Mostafa Baghani

List of Publications by Year
in descending order

191 papers	3,349 citations	159525 30 h-index	276775 41 g-index
192 all docs	192 docs citations	192 times ranked	1752 citing authors

#	Article	IF	Citations
1	Transient swelling of cylindrical hydrogels under coupled extension-torsion: Analytical and 3D FEM solutions. Journal of Intelligent Material Systems and Structures, 2023, 34, 415-424.	1.4	2
2	Large deformation of hyperelastic thick-walled vessels under combined extension-torsion-pressure: analytical solution and FEM. Mechanics Based Design of Structures and Machines, 2022, 50, 4139-4156.	3.4	11
3	Developing an analytical solution for a thermally tunable soft actuator under finite bending. Mechanics Based Design of Structures and Machines, 2022, 50, 1793-1807.	3.4	14
4	Finite strain relaxation and creep in coupled axial and torsional deformation. Mechanics Based Design of Structures and Machines, 2022, 50, 2795-2811.	3.4	9
5	PH-sensitive hydrogel-based valves: A transient fully-coupled fluid-solid interaction study. Journal of Intelligent Material Systems and Structures, 2022, 33, 196-209.	1.4	7
6	On Single and Multiple pH-Sensitive Hydrogel Micro-valves: A 3D Transient Fully Coupled Fluid–Solid Interaction Study. Transport in Porous Media, 2022, 142, 295-316.	1.2	8
7	An Electrodiffusion Model Coupled with Fluid-Flow Effects for an On-Chip Electromembrane Extraction System. Transport in Porous Media, 2022, 142, 317-331.	1.2	15
8	A New Statistical Descriptor for the Physical Characterization and 3D Reconstruction of Heterogeneous Materials. Transport in Porous Media, 2022, 142, 23-40.	1.2	5
9	Programming shape-shifting of flat bilayers composed of tough hydrogels under transient swelling. Acta Mechanica, 2022, 233, 213-232.	1.1	7
10	Programmable self-folding of trilayer and bilayer-hinge structures by time-dependent swelling of tough hydrogels. Journal of Intelligent Material Systems and Structures, 2022, 33, 2106-2120.	1.4	4
11	Swelling of pH-sensitive hydrogel pressure vessel under altered-pH coupled with inflation, extension, and torsion. Meccanica, 2022, 57, 1391-1411.	1.2	3
12	A comprehensive experimental investigation on 4D printing of PET-G under bending. Journal of Materials Research and Technology, 2022, 18, 2552-2569.	2.6	49
13	Matrix–fiber interfacial debonding in soft composite materials: Cyclically behavior modeling and microstructural evolution. Composites Part B: Engineering, 2022, 237, 109853.	5.9	3
14	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.	2.5	3
15	Assessment of controllable shape transformation, potential applications, and tensile shape memory properties of 3D printed PETG. Journal of Materials Research and Technology, 2022, 18, 4201-4215.	2.6	42
16	Multiphysics modeling and experiments on ultrasound-triggered drug delivery from silk fibroin hydrogel for Wilms tumor. International Journal of Pharmaceutics, 2022, 621, 121787.	2.6	22
17	pH-Responsive Hydrogel Bilayer With Reversible, Bidirectional Bending Behavior. Frontiers in Materials, 2022, 9, .	1.2	2
18	Shape-memory polymer metamaterials based on triply periodic minimal surfaces. European Journal of Mechanics, A/Solids, 2022, 96, 104676.	2.1	23

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19	4D printing of PET-G via FDM including tailormade excess third shape. Manufacturing Letters, 2022, 33, 1-4.	1.1	46
20	Shape memory performance of PETG 4D printed parts under compression in cold, warm, and hot programming. Smart Materials and Structures, 2022, 31, 085002.	1.8	39
21	Fabrication, characterization, and modeling of a structural flexible skin for applications in morphing wings. Mechanics of Materials, 2022, 172, 104409.	1.7	4
22	A combined experimental-numerical analysis of a novel deformable sandwich structure for morphing wing applications. Journal of Sandwich Structures and Materials, 2021, 23, 4054-4076.	2.0	8
23	Crack self-healing of thermo-responsive shape memory polymers with application to control valves, filtration, and drug delivery capsule. European Journal of Mechanics, A/Solids, 2021, 85, 104093.	2.1	25
24	Development and implementation of a geometrically nonlinear beam theory model for SMA composite beams with asymmetric behavior. Composite Structures, 2021, 259, 113417.	3.1	4
