

Majid Baniassadi

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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.

110
papers

1,395
citations

21
h-index

31
g-index

119
ext. papers

1,660
ext. citations

3.6
avg, IF

4.83
L-index

#	Paper	IF	Citations
110	Modeling of two-phase random composite materials by finite element, Mori-Tanaka and strong contrast methods. <i>Composites Part B: Engineering</i> , 2013 , 45, 1117-1125	10	114
109	Three-phase solid oxide fuel cell anode microstructure realization using two-point correlation functions. <i>Acta Materialia</i> , 2011 , 59, 30-43	8.4	66
108	3-D microstructure reconstruction of polymer nano-composite using FIB/SEM and statistical correlation function. <i>Composites Science and Technology</i> , 2013 , 80, 47-54	8.6	62
107	3D microstructural reconstruction of heterogeneous materials from 2D cross sections: A modified phase-recovery algorithm. <i>Computational Materials Science</i> , 2016 , 111, 107-115	3.2	46
106	Modeling and homogenization of shape memory polymer nanocomposites. <i>Composites Part B: Engineering</i> , 2016 , 91, 36-43	10	39
105	An interfacial debonding-induced damage model for graphite nanoplatelet polymer composites. <i>Computational Materials Science</i> , 2015 , 96, 191-199	3.2	37
104	Three-dimensional reconstruction and homogenization of heterogeneous materials using statistical correlation functions and FEM. <i>Computational Materials Science</i> , 2012 , 51, 372-379	3.2	37
103	Mechanical and thermal behavior of nanoclay based polymer nanocomposites using statistical homogenization approach. <i>Composites Science and Technology</i> , 2011 , 71, 1930-1935	8.6	35
102	3D Reconstruction of Carbon Nanotube Composite Microstructure Using Correlation Functions. <i>Journal of Computational and Theoretical Nanoscience</i> , 2010 , 7, 1462-1468	0.3	35
101	New approximate solution for N-point correlation functions for heterogeneous materials. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 104-119	5	33
100	Microstructure reconstruction and homogenization of porous Ni-YSZ composites for temperature dependent properties. <i>Journal of Power Sources</i> , 2013 , 235, 74-80	8.9	33
99	2016 ,		28
98	Surface modification of severe plastically deformed ultrafine grained pure titanium by plasma electrolytic oxidation. <i>Surface and Coatings Technology</i> , 2017 , 316, 113-121	4.4	27
97	Effective thermal and mechanical properties of short carbon fiber/natural rubber composites as a function of mechanical loading. <i>Applied Thermal Engineering</i> , 2017 , 117, 8-16	5.8	27
96	Numerical homogenization of coiled carbon nanotube reinforced shape memory polymer nanocomposites. <i>Smart Materials and Structures</i> , 2019 , 28, 035026	3.4	27
95	Contact angle hysteresis and motion behaviors of a water nano-droplet on suspended graphene under temperature gradient. <i>Physics of Fluids</i> , 2018 , 30, 052101	4.4	25
94	Semi-inverse Monte Carlo reconstruction of two-phase heterogeneous material using two-point functions. <i>International Journal of Theoretical and Applied Multiscale Mechanics</i> , 2009 , 1, 134	0	25

