Yong-Gang Zheng

List of Publications by Year
in descending order

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102	2,299	279487	253896
papers	citations	23 h-index	43 g-index

103	103	103	2824
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Penetration of Lipid Membranes by Gold Nanoparticles: Insights into Cellular Uptake, Cytotoxicity, and Their Relationship. ACS Nano, 2010, 4, 5421-5429.	7.3	571
2	A Simulation Study on Nanoscale Holes Generated by Gold Nanoparticles on Negative Lipid Bilayers. Langmuir, 2011, 27, 8323-8332.	1.6	79
3	Water diffusion inside carbon nanotubes: mutual effects of surface and confinement. Physical Chemistry Chemical Physics, 2012, 14, 964-971.	1.3	78
4	The effect of flaw filling material on the compressive behaviour of 3D printed rock-like discs. International Journal of Rock Mechanics and Minings Sciences, 2019, 117, 105-117.	2.6	77
5	Prediction of the viscosity of water confined in carbon nanotubes. Microfluidics and Nanofluidics, 2011, 10, 403-414.	1.0	71
6	Simulation Study of Aggregations of Monolayer-Protected Gold Nanoparticles in Solvents. Journal of Physical Chemistry C, 2011, 115, 18991-18998.	1.5	61
7	Atomistic study of the mechanical response of copper nanowires under torsion. Journal Physics D: Applied Physics, 2009, 42, 135408.	1.3	57
8	Nanoconfinement induced anomalous water diffusion inside carbon nanotubes. Microfluidics and Nanofluidics, 2011, 10, 1359-1364.	1.0	53
9	Size and temperature effects on the viscosity of water inside carbon nanotubes. Nanoscale Research Letters, 2011, 6, 87.	3.1	50
10	Receptor-Mediated Endocytosis of Nanoparticles: Roles of Shapes, Orientations, and Rotations of Nanoparticles. Journal of Physical Chemistry B, 2018, 122, 171-180.	1.2	45
11	Corrected second-order slip boundary condition for fluid flows in nanochannels. Physical Review E, 2010, 81, 066303.	0.8	42
12	Improved convected particle domain interpolation method for coupled dynamic analysis of fully saturated porous media involving large deformation. Computer Methods in Applied Mechanics and Engineering, 2013, 257, 150-163.	3.4	40
13	Unidirectional Self-Driving Liquid Droplet Transport on a Monolayer Graphene-Covered Textured Substrate. ACS Applied Materials & Interfaces, 2019, 11, 28562-28570.	4.0	37
14	Wrapping of nanoparticles by the cell membrane: the role of interactions between the nanoparticles. Soft Matter, 2015, 11, 8674-8683.	1.2	33
15	Coupling extended multiscale finite element method for thermoelastic analysis of heterogeneous multiphase materials. Computers and Structures, 2013, 121, 32-49.	2.4	32
16	Constitutive modeling for polymer hydrogels: A new perspective and applications to anisotropic hydrogels in free swelling. European Journal of Mechanics, A/Solids, 2015, 54, 171-186.	2.1	28
17	Torsion induced by axial strain of double-walled carbon nanotubes. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 3488-3492.	0.9	27
18	A multiplicative finite element algorithm for the inhomogeneous swelling of polymeric gels. Computer Methods in Applied Mechanics and Engineering, 2015, 283, 517-550.	3.4	27

