

Amir Sanati Nezhad

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

92
papers

2,737
citations

29
h-index

49
g-index

99
ext. papers

3,594
ext. citations

7.5
avg, IF

5.74
L-index

#	Paper	IF	Citations
92	Multisensor-integrated organs-on-chips platform for automated and continual in situ monitoring of organoid behaviors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E2293-E2302	11.5	416
91	Manufacturing of hydrogel biomaterials with controlled mechanical properties for tissue engineering applications. <i>Acta Biomaterialia</i> , 2017 , 62, 42-63	10.8	229
90	Microfluidic approaches for isolation, detection, and characterization of extracellular vesicles: Current status and future directions. <i>Biosensors and Bioelectronics</i> , 2017 , 91, 588-605	11.8	122
89	Noncontact and Nonintrusive Microwave-Microfluidic Flow Sensor for Energy and Biomedical Engineering. <i>Scientific Reports</i> , 2018 , 8, 139	4.9	89
88	Label-free ultrasensitive detection of breast cancer miRNA-21 biomarker employing electrochemical nano-genosensor based on sandwiched AgNPs in PANI and N-doped graphene. <i>Biosensors and Bioelectronics</i> , 2018 , 120, 129-136	11.8	78
87	A microfluidic optical platform for real-time monitoring of pH and oxygen in microfluidic bioreactors and organ-on-chip devices. <i>Biomicrofluidics</i> , 2016 , 10, 044111	3.2	75
86	Sensitive, Real-time and Non-Intrusive Detection of Concentration and Growth of Pathogenic Bacteria using Microfluidic-Microwave Ring Resonator Biosensor. <i>Scientific Reports</i> , 2018 , 8, 15807	4.9	74
85	Bioprocessing of Mesenchymal Stem Cells and Their Derivatives: Toward Cell-Free Therapeutics. <i>Stem Cells International</i> , 2018 , 2018, 9415367	5	73
84	Nano-biosensor for highly sensitive detection of HER2 positive breast cancer. <i>Biosensors and Bioelectronics</i> , 2018 , 117, 104-111	11.8	65
83	Protein thermostability engineering. <i>RSC Advances</i> , 2016 , 6, 115252-115270	3.7	62
82	Delivery of magnetic micro/nanoparticles and magnetic-based drug/cargo into arterial flow for targeted therapy. <i>Drug Delivery</i> , 2018 , 25, 1963-1973	7	56
81	Magnetically assisted intraperitoneal drug delivery for cancer chemotherapy. <i>Drug Delivery</i> , 2018 , 25, 846-861	7	54
80	Microfluidic integrated acoustic waving for manipulation of cells and molecules. <i>Biosensors and Bioelectronics</i> , 2016 , 85, 714-725	11.8	53
79	Sandwich-structured nanoparticles-grafted functionalized graphene based 3D nanocomposites for high-performance biosensors to detect ascorbic acid biomolecule. <i>Scientific Reports</i> , 2019 , 9, 1226	4.9	51
78	Through the years with on-a-chip gas chromatography: a review. <i>Lab on A Chip</i> , 2015 , 15, 2559-75	7.2	50
77	Microfluidic technologies for anticancer drug studies. <i>Drug Discovery Today</i> , 2017 , 22, 1654-1670	8.8	48
76	Skin Diseases Modeling using Combined Tissue Engineering and Microfluidic Technologies. <i>Advanced Healthcare Materials</i> , 2016 , 5, 2459-2480	10.1	46

