

# Yong-Gang Zheng

## List of Publications by Citations

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96  
papers

1,680  
citations

20  
h-index

37  
g-index

103  
ext. papers

1,980  
ext. citations

3.7  
avg, IF

4.95  
L-index

#	Paper	IF	Citations
96	Penetration of lipid membranes by gold nanoparticles: insights into cellular uptake, cytotoxicity, and their relationship. <i>ACS Nano</i> , <b>2010</b> , 4, 5421-9	16.7	479
95	A simulation study on nanoscale holes generated by gold nanoparticles on negative lipid bilayers. <i>Langmuir</i> , <b>2011</b> , 27, 8323-32	4	72
94	Water diffusion inside carbon nanotubes: mutual effects of surface and confinement. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 964-71	3.6	64
93	Prediction of the viscosity of water confined in carbon nanotubes. <i>Microfluidics and Nanofluidics</i> , <b>2011</b> , 10, 403-414	2.8	56
92	Simulation Study of Aggregations of Monolayer-Protected Gold Nanoparticles in Solvents. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 18991-18998	3.8	53
91	Nanoconfinement induced anomalous water diffusion inside carbon nanotubes. <i>Microfluidics and Nanofluidics</i> , <b>2011</b> , 10, 1359-1364	2.8	45
90	Size and temperature effects on the viscosity of water inside carbon nanotubes. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 87	5	45
89	Atomistic study of the mechanical response of copper nanowires under torsion. <i>Journal Physics D: Applied Physics</i> , <b>2009</b> , 42, 135408	3	45
88	Receptor-Mediated Endocytosis of Nanoparticles: Roles of Shapes, Orientations, and Rotations of Nanoparticles. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 171-180	3.4	34
87	Corrected second-order slip boundary condition for fluid flows in nanochannels. <i>Physical Review E</i> , <b>2010</b> , 81, 066303	2.4	34
86	The effect of flaw filling material on the compressive behaviour of 3D printed rock-like discs. <i>International Journal of Rock Mechanics and Minings Sciences</i> , <b>2019</b> , 117, 105-117	6	32
85	Wrapping of nanoparticles by the cell membrane: the role of interactions between the nanoparticles. <i>Soft Matter</i> , <b>2015</b> , 11, 8674-83	3.6	28
84	Torsion induced by axial strain of double-walled carbon nanotubes. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2008</b> , 372, 3488-3492	2.3	26
83	Improved convected particle domain interpolation method for coupled dynamic analysis of fully saturated porous media involving large deformation. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2013</b> , 257, 150-163	5.7	24
82	Coupling extended multiscale finite element method for thermoelastic analysis of heterogeneous multiphase materials. <i>Computers and Structures</i> , <b>2013</b> , 121, 32-49	4.5	24
81	Gas separation by kinked single-walled carbon nanotubes: Molecular dynamics simulations. <i>Physical Review B</i> , <b>2008</b> , 78,	3.3	24
80	Constitutive modeling for polymer hydrogels: A new perspective and applications to anisotropic hydrogels in free swelling. <i>European Journal of Mechanics, A/Solids</i> , <b>2015</b> , 54, 171-186	3.7	23