25	Coupled thermo-mechanical swelling of a thermo-responsive hydrogel hollow cylinder under extension-torsion: Analytical Solution and FEM. Journal of Intelligent Material Systems and Structures, 2021, 32, 140-155.	1.4	15
26	Constitutive Modeling of multi-stimuli-responsive shape memory polymers with multi-functional capabilities. International Journal of Mechanical Sciences, 2021, 192, 106082.	3.6	30
27	Computational modeling of degradation process on the mechanical performance of Poly-lactic acid /Magnesium composite. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2021, 235, 3-18.	0.7	1
28	A Finite Strain Analytical Solution for Stress-Softening of Hyperelastic Materials Under Cyclic Bending. International Journal of Applied Mechanics, 2021, 13, 2150014.	1.3	7
29	A review on swelling theories of pH-sensitive hydrogels. Journal of Intelligent Material Systems and Structures, 2021, 32, 2349-2365.	1.4	11
30	Modeling of human intervertebral disc annulus fibrosus with complex multi-fiber networks. Acta Biomaterialia, 2021, 123, 208-221.	4.1	26
31	Development of an analytical framework for viscoelastic corrugated-core sandwich plates and validation against FEM. Meccanica, 2021, 56, 2103-2120.	1.2	8
32	Numerical Investigation of Axonal Damage for Regular and Irregular Axonal Distributions. Frontiers in Mechanical Engineering, 2021, 7, .	0.8	3
33	Design and Shape Optimization of a Biodegradable Polymeric Stent for Curved Arteries Using FEM. Frontiers in Mechanical Engineering, 2021, 7, .	0.8	2
34	A computational simulation of electromembrane extraction based on Poisson - Nernst - Planck equations. Analytica Chimica Acta, 2021, 1158, 338414.	2.6	12
35	Development of a large strain formulation for multiple shape-memory-effect of polymers under bending. International Journal of Mechanical Sciences, 2021, 204, 106560.	3.6	20
36	Finite Deformation of Swollen pH-Sensitive Hydrogel Cylinder Under Extension and Torsion and its Poynting Effect: Analytical Solution and Numerical Verification. International Journal of Applied Mechanics, 2021, 13, .	1.3	7

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37	Enhancing shape memory properties of multi-layered and multi-material polymer composites in 4D printing. Smart Materials and Structures, 2021, 30, 105006.	1.8	21
38	Hygrothermal aging effects on the mechanical properties of 3D printed composites with different stacking sequence of continuous glass fiber layers. Polymer Testing, 2021, 100, 107242.	2.3	28
39	Mechanical properties improvement of shape memory polymers by designing the microstructure of multi-phase heterogeneous materials. Computational Materials Science, 2021, 196, 110523.	1.4	9
40	A modified simulated annealing algorithm for hybrid statistical reconstruction of heterogeneous microstructures. Computational Materials Science, 2021, 197, 110636.	1.4	5
41	Anatase TiO2 nanotubes as Li-ion battery anodes: A molecular dynamics study of Li-ion adsorption on anatase nanotubes. Sustainable Energy Technologies and Assessments, 2021, 47, 101438.	1.7	2
42	On the directional elastic modulus of the TPMS structures and a novel hybridization method to control anisotropy. Materials and Design, 2021, 210, 110074.	3.3	39
43	Simulating favorable adsorption in lithium-ion batteries using a novel cellular-automaton-based method. Physica Scripta, 2021, 96, 125841.	1.2	4
44	Computational analysis of vincristine loaded silk fibroin hydrogel for sustained drug delivery applications: Multiphysics modeling and experiments. International Journal of Pharmaceutics, 2021, 609, 121184.	2.6	27
45	Conical coiled carbon nanotubes with highly controllable mechanical properties. Materials Today Communications, 2021, 29, 102927.	0.9	3
46	Micromechanical Modeling of the Effective Mechanical Behavior of Cerebral Cortex Tissue. Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, 2020, 44, 273-285.	0.8	2
47	Rutting investigation of asphalt pavement subjected to moving cyclic loads: an implicit viscoelasticâ€"viscoplasticâ€"viscodamage FE framework. International Journal of Pavement Engineering, 2020, 21, 1393-1407.	2.2	13
48	Hybrid IG-FE method applied to cohesive fracture/contact in particle-filled elastomeric composites. International Journal of Mechanics and Materials in Design, 2020, 16, 123-138.	1.7	3
