

# Mina Hoorfar

## List of Publications by Year in descending order

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Version: 2024-02-01

110  
papers

5,226  
citations

109321

35  
h-index

91884

69  
g-index

110  
all docs

110  
docs citations

110  
times ranked

6298  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comprehensive review of conventional and state-of-the-art detection methods of Cryptosporidium. Journal of Hazardous Materials, 2022, 421, 126714.	12.4	16
2	Selective detection of VOCs using microfluidic gas sensor with embedded cylindrical microfeatures coated with graphene oxide. Journal of Hazardous Materials, 2022, 424, 127566.	12.4	28
3	Template-Enabled Biofabrication of Thick 3D Tissues with Patterned Perfusable Macrochannels. Advanced Healthcare Materials, 2022, 11, e2102123.	7.6	10
4	A review on 3D printing functional brain model. Biomicrofluidics, 2022, 16, 011501.	2.4	11
5	Template-Enabled Biofabrication of Thick 3D Tissues with Patterned Perfusable Macrochannels (Adv.) Tj ETQq1 1 0,784314 µgBT /Over	7.6	10
6	Additively manufactured metallic biomaterials. Bioactive Materials, 2022, 15, 214-249.	15.6	75
7	Potentiodynamic Electrochemical Impedance Spectroscopy of Polyaniline-Modified Pencil Graphite Electrodes for Selective Detection of Biochemical Trace Elements. Polymers, 2022, 14, 31.	4.5	6
8	Microfluidic-Based Oxygen (O <sub>2</sub> ) Sensors for On-Chip Monitoring of Cell, Tissue and Organ Metabolism. Biosensors, 2022, 12, 6.	4.7	26
9	Quantifying the dielectrophoretic force on colloidal particles in microfluidic devices. Microfluidics and Nanofluidics, 2022, 26, .	2.2	9
10	Neural Network-Based Optimization of an Acousto Microfluidic System for Submicron Bioparticle Separation. Frontiers in Bioengineering and Biotechnology, 2022, 10, 878398.	4.1	7
11	Properties and Applications of Graphene and Its Derivatives in Biosensors for Cancer Detection: A Comprehensive Review. Biosensors, 2022, 12, 269.	4.7	37
12	On-chip-based electrochemical biosensor for the sensitive and label-free detection of Cryptosporidium. Scientific Reports, 2022, 12, 6957.	3.3	12
13	Engineered Hemostatic Biomaterials for Sealing Wounds. Chemical Reviews, 2022, 122, 12864-12903.	47.7	79
14	Selective monitoring of natural gas sulphur-based odorant mixture of t-butyl mercaptan and methyl ethyl sulphide using an array of microfluidic gas sensors. Journal of Hazardous Materials, 2022, 438, 129548.	12.4	8
15	Classification and Regression of Binary Hydrocarbon Mixtures using Single Metal Oxide Semiconductor Sensor With Application to Natural Gas Detection. Sensors and Actuators B: Chemical, 2021, 326, 129012.	7.8	22
16	Dielectrophoretic manipulation of particles on a microfluidics platform with planar tilted electrodes. Sensors and Actuators B: Chemical, 2021, 329, 129204.	7.8	21
17	Nanomaterial-based encapsulation for controlled gastrointestinal delivery of viable probiotic bacteria. Nanoscale Advances, 2021, 3, 2699-2709.	4.6	35
18	Hybrid Nanosystems for Biomedical Applications. ACS Nano, 2021, 15, 2099-2142.	14.6	100