75	Controlling Differentiation of Stem Cells for Developing Personalized Organ-on-Chip Platforms. <i>Advanced Healthcare Materials</i> , 2018 , 7, 1700426	10.1	45
74	Leukotriene B4-Mediated Neutrophil Recruitment Causes Pulmonary Capillaritis during Lethal Fungal Sepsis. <i>Cell Host and Microbe</i> , 2018 , 23, 121-133.e4	23.4	44
73	Mesenchymal Stem Cell Therapy for Ischemic Tissues. <i>Stem Cells International</i> , 2018 , 2018, 8179075	5	38
72	Mathematical and computational modeling of nano-engineered drug delivery systems. <i>Journal of Controlled Release</i> , 2019 , 307, 150-165	11.7	37
71	Impact of Simulated Microgravity on Cytoskeleton and Viscoelastic Properties of Endothelial Cell. <i>Scientific Reports</i> , 2016 , 6, 32418	4.9	36
70	In vitro models and systems for evaluating the dynamics of drug delivery to the healthy and diseased brain. <i>Journal of Controlled Release</i> , 2018 , 273, 108-130	11.7	35
69	Filter-based isolation, enrichment, and characterization of circulating tumor cells. <i>Biotechnology and Bioengineering</i> , 2018 , 115, 2504-2529	4.9	33
68	Humidified microcontact printing of proteins: universal patterning of proteins on both low and high energy surfaces. <i>Langmuir</i> , 2014 , 30, 12002-10	4	32
67	Polyethylenimine Modified Graphene-Oxide Electrochemical Immunosensor for the Detection of Glial Fibrillary Acidic Protein in Central Nervous System Injury. <i>ACS Sensors</i> , 2018 , 3, 844-851	9.2	31
66	Micro and nanotechnologies in heart valve tissue engineering. <i>Biomaterials</i> , 2016 , 103, 278-292	15.6	31
65	One-step wettability patterning of PDMS microchannels for generation of monodisperse alginate microbeads by in Situ external gelation in double emulsion microdroplets. <i>Sensors and Actuators B: Chemical</i> , 2019 , 291, 418-425	8.5	30
64	Translational models of tumor angiogenesis: A nexus of in silico and in vitro models. <i>Biotechnology Advances</i> , 2018 , 36, 880-893	17.8	29
63	Magnetic particle targeting for diagnosis and therapy of lung cancers. <i>Journal of Controlled Release</i> , 2020 , 328, 776-791	11.7	29
62	Towards fully integrated liquid chromatography on a chip: Evolution and evaluation. <i>TrAC - Trends in Analytical Chemistry</i> , 2018 , 105, 302-337	14.6	29
61	Microfluidic-Based Multi-Organ Platforms for Drug Discovery. <i>Micromachines</i> , 2016 , 7,	3.3	27
60	Geo-material surface modification of microchips using layer-by-layer (LbL) assembly for subsurface energy and environmental applications. <i>Lab on A Chip</i> , 2018 , 18, 285-295	7.2	27
59	Mathematical Modeling of the Function of Warburg Effect in Tumor Microenvironment. <i>Scientific Reports</i> , 2018 , 8, 8903	4.9	26
58	A Novel Graphene-Grafted Gold Nanoparticles Composite for Highly Sensitive Electrochemical Biosensing. <i>IEEE Sensors Journal</i> , 2018 , 18, 2513-2519	4	24

57	Magnetic aerosol drug targeting in lung cancer therapy using permanent magnet. <i>Drug Delivery</i> , 2019 , 26, 120-128	7	22
56	Nonlinear viscoelastic characterization of charged cellulose nanocrystal network structure in the presence of salt in aqueous media. <i>Cellulose</i> , 2020 , 27, 5729-5743	5.5	21
55	An ensemble learning approach to digital corona virus preliminary screening from cough sounds. <i>Scientific Reports</i> , 2021 , 11, 15404	4.9	19
54	Colloidal Behavior of Cellulose Nanocrystals in Presence of Sodium Chloride. <i>ChemistrySelect</i> , 2018 , 3, 4969-4978	1.8	19
53	Passive microinjection within high-throughput microfluidics for controlled actuation of droplets and cells. <i>Scientific Reports</i> , 2019 , 9, 6723	4.9	18
52	Viscoelastic properties of poly (vinyl alcohol) hydrogels with cellulose nanocrystals fabricated through sodium chloride addition: Rheological evidence of double network formation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021 , 609, 125577	5.1	18
51	Dynamics of temperature-actuated droplets within microfluidics. <i>Scientific Reports</i> , 2019 , 9, 3832	4.9	17
50	Cellulose nanocrystal structure in the presence of salts. <i>Cellulose</i> , 2019 , 26, 9387-9401	5.5	16
49	Real-time monitoring of Escherichia coli concentration with planar microwave resonator sensor. <i>Microwave and Optical Technology Letters</i> , 2019 , 61, 2534-2539	1.2	16
48	Emerging technologies and commercial products in exosome-based cancer diagnosis and prognosis. <i>Biosensors and Bioelectronics</i> , 2021 , 183, 113176	11.8	16
47	Manipulation of micro- and nanoparticles in viscoelastic fluid flows within microfluid systems. <i>Biotechnology and Bioengineering</i> , 2020 , 117, 580-592	4.9	16
46	Immunosensing of S100β biomarker for diagnosis of spinal cord injuries (SCI). <i>Sensors and Actuators B: Chemical</i> , 2017 , 247, 163-169	8.5	15
45	Electrohydrodynamic formation of single and double emulsions for low interfacial tension multiphase systems within microfluidics. <i>Chemical Engineering Science</i> , 2019 , 195, 201-207	4.4	15
44	Rapid and Highly Controlled Generation of Monodisperse Multiple Emulsions via a One-Step Hybrid Microfluidic Device. <i>Scientific Reports</i> , 2019 , 9, 12694	4.9	14
43	Functionalized multiscale visual models to unravel flow and transport physics in porous structures. <i>Water Research</i> , 2020 , 175, 115676	12.5	14
42	ProtDataTherm: A database for thermostability analysis and engineering of proteins. <i>PLoS ONE</i> , 2018 , 13, e0191222	3.7	14
41	Nanoscale Optoregulation of Neural Stem Cell Differentiation by Intracellular Alteration of Redox Balance. <i>Advanced Functional Materials</i> , 2017 , 27, 1701420	15.6	13
40	A simple and low-cost approach for irreversible bonding of polymethylmethacrylate and polydimethylsiloxane at room temperature for high-pressure hybrid microfluidics. <i>Scientific Reports</i> , 2021 , 11, 4821	4.9	12