93	Statistical continuum theory for the effective conductivity of carbon nanotubes filled polymer composites. <i>Thermochimica Acta</i> , 2011 , 520, 33-37	2.9	22
92	Effect of nanofiller geometry on the energy absorption capability of coiled carbon nanotube composite material. <i>Composites Science and Technology</i> , 2017 , 153, 222-231	8.6	21
91	Application of full set of two point correlation functions from a pair of 2D cut sections for 3D porous media reconstruction. <i>Journal of Petroleum Science and Engineering</i> , 2017 , 149, 789-800	4.4	21
90	Microstructure, property and processing relation in gradient porous cathode of solid oxide fuel cells using statistical continuum mechanics. <i>Journal of Power Sources</i> , 2011 , 196, 6325-6331	8.9	21
89	Insights into interphase thickness characterization for graphene/epoxy nanocomposites: a molecular dynamics simulation. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 19890-19903	3.6	20
88	A modified strong-contrast expansion for estimating the effective thermal conductivity of multiphase heterogeneous materials. <i>Journal of Applied Physics</i> , 2012 , 112, 114318	2.5	20
87	Influence of bone microstructure distribution on developed mechanical energy for bone remodeling using a statistical reconstruction method. <i>Mathematics and Mechanics of Solids</i> , 2019 , 24, 3027-3041	2.3	20
86	Microstructure Reconstruction and Characterization of the Porous GDLs for PEMFC Based on Fibers Orientation Distribution. <i>Fuel Cells</i> , 2018 , 18, 160-172	2.9	19
85	Impedance analysis for condition monitoring of single lap CNT-epoxy adhesive joint. <i>International Journal of Adhesion and Adhesives</i> , 2019 , 88, 59-65	3.4	19
84	Efficient three-phase reconstruction of heterogeneous material from 2D cross-sections via phase-recovery algorithm. <i>Journal of Microscopy</i> , 2016 , 264, 384-393	1.9	18
83	Optimization of solid oxide fuel cell cathodes using two-point correlation functions. <i>Computational Materials Science</i> , 2016 , 123, 268-276	3.2	17
82	Using SAXS approach to estimate thermal conductivity of polystyrene/zirconia nanocomposite by exploiting strong contrast technique. <i>Acta Materialia</i> , 2011 , 59, 2742-2748	8.4	17
81	3D reconstruction of carbon nanotube networks from neutron scattering experiments. <i>Nanotechnology</i> , 2015 , 26, 385704	3.4	16
80	Incorporation of electron tunnelling phenomenon into 3D Monte Carlo simulation of electrical percolation in graphite nanoplatelet composites. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 455306	3	15
79	A comparison of viscoplastic intermediate approaches for deformation texture evolution in face-centered cubic polycrystals. <i>Acta Materialia</i> , 2009 , 57, 2496-2508	8.4	15
78	Insight into Geometry-Controlled Mechanical Properties of Spiral Carbon-Based Nanostructures. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 3226-3238	3.8	14
77	Three-Dimensional Reconstruction and Microstructure Modeling of Porosity-Graded Cathode Using Focused Ion Beam and Homogenization Techniques. <i>Fuel Cells</i> , 2014 , 14, 91-95	2.9	14
76	Hydrogenation-controlled mechanical properties in graphene helicoids: exceptional distribution-dependent behavior. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 12423-12433	3.6	13

75	AC and DC electrical behavior of MWCNT/epoxy nanocomposite near percolation threshold: Equivalent circuits and percolation limits. <i>Journal of Applied Physics</i> , 2018 , 123, 105109	2.5	13
74	An optimum approximation of n-point correlation functions of random heterogeneous material systems. <i>Journal of Chemical Physics</i> , 2014 , 140, 074905	3.9	13
73	Designing an optimal 3D microstructure for three-phase solid oxide fuel cell anodes with maximal active triple phase boundary length (TPBL). <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 15585-15596	6.7	12
72	Composition of two-point correlation functions of subcomposites in heterogeneous materials. <i>Mechanics of Materials</i> , 2012 , 51, 88-96	3.3	12
71	Evaluating the Effect of Mechanical Loading on the Electrical Percolation Threshold of Carbon Nanotube Reinforced Polymers: A 3D Monte-Carlo Study. <i>Journal of Computational and Theoretical Nanoscience</i> , 2011 , 8, 2087-2099	0.3	12
70	Developing a finite element beam theory for nanocomposite shape memory polymers with application to sustained release of drugs. <i>Scientia Iranica</i> , 2017 , 24, 249-259	1.5	12
69	The effectiveness of different thresholding techniques in segmenting micro CT images of porous carbonates to estimate porosity. <i>Journal of Petroleum Science and Engineering</i> , 2019 , 177, 518-527	4.4	12
68	On finite bending of visco-hyperelastic materials: a novel analytical solution and FEM. <i>Acta Mechanica</i> , 2020 , 231, 3435-3450	2.1	11
67	Improving flame-retardant, thermal, and mechanical properties of an epoxy using halogen-free fillers. <i>Science and Engineering of Composite Materials</i> , 2018 , 25, 939-946	1.5	10
66	A novel machine learning based computational framework for homogenization of heterogeneous soft materials: application to liver tissue. <i>Biomechanics and Modeling in Mechanobiology</i> , 2020 , 19, 1131-1142	3.8	10
65	Homogenization of heterogeneous brain tissue under quasi-static loading: a visco-hyperelastic model of a 3D RVE. <i>Biomechanics and Modeling in Mechanobiology</i> , 2019 , 18, 969-981	3.8	10
64	Monitoring the effect of sonoporation on the cells using electrochemical approach. <i>Ultrasonics Sonochemistry</i> , 2018 , 41, 619-625	8.9	10
63	Heat-treatment effects on dimensional stability and mechanical properties of 3D printed continuous carbon fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021 , 147, 106460	8.4	10
62	Role of Chemical Doping in Large Deformation Behavior of Spiral Carbon-Based Nanostructures: Unraveling Geometry-Dependent Chemical Doping Effects. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 19208-19219	3.8	9
61	Numerical study of the conductive liquid metal elastomeric composites. <i>Materials Today Communications</i> , 2020 , 23, 100878	2.5	9
60	A novel numerical model for the prediction of patient-dependent bone density loss in microgravity based on micro-CT images. <i>Continuum Mechanics and Thermodynamics</i> , 2020 , 32, 927-943	3.5	9
59	Ultrasound assisted electrochemical distinction of normal and cancerous cells. <i>Sensors and Actuators B: Chemical</i> , 2018 , 255, 1-7	8.5	9
58	Numerical investigation of smart auxetic three-dimensional meta-structures based on shape memory polymers via topology optimization. <i>Journal of Intelligent Material Systems and Structures</i> , 2020 , 31, 1838-1852	2.3	8