79	Transient swelling of polymeric hydrogels: A new finite element solution framework. <i>International Journal of Solids and Structures</i> , <b>2016</b> , 80, 246-260	3.1	22
78	Unidirectional Self-Driving Liquid Droplet Transport on a Monolayer Graphene-Covered Textured Substrate. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 28562-28570	9.5	22
77	A multiplicative finite element algorithm for the inhomogeneous swelling of polymeric gels. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2015</b> , 283, 517-550	5.7	21
76	A Micromechanically Based Constitutive Model for the Inelastic and Swelling Behaviors in Double Network Hydrogels. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2016</b> , 83,	2.7	19
75	A coupling peridynamic approach for the consolidation and dynamic analysis of saturated porous media. <i>Computational Mechanics</i> , <b>2019</b> , 64, 1097-1113	4	16
74	A multiscale finite element method with embedded strong discontinuity model for the simulation of cohesive cracks in solids. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2016</b> , 311, 576-598	5.7	15
73	A peridynamic model for the nonlinear static analysis of truss and tensegrity structures. <i>Computational Mechanics</i> , <b>2016</b> , 57, 843-858	4	15
72	An Implicit Coupling Finite Element and Peridynamic Method for Dynamic Problems of Solid Mechanics with Crack Propagation. <i>International Journal of Applied Mechanics</i> , <b>2018</b> , 10, 1850037	2.4	15
71	Molecular dynamics investigation of plastic deformation mechanism in bulk nanotwinned copper with embedded cracks. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , <b>2014</b> , 378, 736-740	2.4	15
70	Development of generalized interpolation material point method for simulating fully coupled thermomechanical failure evolution. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2018</b> , 332, 325-342	5.7	14
69	Loading path effect on the mechanical behaviour and fivefold twinning of copper nanowires. <i>Journal Physics D: Applied Physics</i> , <b>2010</b> , 43, 335402	3	14
68	Anisotropic Swelling in Fiber-Reinforced Hydrogels: An Incremental Finite Element Method and Its Applications in Design of Bilayer Structures. <i>International Journal of Applied Mechanics</i> , <b>2016</b> , 08, 16400034	2.4	14
67	A concurrent multiscale method for simulation of crack propagation. <i>Acta Mechanica Solida Sinica</i> , <b>2015</b> , 28, 235-251	2	13
66	Generalized interpolation material point method for coupled thermo-mechanical processes. <i>International Journal of Mechanics and Materials in Design</i> , <b>2016</b> , 12, 577-595	2.5	13
65	Carbon nanotube-based charge-controlled speed-regulating nanoclutch. <i>Journal of Applied Physics</i> , <b>2012</b> , 111, 114304	2.5	13
64	Free-end adaptive nudged elastic band method for locating transition states in minimum energy path calculation. <i>Journal of Chemical Physics</i> , <b>2016</b> , 145, 094104	3.9	13
63	Wrapping of a deformable nanoparticle by the cell membrane: Insights into the flexibility-regulated nanoparticle-membrane interaction. <i>Journal of Applied Physics</i> , <b>2016</b> , 120, 114701	2.5	13
62	Time-discontinuous material point method for transient problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2018</b> , 328, 663-685	5.7	12

61	Size and surface effects on the mechanical behavior of nanotubes in first gradient elasticity. <i>Composites Part B: Engineering</i> , <b>2012</b> , 43, 27-32	10	12
60	A multi-scale method for thermal conduction simulation in granular materials. <i>Computational Materials Science</i> , <b>2011</b> , 50, 2750-2758	3.2	12
59	Deformation and Stability of Copper Nanowires under Bending. <i>International Journal for Multiscale Computational Engineering</i> , <b>2009</b> , 7, 205-215	2.4	12
58	Twin Boundaries merely as Intrinsically Kinematic Barriers for Screw Dislocation Motion in FCC Metals. <i>Scientific Reports</i> , <b>2016</b> , 6, 22893	4.9	12
57	General coupling extended multiscale FEM for elasto-plastic consolidation analysis of heterogeneous saturated porous media. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2015</b> , 39, 63-95	4	11
56	A robust Riks-like path following method for strain-actuated snap-through phenomena in soft solids. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2017</b> , 323, 416-438	5.7	10
55	A coupling extended multiscale finite element method for dynamic analysis of heterogeneous saturated porous media. <i>International Journal for Numerical Methods in Engineering</i> , <b>2015</b> , 104, 18-47	2.4	10
54	Controllable deformation of salt water-filled carbon nanotubes using an electric field with application to molecular sieving. <i>Nanotechnology</i> , <b>2016</b> , 27, 315702	3.4	10
53	A nonlinear finite element model for the stress analysis of soft solids with a growing mass. <i>International Journal of Solids and Structures</i> , <b>2014</b> , 51, 2964-2978	3.1	10
52	Formation of quasi-icosahedral structures with multi-conjoint fivefold deformation twins in fivefold twinned metallic nanowires. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 041909	3.4	10
51	Hetero interface and twin boundary mediated strengthening in nano-twinned Cu//Ag multilayered materials. <i>Nanotechnology</i> , <b>2017</b> , 28, 415705	3.4	10
50	Influence of dry density and confinement environment on the high strain rate response of partially saturated sand. <i>International Journal of Impact Engineering</i> , <b>2018</b> , 116, 65-78	4	9
49	Water Sheared by Charged Graphene Sheets. <i>Journal of Adhesion Science and Technology</i> , <b>2012</b> , 26, 1897-1908	9	
48	An adjustable permeation membrane up to the separation for multicomponent gas mixture. <i>Scientific Reports</i> , <b>2019</b> , 9, 7380	4.9	8
47	High-order NURBS elements based isogeometric formulation for swellable soft materials. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2020</b> , 363, 112901	5.7	8
46	Aggregation of nanoparticles regulated by mechanical properties of nanoparticle-membrane system. <i>Nanotechnology</i> , <b>2018</b> , 29, 405102	3.4	8
45	A solid-shell based finite element model for thin-walled soft structures with a growing mass. <i>International Journal of Solids and Structures</i> , <b>2019</b> , 163, 87-101	3.1	8
44	IMPACT-INDUCED BENDING RESPONSE OF SINGLE CRYSTAL AND FIVE-FOLD TWINNED NANOWIRES. <i>International Journal for Multiscale Computational Engineering</i> , <b>2013</b> , 11, 1-16	2.4	7

