

# Amir Sanati Nezhad

## List of Publications by Year in Descending Order

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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 | 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> , <b>2022</b> , 203, 114018   | 11.8 | 2         |
| 91 | Highly Stable Buffer-Based Zinc Oxide/Reduced Graphene Oxide Nanosurface Chemistry for Rapid Immunosensing of SARS-CoV-2 Antigens.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2022</b> ,  | 9.5  | 5         |
| 90 | Self-assembly of highly ordered micro- and nanoparticle deposits. <i>Nature Communications</i> , <b>2022</b> , 13,   | 17.4 | 6         |
| 89 | 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> , <b>2021</b> ,   | 7.2  | 5         |
| 88 | Numerical and experimental analysis of a hybrid material acoustophoretic device for manipulation of microparticles. <i>Scientific Reports</i> , <b>2021</b> , 11, 22048  | 4.9  | 2         |
| 87 | Label-Free Isolation of Exosomes Using Microfluidic Technologies. <i>ACS Nano</i> , <b>2021</b> ,  | 16.7 | 7         |
| 86 | 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> , <b>2021</b> , 11, 4821  | 4.9  | 12        |
| 85 | Clogging sensitivity of flow distributors designed for radially elongated hexagonal pillar array columns: a computational modelling. <i>Scientific Reports</i> , <b>2021</b> , 11, 4927  | 4.9  |           |
| 84 | Viscoelastic behavior of covalently crosslinked hydrogels under large shear deformations: An approach to eliminate wall slip. <i>Physics of Fluids</i> , <b>2021</b> , 33, 041702  | 4.4  | 6         |
| 83 | A simple, low cost and reusable microfluidic gradient strategy and its application in modeling cancer invasion. <i>Scientific Reports</i> , <b>2021</b> , 11, 10310  | 4.9  | 5         |
| 82 | Thermal droplet microfluidics: From biology to cooling technology. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2021</b> , 138, 116234  | 14.6 | 5         |
| 81 | Microfluidic-based processors and circuits design. <i>Scientific Reports</i> , <b>2021</b> , 11, 10985   | 4.9  | 1         |
| 80 | 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> , <b>2021</b> , 334, 164-177  | 11.7 | 3         |
| 79 | A tuned gelatin methacryloyl (GelMA) hydrogel facilitates myelination of dorsal root ganglia neurons in vitro. <i>Materials Science and Engineering C</i> , <b>2021</b> , 126, 112131  | 8.3  | 5         |
| 78 | An ensemble learning approach to digital corona virus preliminary screening from cough sounds. <i>Scientific Reports</i> , <b>2021</b> , 11, 15404   | 4.9  | 19        |
| 77 | Emerging technologies and commercial products in exosome-based cancer diagnosis and prognosis. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 183, 113176  | 11.8 | 16        |
| 76 | 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> , <b>2021</b> , 609, 125577 | 5.1  | 18        |

