

Reza Ghodssi

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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.

125
papers

4,679
citations

36
h-index

65
g-index

139
ext. papers

5,087
ext. citations

5.5
avg, IF

5.25
L-index

#	Paper	IF	Citations
125	Biofabrication with chitosan. <i>Biomacromolecules</i> , 2005 , 6, 2881-94	6.9	593
124	Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface. <i>Langmuir</i> , 2002 , 18, 8620-8625	4	242
123	Virus-enabled silicon anode for lithium-ion batteries. <i>ACS Nano</i> , 2010 , 4, 5366-72	16.7	212
122	Microfluidic systems with on-line UV detection fabricated in photodefinable epoxy. <i>Journal of Micromechanics and Microengineering</i> , 2001 , 11, 263-269	2	183
121	Electrochemically Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface. <i>Langmuir</i> , 2003 , 19, 4058-4062	4	170
120	Patterned assembly of genetically modified viral nanotemplates via nucleic acid hybridization. <i>Nano Letters</i> , 2005 , 5, 1931-6	11.5	136
119	A Patterned 3D Silicon Anode Fabricated by Electrodeposition on a Virus-Structured Current Collector. <i>Advanced Functional Materials</i> , 2011 , 21, 380-387	15.6	117
118	Ozone-Based Atomic Layer Deposition of Crystalline V2O5 Films for High Performance Electrochemical Energy Storage. <i>Chemistry of Materials</i> , 2012 , 24, 1255-1261	9.6	110
117	Hierarchical three-dimensional microbattery electrodes combining bottom-up self-assembly and top-down micromachining. <i>ACS Nano</i> , 2012 , 6, 6422-32	16.7	106
116	Electroaddressing of Cell Populations by Co-Deposition with Calcium Alginate Hydrogels. <i>Advanced Functional Materials</i> , 2009 , 19, 2074-2080	15.6	101
115	Spatially Selective Deposition of a Reactive Polysaccharide Layer onto a Patterned Template. <i>Langmuir</i> , 2003 , 19, 519-524	4	101
114	Nature-Inspired Creation of ProteinPolysaccharide Conjugate and Its Subsequent Assembly onto a Patterned Surface. <i>Langmuir</i> , 2003 , 19, 9382-9386	4	92
113	Fabrication of micronozzles using low-temperature wafer-level bonding with SU-8. <i>Journal of Micromechanics and Microengineering</i> , 2003 , 13, 732-738	2	76
112	Biotemplated hierarchical surfaces and the role of dual length scales on the repellency of impacting droplets. <i>Applied Physics Letters</i> , 2012 , 100, 263701	3.4	73
111	Plant virus directed fabrication of nanoscale materials and devices. <i>Virology</i> , 2015 , 479-480, 200-12	3.6	72
110	AI-2 analogs and antibiotics: a synergistic approach to reduce bacterial biofilms. <i>Applied Microbiology and Biotechnology</i> , 2013 , 97, 2627-38	5.7	70
109	Electrochemical performance of the nanostructured biotemplated V2O5 cathode for lithium-ion batteries. <i>Journal of Power Sources</i> , 2012 , 206, 282-287	8.9	65