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19	High-throughput three-dimensional cellular platforms for screening biophysical microenvironmental signals. , 2021, , 125-152.		1
20	A review of low-temperature H <sub>2</sub> S gas sensors: fabrication and mechanism. New Journal of Chemistry, 2021, 45, 17727-17752.	2.8	30
21	Anti-bacterial and wound healing-promoting effects of zinc ferrite nanoparticles. Journal of Nanobiotechnology, 2021, 19, 38.	9.1	87
22	Slip-bias extension test: A characterization tool for understanding and modeling the effect of clamping conditions in forming of woven fabrics. Composite Structures, 2021, 260, 113529.	5.8	8
23	Motion and deformation of migrating compound droplets in shear-thinning fluids in a microcapillary tube. Physics of Fluids, 2021, 33, .	4.0	13
24	Additively Manufactured Gradient Porous Ti-6Al-4V Hip Replacement Implants Embedded with Cell-Laden Gelatin Methacryloyl Hydrogels. ACS Applied Materials & Interfaces, 2021, 13, 22110-22123.	8.0	56
25	Performance optimization of a novel passive T-shaped micromixer with deformable baffles. Chemical Engineering and Processing: Process Intensification, 2021, 163, 108369.	3.6	14
26	Sheath-assisted versus sheathless dielectrophoretic particle separation. Electrophoresis, 2021, 42, 1570-1577.	2.4	3
27	Stretchable and Bioadhesive Gelatin Methacryloyl-Based Hydrogels Enabled by <i>in Situ</i> Dopamine Polymerization. ACS Applied Materials & Interfaces, 2021, 13, 40290-40301.	8.0	72
28	Micron-sized particle separation with standing surface acoustic wave-Experimental and numerical approaches. Ultrasonics Sonochemistry, 2021, 76, 105651.	8.2	15
29	A selective polypyrrole-based sub-ppm impedimetric sensor for the detection of dissolved hydrogen sulfide and ammonia in a mixture. Journal of Hazardous Materials, 2021, 416, 125892.	12.4	19
30	Enhanced selectivity of microfluidic gas sensors by modifying microchannel geometry and surface chemistry with graphene quantum dots. Sensors and Actuators B: Chemical, 2021, 342, 130050.	7.8	17
31	Microfluidic On-Chip Production of Alginate Hydrogels Using Double Coflow Geometry. ACS Omega, 2021, 6, 25964-25971.	3.5	7
32	Toward a neurospheroid niche model: optimizing embedded 3D bioprinting for fabrication of neurospheroid brain-like co-culture constructs. Biofabrication, 2021, 13, 015014.	7.1	32
33	Exhaled Breath Analysis for Diabetes Diagnosis and Monitoring: Relevance, Challenges and Possibilities. Biosensors, 2021, 11, 476.	4.7	51
34	Portable on-chip colorimetric biosensing platform integrated with a smartphone for label/PCR-free detection of Cryptosporidium RNA. Scientific Reports, 2021, 11, 23192.	3.3	12
35	Integrated Sensors in Advanced Composites: A Critical Review. Critical Reviews in Solid State and Materials Sciences, 2020, 45, 187-238.	12.3	27
36	Ferritin Nanocage Conjugated Hybrid Hydrogel for Tissue Engineering and Drug Delivery Applications. ACS Biomaterials Science and Engineering, 2020, 6, 277-287.	5.2	25