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|----|---|------|----|
| 75 | Droplet-based microfluidic platforms and an overview with a focus on application in biofuel generation <b>2021</b> , 387-406  |      | 2  |
| 74 | Micro-bioprocessors and their applications in bioenergy production <b>2021</b> , 349-364  |      |    |
| 73 | Engineering a 3D human intracranial aneurysm model using liquid-assisted injection molding and tuned hydrogels. <i>Acta Biomaterialia</i> , <b>2021</b> , 136, 266-278                                      | 10.8 | 1  |
| 72 | Confocal analysis of cellulose nanocrystal (CNC) based hydrogels and suspensions. <i>Cellulose</i> , <b>2021</b> , 28, 10259  | 5.5  | 3  |
| 71 | Picoliter agar droplet breakup in microfluidics meets microbiology application: numerical and experimental approaches. <i>Lab on A Chip</i> , <b>2020</b> , 20, 2175-2187                                   | 7.2  | 4  |
| 70 | Effect of cell imprinting on viability and drug susceptibility of breast cancer cells to doxorubicin. <i>Acta Biomaterialia</i> , <b>2020</b> , 113, 119-129  | 10.8 | 7  |
| 69 | Functionalized multiscale visual models to unravel flow and transport physics in porous structures. <i>Water Research</i> , <b>2020</b> , 175, 115676   | 12.5 | 14 |
| 68 | Publication Trends in Exosomes Nanoparticles for Cancer Detection. <i>International Journal of Nanomedicine</i> , <b>2020</b> , 15, 4453-4470   | 7.3  | 10 |
| 67 | UV-triggered polymerization of polycatecholamines enables the production of organ-on-chips inside a biosafety cabinet. <i>Applied Materials Today</i> , <b>2020</b> , 20, 100721                            | 6.6  | 3  |
| 66 | Engineering Shelf-Stable Coating for Microfluidic Organ-on-a-Chip Using Bioinspired Catecholamine Polymers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 6910-6923                     | 9.5  | 8  |
| 65 | Induced-charge electrokinetics in microfluidics: a review on recent advancements. <i>Journal of Micromechanics and Microengineering</i> , <b>2020</b> , 30, 113001  | 2    | 5  |
| 64 | 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> , <b>2020</b> ,       | 3.5  | 9  |
| 63 | 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> , <b>2020</b> , 4, 171-178 | 2.8  | 9  |
| 62 | Magnetic particle targeting for diagnosis and therapy of lung cancers. <i>Journal of Controlled Release</i> , <b>2020</b> , 328, 776-791  | 11.7 | 29 |
| 61 | Nanofluids for Performance Improvement of Heavy Machinery Journal Bearings: A Simulation Study. <i>Nanomaterials</i> , <b>2020</b> , 10,  | 5.4  | 6  |
| 60 | Multifunctional Magnetic Nanoparticles-Labeled Mesenchymal Stem Cells for Hyperthermia and Bioimaging Applications. <i>Methods in Molecular Biology</i> , <b>2020</b> , 2125, 57-72                         | 1.4  | 2  |
| 59 | Manipulation of micro- and nanoparticles in viscoelastic fluid flows within microfluid systems. <i>Biotechnology and Bioengineering</i> , <b>2020</b> , 117, 580-592  | 4.9  | 16 |
| 58 | Nonlinear viscoelastic characterization of charged cellulose nanocrystal network structure in the presence of salt in aqueous media. <i>Cellulose</i> , <b>2020</b> , 27, 5729-5743                         | 5.5  | 21 |

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|----|---|------|----|
| 57 | Rapid and Highly Controlled Generation of Monodisperse Multiple Emulsions via a One-Step Hybrid Microfluidic Device. <i>Scientific Reports</i> , <b>2019</b> , 9, 12694   | 4.9  | 14 |
| 56 | Cellulose nanocrystal structure in the presence of salts. <i>Cellulose</i> , <b>2019</b> , 26, 9387-9401  | 5.5  | 16 |
| 55 | Wetting Phase Disintegration and Detachment: Three-Dimensional Confocal Imaging of Two-Phase Distributions. <i>Physical Review Applied</i> , <b>2019</b> , 11,  | 4.3  | 11 |
| 54 | Sandwich-structured nanoparticles-grafted functionalized graphene based 3D nanocomposites for high-performance biosensors to detect ascorbic acid biomolecule. <i>Scientific Reports</i> , <b>2019</b> , 9, 1226                              | 4.9  | 51 |
| 53 | Mathematical and computational modeling of nano-engineered drug delivery systems. <i>Journal of Controlled Release</i> , <b>2019</b> , 307, 150-165   | 11.7 | 37 |
| 52 | Real-time monitoring of Escherichia coli concentration with planar microwave resonator sensor. <i>Microwave and Optical Technology Letters</i> , <b>2019</b> , 61, 2534-2539  | 1.2  | 16 |
| 51 | 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> , <b>2019</b> , 291, 418-425 | 8.5  | 30 |
| 50 | Passive microinjection within high-throughput microfluidics for controlled actuation of droplets and cells. <i>Scientific Reports</i> , <b>2019</b> , 9, 6723   | 4.9  | 18 |
| 49 | Dynamics of temperature-actuated droplets within microfluidics. <i>Scientific Reports</i> , <b>2019</b> , 9, 3832   | 4.9  | 17 |
| 48 | Magnetic aerosol drug targeting in lung cancer therapy using permanent magnet. <i>Drug Delivery</i> , <b>2019</b> , 26, 120-128   | 7    | 22 |
| 47 | Contaminant transport in soil: A comparison of the Theory of Porous Media approach with the microfluidic visualisation. <i>Science of the Total Environment</i> , <b>2019</b> , 686, 1272-1281  | 10.2 | 8  |
| 46 | 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> , <b>2019</b> , 145, 111715  | 11.8 | 7  |
| 45 | Geomaterial-Functionalized Microfluidic Devices Using a Universal Surface Modification Approach. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1900995  | 4.6  | 11 |
| 44 | Reproducible and Scalable Generation of Multilayer Nanocomposite Constructs for Ultrasensitive Nanobiosensing. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1900478  | 6.8  | 10 |
| 43 | Role of chemical additives on water-based heavy oil mobilization: A microfluidic approach. <i>Fuel</i> , <b>2019</b> , 241, 1195-1202   | 7.1  | 11 |
| 42 | Electrohydrodynamic formation of single and double emulsions for low interfacial tension multiphase systems within microfluidics. <i>Chemical Engineering Science</i> , <b>2019</b> , 195, 201-207  | 4.4  | 15 |
| 41 | Translational models of tumor angiogenesis: A nexus of in silico and in vitro models. <i>Biotechnology Advances</i> , <b>2018</b> , 36, 880-893   | 17.8 | 29 |
| 40 | Polyethylenimine Modified Graphene-Oxide Electrochemical Immunosensor for the Detection of Glial Fibrillary Acidic Protein in Central Nervous System Injury. <i>ACS Sensors</i> , <b>2018</b> , 3, 844-851                                    | 9.2  | 31 |