49	A novel numerical model for the prediction of patient-dependent bone density loss in microgravity based on micro-CT images. Continuum Mechanics and Thermodynamics, 2020, 32, 927-943.	1.4	13
50	An experimental and numerical investigation on active compliant joint made by shape memory alloy actuator. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2020, 234, 156-164.	0.7	1
51	On the modeling of human intervertebral disc annulus fibrosus: Elastic, permanent deformation and failure responses. Journal of Biomechanics, 2020, 102, 109463.	0.9	17
52	Finite deformation swelling of a temperature-sensitive hydrogel cylinder under combined extension-torsion. Applied Mathematics and Mechanics (English Edition), 2020, 41, 409-424.	1.9	11
53	A novel machine learning based computational framework for homogenization of heterogeneous soft materials: application to liver tissue. Biomechanics and Modeling in Mechanobiology, 2020, 19, 1131-1142.	1.4	12
54	Swelling response of functionally graded temperature-sensitive hydrogel valves: Analytic solution and finite element method. Journal of Intelligent Material Systems and Structures, 2020, 31, 457-474.	1.4	11

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55	Asymmetric bending response of shape memory alloy beam with functionally graded porosity. Journal of Intelligent Material Systems and Structures, 2020, 31, 1935-1949.	1.4	6
56	3D constitutive modeling of electro-magneto-visco-hyperelastic elastomers: a semi-analytical solution for cylinders under large torsion–extension deformation. Smart Materials and Structures, 2020, 29, 085031.	1.8	19
57	Developing a beam formulation for semi-crystalline two-way shape memory polymers. Journal of Intelligent Material Systems and Structures, 2020, 31, 1465-1476.	1.4	6
58	A comprehensive review on thermomechanical constitutive models for shape memory polymers. Journal of Intelligent Material Systems and Structures, 2020, 31, 1243-1283.	1.4	31
59	Visco-hyperelastic swelling and mechanical behavior of tough pH-sensitive hydrogels: Theory development and numerical implementation. International Journal of Engineering Science, 2020, 152, 103294.	2.7	14
60	Analysis of temperature-sensitive hydrogel microvalves in a T-junction flow sorter using full scale fluid–structure interaction. Journal of Intelligent Material Systems and Structures, 2020, 31, 1371-1382.	1.4	2
61	Numerical investigation of smart auxetic three-dimensional meta-structures based on shape memory polymers via topology optimization. Journal of Intelligent Material Systems and Structures, 2020, 31, 1838-1852.	1.4	22
62	On finite bending of visco-hyperelastic materials: a novel analytical solution and FEM. Acta Mechanica, 2020, 231, 3435-3450.	1.1	19
63	Multi-Trigger Thermo-Electro-Mechanical Soft Actuators under Large Deformations. Polymers, 2020, 12, 489.	2.0	16
64	Effect of prior deformation on the subsequent creep and anelastic recovery behaviour of an advanced martensitic steel: Unified constitutive modelling. International Journal of Mechanical Sciences, 2020, 176, 105546.	3.6	7
65	Force and multiple-shape-recovery in shape-memory-polymers under finite deformation torsion-extension. Smart Materials and Structures, 2020, 29, 055011.	1.8	31
66	Transient swelling response of pH-sensitive hydrogels: A monophasic constitutive model and numerical implementation. International Journal of Pharmaceutics, 2020, 577, 119030.	2.6	41
67	Design and Manufacture of a Smart Macro-Structure with Changeable Effective Stiffness. International Journal of Applied Mechanics, 2020, 12, 2050001.	1.3	5
68	Design and fluid-structure interaction analysis for a microfluidic T-junction with chemo-responsive hydrogel valves. Applied Mathematics and Mechanics (English Edition), 2020, 41, 939-952.	1.9	9
69	Multiple Shape Memory Effect for Smart Helical Springs with Variable Stiffness over Time and Temperature. International Journal of Mechanical Sciences, 2020, 182, 105742.	3.6	30
70	Synthesis, test, calibration and modeling of a temperature-actuated hydrogel bilayer. Smart Materials and Structures, 2020, 29, 105001.	1.8	10