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37	3D-Printed Ultra-Robust Surface-Doped Porous Silicone Sensors for Wearable Biomonitoring. ACS Nano, 2020, 14, 1520-1532.	14.6	151
38	Topical review on monitoring tetrahydrocannabinol in breath. Journal of Breath Research, 2020, 14, 034002.	3.0	10
39	Experimental characterization of the inter-ply shear behavior of dry and prepreg woven fabrics: Significance of mixed lubrication mode during thermoset composites processing. Composites Part A: Applied Science and Manufacturing, 2020, 129, 105725.	7.6	20
40	Sacrificial 3D printing of shrinkable silicone elastomers for enhanced feature resolution in flexible tissue scaffolds. Acta Biomaterialia, 2020, 117, 261-272.	8.3	32
41	Sheath-assisted focusing of microparticles on lab-on-a-chip platforms. Electrophoresis, 2020, 41, 2188-2196.	2.4	8
42	Micro and nanoscale technologies in oral drug delivery. Advanced Drug Delivery Reviews, 2020, 157, 37-62.	13.7	123
43	Multiphase flow in microfluidics: From droplets and bubbles to the encapsulated structures. Advances in Colloid and Interface Science, 2020, 282, 102208.	14.7	73
44	Parametric study on the geometrical parameters of a lab-on-a-chip platform with tilted planar electrodes for continuous dielectrophoretic manipulation of microparticles. Scientific Reports, 2020, 10, 11718.	3.3	20
45	Extrusion and Microfluidic-Based Bioprinting to Fabricate Biomimetic Tissues and Organs. Advanced Materials Technologies, 2020, 5, 1901044.	5.8	110
46	Graphene/poly (methyl methacrylate) electrochemical impedance-transduced chemiresistor for detection of volatile organic compounds in aqueous medium. Analytica Chimica Acta, 2020, 1109, 27-36.	5.4	35
47	Nano-porous anodic alumina: fundamentals and applications in tissue engineering. Journal of Materials Science: Materials in Medicine, 2020, 31, 60.	3.6	31
48	High Throughput Screening of Cell Mechanical Response Using a Stretchable 3D Cellular Microarray Platform. Small, 2020, 16, e2000941.	10.0	16
49	Fabrication of SnO <sub>2</sub> Composite Nanofiber-Based Gas Sensor Using the Electrospinning Method for Tetrahydrocannabinol (THC) Detection. Micromachines, 2020, 11, 190.	2.9	8
50	Exploiting Microfluidics for Extracellular Vesicle Isolation and Characterization: Potential Use for Standardized Embryo Quality Assessment. Frontiers in Veterinary Science, 2020, 7, 620809.	2.2	26
51	Selective detection of volatile organic compounds in microfluidic gas detectors based on $\alpha$ -cyclodextrin. Scientific Reports, 2019, 9, 161.	3.3	36
52	A review of sorting, separation and isolation of cells and microbeads for biomedical applications: microfluidic approaches. Analyst, The, 2019, 144, 87-113.	3.5	199
53	Bioprinting and bioprinting technologies to make heterogeneous and biomimetic tissue constructs. Materials Today Bio, 2019, 1, 100008.	5.5	312
54	Permeability and mechanical properties of gradient porous PDMS scaffolds fabricated by 3D-printed sacrificial templates designed with minimal surfaces. Acta Biomaterialia, 2019, 96, 149-160.	8.3	139

