

Heng-An Wu

List of Publications by Year in descending order

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205
papers

14,859
citations

34076

52
h-index

20343

116
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all docs

206
docs citations

206
times ranked

15299
citing authors

#	ARTICLE	IF	CITATIONS
1	Permeability prediction of low-resolution porous media images using autoencoder-based convolutional neural network. <i>Journal of Petroleum Science and Engineering</i> , 2022, 208, 109589.	2.1	20
2	A universal mechanical framework for noncovalent interface in laminated nanocomposites. <i>Journal of the Mechanics and Physics of Solids</i> , 2022, 158, 104560.	2.3	18
3	Distinctive evaporation characteristics of water and ethanol on graphene nanostructured surfaces. <i>International Journal of Heat and Mass Transfer</i> , 2022, 183, 122174.	2.5	9
4	Double-layer Nacre-inspired Polyimide-Mica Nanocomposite Films with Excellent Mechanical Stability for LEO Environmental Conditions. <i>Advanced Materials</i> , 2022, 34, e2105299.	11.1	56
5	Spall and recompression processes with double shock loading of polycrystalline copper. <i>Mechanics of Materials</i> , 2022, 165, 104194.	1.7	9
6	Formation mechanism and structural characteristic of pore-networks in shale kerogen during in-situ conversion process. <i>Energy</i> , 2022, 242, 122992.	4.5	16
7	Stress analysis of double-walled pipes undergone mechanical drawing process. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 2525-2535.	1.5	0
8	Unraveling the origin of extra strengthening in gradient nanotwinned metals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	36
9	Artificial Nacre with High Toughness Amplification Factor: Residual Stress-Enhanced Extrinsic Toughening Mechanisms. <i>Advanced Materials</i> , 2022, 34, e2108267.	11.1	34
10	An auxetic cellular structure as a universal design for enhanced piezoresistive sensitivity. <i>Matter</i> , 2022, 5, 1547-1562.	5.0	23
11	Pushing detectability and sensitivity for subtle force to new limits with shrinkable nanochannel structured aerogel. <i>Nature Communications</i> , 2022, 13, 1119.	5.8	79
12	Biomimetic discontinuous Bouligand structural design enables high-performance nanocomposites. <i>Matter</i> , 2022, 5, 1563-1577.	5.0	27
13	Ultrafast rectifying counter-directional transport of proton and metal ions in metal-organic framework-based nanochannels. <i>Science Advances</i> , 2022, 8, eabl5070.	4.7	48
14	Finite element simulation of a viscoelastic cell entering a cylindrical channel: Effects of frictional contact. <i>Mechanics of Materials</i> , 2022, 167, 104263.	1.7	1
15	Hydraulic fracture propagation at weak interfaces between contrasting layers in shale using XFEM with energy-based criterion. <i>Journal of Natural Gas Science and Engineering</i> , 2022, 101, 104502.	2.1	19
16	A multi-scale quadruple-continuum model for production evaluation of shale gas reservoirs considering complex gas transfer mechanisms and geomechanics. <i>Journal of Petroleum Science and Engineering</i> , 2022, 213, 110419.	2.1	14
17	New explanation for the existence of B19' phase in NiTi alloy from the perspective of twinning martensite. <i>Scripta Materialia</i> , 2022, 214, 114644.	2.6	4
18	Numerical modeling on friction and wear behaviors of all-metal progressive cavity pump. <i>Journal of Petroleum Science and Engineering</i> , 2022, 213, 110443.	2.1	4