71	An experimental investigation on shape memory polymer and metallic stents under bending and radial compression. Engineering Research Express, 2020, 2, 045012.	0.8	4
72	Refining anticipation of degraded bone microstructures during osteoporosis based on statistical homogenized reconstruction method via quality of connection function. International Journal of Computational Materials Science and Engineering, 2020, 09, 2050023.	0.5	2

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73	Modeling of Damage Evolution in a Patient-Specific Stenosed Artery upon Stent Deployment. International Journal of Applied Mechanics, 2020, 12, 2050101.	1.3	2
74	Corrugated structures reinforced by shape memory alloy sheets: Analytical modeling and finite element modeling. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2019, 233, 2445-2454.	0.7	7
75	Manufacturing and mechanical characterization of Mg-4Y-2Nd-0.4Zr-0.25La magnesium microtubes by combined severe plastic deformation process for biodegradable vascular stents. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2019, 233, 1196-1205.	1.5	14
76	Size-Dependent Vibration Analysis of FG Microbeams in Thermal Environment Based on Modified Couple Stress Theory. Iranian Journal of Science and Technology - Transactions of Mechanical Engineering, 2019, 43, 761-771.	0.8	30
77	Integral sliding mode control for nonlinear damped model of arch microbeams. Microsystem Technologies, 2019, 25, 57-68.	1.2	29
78	Role of Chemical Doping in Large Deformation Behavior of Spiral Carbon-Based Nanostructures: Unraveling Geometry-Dependent Chemical Doping Effects. Journal of Physical Chemistry C, 2019, 123, 19208-19219.	1.5	16
79	A combined experimental and numerical study on shape memory alloy rods under torsion. Journal of Intelligent Material Systems and Structures, 2019, 30, 2222-2233.	1.4	4
80	An experimental investigation on structural design of shape memory polymers. Smart Materials and Structures, 2019, 28, 095017.	1.8	38
81	A computational study on vascular damage caused by shape memory alloy self-expandable and balloon-expandable stents in a stenosed artery. Journal of Intelligent Material Systems and Structures, 2019, 30, 3113-3123.	1.4	4
82	Insight into Geometry-Controlled Mechanical Properties of Spiral Carbon-Based Nanostructures. Journal of Physical Chemistry C, 2019, 123, 3226-3238.	1.5	22
83	How to characterize interfacial load transfer in spiral carbon-based nanostructure-reinforced nanocomposites: is this a geometry-dependent process?. Physical Chemistry Chemical Physics, 2019, 21, 23880-23892.	1.3	10
84	Design, analysis and testing of a smart morphing airfoil actuated by SMA wires. Smart Materials and Structures, 2019, 28, 115043.	1.8	15
85	Analytical investigation of composite sandwich beams filled with shape memory polymer corrugated core. Meccanica, 2019, 54, 1647-1661.	1.2	7
86	Fully-Coupled Transient Fluid–Solid Interaction Simulation of the pH-Sensitive Hydrogel-Based Microvalve. International Journal of Applied Mechanics, 2019, 11, 1950071.	1.3	14
87	Mathematical modeling and experimental evaluation of a prototype double-tube Magnetorheological damper. SN Applied Sciences, 2019, 1, 1.	1.5	17
88	An implicit finite element framework considering damage and healing effects with application to cyclic moving load on asphalt pavement. Applied Mathematical Modelling, 2019, 70, 139-151.	2.2	6
89	Numerical homogenization of coiled carbon nanotube reinforced shape memory polymer nanocomposites. Smart Materials and Structures, 2019, 28, 035026.	1.8	35
90	Vibration analysis of FG annular sector in moderately thick plates with two piezoelectric layers. Applied Mathematics and Mechanics (English Edition), 2019, 40, 783-804.	1.9	9

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91	Numerical study of patient-specific ankle-foot orthoses for drop foot patients using shape memory alloy. Medical Engineering and Physics, 2019, 69, 123-133.	0.8	8
92	Force recovery evaluation of thermo-induced shape-memory polymer stent: material, process and thermo-viscoelastic characterization. Smart Materials and Structures, 2019, 28, 095022.	1.8	37
93	On the finite bending of functionally graded light-sensitive hydrogels. Meccanica, 2019, 54, 841-854.	1.2	20
94	A semi-analytical solution for finite bending of a functionally graded hydrogel strip. Acta Mechanica, 2019, 230, 2625-2637.	1.1	10