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55	Graphene-Coated Spandex Sensors Embedded into Silicone Sheath for Composites Health Monitoring and Wearable Applications. <i>Small</i> , 2019, 15, e1804991.	10.0	82
56	Challenges and opportunities in exosome research—Perspectives from biology, engineering, and cancer therapy. <i>APL Bioengineering</i> , 2019, 3, 011503.	6.2	327
57	Fluid Permeability of Graded Porosity Scaffolds Architected with Minimal Surfaces. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 1228-1237.	5.2	61
58	A graphene-based chemical sensor for hydrogen sulfide measurement in water. , 2019, , .		1
59	A Nanostructured Microfluidic Artificial Olfaction for Organic Vapors Recognition. <i>Scientific Reports</i> , 2019, 9, 19051.	3.3	19
60	Label-Free Capacitive Biosensor for Detection of <i>Cryptosporidium</i> . <i>Sensors</i> , 2019, 19, 258.	3.8	43
61	A frameless picture frame test with embedded sensor: Mitigation of imperfections in shear characterization of woven fabrics. <i>Composite Structures</i> , 2019, 211, 112-124.	5.8	18
62	Low-cost ultra-stretchable strain sensors for monitoring human motion and bio-signals. <i>Sensors and Actuators A: Physical</i> , 2018, 271, 182-191.	4.1	72
63	Diffusion-based humidity control membrane for microfluidic-based gas detectors. <i>Analytica Chimica Acta</i> , 2018, 1021, 103-112.	5.4	21
64	3D-printed multimaterial composites tailored for compliancy and strain recovery. <i>Composite Structures</i> , 2018, 184, 11-17.	5.8	38
65	Kinetic characterization of acetone monooxygenase from <i>Gordonia</i> sp. strain TY-5. <i>AMB Express</i> , 2018, 8, 181.	3.0	13
66	Development of a Sensing Platform for Nuisance Sewer Gas Monitoring: Hydrogen Sulfide Detection in Aqueous Versus Gaseous Samples. <i>IEEE Sensors Journal</i> , 2018, 18, 7772-7778.	4.7	12
67	Simulation of combustion in a porous-medium diesel engine. <i>Journal of Mechanical Science and Technology</i> , 2018, 32, 2327-2337.	1.5	8
68	Compressive characteristics of radially graded porosity scaffolds architected with minimal surfaces. <i>Materials Science and Engineering C</i> , 2018, 92, 254-267.	7.3	82
69	Analytical study of unsteady sedimentation analysis of spherical particle in Newtonian fluid media. <i>Thermal Science</i> , 2018, 22, 847-855.	1.1	8
70	On-Chip Electronic Nose For Wine Tasting: A Digital Microfluidic Approach. <i>IEEE Sensors Journal</i> , 2017, 17, 4322-4329.	4.7	29
71	An electrohydrodynamic technique for rapid mixing in stationary droplets on digital microfluidic platforms. <i>Lab on A Chip</i> , 2017, 17, 227-234.	6.0	29
72	Characterization of channel coating and dimensions of microfluidic-based gas detectors. <i>Sensors and Actuators B: Chemical</i> , 2017, 241, 55-64.	7.8	44

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73	Predicting permeability of regular tissue engineering scaffolds: scaling analysis of pore architecture, scaffold length, and fluid flow rate effects. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2017, 20, 231-241.	1.6	39
74	The relationships between deformation mechanisms and mechanical properties of additively manufactured porous biomaterials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 70, 28-42.	3.1	76
75	Fabrication of palladium functionalized sol-gel based SnO <sub>2</sub> gas sensor for H <sub>2</sub> and CO detection. , 2017, , .		0
76	A method of accelerated regeneration for a microfluidic gas sensor. , 2017, , .		0
77	3D Printing-Based Integrated Water Quality Sensing System. <i>Sensors</i> , 2017, 17, 1336.	3.8	27
78	Control of artificial human finger using wearable device and adaptive network-based fuzzy inference system. , 2016, , .		3
79	Additive manufacturing and mechanical characterization of graded porosity scaffolds designed based on triply periodic minimal surface architectures. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 62, 481-494.	3.1	197
80	Integrated Decision Support System for Prognostic and Diagnostic Analyses of Water Distribution System Failures. <i>Water Resources Management</i> , 2016, 30, 2831-2850.	3.9	10
81	Laterally Confined Microfluidic Patterning of Cells for Engineering Spatially Defined Vascularization. <i>Small</i> , 2016, 12, 5132-5139.	10.0	21
82	A review of digital microfluidics as portable platforms for lab-on a-chip applications. <i>Lab on A Chip</i> , 2016, 16, 2376-2396.	6.0	354
83	Integration of biosensors into digital microfluidics: Impact of hydrophilic surface of biosensors on droplet manipulation. <i>Biosensors and Bioelectronics</i> , 2016, 81, 480-486.	10.1	36
84	Highly selective multi-target 3D-printed microfluidic-based breath analyzer. , 2016, , .		9
85	Ultra-Portable Smartphone Controlled Integrated Digital Microfluidic System in a 3D-Printed Modular Assembly. <i>Micromachines</i> , 2015, 6, 1289-1305.	2.9	27
86	Microfluidics Integrated Biosensors: A Leading Technology towards Lab-on-a-Chip and Sensing Applications. <i>Sensors</i> , 2015, 15, 30011-30031.	3.8	385
87	Systematic analysis of geometrical based unequal droplet splitting in digital microfluidics. <i>Journal of Micromechanics and Microengineering</i> , 2015, 25, 055008.	2.6	37
88	Failure mechanisms of additively manufactured porous biomaterials: Effects of porosity and type of unit cell. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 50, 180-191.	3.1	264
89	A dielectrophoretic-gravity driven particle focusing technique for digital microfluidic systems. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	21
90	Gravity-driven hydrodynamic particle separation in digital microfluidic systems. <i>RSC Advances</i> , 2015, 5, 35966-35975.	3.6	13