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19	Molecular transport under extreme confinement. <i>Science China: Physics, Mechanics and Astronomy</i> , 2022, 65, 1.	2.0	8
20	Competitive adsorption of asphaltene and n-heptane on quartz surfaces and its effect on crude oil transport through nanopores. <i>Journal of Molecular Liquids</i> , 2022, 359, 119312.	2.3	14
21	Fast prediction of methane adsorption in shale nanopores using kinetic theory and machine learning algorithm. <i>Chemical Engineering Journal</i> , 2022, 446, 137221.	6.6	19
22	A hybrid numerical approach for hydraulic fracturing in a naturally fractured formation combining the XFEM and phase-field model. <i>Engineering Fracture Mechanics</i> , 2022, 271, 108621.	2.0	39
23	Multi-parameter structural optimization to reconcile mechanical conflicts in nacre-like composites. <i>Composite Structures</i> , 2021, 259, 113225.	3.1	12
24	Ultrafast water evaporation through graphene membranes with subnanometer pores for desalination. <i>Journal of Membrane Science</i> , 2021, 621, 118934.	4.1	45
25	Influence of laser parameters and Ti content on the surface morphology of L-PBF fabricated Titania. <i>Rapid Prototyping Journal</i> , 2021, 27, 71-80.	1.6	10
26	Biomimetic polydimethylsiloxane (PDMS)/carbon fiber lamellar adhesive composite in thermal vacuum environment. <i>International Journal of Adhesion and Adhesives</i> , 2021, 105, 102778.	1.4	1
27	Transport of Shale Gas in Microporous/Nanoporous Media: Molecular to Pore-Scale Simulations. <i>Energy & Fuels</i> , 2021, 35, 911-943.	2.5	101
28	Enhanced Gas Recovery in Kerogen Pyrolytic Pore Network: Molecular Simulations and Theoretical Analysis. <i>Energy & Fuels</i> , 2021, 35, 2253-2267.	2.5	12
29	Porous Characteristics of Three-Dimensional Disordered Graphene Networks. <i>Crystals</i> , 2021, 11, 127.	1.0	9
30	Formation and topological structure of three-dimensional disordered graphene networks. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 10290-10302.	1.3	15
31	Bio-Inspired Lotus-Fiber-like Spiral Hydrogel Bacterial Cellulose Fibers. <i>Nano Letters</i> , 2021, 21, 952-958.	4.5	97
32	A generalized examination of capillary force balance at contact line: On rough surfaces or in two-liquid systems. <i>Journal of Colloid and Interface Science</i> , 2021, 585, 320-327.	5.0	12
33	Solid-liquid phase transition induced electrocatalytic switching from hydrogen evolution to highly selective CO ₂ reduction. <i>Nature Catalysis</i> , 2021, 4, 202-211.	16.1	89
34	Ignition and Combustion of Hydrocarbon Fuels Enhanced by Aluminum Nanoparticle Additives: Insights from Reactive Molecular Dynamics Simulations. <i>Journal of Physical Chemistry C</i> , 2021, 125, 11359-11368.	1.5	10
35	Adhesion of elastic wavy surfaces: Interface strengthening/weakening and mode transition mechanisms. <i>Journal of the Mechanics and Physics of Solids</i> , 2021, 151, 104402.	2.3	8
36	Hyperbolic-Like Structure with Negative Poisson's Ratio: Deformation Mechanism and Structural Design. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2100011.	0.7	4

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37	Anomalous low friction of confined monolayer water with a quadrilateral structure. <i>Journal of Chemical Physics</i> , 2021, 154, 224508.	1.2	14
38	Hydrophilicity gradient in covalent organic frameworks for membrane distillation. <i>Nature Materials</i> , 2021, 20, 1551-1558.	13.3	195
39	Subsize Pt-based intermetallic compound enables long-term cyclic mass activity for fuel-cell oxygen reduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	86
40	Surface microenvironment optimizationâ€”induced robust oxygen reduction for neutral zincâ€”air batteries. <i>Natural Sciences</i> , 2021, 1, e20210005.	1.0	6
41	Theoretical analysis of high strength and anti-buckling of three-dimensional carbon honeycombs under shear loading. <i>Composites Part B: Engineering</i> , 2021, 219, 108967.	5.9	6
42	A Highly Compressible and Stretchable Carbon Spring for Smart Vibration and Magnetism Sensors. <i>Advanced Materials</i> , 2021, 33, e2102724.	11.1	51
43	Surface morphological effects on gas transport through nanochannels with atomically smooth walls. <i>Carbon</i> , 2021, 180, 85-91.	5.4	18
44	Anomalous ion transport through angstrom-scale pores: Effect of hydration shell exchange on ion mobility. <i>Applied Surface Science</i> , 2021, 560, 150022.	3.1	11
45	The Device Using a Polydimethylsiloxane Membrane and the Phase Transition of Water. <i>Coatings</i> , 2021, 11, 1102.	1.2	0
46	Micromechanical Landscape of Three-Dimensional Disordered Graphene Networks. <i>Nano Letters</i> , 2021, 21, 8401-8408.	4.5	17
47	Spalling modes and mechanisms of shocked nanocrystalline NiTi at different loadings and temperatures. <i>Mechanics of Materials</i> , 2021, 161, 104004.	1.7	8
48	Multi-scale modelling of gas transport and production evaluation in shale reservoir considering crisscrossing fractures. <i>Journal of Natural Gas Science and Engineering</i> , 2021, 95, 104156.	2.1	27
49	Intrinsic kink deformation in nanocellulose. <i>Carbohydrate Polymers</i> , 2021, 273, 118578.	5.1	7
50	Strengthening and Toughening Hierarchical Nanocellulose <i>via</i> Humidity-Mediated Interface. <i>ACS Nano</i> , 2021, 15, 1310-1320.	7.3	85
51	A Highly Compressible and Stretchable Carbon Spring for Smart Vibration and Magnetism Sensors (Adv. Mater. 39/2021). <i>Advanced Materials</i> , 2021, 33, 2170308.	11.1	0
52	Multiscale mechanics of noncovalent interface in graphene oxide layered nanocomposites. <i>Theoretical and Applied Mechanics Letters</i> , 2021, , 100304.	1.3	6
53	Microfluidic Cytometry for Highâ€”Throughput Characterization of Single Cell Cytoplasmic Viscosity Using Crossing Constriction Channels. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2020, 97, 630-637.	1.1	11
54	Bioinspired hierarchical helical nanocomposite macrofibers based on bacterial cellulose nanofibers. <i>National Science Review</i> , 2020, 7, 73-83.	4.6	60