95	Hydrogenation-controlled mechanical properties in graphene helicoids: exceptional distribution-dependent behavior. Physical Chemistry Chemical Physics, 2019, 21, 12423-12433.	1.3	17
96	A combined analytical–numerical analysis on multidirectional finite bending of functionally graded temperature-sensitive hydrogels. Journal of Intelligent Material Systems and Structures, 2019, 30, 1882-1895.	1.4	20
97	Implementing Stretch-Based Strain Energy Functions in Large Coupled Axial and Torsional Deformations of Functionally Graded Cylinder. International Journal of Applied Mechanics, 2019, 11, 1950039.	1.3	24
98	Swelling-induced finite bending of functionally graded pH-responsive hydrogels: a semi-analytical method. Applied Mathematics and Mechanics (English Edition), 2019, 40, 679-694.	1.9	31
99	Closed form solutions for large deformation of cylinders under combined extension-torsion. International Journal of Mechanical Sciences, 2019, 157-158, 336-347.	3.6	36
100	Online force control of a shape-memory-alloy-based 2 degree-of-freedom human finger via inverse model and proportional–integral–derivative compensator. Journal of Intelligent Material Systems and Structures, 2019, 30, 1538-1548.	1.4	7
101	Computational Elucidation of Elastic Percolation Threshold in Isotropic and Anisotropic Microstructures with Voronoi Tessellation. International Journal of Applied Mechanics, 2019, 11, 1950029.	1.3	3
102	Homogenization of heterogeneous brain tissue under quasi-static loading: a visco-hyperelastic model of a 3D RVE. Biomechanics and Modeling in Mechanobiology, 2019, 18, 969-981.	1.4	14
103	The Application of Homotopy Analysis Method to Determine the Thermal Response of Convective-Radiative Porous Fins with Temperature-Dependent Properties. International Journal of Applied Mechanics, 2019, 11, 1950089.	1.3	11
104	Finite Bending and Straightening of Hyperelastic Materials: Analytical Solution and FEM. International Journal of Applied Mechanics, 2019, 11, 1950084.	1.3	19
105	A Combined Experimental and Numerical Study of the Effect of Surface Roughness on Nanoindentation. International Journal of Applied Mechanics, 2019, 11, 1950070.	1.3	13
106	A semi-analytical solution for bending response of SMA composite beams considering SMA asymmetric behavior. Composites Part B: Engineering, 2019, 163, 622-633.	5.9	16
107	An experimental–numerical study on shape memory behavior of PU/PCL/ZnO ternary blend. Journal of Intelligent Material Systems and Structures, 2019, 30, 116-126.	1.4	34
108	Size dependent analysis of tapered FG micro-bridge based on a 3D beam theory. Scientia Iranica, 2019, .	0.3	0

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109	Developing an analytical solution for photo-sensitive hydrogel bilayers. Journal of Intelligent Material Systems and Structures, 2018, 29, 1953-1963.	1.4	11
110	Mixed-mode fracture of a superelastic NiTi alloy: Experimental and numerical investigations. Engineering Fracture Mechanics, 2018, 190, 273-287.	2.0	19
111	Microstructure and Mechanical Properties of CP-Titanium Processed by ECAP Followed by Warm Caliber Rolling. Transactions of the Indian Institute of Metals, 2018, 71, 1083-1090.	0.7	2
112	Shape memory characterization of poly(Îµ-caprolactone) (PCL)/polyurethane (PU) in combined torsion-tension loading with potential applications in cardiovascular stent. Polymer Testing, 2018, 68, 424-432.	2.3	48
113	AC and DC electrical behavior of MWCNT/epoxy nanocomposite near percolation threshold: Equivalent circuits and percolation limits. Journal of Applied Physics, 2018, 123, .	1.1	20
114	Developing a fast response SMA-actuated rotary actuator: modeling and experimental validation. Meccanica, 2018, 53, 305-317.	1.2	25
115	A thermodynamically consistent viscoelasticâ€"viscoplastic constitutive model for self-healing materials. Journal of Intelligent Material Systems and Structures, 2018, 29, 1065-1080.	1.4	11
116	Large deformation and stability analysis of functionally graded pressure vessels: An analytical and numerical study. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2018, 232, 3300-3314.	1.1	5