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19	A Micromechanically Based Constitutive Model for the Inelastic and Swelling Behaviors in Double Network Hydrogels. Journal of Applied Mechanics, Transactions ASME, 2016, 83, .	1.1	26
20	A coupling peridynamic approach for the consolidation and dynamic analysis of saturated porous media. Computational Mechanics, 2019, 64, 1097-1113.	2.2	26
21	Gas separation by kinked single-walled carbon nanotubes: Molecular dynamics simulations. Physical Review B, 2008, 78, .	1.1	25
22	Transient swelling of polymeric hydrogels: A new finite element solution framework. International Journal of Solids and Structures, 2016, 80, 246-260.	1.3	25
23	Development of generalized interpolation material point method for simulating fully coupled thermomechanical failure evolution. Computer Methods in Applied Mechanics and Engineering, 2018, 332, 325-342.	3.4	24
24	A peridynamic model for the nonlinear static analysis of truss and tensegrity structures. Computational Mechanics, 2016, 57, 843-858.	2.2	23
25	An Implicit Coupling Finite Element and Peridynamic Method for Dynamic Problems of Solid Mechanics with Crack Propagation. International Journal of Applied Mechanics, 2018, 10, 1850037.	1.3	23
26	Phase-field implicit material point method with the convected particle domain interpolation for brittleâ€“ductile failure transition in geomaterials involving finite deformation. Computer Methods in Applied Mechanics and Engineering, 2022, 390, 114420.	3.4	23
27	Anisotropic Swelling in Fiber-Reinforced Hydrogels: An Incremental Finite Element Method and Its Applications in Design of Bilayer Structures. International Journal of Applied Mechanics, 2016, 08, 1640003.	1.3	22
28	Generalized interpolation material point method for coupled thermo-mechanical processes. International Journal of Mechanics and Materials in Design, 2016, 12, 577-595.	1.7	21
29	Loading path effect on the mechanical behaviour and fivefold twinning of copper nanowires. Journal Physics D: Applied Physics, 2010, 43, 335402.	1.3	20
30	Free-end adaptive nudged elastic band method for locating transition states in minimum energy path calculation. Journal of Chemical Physics, 2016, 145, 094104.	1.2	20
31	Molecular dynamics investigation of plastic deformation mechanism in bulk nanotwinned copper with embedded cracks. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 736-740.	0.9	18
32	Machine learning for reparameterization of four-site water models: TIP4P-BG and TIP4P-BGT. Physical Chemistry Chemical Physics, 2021, 23, 10164-10173.	1.3	18
33	Biomimetic Janus photonic soft actuator with structural color self-reporting. Materials Horizons, 2022, 9, 1243-1252.	6.4	18
34	A multiscale finite element method with embedded strong discontinuity model for the simulation of cohesive cracks in solids. Computer Methods in Applied Mechanics and Engineering, 2016, 311, 576-598.	3.4	17
35	A solid-shell based finite element model for thin-walled soft structures with a growing mass. International Journal of Solids and Structures, 2019, 163, 87-101.	1.3	17
36	A concurrent multiscale method for simulation of crack propagation. Acta Mechanica Solida Sinica, 2015, 28, 235-251.	1.0	16

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37	Influence of dry density and confinement environment on the high strain rate response of partially saturated sand. International Journal of Impact Engineering, 2018, 116, 65-78.	2.4	16
38	Time-discontinuous material point method for transient problems. Computer Methods in Applied Mechanics and Engineering, 2018, 328, 663-685.	3.4	16
39	Explicit phase-field total Lagrangian material point method for the dynamic fracture of hyperelastic materials. Computer Methods in Applied Mechanics and Engineering, 2022, 398, 115234.	3.4	16
40	A multi-scale method for thermal conduction simulation in granular materials. Computational Materials Science, 2011, 50, 2750-2758.	1.4	15
41	Carbon nanotube-based charge-controlled speed-regulating nanoclutch. Journal of Applied Physics, 2012, 111, 114304.	1.1	15
42	General coupling extended multiscale FEM for elastoâ€plastic consolidation analysis of heterogeneous saturated porous media. International Journal for Numerical and Analytical Methods in Geomechanics, 2015, 39, 63-95.	1.7	15
43	Twin Boundaries merely as Intrinsically Kinematic Barriers for Screw Dislocation Motion in FCC Metals. Scientific Reports, 2016, 6, 22893.	1.6	15
44	A robust Riks-like path following method for strain-actuated snap-through phenomena in soft solids. Computer Methods in Applied Mechanics and Engineering, 2017, 323, 416-438.	3.4	14
45	A nonlinear finite element model for the stress analysis of soft solids with a growing mass. International Journal of Solids and Structures, 2014, 51, 2964-2978.	1.3	13
46	Wrapping of a deformable nanoparticle by the cell membrane: Insights into the flexibility-regulated nanoparticle-membrane interaction. Journal of Applied Physics, 2016, 120, .	1.1	13
47	Aggregation of nanoparticles regulated by mechanical properties of nanoparticleâ€“membrane system. Nanotechnology, 2018, 29, 405102.	1.3	13
48	Deformation and Stability of Copper Nanowires under Bending. International Journal for Multiscale Computational Engineering, 2009, 7, 205-215.	0.8	13
49	Size and surface effects on the mechanical behavior of nanotubes in first gradient elasticity. Composites Part B: Engineering, 2012, 43, 27-32.	5.9	12
50	Controllable deformation of salt water-filled carbon nanotubes using an electric field with application to molecular sieving. Nanotechnology, 2016, 27, 315702.	1.3	12
51	An adjustable permeation membrane up to the separation for multicomponent gas mixture. Scientific Reports, 2019, 9, 7380.	1.6	12
52	Time-discontinuous state-based peridynamics for elasto-plastic dynamic fracture problems. Engineering Fracture Mechanics, 2022, 266, 108392.	2.0	12
53	Formation of quasi-icosahedral structures with multi-conjoint fivefold deformation twins in fivefold twinned metallic nanowires. Applied Physics Letters, 2013, 103, .	1.5	11
54	A coupling extended multiscale finite element and peridynamic method for modeling of crack propagation in solids. Acta Mechanica, 2019, 230, 3667-3692.	1.1	11