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55	Multiscale gas transport behavior in heterogeneous shale matrix consisting of organic and inorganic nanopores. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 75, 103139.	2.1	67
56	Pore-scale 3D Dynamic Modeling and Characterization of Shale Samples: Considering the Effects of Thermal Maturation. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018309.	1.4	45
57	Micromechanical properties of pyrolytic carbon with interlayer crosslink. <i>Carbon</i> , 2020, 159, 549-560.	5.4	22
58	Edge effect on interlayer shear in multilayer two-dimensional material assemblies. <i>International Journal of Solids and Structures</i> , 2020, 204-205, 128-137.	1.3	7
59	Shock-induced ejecta transport and breakup in reactive gas. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14857-14867.	1.3	5
60	Nanoconfined Transport Characteristic of Methane in Organic Shale Nanopores: The Applicability of the Continuous Model. <i>Energy & Fuels</i> , 2020, 34, 9552-9562.	2.5	39
61	Multiscale investigations into the fracture toughness of SiC/graphene composites: Atomistic simulations and crack-bridging model. <i>Ceramics International</i> , 2020, 46, 29101-29110.	2.3	20
62	Lightweight, tough, and sustainable cellulose nanofiber-derived bulk structural materials with low thermal expansion coefficient. <i>Science Advances</i> , 2020, 6, eaaz1114.	4.7	196
63	Double-shock-induced spall and recompression processes in copper. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	18
64	Unidirectional and Selective Proton Transport in Artificial Heterostructured Nanochannels with Nano-scale Subnano Confined Water Clusters. <i>Advanced Materials</i> , 2020, 32, e2001777.	11.1	72
65	Influence of substrate on ultrafast water transport property of multilayer graphene coatings. <i>Nanotechnology</i> , 2020, 31, 375704.	1.3	11
66	Roughness Factor-Dependent Transport Characteristic of Shale Gas through Amorphous Kerogen Nanopores. <i>Journal of Physical Chemistry C</i> , 2020, 124, 12752-12765.	1.5	45
67	Tunable Plasmon-Induced Charge Transport and Photon Absorption of Bimetallic Au-Ag Nanoparticles on ZnO Photoanode for Photoelectrochemical Enhancement under Visible Light. <i>Journal of Physical Chemistry C</i> , 2020, 124, 14105-14117.	1.5	23
68	Unravelling the bindings between organic molecule and reduced graphene oxide in aqueous environment. <i>Carbon</i> , 2020, 167, 345-350.	5.4	3
69	Two-Phase Transport Characteristic of Shale Gas and Water through Hydrophilic and Hydrophobic Nanopores. <i>Energy & Fuels</i> , 2020, 34, 4407-4420.	2.5	54
70	Origin of Batch Hydrothermal Fluid Behavior and Its Influence on Nanomaterial Synthesis. <i>Matter</i> , 2020, 2, 1270-1282.	5.0	31
71	Microscopic Origin of Capillary Force Balance at Contact Line. <i>Physical Review Letters</i> , 2020, 124, 125502.	2.9	58
72	Evaporation-driven liquid flow through nanochannels. <i>Physics of Fluids</i> , 2020, 32, .	1.6	38