117	Developing a semi-analytical model for thermomechanical response of SMA laminated beams, considering SMA asymmetric behavior. Meccanica, 2018, 53, 957-971.	1.2	17
118	A Combined Analytic, Numeric, and Experimental Investigation Performed on NiTi/NiTiCu Biâ€Layer Composites under Tensile Loading. Advanced Engineering Materials, 2018, 20, 1700395.	1.6	6
119	Investigation on thermal stresses in FGM hyperelastic thick-walled cylinders. Journal of Thermal Stresses, 2018, 41, 204-221.	1.1	9
120	A large deformation hybrid isogeometric-finite element method applied to cohesive interface contact/debonding. Computer Methods in Applied Mechanics and Engineering, 2018, 330, 395-414.	3.4	14
121	Developing a visco-hyperelastic material model for 3D finite deformation of elastomers. Finite Elements in Analysis and Design, 2018, 140, 1-10.	1.7	22
122	Hybrid Isogeometric-Finite Element Discretization Applied to Stress Concentration Problems. International Journal of Applied Mechanics, 2018, 10, 1850081.	1.3	2
123	An Experimental Investigation on Training of NiTi-Based Shape Memory Alloys. International Journal of Applied Mechanics, 2018, 10, 1850040.	1.3	19
124	A Time-Dependent Finite Element Formulation for Thick Shape Memory Polymer Beams Considering Shear Effects. International Journal of Applied Mechanics, 2018, 10, 1850043.	1.3	19
125	3D-Printable Unit Cell Design for Cubic and Orthotropic Porous Microstructures Using Topology Optimization Based on Optimality Criteria Algorithm. International Journal of Applied Mechanics, 2018, 10, 1850060.	1.3	7
126	Compliant orthoses for repositioning of knee joint based on super-elasticity of shape memory alloys. Journal of Intelligent Material Systems and Structures, 2018, 29, 3136-3150.	1.4	8

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127	A Semi-Analytic Solution for Self-Healing Concrete Beams Through Stress Spectral Decomposition. International Journal of Applied Mechanics, 2018, 10, 1850077.	1.3	0
128	Numerical Analysis of Growing the Ductile Damage in Structures Reinforced by SMA Using Continuum Damage Mechanics Approach. International Journal of Applied Mechanics, 2018, 10, 1850070.	1.3	6
129	Finite element modeling and design of pH/temperature sensitive hydrogel based biphasic twisting actuators. Scientia Iranica, 2018, .	0.3	6
130	Study of non-uniform viscoelastic nanoplates vibration based on nonlocal first-order shear deformation theory. Meccanica, 2017, 52, 1063-1077.	1.2	29
131	Temperature and stress distribution in hollow annular disk of uniform thickness with quadratic temperature-dependent thermal conductivity. Journal of Thermal Stresses, 2017, 40, 828-845.	1.1	7
132	Photostress analysis of stress-induced martensite phase transformation in superelastic NiTi. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 202-209.	2.6	15
133	Effective thermal and mechanical properties of short carbon fiber/natural rubber composites as a function of mechanical loading. Applied Thermal Engineering, 2017, 117, 8-16.	3.0	33
134	Cuâˆ’Znâˆ’Al2O3 nanocomposites: study of microstructure, corrosion, and wear properties. International Journal of Minerals, Metallurgy and Materials, 2017, 24, 462-472.	2.4	12
135	Study on pH-sensitive hydrogel micro-valves: A fluidâ€"structure interaction approach. Journal of Intelligent Material Systems and Structures, 2017, 28, 1589-1602.	1.4	28
136	Thermomechanical analysis of hyperelastic thick-walled cylindrical pressure vessels, analytical solutions and FEM. International Journal of Mechanical Sciences, 2017, 130, 426-436.	3.6	24
137	Finite bending of a temperature-sensitive hydrogel tri-layer: An analytical and finite element analysis. Composite Structures, 2017, 164, 219-228.	3.1	20
138	A Combined Analyticalâ€"Numerical Investigation on Photosensitive Hydrogel Micro-Valves. International Journal of Applied Mechanics, 2017, 09, 1750103.	1.3	23
139	Effect of nanofiller geometry on the energy absorption capability of coiled carbon nanotube composite material. Composites Science and Technology, 2017, 153, 222-231.	3.8	27
140	Application of Elastic-Damage-Heal Model for Self-Healing Concrete Thick-Walled Cylinders Through Thermodynamics of Irreversible Processes. International Journal of Applied Mechanics, 2017, 09, 1750082.	1.3	6