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|----|---|------|----|
| 39 | A Novel Graphene-Grafted Gold Nanoparticles Composite for Highly Sensitive Electrochemical Biosensing. <i>IEEE Sensors Journal</i> , <b>2018</b> , 18, 2513-2519  | 4    | 24 |
| 38 | Noncontact and Nonintrusive Microwave-Microfluidic Flow Sensor for Energy and Biomedical Engineering. <i>Scientific Reports</i> , <b>2018</b> , 8, 139  | 4.9  | 89 |
| 37 | In vitro models and systems for evaluating the dynamics of drug delivery to the healthy and diseased brain. <i>Journal of Controlled Release</i> , <b>2018</b> , 273, 108-130   | 11.7 | 35 |
| 36 | Leukotriene B4-Mediated Neutrophil Recruitment Causes Pulmonary Capillaritis during Lethal Fungal Sepsis. <i>Cell Host and Microbe</i> , <b>2018</b> , 23, 121-133.e4   | 23.4 | 44 |
| 35 | Magnetically assisted intraperitoneal drug delivery for cancer chemotherapy. <i>Drug Delivery</i> , <b>2018</b> , 25, 846-861   | 7    | 54 |
| 34 | 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 |
| 33 | Filter-based isolation, enrichment, and characterization of circulating tumor cells. <i>Biotechnology and Bioengineering</i> , <b>2018</b> , 115, 2504-2529   | 4.9  | 33 |
| 32 | 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> , <b>2018</b> , 120, 129-136 | 11.8 | 78 |
| 31 | Wetting dynamics in two-liquid systems: Effect of the surrounding phase viscosity. <i>Physical Review E</i> , <b>2018</b> , 97, 063104  | 2.4  | 10 |
| 30 | Mathematical Modeling of the Function of Warburg Effect in Tumor Microenvironment. <i>Scientific Reports</i> , <b>2018</b> , 8, 8903  | 4.9  | 26 |
| 29 | On-a-Chip Gas Chromatography With Nanomaterials (NMs) <b>2018</b> , 343-358   |      | 1  |
| 28 | ProtDataTherm: A database for thermostability analysis and engineering of proteins. <i>PLoS ONE</i> , <b>2018</b> , 13, e0191222  | 3.7  | 14 |
| 27 | Geo-material surface modification of microchips using layer-by-layer (LbL) assembly for subsurface energy and environmental applications. <i>Lab on A Chip</i> , <b>2018</b> , 18, 285-295  | 7.2  | 27 |
| 26 | Mesenchymal Stem Cell Therapy for Ischemic Tissues. <i>Stem Cells International</i> , <b>2018</b> , 2018, 8179075   | 5    | 38 |
| 25 | Sensitive, Real-time and Non-Intrusive Detection of Concentration and Growth of Pathogenic Bacteria using Microfluidic-Microwave Ring Resonator Biosensor. <i>Scientific Reports</i> , <b>2018</b> , 8, 15807                               | 4.9  | 74 |
| 24 | Delivery of magnetic micro/nanoparticles and magnetic-based drug/cargo into arterial flow for targeted therapy. <i>Drug Delivery</i> , <b>2018</b> , 25, 1963-1973  | 7    | 56 |
| 23 | Bioprocessing of Mesenchymal Stem Cells and Their Derivatives: Toward Cell-Free Therapeutics. <i>Stem Cells International</i> , <b>2018</b> , 2018, 9415367   | 5    | 73 |
| 22 | Nano-biosensor for highly sensitive detection of HER2 positive breast cancer. <i>Biosensors and Bioelectronics</i> , <b>2018</b> , 117, 104-111   | 11.8 | 65 |