108	Nanostructured nickel electrodes using the Tobacco mosaic virus for microbattery applications. <i>Journal of Micromechanics and Microengineering</i> , 2008 , 18, 104003	2	63
107	Chitosan-mediated in situ biomolecule assembly in completely packaged microfluidic devices. <i>Lab on A Chip</i> , 2006 , 6, 1315-21	7.2	63
106	Mechanical property measurement of InP-based MEMS for optical communications. <i>Sensors and Actuators A: Physical</i> , 2003 , 105, 190-200	3.9	61
105	Design, Fabrication, and Characterization of a Rotary Micromotor Supported on Microball Bearings. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 632-642	2.5	59
104	A robust technique for assembly of nucleic acid hybridization chips based on electrochemically templated chitosan. <i>Analytical Chemistry</i> , 2004 , 76, 365-72	7.8	50
103	Cathodic ALD V2O5 thin films for high-rate electrochemical energy storage. <i>RSC Advances</i> , 2013 , 3, 42943-7	3.7	49
102	Programmable assembly of a metabolic pathway enzyme in a pre-packaged reusable bioMEMS device. <i>Lab on A Chip</i> , 2008 , 8, 420-30	7.2	49
101	Embedded benzocyclobutene in silicon: An integrated fabrication process for electrical and thermal isolation in MEMS. <i>Microelectronic Engineering</i> , 2005 , 82, 154-167	2.5	45
100	An ALD aluminum oxide passivated Surface Acoustic Wave sensor for early biofilm detection. <i>Sensors and Actuators B: Chemical</i> , 2012 , 163, 136-145	8.5	44
99	Electronic modulation of biochemical signal generation. <i>Nature Nanotechnology</i> , 2014 , 9, 605-10	28.7	43
98	High rate performance of virus enabled 3D n-type Si anodes for lithium-ion batteries. <i>Electrochimica Acta</i> , 2011 , 56, 5210-5213	6.7	43
97	A microfluidic-based electrochemical biochip for label-free diffusion-restricted DNA hybridization analysis. <i>Biosensors and Bioelectronics</i> , 2012 , 38, 114-20	11.8	42
96	Signal-directed sequential assembly of biomolecules on patterned surfaces. <i>Langmuir</i> , 2005 , 21, 2104-7	4	42
95	Mechano-transduction of DNA hybridization and dopamine oxidation through electrodeposited chitosan network. <i>Lab on A Chip</i> , 2007 , 7, 103-11	7.2	40
94	Chemical and thermal stability of alkanethiol and sulfur passivated InP(100). <i>Langmuir</i> , 2004 , 20, 743-7	4	39
93	End-coupled optical waveguide MEMS devices in the indium phosphide material system. <i>Journal of Micromechanics and Microengineering</i> , 2006 , 16, 832-842	2	38
92	Carboxylate-directed in vivo assembly of virus-like nanorods and tubes for the display of functional peptides and residues. <i>Biomacromolecules</i> , 2013 , 14, 3123-9	6.9	37
91	A controlled microfluidic electrochemical lab-on-a-chip for label-free diffusion-restricted DNA hybridization analysis. <i>Biosensors and Bioelectronics</i> , 2015 , 64, 579-85	11.8	36

90	Microfluidic electrochemical sensor array for characterizing protein interactions with various functionalized surfaces. <i>Analytical Chemistry</i> , 2011 , 83, 5920-7	7.8	36
89	Development and validation of a microfluidic reactor for biofilm monitoring via optical methods. <i>Journal of Micromechanics and Microengineering</i> , 2011 , 21, 054023	2	36
88	Dynamic Friction and Wear in a Planar-Contact Encapsulated Microball Bearing Using an Integrated Microturbine. <i>Journal of Microelectromechanical Systems</i> , 2009 , 18, 263-273	2.5	35
87	Ingestible Sensors and Sensing Systems for Minimally Invasive Diagnosis and Monitoring: The Next Frontier in Minimally Invasive Screening. <i>ACS Sensors</i> , 2020 , 5, 891-910	9.2	34
86	Redox cycling-based amplifying electrochemical sensor for in situ clozapine antipsychotic treatment monitoring. <i>Electrochimica Acta</i> , 2014 , 130, 497-503	6.7	34
85	3D tin anodes prepared by electrodeposition on a virus scaffold. <i>Journal of Power Sources</i> , 2012 , 211, 129-132	8.9	33
84	An optical MEMS sensor utilizing a chitosan film for catechol detection. <i>Sensors and Actuators B: Chemical</i> , 2009 , 138, 64-70	8.5	33
83	In-Film Bioprocessing and Immunoanalysis with Electroaddressable Stimuli-Responsive Polysaccharides. <i>Advanced Functional Materials</i> , 2010 , 20, 1645-1652	15.6	32
82	Biological nanofactories facilitate spatially selective capture and manipulation of quorum sensing bacteria in a bioMEMS device. <i>Lab on A Chip</i> , 2010 , 10, 1128-34	7.2	31
81	Protein assembly onto patterned microfabricated devices through enzymatic activation of fusion pro-tag. <i>Biotechnology and Bioengineering</i> , 2008 , 99, 499-507	4.9	31
80	Effect of electrical energy on the efficacy of biofilm treatment using the bioelectric effect. <i>Npj Biofilms and Microbiomes</i> , 2015 , 1, 15016	8.2	30
79	Accessing biology's toolbox for the mesoscale biofabrication of soft matter. <i>Soft Matter</i> , 2013 , 9, 6019	3.6	30
78	Double-Exposure Grayscale Photolithography. <i>Journal of Microelectromechanical Systems</i> , 2009 , 18, 308-315	3.5	30
77	Redox Probing for Chemical Information of Oxidative Stress. <i>Analytical Chemistry</i> , 2017 , 89, 1583-1592	7.8	29
76	A surface acoustic wave biofilm sensor integrated with a treatment method based on the bioelectric effect. <i>Sensors and Actuators A: Physical</i> , 2016 , 238, 140-149	3.9	29
75	Dynamic characterization of a linear electrostatic micromotor supported on microball bearings. <i>Sensors and Actuators A: Physical</i> , 2007 , 136, 496-503	3.9	29
74	Selective deposition of nanostructured ruthenium oxide using Tobacco mosaic virus for micro-supercapacitors in solid Nafion electrolyte. <i>Journal of Power Sources</i> , 2015 , 293, 649-656	8.9	27
73	Electrochemical study of the catechol-modified chitosan system for clozapine treatment monitoring. <i>Langmuir</i> , 2014 , 30, 14686-93	4	27