57	An Investigation on Thermomechanical Flexural Response of Shape-Memory-Polymer Beams. <i>International Journal of Applied Mechanics</i> , 2016 , 08, 1650063	2.4	8
56	Assessment of controllable shape transformation, potential applications, and tensile shape memory properties of 3D printed PETG. <i>Journal of Materials Research and Technology</i> , 2022 , 18, 4201-4215	5.5	8
55	Thermomechanical behavior of shape memory polymer beams reinforced by corrugated polymeric sections. <i>Meccanica</i> , 2017 , 52, 1947-1962	2.1	7
54	Investigation on thermal stresses in FGM hyperelastic thick-walled cylinders. <i>Journal of Thermal Stresses</i> , 2018 , 41, 204-221	2.2	7
53	Determinative factors in inhibition of aquaporin by different pharmaceuticals: Atomic scale overview by molecular dynamics simulation. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018 , 1862, 2815-2823	4	7
52	Optimization of Taylor spatial frame half-pins diameter for bone deformity correction: Application to femur. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2018 , 232, 673-681	1.7	7
51	Synergistic effect of carbon nanotubes and copper particles in an epoxy-based nanocomposite using electroless copper deposited carbon nanotubes: Part I [Mechanical properties. <i>Journal of Composite Materials</i> , 2016 , 50, 1909-1920	2.7	6
50	Formation of homogenous copper film on MWCNTs by an efficient electroless deposition process. <i>Science and Engineering of Composite Materials</i> , 2017 , 24, 345-352	1.5	6
49	Temperature and stress distribution in hollow annular disk of uniform thickness with quadratic temperature-dependent thermal conductivity. <i>Journal of Thermal Stresses</i> , 2017 , 40, 828-845	2.2	6
48	How to characterize interfacial load transfer in spiral carbon-based nanostructure-reinforced nanocomposites: is this a geometry-dependent process?. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 23880-23892	3.6	6
47	A novel semi-inverse solution method for elastoplastic torsion of heat treated rods. <i>Meccanica</i> , 2010 , 45, 375-392	2.1	6
46	On the directional elastic modulus of the TPMS structures and a novel hybridization method to control anisotropy. <i>Materials and Design</i> , 2021 , 210, 110074	8.1	6
45	Atomistic simulation of interfacial properties and damage mechanism in graphene nanoplatelet/epoxy composites. <i>Computational Materials Science</i> , 2020 , 184, 109888	3.2	5
44	Effect of 2D Image Resolution on 3D Stochastic Reconstruction and Developing Petrophysical Trend. <i>Transport in Porous Media</i> , 2018 , 125, 41-58	3.1	5
43	Application of Elastic-Damage-Heal Model for Self-Healing Concrete Thick-Walled Cylinders Through Thermodynamics of Irreversible Processes. <i>International Journal of Applied Mechanics</i> , 2017 , 09, 1750082	2.4	5
42	A framework for optimal microstructural design of random heterogeneous materials. <i>Computational Mechanics</i> , 2020 , 66, 123-139	4	4
41	3D-Printable Unit Cell Design for Cubic and Orthotropic Porous Microstructures Using Topology Optimization Based on Optimality Criteria Algorithm. <i>International Journal of Applied Mechanics</i> , 2018 , 10, 1850060	2.4	4
40	Evaluating the Effect of Mechanical Loading on the Effective Thermal Conductivity of CNT/Polymer Nanocomposites. <i>Journal of Computational and Theoretical Nanoscience</i> , 2014 , 11, 1738-1744	0.3	4

