

# Mahdi Moghimi Zand

## List of Publications by Year in descending order

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Version: 2024-02-01

57  
papers

873  
citations

566801

15  
h-index

500791

28  
g-index

61  
all docs

61  
docs citations

61  
times ranked

441  
citing authors

#	ARTICLE	IF	CITATIONS
1	Lower reactive oxygen species production and faster swimming speed of human sperm cells on nanodiamond spin-coated glass substrates. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2022, , .	1.6	1
2	Effect of added mass distribution on the dynamic PI and frequency shifting in MEMS and NEMS biosensors. <i>Microsystem Technologies</i> , 2021, 27, 693-702.	1.2	5
3	Cell properties assessment using optimized dielectrophoresis-based cell stretching and lumped mechanical modeling. <i>Scientific Reports</i> , 2021, 11, 2341.	1.6	13
4	3D numerical simulation of acoustophoretic motion induced by boundary-driven acoustic streaming in standing surface acoustic wave microfluidics. <i>Scientific Reports</i> , 2021, 11, 13326.	1.6	10
5	Wearable electrochemical flexible biosensors: With the focus on affinity biosensors. <i>Sensing and Bio-Sensing Research</i> , 2021, 32, 100403.	2.2	29
6	Numerical simulation of critical particle size in asymmetrical deterministic lateral displacement. <i>Journal of Chromatography A</i> , 2021, 1649, 462216.	1.8	15
7	Rheotaxis-based sperm separation using a biomimicry microfluidic device. <i>Scientific Reports</i> , 2021, 11, 18327.	1.6	21
8	A visco-hyperelastic constitutive model of short- and long-term viscous effects on isotropic soft tissues. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020, 234, 3-17.	1.1	11
9	Effect of input voltage frequency on the distribution of electrical stresses on the cell surface based on single-cell dielectrophoresis analysis. <i>Scientific Reports</i> , 2020, 10, 68.	1.6	18
10	Quantification of human sperm concentration using machine learning-based spectrophotometry. <i>Computers in Biology and Medicine</i> , 2020, 127, 104061.	3.9	11
11	Nonlinear Thermohyperviscoelastic Constitutive Model for Soft Materials with Strain Rate and Temperature Dependency. <i>International Journal of Applied Mechanics</i> , 2020, 12, 2050059.	1.3	4
12	A New Viscous Potential Function for Developing the Viscohyperelastic Constitutive Model for Bovine Liver Tissue: Continuum Formulation and Finite Element Implementation. <i>International Journal of Applied Mechanics</i> , 2020, 12, 2050029.	1.3	4
13	Strain-stiffening and strain-softening responses in random viscoelastic fibrous networks: interplay between fiber orientation and viscoelastic softening. <i>Soft Materials</i> , 2020, 18, 373-385.	0.8	3
14	An analytical investigation on the new design of 3-DOF flexible nanopositioner driven by electrostatic actuators. <i>Microsystem Technologies</i> , 2020, 26, 3737-3745.	1.2	1
15	Dynamic pull-in instability and snap-through buckling of initially curved microbeams under the effect of squeeze-film damping, mechanical shock and axial force. <i>Smart Materials and Structures</i> , 2019, 28, 097001.	1.8	11
16	Effects of thread shape on strength and stability of dental mini-screws against orthodontic forces. <i>Procedia Manufacturing</i> , 2019, 35, 1032-1038.	1.9	3
17	Revealing electrical stresses acting on the surface of protoplast cells under electric field. <i>European Journal of Mechanics, B/Fluids</i> , 2019, 76, 292-302.	1.2	3
18	Nonlinear dynamics of flexible nanopositioning systems with geometrical imperfection. <i>Microsystem Technologies</i> , 2019, 25, 3813-3823.	1.2	4