72	Capillary Microfluidics-Assembled Virus-like Particle Bionanoreceptor Interfaces for Label-Free Biosensing. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 8471-8479	9.5	24
71	Encapsulated ball bearings for rotary micro machines. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, S224-S229	2	24
70	A fabrication platform for electrically mediated optically active biofunctionalized sites in BioMEMS. <i>Lab on A Chip</i> , 2005 , 5, 583-6	7.2	24
69	Chitosan biotinylation and electrodeposition for selective protein assembly. <i>Macromolecular Bioscience</i> , 2008 , 8, 451-7	5.5	23
68	Thermo-biolithography: a technique for patterning nucleic acids and proteins. <i>Langmuir</i> , 2004 , 20, 906-13	3	23
67	Blood Draw Barriers for Treatment with Clozapine and Development of a Point-of-Care Monitoring Device. <i>Clinical Schizophrenia and Related Psychoses</i> , 2018 , 12, 23-30	1.6	23
66	Reliable clinical serum analysis with reusable electrochemical sensor: Toward point-of-care measurement of the antipsychotic medication clozapine. <i>Biosensors and Bioelectronics</i> , 2017 , 95, 55-59	11.8	22
65	A fast-response microfluidic gas concentrating device for environmental sensing. <i>Sensors and Actuators A: Physical</i> , 2007 , 136, 69-79	3.9	22
64	An Integrated Microsystem for Real-Time Detection and Threshold-Activated Treatment of Bacterial Biofilms. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 31362-31371	9.5	21
63	Microsystems for biofilm characterization and sensing - A review. <i>Biofilm</i> , 2020 , 2, 100015	5.9	21
62	Programmable Bismart Sensor: Relevance to Monitoring Antipsychotics. <i>Advanced Functional Materials</i> , 2015 , 25, 2156-2165	15.6	20
61	A platform for in situ Raman and stress characterizations of V2O5 cathode using MEMS device. <i>Electrochimica Acta</i> , 2017 , 242, 227-239	6.7	18
60	A cantilever sensor with an integrated optical readout for detection of enzymatically produced homocysteine. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2009 , 3, 415-23	5.1	18
59	Interferometric readout of multiple cantilever sensors in liquid samples. <i>Sensors and Actuators B: Chemical</i> , 2010 , 146, 245-252	8.5	18
58	Vertically-Shaped Tunable MEMS Resonators. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 85-92	2.5	18
57	Tobacco mosaic virus-templated hierarchical Ni/NiO with high electrochemical charge storage performances. <i>Electrochimica Acta</i> , 2016 , 220, 184-192	6.7	17
56	Reversible vesicle restraint in response to spatiotemporally controlled electrical signals: a bridge between electrical and chemical signaling modes. <i>Langmuir</i> , 2007 , 23, 286-91	4	17
55	Substrate interconnect technologies for 3-D MEMS packaging. <i>Microelectronic Engineering</i> , 2005 , 81, 106-116	2.5	17