39	Investigation of the property hull for solid oxide fuel cell microstructures. <i>Computational Materials Science</i> , 2017 , 127, 1-7	3.2	4
38	Computational analysis of vincristine loaded silk fibroin hydrogel for sustained drug delivery applications: Multiphysics modeling and experiments. <i>International Journal of Pharmaceutics</i> , 2021 , 609, 121184	6.5	4
37	Exceptional behavior of anatase TiO ₂ nanotubes in axial loading: A molecular dynamics study of the effect of surface wrinkles. <i>Computational Materials Science</i> , 2019 , 158, 307-314	3.2	4
36	Optimal combining of microstructures using statistical correlation functions. <i>International Journal of Solids and Structures</i> , 2019 , 160, 177-186	3.1	4
35	Computational Elucidation of Elastic Percolation Threshold in Isotropic and Anisotropic Microstructures with Voronoi Tessellation. <i>International Journal of Applied Mechanics</i> , 2019 , 11, 1950029 ^{2,4}		3
34	Electrical Percolation in Nanocomposites with Impenetrable Ellipsoidal Inclusion (Comprehensive Study of Tunneling, Geometry, Anisotropy and Mixing). <i>Journal of Computational and Theoretical Nanoscience</i> , 2015 , 12, 1010-1016	0.3	3
33	Design and Manufacture of a Smart Macro-Structure with Changeable Effective Stiffness. <i>International Journal of Applied Mechanics</i> , 2020 , 12, 2050001	2.4	3
32	Large deformation and stability analysis of functionally graded pressure vessels: An analytical and numerical study. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2018 , 232, 3300-3314	1.3	3
31	Investigation of the geometric property hull for infiltrated solid oxide fuel cell electrodes. <i>International Journal of Energy Research</i> , 2017 , 41, 2318-2331	4.5	3
30	Influence of the liver vascular distribution on its overall mechanical behavior: A first approach to multiscale fluid-structure homogenization. <i>Journal of Cellular Immunotherapy</i> , 2018 , 4, 35-37		3
29	A New Statistical Descriptor for the Physical Characterization and 3D Reconstruction of Heterogeneous Materials. <i>Transport in Porous Media</i> , 1	3.1	3
28	Geometric Modeling of Infiltrated Solid Oxide Fuel Cell Electrodes with Directional Backbones. <i>Fuel Cells</i> , 2017 , 17, 67-74	2.9	2
27	Developing a beam formulation for semi-crystalline two-way shape memory polymers. <i>Journal of Intelligent Material Systems and Structures</i> , 2020 , 31, 1465-1476	2.3	2
26	Elastic percolation of composite structures with regular tessellations of microstructure. <i>Composite Structures</i> , 2017 , 161, 513-521	5.3	2
25	Qualitative Equivalence Between Electrical Percolation Threshold and Effective Thermal Conductivity in Polymer/Carbon Nanocomposites. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2012 , 134,	1.8	2
24	Free Vibration Analysis of Rotating Functionally Graded Annular Disc of Variable Thickness Using Generalized Differential Quadrature Method. <i>Scientia Iranica</i> , 2017 , 0-0	1.5	2
23	A computational approach to evaluate the nonlinear and noisy DC electrical response in carbon nanotube/polymer nanocomposites near the percolation threshold. <i>Computational Materials Science</i> , 2020 , 173, 109439	3.2	2
22	Elastic Percolation in Nanocomposites with Impenetrable Ellipsoidal Inclusion (Comprehensive Study of Geometry and Interphase Thickness). <i>International Journal of Applied Mechanics</i> , 2016 , 08, 1650055 ^{2,4}	2.4	2