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55	High-order NURBS elements based isogeometric formulation for swellable soft materials. Computer Methods in Applied Mechanics and Engineering, 2020, 363, 112901.	3.4	11
56	A coupling extended multiscale finite element method for dynamic analysis of heterogeneous saturated porous media. International Journal for Numerical Methods in Engineering, 2015, 104, 18-47.	1.5	10
57	A multiscale finite element method for the localization analysis of homogeneous and heterogeneous saturated porous media with embedded strong discontinuity model. International Journal for Numerical Methods in Engineering, 2017, 112, 1439-1472.	1.5	10
58	Hetero interface and twin boundary mediated strengthening in nano-twinned Cu//Ag multilayered materials. Nanotechnology, 2017, 28, 415705.	1.3	10
59	Gradient structure regulated plastic deformation mechanisms in polycrystalline nanotwinned copper. Journal Physics D: Applied Physics, 2019, 52, 365304.	1.3	10
60	Tensile mechanical properties of nano-twinned copper containing silver inclusions. Physica B: Condensed Matter, 2019, 554, 97-101.	1.3	10
61	Helium implantation effects on the tensile response of nano-twinned copper. Journal of Nuclear Materials, 2020, 541, 152426.	1.3	10
62	A <scp>totalâ€Lagrangian</scp> material point method for coupled growth and massive deformation of incompressible soft materials. International Journal for Numerical Methods in Engineering, 2021, 122, 6180-6202.	1.5	10
63	Water Sheared by Charged Graphene Sheets. Journal of Adhesion Science and Technology, 2012, 26, 1897-1908.	1.4	9
64	Large deformation and wrinkling analyses of bimodular structures and membranes based on a peridynamic computational framework. Acta Mechanica Sinica/Lixue Xuebao, 2019, 35, 1226-1240.	1.5	9
65	Regulating the mechanical properties of nanocrystalline nickel via molybdenum segregation: an atomistic study. Nanotechnology, 2019, 30, 275702.	1.3	9
66	The importance of H2 in the controlled growth of semiconducting single-wall carbon nanotubes. Journal of Materials Science and Technology, 2020, 54, 105-111.	5.6	9
67	Implicit Material Point Method with Convected Particle Domain Interpolation for Consolidation and Dynamic Analysis of Saturated Porous Media with Massive Deformation. International Journal of Applied Mechanics, 2021, 13, 2150023.	1.3	9
68	A mixed isogeometric analysis approach for the transient swelling of hydrogel. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113384.	3.4	8
69	IMPACT-INDUCED BENDING RESPONSE OF SINGLE CRYSTAL AND FIVE-FOLD TWINNED NANOWIRES. International Journal for Multiscale Computational Engineering, 2013, 11, 1-16.	0.8	8
70	An adaptive multiscale method for strain localization analysis of 2D periodic lattice truss materials. Philosophical Magazine, 2012, 92, 3723-3752.	0.7	7
71	Mechanically Guided Assembly of Monolithic Three-Dimensional Structures from Elastomer Composites. ACS Applied Materials & Interfaces, 2018, 10, 44716-44721.	4.0	7
72	An arbitrary multi-node extended multiscale finite element method for thermoelastic problems with polygonal microstructures. International Journal of Mechanics and Materials in Design, 2020, 16, 35-56.	1.7	7