54	An Electrochemical Micro-System for Clozapine Antipsychotic Treatment Monitoring. <i>Electrochimica Acta</i> , 2015 , 163, 260-270	6.7	16
53	Design of MEMS-tunable novel monolithic optical filters in InP with horizontal bragg mirrors. <i>Solid-State Electronics</i> , 2004 , 48, 1959-1963	1.7	16
52	Fusing Sensor Paradigms to Acquire Chemical Information: An Integrative Role for Smart Biopolymeric Hydrogels. <i>Advanced Healthcare Materials</i> , 2016 , 5, 2595-2616	10.1	15
51	A Microfabricated Spiral-Groove Turbopump Supported on Microball Bearings. <i>Journal of Microelectromechanical Systems</i> , 2010 , 19, 99-109	2.5	15
50	Towards area-based in vitro metabolic engineering: assembly of Pfs enzyme onto patterned microfabricated chips. <i>Biotechnology Progress</i> , 2008 , 24, 1042-51	2.8	15
49	Nano-scale fatigue study of LPCVD silicon nitride thin films using a mechanical-amplifier actuator. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, 938-944	2	15
48	Real-time monitoring of macromolecular biosensing probe self-assembly and on-chip ELISA using impedimetric microsensors. <i>Biosensors and Bioelectronics</i> , 2016 , 81, 401-407	11.8	14
47	Automated Two-Axes Optical Fiber Alignment Using Grayscale Technology. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 102-110	2.5	14
46	An electrostatic actuator for fatigue testing of low-stress LPCVD silicon nitride thin films. <i>Sensors and Actuators A: Physical</i> , 2005 , 121, 557-565	3.9	13
45	Tobacco Mosaic Virus as a Versatile Platform for Molecular Assembly and Device Fabrication. <i>Biotechnology Journal</i> , 2018 , 13, e1800147	5.6	13
44	Closed-loop control of a long-range micropositioner using integrated photodiode sensors. <i>Sensors and Actuators A: Physical</i> , 2009 , 151, 187-194	3.9	12
43	Design optimization for bioMEMS studies of enzyme-controlled metabolic pathways. <i>Biomedical Microdevices</i> , 2008 , 10, 899-908	3.7	12
42	Flexible Platform for In Situ Impedimetric Detection and Bioelectric Effect Treatment of Escherichia Coli Biofilms. <i>IEEE Transactions on Biomedical Engineering</i> , 2019 , 66, 1337-1345	5	12
41	A Novel Benzocyclobutene-Based Device for Studying the Dynamics of Heat Transfer During the Nucleation Process. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 1355-1366	2.5	11
40	Integrated biofabrication for electro-addressed in-film bioprocessing. <i>Biotechnology Journal</i> , 2012 , 7, 428-39	5.6	10
39	Compensated aspect ratio dependent etching (CARDE) using gray-scale technology. <i>Microelectronic Engineering</i> , 2005 , 77, 85-94	2.5	10
38	The interplay of electrode- and bio-materials in a redox-cycling-based clozapine sensor. <i>Electrochemistry Communications</i> , 2017 , 79, 33-36	5.1	9
37	Biofabrication of Tobacco mosaic virus-nanoscaffolded supercapacitors via temporal capillary microfluidics. <i>Nanotechnology</i> , 2017 , 28, 265301	3.4	9

36	Hydrodynamic focusing for microfluidic impedance cytometry: a system integration study. <i>Microfluidics and Nanofluidics</i> , 2016 , 20, 1	2.8	9
35	Multidimensional mapping method using an arrayed sensing system for cross-reactivity screening. <i>PLoS ONE</i> , 2015 , 10, e0116310	3.7	9
34	3D-Printed electrochemical sensor-integrated transwell systems. <i>Microsystems and Nanoengineering</i> , 2020 , 6, 100	7.7	9
33	In situ characterization of charge rate dependent stress and structure changes in V2O5 cathode prepared by atomic layer deposition. <i>Journal of Power Sources</i> , 2017 , 340, 89-97	8.9	8
32	An Adhesion-Dominated Rolling Friction Regime Unique to Micro-scale Ball Bearings. <i>Tribology Letters</i> , 2014 , 56, 215-221	2.8	8
31	Development of ground-testable phase fresnel lenses in silicon. <i>Experimental Astronomy</i> , 2006 , 20, 299-306	3.06	8
30	Electrochemical Dissolved Oxygen Sensor-Integrated Platform for Wireless In Situ Bioprocess Monitoring. <i>Sensors and Actuators B: Chemical</i> , 2020 , 320, 128381	8.5	7
29	Wear mechanisms in microfabricated ball bearing systems. <i>Wear</i> , 2015 , 326-327, 1-9	3.5	7
28	A MEMS platform for in situ, real-time monitoring of electrochemically induced mechanical changes in lithium-ion battery electrodes. <i>Journal of Micromechanics and Microengineering</i> , 2013 , 23, 114018	2	7
27	Indium Phosphide MEMS Cantilever Resonator Sensors Utilizing a Pentacene Absorption Layer. <i>Journal of Microelectromechanical Systems</i> , 2009 , 18, 103-110	2.5	7
26	Gastrointestinal Targeted Sampling and Sensing via Embedded Packaging of Integrated Capsule System. <i>Journal of Microelectromechanical Systems</i> , 2019 , 28, 219-225	2.5	6
25	Gelatin-Enabled Microsensor for Pancreatic Trypsin Sensing. <i>Applied Sciences (Switzerland)</i> , 2018 , 8, 208	2.6	6
24	. <i>Journal of Microelectromechanical Systems</i> , 2015 , 24, 289-299	2.5	6
23	Molecular processes in an electrochemical clozapine sensor. <i>Biointerphases</i> , 2017 , 12, 02B401	1.8	5
22	Localized Three-Dimensional Functionalization of Bionanoreceptors on High-Density Micropillar Arrays via Electrowetting. <i>Langmuir</i> , 2018 , 34, 1725-1732	4	5
21	. <i>Journal of Microelectromechanical Systems</i> , 2013 , 22, 794-803	2.5	5
20	Capacitive sensing of triglyceride film reactions: a proof-of-concept demonstration for sensing in simulated duodenal contents with gastrointestinal targeting capsule system. <i>Lab on A Chip</i> , 2020 , 20, 2020-2032	7.2	4
19	The Role of Microsystems Integration Towards Point-of-Care Clozapine Treatment Monitoring in Schizophrenia 2018 , 2,		4