141	Transient behavior and dynamic pull-in instability of electrostatically-actuated fluid-conveying microbeams. Microsystem Technologies, 2017, 23, 6015-6023.	1.2	18
142	On the Correlation of FEM and Experiments for Hyperelastic Elastomers. Experimental Mechanics, 2017, 57, 195-206.	1.1	31
143	Finite bending of bilayer pH-responsive hydrogels: A novel analytic method and finite element analysis. Composites Part B: Engineering, 2017, 110, 116-123.	5.9	37
144	Elastic percolation of composite structures with regular tessellations of microstructure. Composite Structures, 2017, 161, 513-521.	3.1	2

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145	Thermomechanical behavior of shape memory polymer beams reinforced by corrugated polymeric sections. Meccanica, 2017, 52, 1947-1962.	1.2	9
146	Developing a finite element beam theory for nanocomposite shape memory polymers with application to sustained release of drugs. Scientia Iranica, 2017, 24, 249-259.	0.3	16
147	Free Vibration Analysis of Rotating Functionally Graded Annular Disc of Variable Thickness Using Generalized Differential Quadrature Method. Scientia Iranica, 2017, .	0.3	5
148	Analytical Couple-stress Solution for Size-dependent Large-amplitude Vibrations of FG Tapered-nanobeams. Latin American Journal of Solids and Structures, 2016, 13, 95-118.	0.6	7
149	Elastic Percolation in Nanocomposites with Impenetrable Ellipsoidal Inclusion (Comprehensive Study) Tj ETQq1 1 0.784314 rgBT /Overl	1.3	2
150	Performance enhancement of the double-layered micro-channel heat sink by use of tapered channels. Applied Thermal Engineering, 2016, 102, 1345-1354.	3.0	63
151	Analytical and numerical analysis of swelling-induced large bending of thermally-activated hydrogel bilayers. International Journal of Solids and Structures, 2016, 99, 1-11.	1.3	41
152	An Investigation on Thermomechanical Flexural Response of Shape-Memory-Polymer Beams. International Journal of Applied Mechanics, 2016, 08, 1650063.	1.3	10
153	A viscoelastic–viscoplastic constitutive model considering damage evolution for time dependent materials: Application to asphalt mixes. International Journal of Damage Mechanics, 2016, 25, 921-942.	2.4	21
154	Coupling behavior of the pH/temperature sensitive hydrogels for the inhomogeneous and homogeneous swelling. Smart Materials and Structures, 2016, 25, 085034.	1.8	32
155	A finite deformation viscoelastic–viscoplastic constitutive model for self-healing materials. Smart Materials and Structures, 2016, 25, 125027.	1.8	12
156	Dynamic and Stability Analysis of the Rotating Nanobeam in a Nonuniform Magnetic Field Considering the Surface Energy. International Journal of Applied Mechanics, 2016, 08, 1650048.	1.3	25
157	Inhomogeneous and homogeneous swelling behavior of temperature-sensitive poly-(N-isopropylacrylamide) hydrogels. Journal of Intelligent Material Systems and Structures, 2016, 27, 324-336.	1.4	47
158	Continuum damage-healing constitutive modeling for concrete materials through stress spectral decomposition. International Journal of Damage Mechanics, 2016, 25, 900-918.	2.4	25
159	Stress Analysis of a Functionally Graded Micro/ Nanorotating Disk with Variable Thickness Based on the Strain Gradient Theory. International Journal of Applied Mechanics, 2016, 08, 1650020.	1.3	17
160	Modeling and homogenization of shape memory polymer nanocomposites. Composites Part B: Engineering, 2016, 91, 36-43.	5.9	46
161	Analysis of nonlinear free vibration of a beam with magnetic shape memory alloy elements. Journal of Intelligent Material Systems and Structures, 2016, 27, 2216-2228.	1.4	7
162	Transient growth of a micro-void in an infinite medium under thermal load with modified Zerillä–Armstrong model. Acta Mechanica, 2016, 227, 943-953.	1.1	5

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163	Inhomogeneous swelling behavior of temperature sensitive PNIPAM hydrogels in micro-valves: analytical and numerical study. Smart Materials and Structures, 2015, 24, 045004.	1.8	36
164	3D reconstruction of carbon nanotube networks from neutron scattering experiments. Nanotechnology, 2015, 26, 385704.	1.3	17
165	An analytic investigation on behavior of smart devices consisting of reinforced shape memory polymer beams. Journal of Intelligent Material Systems and Structures, 2015, 26, 1385-1394.	1.4	18