43	Twin-induced template effect on the inelastic deformation of hierarchically nanotwinned copper under indentation and scratch. <i>International Journal of Damage Mechanics</i> , <b>2016</b> , 25, 56-68	3	6
42	A coupling extended multiscale finite element and peridynamic method for modeling of crack propagation in solids. <i>Acta Mechanica</i> , <b>2019</b> , 230, 3667-3692	2.1	6
41	Reassessing molecular sieving by kinked carbon nanotubes. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2011</b> , 19, 085009	2	6
40	Large deformation and wrinkling analyses of bimodular structures and membranes based on a peridynamic computational framework. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , <b>2019</b> , 35, 1226-1240	2	5
39	Reversible stretching of pre-strained water-filled carbon nanotubes under electric fields. <i>Microfluidics and Nanofluidics</i> , <b>2015</b> , 18, 1201-1207	2.8	5
38	An adaptive multiscale method for strain localization analysis of 2D periodic lattice truss materials. <i>Philosophical Magazine</i> , <b>2012</b> , 92, 3723-3752	1.6	5
37	A multiscale finite element method for the localization analysis of homogeneous and heterogeneous saturated porous media with embedded strong discontinuity model. <i>International Journal for Numerical Methods in Engineering</i> , <b>2017</b> , 112, 1439-1472	2.4	4
36	Adhesion and bending rigidity-mediated wrapping of carbon nanotubes by a substrate-supported cell membrane. <i>RSC Advances</i> , <b>2015</b> , 5, 43772-43779	3.7	4
35	Gradient structure regulated plastic deformation mechanisms in polycrystalline nanotwinned copper. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 365304	3	4
34	The tunable mechanical property of water-filled carbon nanotubes under an electric field. <i>Journal Physics D: Applied Physics</i> , <b>2014</b> , 47, 125302	3	4
33	Vibration-Induced Property Change in the Melting and Solidifying Process of Metallic Nanoparticles. <i>Nanoscale Research Letters</i> , <b>2017</b> , 12, 308	5	4
32	A mixed isogeometric analysis approach for the transient swelling of hydrogel. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2020</b> , 372, 113384	5.7	4
31	An empirical approach for the quantification of uniaxial compressive stress-strain of partially saturated granular media under high strain rates. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2019</b> , 120, 245-256	3.5	4
30	Crystallization behaviors and mechanical properties of carbon nanotube encapsulated copper nanowires. <i>Computational Materials Science</i> , <b>2018</b> , 143, 350-359	3.2	4
29	Mechanically Guided Assembly of Monolithic Three-Dimensional Structures from Elastomer Composites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 44716-44721	9.5	4
28	Machine learning for reparameterization of four-site water models: TIP4P-BG and TIP4P-BGT. <i>Physical Chemistry Chemical Physics</i> , <b>2021</b> , 23, 10164-10173	3.6	4
27	Torsional failure of water-filled carbon nanotubes. <i>International Journal of Damage Mechanics</i> , <b>2016</b> , 25, 87-97	3	3
26	Regulating the mechanical properties of nanocrystalline nickel via molybdenum segregation: an atomistic study. <i>Nanotechnology</i> , <b>2019</b> , 30, 275702	3.4	3