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73	New insights of natural fractures growth and stimulation optimization based on a three-dimensional cohesive zone model. <i>Journal of Natural Gas Science and Engineering</i> , 2020, 76, 103165.	2.1	18
74	Superior Biomimetic Nacreous Bulk Nanocomposites by a Multiscale Soft-Rigid Dual-Network Interfacial Design Strategy. <i>Matter</i> , 2019, 1, 412-427.	5.0	81
75	Fast reaction of aluminum nanoparticles promoted by oxide shell. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	14
76	Defect production and segregation induced by collision cascades in U-10Zr alloy. <i>Journal of Nuclear Materials</i> , 2019, 526, 151769.	1.3	7
77	Rapid Fabrication of Malleable Fiber Reinforced Composites with Vitrimer Powder. <i>ACS Applied Polymer Materials</i> , 2019, 1, 2535-2542.	2.0	39
78	Optimization design on simultaneously strengthening and toughening graphene-based nacre-like materials through noncovalent interaction. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 133, 103706.	2.3	36
79	Multiscale simulations of shale gas transport in micro/nano-porous shale matrix considering pore structure influence. <i>Journal of Natural Gas Science and Engineering</i> , 2019, 64, 28-40.	2.1	112
80	Production analysis in shale gas reservoirs based on fracturing-enhanced permeability areas. <i>Science China: Physics, Mechanics and Astronomy</i> , 2019, 62, 1.	2.0	21
81	Hard Carbon Aerogels: Superelastic Hard Carbon Nanofiber Aerogels (<i>Adv. Mater.</i> 23/2019). <i>Advanced Materials</i> , 2019, 31, 1970168.	11.1	5
82	Modulation of Molecular Spatial Distribution and Chemisorption with Perforated Nanosheets for Ethanol Electrooxidation. <i>Advanced Materials</i> , 2019, 31, e1900528.	11.1	111
83	Peculiarities in breakup and transport process of shock-induced ejecta with surrounding gas. <i>Journal of Applied Physics</i> , 2019, 125, 185901.	1.1	12
84	Superstrong Noncovalent Interface between Melamine and Graphene Oxide. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 17068-17078.	4.0	18
85	Bimetallic plasmonic Au@Ag nanocuboids for rapid and sensitive detection of phthalate plasticizers with label-free surface-enhanced Raman spectroscopy. <i>Analyst, The</i> , 2019, 144, 3861-3869.	1.7	31
86	Characterization of cytoplasmic viscosity of hundreds of single tumour cells based on micropipette aspiration. <i>Royal Society Open Science</i> , 2019, 6, 181707.	1.1	33
87	Dehydration impeding ionic conductance through two-dimensional angstrom-scale slits. <i>Nanoscale</i> , 2019, 11, 8449-8457.	2.8	40
88	Superelastic Hard Carbon Nanofiber Aerogels. <i>Advanced Materials</i> , 2019, 31, e1900651.	11.1	147
89	Molecular insights into the initial formation of pyrolytic carbon upon carbon fiber surface. <i>Carbon</i> , 2019, 148, 307-316.	5.4	30
90	Multiscale modeling and theoretical prediction for the thermal conductivity of porous plain-woven carbonized silica/phenolic composites. <i>Composite Structures</i> , 2019, 215, 278-288.	3.1	48