21	Micromechanical Modeling of the Effective Mechanical Behavior of Cerebral Cortex Tissue. <i>Iranian Journal of Science and Technology - Transactions of Mechanical Engineering</i> , 2020 , 44, 273-285	1.2	2
20	Mechanical properties improvement of shape memory polymers by designing the microstructure of multi-phase heterogeneous materials. <i>Computational Materials Science</i> , 2021 , 196, 110523	3.2	2
19	A modified simulated annealing algorithm for hybrid statistical reconstruction of heterogeneous microstructures. <i>Computational Materials Science</i> , 2021 , 197, 110636	3.2	2
18	A Microfabrication Method of PCL Scaffolds for Tissue Engineering by Simultaneous Two PDMS Molds Replication. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 4763-4778	5.5	2
17	Prediction of bone microstructures degradation during osteoporosis with fuzzy cellular automata algorithm. <i>Mathematics and Mechanics of Solids</i> , 108128652210885	2.3	2
16	Statistical prediction of bone microstructure degradation to study patient dependency in osteoporosis. <i>Mathematics and Mechanics of Solids</i> , 108128652210987	2.3	2
15	Geometric Modeling of Infiltrated Solid Oxide Fuel Cell Electrodes for Performance Optimization 2015 , 11, 428-433		1
14	Modeling of Biologically Inspired Adhesive Pads Using Monte Carlo Analysis. <i>Journal of Adhesion Science and Technology</i> , 2010 , 24, 1207-1220	2	1
13	Refining anticipation of degraded bone microstructures during osteoporosis based on statistical homogenized reconstruction method via quality of connection function. <i>International Journal of Computational Materials Science and Engineering</i> , 2020 , 09, 2050023	0.3	1
12	Conical coiled carbon nanotubes with highly controllable mechanical properties. <i>Materials Today Communications</i> , 2021 , 29, 102927	2.5	1
11	Computational modeling of degradation process on the mechanical performance of Poly-lactic acid /Magnesium composite. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2021 , 235, 3-18	1.3	1
10	Hydrostatic Tube Cyclic Extrusion Compression as a Novel Severe Plastic Deformation Method for Fabricating Long Nanostructured Tubes. <i>Metals and Materials International</i> , 1	2.4	1
9	Anatase TiO ₂ nanotubes as Li-ion battery anodes: A molecular dynamics study of Li-ion adsorption on anatase nanotubes. <i>Sustainable Energy Technologies and Assessments</i> , 2021 , 47, 101438	4.7	1
8	Effects of functional group type and coverage on the interfacial strength and load transfer of graphene-polyethylene nanocomposites: a molecular dynamics simulation. <i>Applied Physics A: Materials Science and Processing</i> , 2022 , 128, 1	2.6	1
7	Simulating favorable adsorption in lithium-ion batteries using a novel cellular-automaton-based method. <i>Physica Scripta</i> , 2021 , 96, 125841	2.6	0
6	Development and implementation of a geometrically nonlinear beam theory model for SMA composite beams with asymmetric behavior. <i>Composite Structures</i> , 2021 , 259, 113417	5.3	0
5	Mechanical properties of an epoxy-based coating reinforced with silica aerogel and ammonium polyphosphate additives. <i>Polymers and Polymer Composites</i> , 2022 , 30, 096739112110690	0.8	
4	Application of the Strong Contrast Technique to Thermoelastic Characterization of Nanocomposites 905-910		

- 3 Microstructural design of tunable elastoplastic two-phase random heterogeneous materials. *Materials Today Communications*, **2021**, 27, 102300 2.5
- 2 Developing a Coupled Statistical and Monte Carlo Approach for Geometric Modeling and Optimizing of Infiltrated Solid Oxide Fuel Cell Electrode. *Fuel Cells*, **2019**, 19, 112-124 2.9
- 1 Insights into thermal characteristics of spiral carbon-based nanomaterials: From heat transport mechanisms to tunable thermal diode behavior. *International Journal of Heat and Mass Transfer*, **2022**, 189, 122719 4.9