wearable Health Monitoring. <i>Matter</i> , <b>2021</b> , 4, 2886-2901	12.7	13
54	An Artificial Intelligence Approach for Modeling and Prediction of Water Diffusion Inside a Carbon Nanotube. <i>Nanoscale Research Letters</i> , <b>2009</b> , 4, 1054-1058	5	12
53	Curvature facilitates podocyte culture in a biomimetic platform. <i>Lab on A Chip</i> , <b>2018</b> , 18, 3112-3128	7.2	12
52	Stretchable and Bioadhesive Gelatin Methacryloyl-Based Hydrogels Enabled by Dopamine Polymerization. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 40290-40301	9.5	12
51	Cancer-on-a-Chip for Modeling Immune Checkpoint Inhibitor and Tumor Interactions. <i>Small</i> , <b>2021</b> , 17, e2004282	11	12

50	Prediction and analysis of flow behavior of a polymer melt through nanochannels using artificial neural network and statistical methods. <i>Microfluidics and Nanofluidics</i> , <b>2010</b> , 9, 319-328	2.8	11
49	Engineered Muscle Tissues for Disease Modeling and Drug Screening Applications. <i>Current Pharmaceutical Design</i> , <b>2017</b> , 23, 2991-3004	3.3	11
48	Microengineered poly(HEMA) hydrogels for wearable contact lens biosensing. <i>Lab on A Chip</i> , <b>2020</b> , 20, 4205-4214	7.2	11
47	Synthetic Biology and Tissue Engineering: Toward Fabrication of Complex and Smart Cellular Constructs. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1909882	15.6	10
46	Bioengineered Multicellular Liver Microtissues for Modeling Advanced Hepatic Fibrosis Driven Through Non-Alcoholic Fatty Liver Disease. <i>Small</i> , <b>2021</b> , 17, e2007425	11	10
45	State of the art in integrated biosensors for organ-on-a-chip applications. <i>Current Opinion in Biomedical Engineering</i> , <b>2021</b> , 19, 100309	4.4	10
44	Everolimus Rescues the Phenotype of Elastin Insufficiency in Patient Induced Pluripotent Stem Cell-Derived Vascular Smooth Muscle Cells. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , <b>2020</b> , 40, 1325-1339	9.4	9
43	Synthesis of Injectable Shear-Thinning Biomaterials of Various Compositions of Gelatin and Synthetic Silicate Nanoplatelet. <i>Biotechnology Journal</i> , <b>2020</b> , 15, e1900456	5.6	9
42	A novel computational approach to study proton transfer in perfluorosulfonic acid membranes. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 3648-3655	6.7	9
41	Dissolvable carboxymethyl cellulose/polyvinylpyrrolidone microneedle arrays for transdermal delivery of Amphotericin B to treat cutaneous leishmaniasis. <i>International Journal of Biological Macromolecules</i> , <b>2021</b> , 182, 1310-1321	7.9	9
40	Antimicrobial Activity of Silver Containing Crosslinked Poly(Acrylic Acid) Fibers. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	9
39	Drug delivery to the anterior segment of the eye: A review of current and future treatment strategies. <i>International Journal of Pharmaceutics</i> , <b>2021</b> , 607, 120924	6.5	9
38	A Facile Method for Controlled Fabrication of Hybrid Silver Nanoparticle-Poly(-caprolactone) Fibrous Constructs with Antimicrobial Properties. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2019</b> , 19, 6949-6955	1.3	8
37	Engineered Hydrogels for Brain Tumor Culture and Therapy. <i>Bio-Design and Manufacturing</i> , <b>2020</b> , 3, 203-226	4.7	8
36	Lab-on-a-Contact Lens: Recent Advances and Future Opportunities in Diagnostics and Therapeutics.. <i>Advanced Materials</i> , <b>2022</b> , e2108389	24	8
35	Antimicrobial core-shell electrospun nanofibers containing Ajwain essential oil for accelerating infected wound healing. <i>International Journal of Pharmaceutics</i> , <b>2021</b> , 603, 120698	6.5	8
34	Recent developments in mussel-inspired materials for biomedical applications. <i>Biomaterials Science</i> , <b>2021</b> , 9, 6653-6672	7.4	8
33	An efficient tool for modeling and predicting fluid flow in nanochannels. <i>Journal of Chemical Physics</i> , <b>2009</b> , 131, 184506	3.9	7