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91	Delamination of a rigid punch from an elastic substrate under normal and shear forces. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 122, 141-160.	2.3	27
92	Unsupported shock wave induced dynamic fragmentation of matrix in lead with surface grooves. <i>Computational Materials Science</i> , 2019, 156, 404-410.	1.4	13
93	Charge Asymmetry Effect in Ion Transport through Angstrom-Scale Channels. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1462-1469.	1.5	29
94	Water Confined in Nanocapillaries: Two-Dimensional Bilayer Squarelike Ice and Associated Solid-Liquid-Solid Transition. <i>Journal of Physical Chemistry C</i> , 2018, 122, 6704-6712.	1.5	27
95	Lattice Boltzmann method simulations about shale gas flow in contracting nano-channels. <i>International Journal of Heat and Mass Transfer</i> , 2018, 122, 1210-1221.	2.5	43
96	A loading-dependent model of critical resolved shear stress. <i>International Journal of Plasticity</i> , 2018, 109, 1-17.	4.1	12
97	Shuttle Suppression by Polymer-Sealed Graphene-Coated Polypropylene Separator. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 5534-5542.	4.0	27
98	Extended finite element simulation of fracture network propagation in formation containing frictional and cemented natural fractures. <i>Journal of Natural Gas Science and Engineering</i> , 2018, 50, 309-324.	2.1	72
99	Molecular dynamics simulations of ejecta production from sinusoidal tin surfaces under supported and unsupported shocks. <i>AIP Advances</i> , 2018, 8, .	0.6	13
100	Self-folding mechanics of graphene tearing and peeling from a substrate. <i>Frontiers of Physics</i> , 2018, 13, 1.	2.4	16
101	Graphene Thin Films by Noncovalent-Interaction-Driven Assembly of Graphene Monolayers for Flexible Supercapacitors. <i>CheM</i> , 2018, 4, 896-910.	5.8	48
102	Pressure-dependent transport characteristic of methane gas in slit nanopores. <i>International Journal of Heat and Mass Transfer</i> , 2018, 123, 657-667.	2.5	81
103	Numerical investigation on the critical factors in successfully creating fracture network in heterogeneous shale reservoirs. <i>Journal of Natural Gas Science and Engineering</i> , 2018, 59, 427-439.	2.1	19
104	Ultrafast Water Permeation in Graphene Nanostructures Anomalously Enhances Two-Phase Heat Transfer. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800286.	1.9	28
105	An XFEM-based numerical model to calculate conductivity of propped fracture considering proppant transport, embedment and crushing. <i>Journal of Petroleum Science and Engineering</i> , 2018, 167, 615-626.	2.1	19
106	Biomimetic twisted plywood structural materials. <i>National Science Review</i> , 2018, 5, 703-714.	4.6	79
107	Molecular mechanism of viscoelastic polymer enhanced oil recovery in nanopores. <i>Royal Society Open Science</i> , 2018, 5, 180076.	1.1	28
108	A multi-scale stochastic fracture model for characterizing the tensile behavior of 2D woven composites. <i>Composite Structures</i> , 2018, 204, 536-547.	3.1	23

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109	Bioinspired polymeric woods. <i>Science Advances</i> , 2018, 4, eaat7223.	4.7	219
110	Structure and transport of confined liquid in nanochannels. <i>Scientia Sinica: Physica, Mechanica Et Astronomica</i> , 2018, 48, 094609.	0.2	7
111	Hand-Held Femtogram Detection of Hazardous Picric Acid with Hydrophobic Ag Nanopillar SERS Substrates and Mechanism of Elasto-Capillarity. <i>ACS Sensors</i> , 2017, 2, 198-202.	4.0	81
112	Mechanical properties of copper octet-truss nanolattices. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 101, 133-149.	2.3	52
113	An XFEM-based method with reduction technique for modeling hydraulic fracture propagation in formations containing frictional natural fractures. <i>Engineering Fracture Mechanics</i> , 2017, 173, 64-90.	2.0	99
114	Design of Nano Screw Pump for Water Transport and its Mechanisms. <i>Scientific Reports</i> , 2017, 7, 41717.	1.6	16
115	Superheating of monolayer ice in graphene nanocapillaries. <i>Journal of Chemical Physics</i> , 2017, 146, 134703.	1.2	19
116	Light-Stimulated Permanent Shape Reconfiguration in Cross-Linked Polymer Microparticles. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14422-14428.	4.0	26
117	Mechanical Properties of Penta-Graphene Nanotubes. <i>Journal of Physical Chemistry C</i> , 2017, 121, 9642-9647.	1.5	28
118	Channel-width dependent pressure-driven flow characteristics of shale gas in nanopores. <i>AIP Advances</i> , 2017, 7, .	0.6	33
119	Water desalination using nano screw pumps with a considerable processing rate. <i>RSC Advances</i> , 2017, 7, 20360-20368.	1.7	5
120	Multiscale transport mechanism of shale gas in micro/nano-pores. <i>International Journal of Heat and Mass Transfer</i> , 2017, 111, 1172-1180.	2.5	123
121	Effect of grain boundaries on mechanical transverse wave propagations in graphene. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	4
122	Joule-heated graphene-wrapped sponge enables fast clean-up of viscous crude-oil spill. <i>Nature Nanotechnology</i> , 2017, 12, 434-440.	15.6	610
123	Spall strength of liquid copper and accuracy of the acoustic method. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	27
124	Super-elasticity and deformation mechanism of three-dimensional pillared graphene network structures. <i>Carbon</i> , 2017, 118, 588-596.	5.4	36
125	High injection rate stimulation for improving the fracture complexity in tight-oil sandstone reservoirs. <i>Journal of Natural Gas Science and Engineering</i> , 2017, 42, 133-141.	2.1	18
126	Molecular mechanism of adsorption/desorption hysteresis: dynamics of shale gas in nanopores. <i>Science China: Physics, Mechanics and Astronomy</i> , 2017, 60, 1.	2.0	46