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91	Purification of a droplet using negative dielectrophoresis traps in digital microfluidics. <i>Microfluidics and Nanofluidics</i> , 2015, 18, 483-492.	2.2	15
92	Effect of Gas Diffusion Layer Properties on Breakthrough Time and Pressure. <i>Transport in Porous Media</i> , 2014, 105, 43-55.	2.6	3
93	Reliability Assessment for Water Supply Systems under Uncertainties. <i>Journal of Water Resources Planning and Management - ASCE</i> , 2014, 140, 468-479.	2.6	47
94	Water distribution system failure: a framework for forensic analysis. <i>Environment Systems and Decisions</i> , 2014, 34, 168-179.	3.4	7
95	Online Drinking Water Quality Monitoring: Review on Available and Emerging Technologies. <i>Critical Reviews in Environmental Science and Technology</i> , 2014, 44, 1370-1421.	12.8	100
96	Investigating internal architecture effect in plastic deformation and failure for TPMS-based scaffolds using simulation methods and experimental procedure. <i>Materials Science and Engineering C</i> , 2014, 43, 587-597.	7.3	109
97	Enhanced fuzzy evidential reasoning using an optimization approach for water quality monitoring. , 2013, , .		1
98	Evaluating Water Quality Failure Potential in Water Distribution Systems: A Fuzzy-TOPSIS-OWA-based Methodology. <i>Water Resources Management</i> , 2013, 27, 2195-2216.	3.9	32
99	Characterization of the geometry of negative dielectrophoresis traps for particle immobilization in digital microfluidic platforms. <i>Lab on A Chip</i> , 2013, 13, 1823.	6.0	27
100	A fuzzy rule-based approach for water quality assessment in the distribution network. , 2013, , .		3
101	Networked fuzzy belief rule-based system for spatiotemporal monitoring. , 2013, , .		1
102	Multicriteria information fusion using a fuzzy evidential rule-based framework. , 2012, , .		2
103	Online monitoring of drinking water quality in a distribution network: a selection procedure for suitable water quality parameters and sensor devices. <i>International Journal of Systems Assurance Engineering and Management</i> , 2012, 3, 323-337.	2.4	12
104	Study of the effect of electric field and electroneutrality on transport of biomolecules in microreactors. <i>Microfluidics and Nanofluidics</i> , 2012, 12, 279-294.	2.2	6
105	Numerical study of the microdroplet actuation switching frequency in digital microfluidic biochips. <i>Microfluidics and Nanofluidics</i> , 2012, 12, 295-305.	2.2	5
106	Leakage detection and location in water distribution systems using a fuzzy-based methodology. <i>Urban Water Journal</i> , 2011, 8, 351-365.	2.1	52
107	Interval belief structure rule-based system using extended fuzzy Dempster-Shafer inference. , 2011, , .		5
108	Electrohydrodynamic modeling of microdroplet transient dynamics in electrocapillary-based digital microfluidic devices. <i>Microfluidics and Nanofluidics</i> , 2011, 10, 1019-1032.	2.2	15

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109	Evidential reasoning using extended fuzzy Dempster-Shafer theory for handling various facets of information deficiency. International Journal of Intelligent Systems, 2011, 26, 731-758.	5.7	18
110	Nano-scale Particle Separation with Tilted Standing Surface Acoustic Wave – Experimental and Numerical Approaches. Particle and Particle Systems Characterization, 0, , 2200057.	2.3	0