18	The Binding Effect of Proteins on Medications and Its Impact on Electrochemical Sensing: Antipsychotic Clozapine as a Case Study. <i>Pharmaceuticals</i> , 2017 , 10,	5.2	4
17	Microfluidic Arrayed Lab-On-A-Chip for Electrochemical Capacitive Detection of DNA Hybridization Events. <i>Methods in Molecular Biology</i> , 2017 , 1572, 71-88	1.4	3
16	Characterization of Mechanical Properties of Silicon Nitride Thin Films for Space Applications. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 782, 1		3
15	Hybrid and Passive Tissue-Anchoring Mechanism for Ingestible Resident Devices. <i>Journal of Microelectromechanical Systems</i> , 2020 , 29, 706-712	2.5	3
14	Monitoring of actuation conditions in a micro-turbo-generator. <i>IEEE Sensors Journal</i> , 2013 , 13, 2937-2943		2
13	Electrical Characterization of BCB for Electrostatic Microelectromechanical Devices. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 782, 1		2
12	Dynamic in Vitro Biosensing with Flexible Microporous Multimodal Cell-Interfacial Sensors 2019 ,		1
11	In Situ Sensor Electrode Patterning on Urinary Catheters towards Infection Prevention 2019 ,		1
10	Platforms for Engineering Biomedical Experiments. <i>IEEE Systems Journal</i> , 2015 , 9, 1218-1228	4.3	1
9	Wireless Sensor-Integrated Platform for Localized Dissolved Oxygen Sensing in Bioreactors. <i>Journal of Microelectromechanical Systems</i> , 2020 , 29, 713-719	2.5	1
8	A microfluidic-based electrochemical biochip for label-free DNA hybridization analysis. <i>Journal of Visualized Experiments</i> , 2014 , 51797	1.6	1
7	Virus directed assembly of receptor peptides for explosive sensing 2010 ,		1
6	Reprogramming Virus Coat Protein Carboxylate Interactions for the Patterned Assembly of Hierarchical Nanorods. <i>Biomacromolecules</i> , 2021 , 22, 2515-2523	6.9	1
5	Integrated System for Bacterial Detection and Biofilm Treatment on Indwelling Urinary Catheters. <i>IEEE Transactions on Biomedical Engineering</i> , 2021 , 68, 3241-3249	5	0
4	A Hybrid Biomonitoring System for Gut-Neuron Communication. <i>Journal of Microelectromechanical Systems</i> , 2020 , 29, 727-733	2.5	
3	FIB-Based Fatigue Testing of Silicon Nitride Thin Films for Space Applications. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 851, 310		
2	Complementary Capillary System Integrated Microneedles for Autonomously Localized Therapeutics Loading. <i>Journal of Microelectromechanical Systems</i> , 2020 , 29, 912-917	2.5	
1	IEEE JMEMS Special Proceeding for the Hilton Head 2020 Workshop. <i>Journal of Microelectromechanical Systems</i> , 2020 , 29, 619-620	2.5	