166	Gaseous Slip Flow Mixed Convection in Vertical Microducts With Constant Axial Energy Input. Journal of Heat Transfer, 2014, 136, .	1.2	8
167	Analytical study on torsion of shape-memory-polymer prismatic bars with rectangular cross-sections. International Journal of Engineering Science, 2014, 76, 1-11.	2.7	10
168	Analysis of large amplitude free vibrations of clamped tapered beams on a nonlinear elastic foundation. Applied Mathematical Modelling, 2014, 38, 1176-1186.	2.2	17
169	An analytical solution for shape-memory-polymer Eulerâ€"Bernoulli beams under bending. International Journal of Mechanical Sciences, 2014, 84, 84-90.	3.6	38
170	Gaseous Slip Flow Forced Convection in Microducts of Arbitrary but Constant Cross Section. Nanoscale and Microscale Thermophysical Engineering, 2014, 18, 354-372.	1.4	9
171	Electro-mechanical bending analysis of ionic polymer metal nanocomposites (IPMNCs). Mechanics Research Communications, 2014, 62, 77-82.	1.0	1
172	A finite deformation constitutive model for shape memory polymers based on Hencky strain. Mechanics of Materials, 2014, 73, 1-10.	1.7	35
173	Finite strain numerical analysis of elastomeric bushings under multi-axial loadings: a compressible visco-hyperelastic approach. International Journal of Mechanics and Materials in Design, 2013, 9, 385-399.	1.7	29
174	A large deformation framework for shape memory polymers: Constitutive modeling and finite element implementation. Journal of Intelligent Material Systems and Structures, 2013, 24, 21-32.	1.4	36
175	Gaseous slip flow forced convection through ordered microcylinders. Microfluidics and Nanofluidics, 2013, 15, 73-85.	1.0	9
176	Limit analysis of FGM circular plates subjected to arbitrary rotational symmetric loads using von-Mises yield criterion. Acta Mechanica, 2013, 224, 1601-1608.	1.1	6
177	Application of the variational iteration method for nonlinear free vibration of conservative oscillators. Scientia Iranica, 2012, 19, 513-518.	0.3	25
178	A viscoelastic constitutive model for compressible polymers based on logarithmic strain and its finite element implementation. Finite Elements in Analysis and Design, 2012, 62, 18-27.	1.7	36
179	A semi-analytical study on helical springs made of shape memory polymer. Smart Materials and Structures, 2012, 21, 045014.	1.8	38
180	A constitutive model for shape memory polymers with application to torsion of prismatic bars. Journal of Intelligent Material Systems and Structures, 2012, 23, 107-116.	1.4	51

#	Article	IF	Citations
181	Strain gradient elasticity solution for functionally graded micro-cylinders. International Journal of Engineering Science, 2012, 50, 22-30.	2.7	47
182	Analytical study on size-dependent static pull-in voltage of microcantilevers using the modified couple stress theory. International Journal of Engineering Science, 2012, 54, 99-105.	2.7	126
183	A thermodynamically-consistent 3D constitutive model for shape memory polymers. International Journal of Plasticity, 2012, 35, 13-30.	4.1	128
184	Large amplitudes free vibrations and post-buckling analysis of unsymmetrically laminated composite beams on nonlinear elastic foundation. Applied Mathematical Modelling, 2011, 35, 130-138.	2.2	44
185	Entropy Generation in Thermally Developing Laminar Forced Convection Through a Slit Microchannel. , 2010, , .		0
186	Second Law Analysis for Extended Graetz Problem Including Viscous Dissipation in Microtubes. , 2010, , .		0
187	Stress analysis of thick-walled cylinders made of functionally graded materials using strain gradient elasticity. , 2010, , .		0
188	Study of a magnetic SMA-based energy harvester using a corrugated structure. Journal of Intelligent Material Systems and Structures, 0, , 1045389X2098390.	1.4	2
189	Prediction of bone microstructures degradation during osteoporosis with fuzzy cellular automata algorithm. Mathematics and Mechanics of Solids, 0, , 108128652210885.	1.5	2
190	Statistical prediction of bone microstructure degradation to study patient dependency in osteoporosis. Mathematics and Mechanics of Solids, 0, , 108128652210987.	1.5	2
191	Silk Fibroin Hydrogel Reinforced With Magnetic Nanoparticles as an Intelligent Drug Delivery System for Sustained Drug Release. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	8