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73	Coupling Moving Morphable Voids and Components Based Topology Optimization of Hydrogel Structures Involving Large Deformation. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	1.1	7
74	Reassessing molecular sieving by kinked carbon nanotubes. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 085009.	0.8	6
75	Twin-induced template effect on the inelastic deformation of hierarchically nanotwinned copper under indentation and scratch. International Journal of Damage Mechanics, 2016, 25, 56-68.	2.4	6
76	Crystallization behaviors and mechanical properties of carbon nanotube encapsulated copper nanowires. Computational Materials Science, 2018, 143, 350-359.	1.4	6
77	An empirical approach for the quantification of uniaxial compressive stress-strain of partially saturated granular media under high strain rates. Soil Dynamics and Earthquake Engineering, 2019, 120, 245-256.	1.9	6
78	Coupling lattice Boltzmann and material point method for fluidâ€solid interaction problems involving massive deformation. International Journal for Numerical Methods in Engineering, 2020, 121, 5546-5567.	1.5	6
79	A solid-shell finite element method for the anisotropic swelling of hydrogels with reinforced fibers. European Journal of Mechanics, A/Solids, 2021, 86, 104197.	2.1	6
80	Reversible stretching of pre-strained water-filled carbon nanotubes under electric fields. Microfluidics and Nanofluidics, 2015, 18, 1201-1207.	1.0	5
81	Adhesion and bending rigidity-mediated wrapping of carbon nanotubes by a substrate-supported cell membrane. RSC Advances, 2015, 5, 43772-43779.	1.7	5
82	Torsional failure of water-filled carbon nanotubes. International Journal of Damage Mechanics, 2016, 25, 87-97.	2.4	5
83	Vibration-Induced Property Change in the Melting and Solidifying Process of Metallic Nanoparticles. Nanoscale Research Letters, 2017, 12, 308.	3.1	5
84	Coupling effect of twin boundary and void on the mechanical properties of bulk nanotwinned copper: an atomistic simulation. Journal Physics D: Applied Physics, 2019, 52, 055303.	1.3	5
85	MULTI-LEVEL K-d TREE-BASED DATA-DRIVEN COMPUTATIONAL METHOD FOR THE DYNAMIC ANALYSIS OF MULTI-MATERIAL STRUCTURES. International Journal for Multiscale Computational Engineering, 2020, 18, 421-438.	0.8	5
86	The tunable mechanical property of water-filled carbon nanotubes under an electric field. Journal Physics D: Applied Physics, 2014, 47, 125302.	1.3	4
87	A timeâ€discontinuous peridynamic method for transient problems involving crack propagation. International Journal for Numerical Methods in Engineering, 2021, 122, 1824-1845.	1.5	4
88	Divergent effect of electric fields on the mechanical property of water-filled carbon nanotubes with an application as a nanoscale trigger. Nanotechnology, 2018, 29, 025707.	1.3	3
89	The physical origin of observed repulsive forces between general dislocations and twin boundaries in FCC metals: An atom-continuum coupling study. Journal of Materials Science and Technology, 2022, 109, 221-227.	5.6	3
90	Torsional properties of metallic nanosprings. Acta Mechanica Solida Sinica, 2009, 22, 657-664.	1.0	2

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91	Static and dynamic properties of argon inside carbon nanotubes. International Journal of Computational Materials Science and Engineering, 2014, 03, 1450018.	0.5	2
92	Lattice Boltzmann models for the grain growth in polycrystalline systems. AIP Advances, 2016, 6, .	0.6	2
93	An adaptive multiscale finite element method for strain localization analysis with the Cosserat continuum theory. European Journal of Mechanics, A/Solids, 2021, , 104450.	2.1	2
94	LOADING, CHARGING AND THERMAL EFFECTS ON THE MECHANISM OF WATERâ€“CARBON NANOTUBE TRANSMISSION. International Journal of Computational Materials Science and Engineering, 2013, 02, 1350017.	0.5	1
95	Radial stability and configuration transition of carbon nanotubes regulated by enclosed cores. AIP Advances, 2015, 5, .	0.6	1
96	Molten and solidification properties of copper nanoparticles. Surface and Interface Analysis, 2016, 48, 1423-1428.	0.8	1
97	Axisymmetric Generalized Interpolation Material Point Method for Fully Coupled Thermomechanical Evaluation of Transient Responses. International Journal of Computational Methods, 2020, 17, 1950003.	0.8	1
98	Extended multiscale finite element method based on polyhedral coarse grid elements for heterogeneous materials and structures. Materials Today Communications, 2020, 24, 101142.	0.9	1
99	GENERALIZED FOUR-NODE PLANE RECTANGULAR AND QUADRILATERAL ELEMENTS AND THEIR APPLICATIONS IN THE MULTISCALE ANALYSIS OF HETEROGENEOUS STRUCTURES. International Journal for Multiscale Computational Engineering, 2013, 11, 71-91.	0.8	1
100	Nanostructural characteristics-mediated plastic behavior of Cu/Ag polycrystalline multilayered materials. Physica Scripta, 2021, 96, 015701.	1.2	1
101	Atomistic investigations of tensile and shear mechanical properties of nanotwinned copper with embedded defects. International Journal of Computational Materials Science and Engineering, 2014, 03, 1450012.	0.5	0
102	Influence of Mo Segregation at Grain Boundaries on the High Temperature Creep Behavior of Ni-Mo Alloys: An Atomistic Study. Materials, 2021, 14, 6966.	1.3	0