39	Wetting Phase Disintegration and Detachment: Three-Dimensional Confocal Imaging of Two-Phase Distributions. <i>Physical Review Applied</i> , 2019 , 11,	4.3	11
38	Geomaterial-Functionalized Microfluidic Devices Using a Universal Surface Modification Approach. <i>Advanced Materials Interfaces</i> , 2019 , 6, 1900995	4.6	11
37	Role of chemical additives on water-based heavy oil mobilization: A microfluidic approach. <i>Fuel</i> , 2019 , 241, 1195-1202	7.1	11
36	Publication Trends in Exosomes Nanoparticles for Cancer Detection. <i>International Journal of Nanomedicine</i> , 2020 , 15, 4453-4470	7.3	10
35	Wetting dynamics in two-liquid systems: Effect of the surrounding phase viscosity. <i>Physical Review E</i> , 2018 , 97, 063104	2.4	10
34	Reproducible and Scalable Generation of Multilayer Nanocomposite Constructs for Ultrasensitive Nanobiosensing. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900478	6.8	10
33	Electromagnetic Fields and Stem Cell Fate: When Physics Meets Biology. <i>Reviews of Physiology, Biochemistry and Pharmacology</i> , 2016 , 171, 63-97	2.9	9
32	Acoustic Manipulation of Bio-Particles at High Frequencies: An Analytical and Simulation Approach. <i>Micromachines</i> , 2017 , 8,	3.3	9
31	Role of temperature on bio-printability of gelatin methacrylate bioinks in two-step cross-linking strategy for tissue engineering applications. <i>Biomedical Materials (Bristol)</i> , 2020 ,	3.5	9
30	Real-Time Non-Contact Integrated Chipless RF Sensor for Disposable Microfluidic Applications. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , 2020 , 4, 171-178	2.8	9
29	Engineering Shelf-Stable Coating for Microfluidic Organ-on-a-Chip Using Bioinspired Catecholamine Polymers. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 6910-6923	9.5	8
28	Contaminant transport in soil: A comparison of the Theory of Porous Media approach with the microfluidic visualisation. <i>Science of the Total Environment</i> , 2019 , 686, 1272-1281	10.2	8
27	Effect of cell imprinting on viability and drug susceptibility of breast cancer cells to doxorubicin. <i>Acta Biomaterialia</i> , 2020 , 113, 119-129	10.8	7
26	Single-step functionalization of poly-catecholamine nanofilms for ultra-sensitive immunosensing of ubiquitin carboxyl terminal hydrolase-L1 (UCHL-1) in spinal cord injury. <i>Biosensors and Bioelectronics</i> , 2019 , 145, 111715	11.8	7
25	Label-Free Isolation of Exosomes Using Microfluidic Technologies. <i>ACS Nano</i> , 2021 ,	16.7	7
24	Nanofluids for Performance Improvement of Heavy Machinery Journal Bearings: A Simulation Study. <i>Nanomaterials</i> , 2020 , 10,	5.4	6
23	Viscoelastic behavior of covalently crosslinked hydrogels under large shear deformations: An approach to eliminate wall slip. <i>Physics of Fluids</i> , 2021 , 33, 041702	4.4	6
22	Self-assembly of highly ordered micro- and nanoparticle deposits. <i>Nature Communications</i> , 2022 , 13,	17.4	6