32	Fabrication of Carboxymethyl Chitosan Nanoparticles to Deliver Paclitaxel for Melanoma Treatment. <i>ChemNanoMat</i> , <b>2020</b> , 6, 1373-1385	3.5	7
31	Co-Electrospun Silk Fibroin and Gelatin Methacryloyl Sheet Seeded with Mesenchymal Stem Cells for Tendon Regeneration.. <i>Small</i> , <b>2022</b> , e2107714	11	7
30	A Microfabricated Sandwiching Assay for Nanoliter and High-Throughput Biomarker Screening. <i>Small</i> , <b>2019</b> , 15, e1900300	11	6
29	AN ARTIFICIAL NEURAL NETWORK APPROACH TO CAPILLARY RISE IN POROUS MEDIA. <i>Chemical Engineering Communications</i> , <b>2007</b> , 195, 435-448	2.2	6
28	Flexible patch with printable and antibacterial conductive hydrogel electrodes for accelerated wound healing.. <i>Biomaterials</i> , <b>2022</b> , 285, 121479	15.6	6
27	Enhancement of label-free biosensing of cardiac troponin I. <i>Proceedings of SPIE</i> , <b>2020</b> , 11251,	1.7	5
26	Rhodamine Conjugated Gelatin Methacryloyl Nanoparticles for Stable Cell Imaging.. <i>ACS Applied Bio Materials</i> , <b>2020</b> , 3, 6908-6918	4.1	5
25	Healthy and diseased models of vascular systems. <i>Lab on A Chip</i> , <b>2021</b> , 21, 641-659	7.2	5
24	The Emerging Applications of Graphene Oxide and Graphene in Tissue Engineering <b>2013</b> , 279-299		4
23	Impact of Nanophase Hydroxyapatite-Based Biomaterials on Tissue Engineering. <i>Journal of Bionanoscience</i> , <b>2018</b> , 12, 469-477		4
22	Recent Advances in Bioinspired Hydrogels: Materials, Devices, and Biosignal Computing. <i>ACS Biomaterials Science and Engineering</i> , <b>2021</b> ,	5.5	4
21	Wearable Tactile Sensors: Gelatin Methacryloyl-Based Tactile Sensors for Medical Wearables (Adv. Funct. Mater. 49/2020). <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2070326	15.6	4
20	Single-chain antibody-decorated Au nanocages@liposomal layer nanoprobe for targeted SERS imaging and remote-controlled photothermal therapy of melanoma cancer cells. <i>Materials Science and Engineering C</i> , <b>2021</b> , 124, 112086	8.3	4
19	Graphene-Based Nanomaterials in Tissue Engineering and Regenerative Medicine <b>2019</b> , 637-658		3
18	Hydrogels: Room-Temperature-Formed PEDOT:PSS Hydrogels Enable Injectable, Soft, and Healable Organic Bioelectronics (Adv. Mater. 1/2020). <i>Advanced Materials</i> , <b>2020</b> , 32, 2070005	24	3
17	Combined Effects of Electric Stimulation and Microgrooves in Cardiac Tissue-on-a-Chip for Drug Screening. <i>Small Methods</i> , <b>2020</b> , 4, 2000438	12.8	3
16	SPAER: Sparse Deep Convolutional Autoencoder Model to Extract Low Dimensional Imaging Biomarkers for Early Detection of Breast Cancer Using Dynamic Thermography. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 3248	2.6	3
15	Impartially Validated Multiple Deep-Chain Models to Detect COVID-19 in Chest X-ray Using Latent Space Radiomics. <i>Journal of Clinical Medicine</i> , <b>2021</b> , 10,	5.1	3

14	A first-principles study on water flow through single-walled carbon nanotubes using artificial neural network method. <i>Journal of Nanoscience and Nanotechnology</i> , <b>2011</b> , 11, 10227-33	1.3	2
13	Assessing the equation of state and comparing it with other relationships used for determining the surface tension of solids. <i>Applied Surface Science</i> , <b>2010</b> , 256, 1983-1991	6.7	2
12	Graphene Quantum Dots for Fluorescent Labeling of Gelatin-Based Shear-Thinning Hydrogels. <i>Advanced NanoBiomed Research</i> , <b>2021</b> , 1, 2000113	0	2
11	High-Throughput Drug Screening: A Microfabricated Sandwiching Assay for Nanoliter and High-Throughput Biomarker Screening (Small 15/2019). <i>Small</i> , <b>2019</b> , 15, 1970078	11	1
10	Hydrogel-Enabled Transfer Printing: Hydrogel-Enabled Transfer-Printing of Conducting Polymer Films for Soft Organic Bioelectronics (Adv. Funct. Mater. 6/2020). <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2070038	15.6	1
9	Hall of Fame Article: Minimally Invasive and Regenerative Therapeutics (Adv. Mater. 1/2019). <i>Advanced Materials</i> , <b>2019</b> , 31, 1970005	24	1
8	Microneedle Patches: Gelatin Methacryloyl Microneedle Patches for Minimally Invasive Extraction of Skin Interstitial Fluid (Small 16/2020). <i>Small</i> , <b>2020</b> , 16, 2070086	11	1
7	Non-destructive mechanical assessment for optimization of 3D bioprinted soft tissue scaffolds.. <i>IScience</i> , <b>2022</b> , 25, 104251	6.1	1
6	Microfabrication and Nanofabrication Techniques <b>2015</b> , 207-219		0
5	Angiogenesis: Mechanical Cues Regulating Proangiogenic Potential of Human Mesenchymal Stem Cells through YAP-Mediated Mechanosensing (Small 25/2020). <i>Small</i> , <b>2020</b> , 16, 2070142	11	
4	Tissue Engineering: Synthetic Biology and Tissue Engineering: Toward Fabrication of Complex and Smart Cellular Constructs (Adv. Funct. Mater. 26/2020). <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 2070169 <sup>5.6</sup>		
3	Multifunctional Thermo-responsive Microcarriers for High-Throughput Cell Culture and Enzyme-Free Cell Harvesting (Small 44/2021). <i>Small</i> , <b>2021</b> , 17, 2170232	11	
2	Smart Contact Lenses for Biosensing Applications. <i>Advanced Intelligent Systems</i> , <b>2021</b> , 3, 2170047	6	
1	Graphene Quantum Dots for Fluorescent Labeling of Gelatin-Based Shear-Thinning Hydrogels. <i>Advanced NanoBiomed Research</i> , <b>2021</b> , 1, 2170073	0	