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127	Grapheneâ€Piezoelectric Material Heterostructure for Harvesting Energy from Water Flow. <i>Advanced Functional Materials</i> , 2017, 27, 1604226.	7.8	121
128	Helium bubbles aggravated defects production in self-irradiated copper. <i>Journal of Nuclear Materials</i> , 2017, 496, 265-273.	1.3	16
129	Numerical simulation of simultaneous multiple fractures initiation in unconventional reservoirs through injection control of horizontal well. <i>Journal of Petroleum Science and Engineering</i> , 2017, 159, 603-613.	2.1	13
130	Elasticâ€plastic properties of graphene engineered by oxygen functional groups. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 385305.	1.3	6
131	Structural and dynamic characteristics in monolayer square ice. <i>Journal of Chemical Physics</i> , 2017, 147, 044706.	1.2	17
132	Radiation damage in gallium-stabilized $\hat{\Gamma}$ -plutonium with helium bubbles. <i>Journal of Nuclear Materials</i> , 2017, 484, 7-15.	1.3	11
133	Buckling failure of square ice-nanotube arrays constrained in graphene nanocapillaries. <i>Journal of Chemical Physics</i> , 2016, 145, 054704.	1.2	10
134	Numerical simulation of hydraulic fracturing in orthotropic formation based on the extended finite element method. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 33, 56-69.	2.1	60
135	Formation of Trilayer Ices in Graphene Nanocapillaries under High Lateral Pressure. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8109-8115.	1.5	25
136	Molecular transport through capillaries made with atomic-scale precision. <i>Nature</i> , 2016, 538, 222-225.	13.7	483
137	Thermomechanics of a temperature sensitive covalent adaptable polymer with bond exchange reactions. <i>Soft Matter</i> , 2016, 12, 8847-8860.	1.2	16
138	A coupled extended finite element approach for modeling hydraulic fracturing in consideration of proppant. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 33, 885-897.	2.1	37
139	Interfacial strengthening and self-healing effect in graphene-copper nanolayered composites under shear deformation. <i>Carbon</i> , 2016, 107, 680-688.	5.4	83
140	AB-stacked square-like bilayer ice in graphene nanocapillaries. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 22039-22046.	1.3	20
141	Super-elastic and fatigue resistant carbon material with lamellar multi-arch microstructure. <i>Nature Communications</i> , 2016, 7, 12920.	5.8	344
142	Effect of a Single Nanoparticle on the Contact Line Motion. <i>Langmuir</i> , 2016, 32, 12676-12685.	1.6	23
143	Transformation between divacancy defects induced by an energy pulse in graphene. <i>Nanotechnology</i> , 2016, 27, 274004.	1.3	6
144	Optimal spacing of sequential and simultaneous fracturing in horizontal well. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 29, 329-336.	2.1	40