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19	Local Response of Actin Networks is Controlled by Tensile Strains in the Stress-Fibers: Insights From a Discrete Network Model. <i>International Journal of Applied Mechanics</i> , 2019, 11, 1950072.	1.3	0
20	Effect of Dispersion Forces on Dynamic Stability of Electrostatically Actuated Micro/Nano-Beams in Presence of Mechanical Shocks. <i>International Journal of Applied Mechanics</i> , 2019, 11, 1950085.	1.3	5
21	Dielectrophoretic interaction of two particles in a uniform electric field. <i>Microsystem Technologies</i> , 2019, 25, 2699-2711.	1.2	10
22	Dynamic pull-in and snap-through behavior of electrostatically actuated micro-mechanical memories considering thermoelastic damping. <i>Mechanics of Advanced Materials and Structures</i> , 2019, 26, 1911-1919.	1.5	10
23	Numerical study of insulation structure characteristics and arrangement effects on cell trapping using alternative current insulating based dielectrophoresis. <i>Scientia Iranica</i> , 2019, .	0.3	2
24	Developing a deformable model of liver tumor during breathing to improve targeting accuracy in image-guided therapy using finite element simulation. <i>Scientia Iranica</i> , 2019, .	0.3	1
25	Dynamics and vibrations of particle-sensing MEMS considering thermal and electrostatic actuation. <i>Microsystem Technologies</i> , 2018, 24, 1545-1552.	1.2	17
26	Vibrational and thermoelastic behavior of punched-beam micro resonators containing odd-number of slots. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2018, 232, 2821-2829.	1.1	2
27	Oscillatory Behavior of Electrostatically-Actuated Nanoplates. <i>Recent Patents on Mechanical Engineering</i> , 2018, 11, 155-167.	0.2	1
28	Proposing a new nonlinear hyperviscoelastic constitutive model to describe uniaxial compression behavior and dependence of stress-relaxation response on strain levels for isotropic tissue-equivalent material. <i>Scientia Iranica</i> , 2018, .	0.3	1
29	Dynamic pull-in and snap-through behavior in micro/nano mechanical memories considering squeeze film damping. <i>Microsystem Technologies</i> , 2017, 23, 1423-1432.	1.2	17
30	Transient behavior and dynamic pull-in instability of electrostatically-actuated fluid-conveying microbeams. <i>Microsystem Technologies</i> , 2017, 23, 6015-6023.	1.2	18
31	IMPACTS OF NANOSCALE INCLUSIONS ON FIRE RETARDANCY, THERMAL STABILITY, AND MECHANICAL PROPERTIES OF POLYMERIC PVC NANOCOMPOSITES. <i>Journal of Thermal Engineering</i> , 2017, 3, 1308-1318.	0.8	9
32	Transient behavior of electrostatically-actuated micro systems considering squeeze film damping and mechanical shock. <i>Scientia Iranica</i> , 2017, .	0.3	2
33	DESIGN AND SIMULATION OF A NOVEL C-DEP MICROFLUIDICS FOR SINGLE CELL TRAPPING. <i>Journal of Thermal Engineering</i> , 2017, 3, 1319-1327.	0.8	0
34	Dynamics of Bacteria-Inspired Micro-Swimmers. <i>Recent Patents on Mechanical Engineering</i> , 2017, 10, .	0.2	0
35	Analytical solutions to nonlinear oscillations of micro/nano beams using higher-order beam theory. <i>Scientia Iranica</i> , 2016, 23, 2179-2193.	0.3	6
36	Semi-analytic solutions to oscillatory behavior of initially curved micro/nano systems. <i>Journal of Mechanical Science and Technology</i> , 2015, 29, 3855-3863.	0.7	21

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37	Numerical Analysis of Ciliary Beat in Paramecium: Increasing Ciliary Spacing as a Low Energy Cost Method for Maneuvering. Recent Patents on Mechanical Engineering, 2013, 6, 227-237.	0.2	1
38	Comparison between two analytical techniques for simulating the pull-in behavior of nano-structures. , 2012, , .		0
39	The Dynamic Pull-In Instability and Snap-Through Behavior of Initially Curved Microbeams. Mechanics of Advanced Materials and Structures, 2012, 19, 485-491.	1.5	30
40	ANALYTIC SOLUTIONS TO THE OSCILLATORY BEHAVIOR AND PRIMARY RESONANCE OF ELECTROSTATICALLY ACTUATED MICROBRIDGES. International Journal of Structural Stability and Dynamics, 2011, 11, 1119-1137.	1.5	42
41	Static pull-in analysis of electrostatically actuated microbeams using homotopy perturbation method. Applied Mathematical Modelling, 2010, 34, 1032-1041.	2.2	116
42	Investigation of the Oscillatory Behavior of Electrostatically-Actuated Microbeams. , 2010, , .		1
43	Influence of Intermolecular Forces on Dynamic Pull-In Instability of Micro/Nano Bridges. , 2010, , .		0
44	Dynamic pull-in instability of electrostatically actuated beams incorporating Casimir and van der Waals forces. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2010, 224, 2037-2047.	1.1	81
45	On the Primary Resonance of an Electrostatically Actuated MEMS Using the Homotopy Perturbation Method. , 2009, , .		0
46	Dynamic Pull-In Instability of Initially Curved Microbeams. , 2009, , .		0
47	Application of homotopy analysis method in studying dynamic pull-in instability of microsystems. Mechanics Research Communications, 2009, 36, 851-858.	1.0	92
48	Semi-analytic solutions to nonlinear vibrations of microbeams under suddenly applied voltages. Journal of Sound and Vibration, 2009, 325, 382-396.	2.1	52
49	Vibrational analysis of electrostatically actuated microstructures considering nonlinear effects. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 1664-1678.	1.7	66
50	Effect of geometric nonlinearity on dynamic pull-in behavior of coupled-domain microstructures based on classical and shear deformation plate theories. European Journal of Mechanics, A/Solids, 2009, 28, 916-925.	2.1	37
51	Contact Time Study of Microsystems Actuated by Ramp-Input Voltages. , 2009, , .		0
52	Dynamic Analysis of Electrically Actuated Rectangular Microplates With Nonlinear Plate Theory Under Squeeze-Film Damping Effect. , 2008, , .		0
53	Studying Dynamic Pull-In Behavior of Microbeams by Means of the Homotopy Analysis Method. , 2008, , .		0
54	Characterization of coupled-domain multi-layer microplates in pull-in phenomenon, vibrations and dynamics. International Journal of Mechanical Sciences, 2007, 49, 1226-1237.	3.6	48

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55	Dynamics of Multilayer Microplates Considering Nonlinear Squeeze Film Damping. , 2006, , 265.		0
56	Dynamic Finite Element Modeling of Electrostatically Actuated Micro Structures Considering Squeeze Film Damping Effect. , 2006, , 317.		0
57	Google Scholar. Serials, 2005, 18, 70-72.	0.5	4