25	Implicit Material Point Method with Convected Particle Domain Interpolation for Consolidation and Dynamic Analysis of Saturated Porous Media with Massive Deformation. <i>International Journal of Applied Mechanics</i> , <b>2021</b> , 13, 2150023	2.4	3
24	Tensile mechanical properties of nano-twinned copper containing silver inclusions. <i>Physica B: Condensed Matter</i> , <b>2019</b> , 554, 97-101	2.8	3
23	Coupling lattice Boltzmann and material point method for fluid-solid interaction problems involving massive deformation. <i>International Journal for Numerical Methods in Engineering</i> , <b>2020</b> , 121, 5546-5567	2.4	2
22	Divergent effect of electric fields on the mechanical property of water-filled carbon nanotubes with an application as a nanoscale trigger. <i>Nanotechnology</i> , <b>2018</b> , 29, 025707	3.4	2
21	Static and dynamic properties of argon inside carbon nanotubes. <i>International Journal of Computational Materials Science and Engineering</i> , <b>2014</b> , 03, 1450018	0.3	2
20	Torsional properties of metallic nanosprings. <i>Acta Mechanica Solida Sinica</i> , <b>2009</b> , 22, 657-664	2	2
19	A total-Lagrangian material point method for coupled growth and massive deformation of incompressible soft materials. <i>International Journal for Numerical Methods in Engineering</i> , <b>2021</b> , 122, 6180	2.4	2
18	Coupling effect of twin boundary and void on the mechanical properties of bulk nanotwinned copper: an atomistic simulation. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 055303	3	2
17	An arbitrary multi-node extended multiscale finite element method for thermoelastic problems with polygonal microstructures. <i>International Journal of Mechanics and Materials in Design</i> , <b>2020</b> , 16, 35-56	2.5	2
16	A time-discontinuous peridynamic method for transient problems involving crack propagation. <i>International Journal for Numerical Methods in Engineering</i> , <b>2021</b> , 122, 1824-1845	2.4	2
15	The importance of H <sub>2</sub> in the controlled growth of semiconducting single-wall carbon nanotubes. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 54, 105-111	9.1	1
14	Radial stability and configuration transition of carbon nanotubes regulated by enclosed cores. <i>AIP Advances</i> , <b>2015</b> , 5, 057155	1.5	1
13	LOADING, CHARGING AND THERMAL EFFECTS ON THE MECHANISM OF WATER-CARBON NANOTUBE TRANSMISSION. <i>International Journal of Computational Materials Science and Engineering</i> , <b>2013</b> , 02, 1350017	0.3	1
12	Nanostructural characteristics-mediated plastic behavior of Cu/Ag polycrystalline multilayered materials. <i>Physica Scripta</i> , <b>2021</b> , 96, 015701	2.6	1
11	Phase-field implicit material point method with the convected particle domain interpolation for brittle-ductile failure transition in geomaterials involving finite deformation. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2022</b> , 390, 114420	5.7	1
10	Extended multiscale finite element method based on polyhedral coarse grid elements for heterogeneous materials and structures. <i>Materials Today Communications</i> , <b>2020</b> , 24, 101142	2.5	1
9	Helium implantation effects on the tensile response of nano-twinned copper. <i>Journal of Nuclear Materials</i> , <b>2020</b> , 541, 152426	3.3	1
8	Lattice Boltzmann models for the grain growth in polycrystalline systems. <i>AIP Advances</i> , <b>2016</b> , 6, 085315	1.5	1

7	Axisymmetric Generalized Interpolation Material Point Method for Fully Coupled Thermomechanical Evaluation of Transient Responses. <i>International Journal of Computational Methods</i> , <b>2020</b> , 17, 1950003	1.1	1
6	Coupling moving morphable voids and components based topology optimization of hydrogel structures involving large deformation. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1-33	2.7	1
5	A solid-shell finite element method for the anisotropic swelling of hydrogels with reinforced fibers. <i>European Journal of Mechanics, A/Solids</i> , <b>2021</b> , 86, 104197	3.7	0
4	Time-discontinuous state-based peridynamics for elasto-plastic dynamic fracture problems. <i>Engineering Fracture Mechanics</i> , <b>2022</b> , 266, 108392	4.2	0
3	Atomistic investigations of tensile and shear mechanical properties of nanotwinned copper with embedded defects. <i>International Journal of Computational Materials Science and Engineering</i> , <b>2014</b> , 03, 1450012	0.3	
2	An adaptive multiscale finite element method for strain localization analysis with the Cosserat continuum theory. <i>European Journal of Mechanics, A/Solids</i> , <b>2021</b> , 104450	3.7	
1	Molten and solidification properties of copper nanoparticles. <i>Surface and Interface Analysis</i> , <b>2016</b> , 48, 1423-1428	1.5	