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145	Opening the band gap of graphene through silicon doping for the improved performance of graphene/GaAs heterojunction solar cells. <i>Nanoscale</i> , 2016, 8, 226-232.	2.8	92
146	Shape-Controlled Deterministic Assembly of Nanowires. <i>Nano Letters</i> , 2016, 16, 2644-2650.	4.5	57
147	Tensile Strength of Liquids: Equivalence of Temporal and Spatial Scales in Cavitation. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 806-810.	2.1	17
148	Stagnation of a droplet on a conical substrate determined by the critical curvature ratio. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 085304.	1.3	15
149	Tuning electromechanics of dynamic ripple pattern in graphene monolayer. <i>Carbon</i> , 2016, 98, 510-518.	5.4	10
150	Comparison of consecutive and alternate hydraulic fracturing in horizontal wells using XFEM-based cohesive zone method. <i>Journal of Petroleum Science and Engineering</i> , 2016, 143, 14-25.	2.1	54
151	Efficient transport of droplet sandwiched between saw-tooth plates. <i>Journal of Colloid and Interface Science</i> , 2016, 462, 280-287.	5.0	17
152	Energy Storage: Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage (<i>Adv. Funct. Mater.</i> 12/2015). <i>Advanced Functional Materials</i> , 2015, 25, 1766-1766.	7.8	0
153	Homogeneous crystal nucleation in liquid copper under quasi-isentropic compression. <i>Physical Review B</i> , 2015, 92, .	1.1	16
154	Molecular origin of contact line stick-slip motion during droplet evaporation. <i>Scientific Reports</i> , 2015, 5, 17521.	1.6	53
155	Molecular Dynamics Simulations about Adsorption and Displacement of Methane in Carbon Nanochannels. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13652-13657.	1.5	142
156	Anomalous twisting strength of tilt grain boundaries in armchair graphene nanoribbons. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 31911-31916.	1.3	17
157	Wellbore instability induced by alternating water injection and well washing with an elasto-plastic erosion model. <i>Journal of Natural Gas Science and Engineering</i> , 2015, 27, 1863-1870.	2.1	7
158	Initiation and propagation of wormhole in unconsolidated rock matrix induced by long-term water injection. <i>Journal of Petroleum Science and Engineering</i> , 2015, 127, 93-100.	2.1	3
159	Anisotropic growth of buckling-driven wrinkles in graphene monolayer. <i>Nanotechnology</i> , 2015, 26, 065701.	1.3	23
160	Novel Polygonal Vanadium Oxide Nanoscrolls as Stable Cathode for Lithium Storage. <i>Advanced Functional Materials</i> , 2015, 25, 1773-1779.	7.8	54
161	Quasi-Two-Dimensional SiC and SiC ₂ : Interaction of Silicon and Carbon at Atomic Thin Lattice Plane. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19772-19779.	1.5	87
162	Finite element analysis for adhesive failure of progressive cavity pump with stator of even thickness. <i>Journal of Petroleum Science and Engineering</i> , 2015, 125, 146-153.	2.1	13

#	ARTICLE	IF	CITATIONS
163	Optimal spacing of staged fracturing in horizontal shale-gas well. <i>Journal of Petroleum Science and Engineering</i> , 2015, 132, 86-93.	2.1	50
164	A 3D numerical model for studying the effect of interface shear failure on hydraulic fracture height containment. <i>Journal of Petroleum Science and Engineering</i> , 2015, 133, 280-284.	2.1	35
165	Crystallization in supercooled liquid Cu: Homogeneous nucleation and growth. <i>Journal of Chemical Physics</i> , 2015, 142, 064704.	1.2	36
166	Square ice in graphene nanocapillaries. <i>Nature</i> , 2015, 519, 443-445.	13.7	602
167	Compression Limit of Two-Dimensional Water Constrained in Graphene Nanocapillaries. <i>ACS Nano</i> , 2015, 9, 12197-12204.	7.3	92
168	Nanoparticle-tuned spreading behavior of nanofluid droplets on the solid substrate. <i>Microfluidics and Nanofluidics</i> , 2015, 18, 111-120.	1.0	33
169	Microstructure effects on shock-induced surface jetting. <i>Journal of Applied Physics</i> , 2014, 115, 073504.	1.1	29
170	Strengthening metal nanolaminates under shock compression through dual effect of strong and weak graphene interface. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	65
171	Proton transport through one-atom-thick crystals. <i>Nature</i> , 2014, 516, 227-230.	13.7	668
172	Precise and Ultrafast Molecular Sieving Through Graphene Oxide Membranes. <i>Science</i> , 2014, 343, 752-754.	6.0	2,060
173	Cavitation in a metallic liquid: Homogeneous nucleation and growth of nanovoids. <i>Journal of Chemical Physics</i> , 2014, 140, 214317.	1.2	28
174	Self-adaptive strain-relaxation optimization for high-energy lithium storage material through crumpling of graphene. <i>Nature Communications</i> , 2014, 5, 4565.	5.8	139
175	Molecular kinetic theory of boundary slip on textured surfaces by molecular dynamics simulations. <i>Science China: Physics, Mechanics and Astronomy</i> , 2014, 57, 2152-2160.	2.0	11
176	Optimization Design of Progressive Cavity Pumps via Finite Element Simulations with a Fluid-Solid Interaction Model. , 2014, , .		0
177	Enhanced oil droplet detachment from solid surfaces in charged nanoparticle suspensions. <i>Soft Matter</i> , 2013, 9, 7974.	1.2	66
178	Pinning and depinning mechanism of the contact line during evaporation of nano-droplets sessile on textured surfaces. <i>Soft Matter</i> , 2013, 9, 5703.	1.2	116
179	Shock response of a model structured nanofoam of Cu. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	34
180	Anisotropic propagation and upper frequency limitation of terahertz waves in graphene. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	15