21	Immuno-biosensor on a chip: a self-powered microfluidic-based electrochemical biosensing platform for point-of-care quantification of proteins. <i>Lab on A Chip</i> , 2021 ,	7.2	5
20	Induced-charge electrokinetics in microfluidics: a review on recent advancements. <i>Journal of Micromechanics and Microengineering</i> , 2020 , 30, 113001	2	5
19	A simple, low cost and reusable microfluidic gradient strategy and its application in modeling cancer invasion. <i>Scientific Reports</i> , 2021 , 11, 10310	4.9	5
18	Thermal droplet microfluidics: From biology to cooling technology. <i>TrAC - Trends in Analytical Chemistry</i> , 2021 , 138, 116234	14.6	5
17	A tuned gelatin methacryloyl (GelMA) hydrogel facilitates myelination of dorsal root ganglia neurons in vitro. <i>Materials Science and Engineering C</i> , 2021 , 126, 112131	8.3	5
16	Highly Stable Buffer-Based Zinc Oxide/Reduced Graphene Oxide Nanosurface Chemistry for Rapid Immunosensing of SARS-CoV-2 Antigens.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	5
15	Picoliter agar droplet breakup in microfluidics meets microbiology application: numerical and experimental approaches. <i>Lab on A Chip</i> , 2020 , 20, 2175-2187	7.2	4
14	UV-triggered polymerization of polycatecholamines enables the production of organ-on-chips inside a biosafety cabinet. <i>Applied Materials Today</i> , 2020 , 20, 100721	6.6	3
13	In-vitro tumor microenvironment models containing physical and biological barriers for modelling multidrug resistance mechanisms and multidrug delivery strategies. <i>Journal of Controlled Release</i> , 2021 , 334, 164-177	11.7	3
12	Confocal analysis of cellulose nanocrystal (CNC) based hydrogels and suspensions. <i>Cellulose</i> , 2021 , 28, 10259	5.5	3
11	Bi-ECDAQ: An electrochemical dual-immuno-biosensor accompanied by a customized bi-potentiostat for clinical detection of SARS-CoV-2 Nucleocapsid proteins.. <i>Biosensors and Bioelectronics</i> , 2022 , 203, 114018	11.8	2
10	Numerical and experimental analysis of a hybrid material acoustophoretic device for manipulation of microparticles. <i>Scientific Reports</i> , 2021 , 11, 22048	4.9	2
9	Organ-On-Chip Platforms: Skin Diseases Modeling using Combined Tissue Engineering and Microfluidic Technologies (Adv. Healthcare Mater. 19/2016). <i>Advanced Healthcare Materials</i> , 2016 , 5, 2454-2454	10.1	2
8	Multifunctional Magnetic Nanoparticles-Labeled Mesenchymal Stem Cells for Hyperthermia and Bioimaging Applications. <i>Methods in Molecular Biology</i> , 2020 , 2125, 57-72	1.4	2
7	Droplet-based microfluidic platforms and an overview with a focus on application in biofuel generation 2021 , 387-406		2
6	Suspensions and hydrogels of cellulose nanocrystals (CNCs): characterization using microscopy and rheology. <i>Cellulose</i> , 2021 , 28, 10259	5.5	2
5	On-a-Chip Gas Chromatography With Nanomaterials (NMs) 2018 , 343-358		1
4	Microfluidic-based processors and circuits design. <i>Scientific Reports</i> , 2021 , 11, 10985	4.9	1

- 3 Engineering a 3D human intracranial aneurysm model using liquid-assisted injection molding and tuned hydrogels. *Acta Biomaterialia*, **2021**, 136, 266-278 10.8 1
- 2 Clogging sensitivity of flow distributors designed for radially elongated hexagonal pillar array columns: a computational modelling. *Scientific Reports*, **2021**, 11, 4927 4.9
- 1 Micro-bioprocessors and their applications in bioenergy production **2021**, 349-364