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|----|---|------|-----|
| 21 | Towards fully integrated liquid chromatography on a chip: Evolution and evaluation. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2018</b> , 105, 302-337   | 14.6 | 29  |
| 20 | Colloidal Behavior of Cellulose Nanocrystals in Presence of Sodium Chloride. <i>ChemistrySelect</i> , <b>2018</b> , 3, 4969-4978  | 1.8  | 19  |
| 19 | Immunosensing of S100 $\beta$ biomarker for diagnosis of spinal cord injuries (SCI). <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 247, 163-169  | 8.5  | 15  |
| 18 | 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> , <b>2017</b> , 114, E2293-E2302 | 11.5 | 416 |
| 17 | Microfluidic approaches for isolation, detection, and characterization of extracellular vesicles: Current status and future directions. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 91, 588-605                                      | 11.8 | 122 |
| 16 | Manufacturing of hydrogel biomaterials with controlled mechanical properties for tissue engineering applications. <i>Acta Biomaterialia</i> , <b>2017</b> , 62, 42-63   | 10.8 | 229 |
| 15 | Nanoscale Optoregulation of Neural Stem Cell Differentiation by Intracellular Alteration of Redox Balance. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1701420   | 15.6 | 13  |
| 14 | Microfluidic technologies for anticancer drug studies. <i>Drug Discovery Today</i> , <b>2017</b> , 22, 1654-1670  | 8.8  | 48  |
| 13 | Acoustic Manipulation of Bio-Particles at High Frequencies: An Analytical and Simulation Approach. <i>Micromachines</i> , <b>2017</b> , 8,  | 3.3  | 9   |
| 12 | Skin Diseases Modeling using Combined Tissue Engineering and Microfluidic Technologies. <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 2459-2480   | 10.1 | 46  |
| 11 | Electromagnetic Fields and Stem Cell Fate: When Physics Meets Biology. <i>Reviews of Physiology, Biochemistry and Pharmacology</i> , <b>2016</b> , 171, 63-97   | 2.9  | 9   |
| 10 | Protein thermostability engineering. <i>RSC Advances</i> , <b>2016</b> , 6, 115252-115270   | 3.7  | 62  |
| 9  | Microfluidic-Based Multi-Organ Platforms for Drug Discovery. <i>Micromachines</i> , <b>2016</b> , 7,  | 3.3  | 27  |
| 8  | Micro and nanotechnologies in heart valve tissue engineering. <i>Biomaterials</i> , <b>2016</b> , 103, 278-292  | 15.6 | 31  |
| 7  | Impact of Simulated Microgravity on Cytoskeleton and Viscoelastic Properties of Endothelial Cell. <i>Scientific Reports</i> , <b>2016</b> , 6, 32418  | 4.9  | 36  |
| 6  | A microfluidic optical platform for real-time monitoring of pH and oxygen in microfluidic bioreactors and organ-on-chip devices. <i>Biomicrofluidics</i> , <b>2016</b> , 10, 044111   | 3.2  | 75  |
| 5  | Microfluidic integrated acoustic waving for manipulation of cells and molecules. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 85, 714-725   | 11.8 | 53  |
| 4  | Organ-On-Chip Platforms: Skin Diseases Modeling using Combined Tissue Engineering and Microfluidic Technologies (Adv. Healthcare Mater. 19/2016). <i>Advanced Healthcare Materials</i> , <b>2016</b> , 5, 2454-2454                           | 10.1 | 2   |

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|---|---|-----|----|
| 3 | Through the years with on-a-chip gas chromatography: a review. <i>Lab on A Chip</i> , <b>2015</b> , 15, 2559-75   | 7.2 | 50 |
| 2 | Humidified microcontact printing of proteins: universal patterning of proteins on both low and high energy surfaces. <i>Langmuir</i> , <b>2014</b> , 30, 12002-10 | 4   | 32 |
| 1 | Suspensions and hydrogels of cellulose nanocrystals (CNCs): characterization using microscopy and rheology. <i>Cellulose</i> , 1                                  | 5.5 | 2  |