#	ARTICLE	IF	CITATIONS
181	Three dimensional dynamics simulation of progressive cavity pump with stator of even thickness. Journal of Petroleum Science and Engineering, 2013, 106, 71-76.	2.1	14
182	Numerical prediction on volumetric efficiency of progressive cavity pump with fluid-solid interaction model. Journal of Petroleum Science and Engineering, 2013, 109, 12-17.	2.1	24
183	Nanowire Templated Semihollow Bicontinuous Graphene Scrolls: Designed Construction, Mechanism, and Enhanced Energy Storage Performance. Journal of the American Chemical Society, 2013, 135, 18176-18182.	6.6	187
184	Shock response of single crystal and nanocrystalline pentaerythritol tetranitrate: Implications to hotspot formation in energetic materials. Journal of Chemical Physics, 2013, 139, 164704.	1.2	34
185	Defecting controllability of bombarding graphene with different energetic atoms via reactive force field model. Journal of Applied Physics, 2013, 114, 054313.	1.1	25
186	Microstructure effects on shock response of Cu nanofoams. Journal of Applied Physics, 2013, 114, .	1.1	28
187	Molecular dynamics studies on spreading of nanofluids promoted by nanoparticle adsorption on solid surface. Theoretical and Applied Mechanics Letters, 2013, 3, 054006.	1.3	8
188	A 3D Nonlinear Fluid-solid Coupling Model of Hydraulic Fracturing for Multilayered Reservoirs. Petroleum Science and Technology, 2012, 30, 2273-2283.	0.7	14
189	Interlayer shear effect on multilayer graphene subjected to bending. Applied Physics Letters, 2012, 100, 101909.	1.5	92
190	Unimpeded Permeation of Water Through Helium-Leak-Tight Graphene-Based Membranes. Science, 2012, 335, 442-444.	6.0	2,552
191	Bio-optimum prestress in actin filaments with a polygonal cytoskeleton model. Archive of Applied Mechanics, 2011, 81, 1651-1658.	1.2	0
192	THE INVERSE PROBLEM OF RED BLOOD CELLS DEFORMED BY OPTICAL TWEEZERS. International Journal of Computational Methods, 2011, 08, 483-492.	0.8	1
193	Three-dimensional finite element simulation and parametric study for horizontal well hydraulic fracture. Journal of Petroleum Science and Engineering, 2010, 72, 310-317.	2.1	111
194	A molecular simulation analysis of producing monatomic carbon chains by stretching ultranarrow graphene nanoribbons. Nanotechnology, 2010, 21, 265702.	1.3	25
195	Atomistic simulations of shock waves in cubic silicon carbide. Computational Materials Science, 2009, 45, 419-422.	1.4	8
196	An atomistic-continuum inhomogeneous material model for the elastic bending of metal nanocantilevers. Advances in Engineering Software, 2008, 39, 764-769.	1.8	7
197	Surface relaxation effect on the distributions of energy and bulk stresses in the vicinity of Cu surface: An embedded-atom method study. Journal of Applied Physics, 2008, 104, 033501.	1.1	7
198	Bending of nanoscale structures: Inconsistency between atomistic simulation and strain gradient elasticity solution. Computational Materials Science, 2007, 40, 108-113.	1.4	34

#	ARTICLE	IF	CITATIONS
199	Molecular dynamics study of the mechanics of metal nanowires at finite temperature. <i>European Journal of Mechanics, A/Solids</i> , 2006, 25, 370-377.	2.1	135
200	Molecular dynamics study on mechanics of metal nanowire. <i>Mechanics Research Communications</i> , 2006, 33, 9-16.	1.0	103
201	An atomistic simulation method combining molecular dynamics with finite element technique. <i>Chaos, Solitons and Fractals</i> , 2006, 30, 791-796.	2.5	9
202	On stress calculations in atomistic simulations. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2006, 14, 423-431.	0.8	28
203	Simulation of the elastic response and the buckling modes of single-walled carbon nanotubes. <i>Computational Materials Science</i> , 2005, 32, 141-146.	1.4	106
204	Atomistic and continuum simulation on extension behaviour of single crystal with nano-holes. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2004, 12, 225-233.	0.8	26
205	Molecular dynamics simulation of loading rate and surface effects on the elastic bending behavior of metal nanorod. <i>Computational Materials Science</i> , 2004, 31, 287-291.	1.4	53