

# Xi Chen

## List of Publications by Year in descending order

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453  
papers

15,883  
citations

17405

63  
h-index

30010

103  
g-index

456  
all docs

456  
docs citations

456  
times ranked

13259  
citing authors

#	ARTICLE	IF	CITATIONS
1	Learn from nature: Bio-inspired structure design for lithium-ion batteries. <i>EcoMat</i> , 2022, 4, .	6.8	8
2	CO <sub>2</sub> reduction on single-atom Ir catalysts with chemical functionalization. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 3733-3740.	1.3	3
3	Reversible Mechanochromisms via Manipulating Surface Wrinkling. <i>Nano Letters</i> , 2022, 22, 2261-2269.	4.5	25
4	Ni-Fe bimetallic hexaaluminate for efficient reduction of O <sub>2</sub> -containing CO <sub>2</sub> via chemical looping. <i>Chemical Engineering Journal</i> , 2022, 441, 136071.	6.6	11
5	Flexible Piezoionic Strain Sensors toward Artificial Intelligence Applications. <i>Synlett</i> , 2022, 33, 1486-1491.	1.0	3
6	Development of sorbent materials for direct air capture of CO <sub>2</sub> . <i>MRS Bulletin</i> , 2022, 47, 405-415.	1.7	15
7	The method of introducing oxygen vacancy into La <sub>0.8</sub> Sr <sub>0.2</sub> FeO <sub>3</sub> -based catalyst: enhancing the ORR and OER performance. <i>Journal of Materials Science</i> , 2022, 57, 12364-12376.	1.7	3
8	Superior CO <sub>2</sub> uptake and enhanced compressive strength for carbonation curing of cement-based materials via flue gas. <i>Construction and Building Materials</i> , 2022, 346, 128364.	3.2	10
9	Piezoionic strain sensors enabled by force-voltage coupling from ionogels. <i>Chemical Physics Letters</i> , 2022, 803, 139872.	1.2	3
10	Study on the mechanism of catalytic synthesis of dimethyldichlorosilane by AlCl <sub>3</sub> /MIL-53(Al)@ $\gamma$ -Al <sub>2</sub> O <sub>3</sub> . <i>Applied Organometallic Chemistry</i> , 2021, 35, .	1.7	8
11	Recent progress in energy storage and conversion of flexible symmetric transducers. <i>Journal of Materials Chemistry A</i> , 2021, 9, 753-781.	5.2	17
12	Molecular dynamics investigation on the composition separation of binary organic mixture in a double-walled T-shaped carbon nanotube separator. <i>Journal of Molecular Liquids</i> , 2021, 321, 114498.	2.3	1
13	Strong bases behave as weak bases in nanoscale chemical environments: implication in humidity-swing CO <sub>2</sub> air capture. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 14811-14817.	1.3	7
14	Simple pyrolysis of polystyrene into valuable chemicals. <i>E-Polymers</i> , 2021, 21, 428-432.	1.3	17
15	MOFs/PVA hybrid membranes with enhanced mechanical and ion-conductive properties. <i>E-Polymers</i> , 2021, 21, 160-165.	1.3	9
16	Fractal-inspired soft deployable structure: a theoretical study. <i>Soft Matter</i> , 2021, 17, 4834-4841.	1.2	3
17	Nanomaterials for adsorption and conversion of CO <sub>2</sub> under gentle conditions. <i>Materials Today</i> , 2021, 50, 385-399.	8.3	21
18	Post-wrinkling behaviors of a bilayer on a soft substrate. <i>International Journal of Solids and Structures</i> , 2021, 214-215, 74-79.	1.3	6

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19	Bismuth Oxychloride Nanowires for Photocatalytic Decomposition of Organic Dyes. ACS Applied Nano Materials, 2021, 4, 3887-3892.	2.4	21
20	Bioinspired, Treeâ€œRootâ€œLike Interfacial Designs for Structural Batteries with Enhanced Mechanical Properties. Advanced Energy Materials, 2021, 11, 2100997.	10.2	27
21	Silver decorated graphene nanocomposites toward electrochemical energy storage. Chemical Physics Letters, 2021, 771, 138534.	1.2	6
22	Curvature-controlled delamination patterns of thin films on spherical substrates. IScience, 2021, 24, 102616.	1.9	1
23	Highly Sensitive Ultrastable Electrochemical Sensor Enabled by Proton-Coupled Electron Transfer. Nano Letters, 2021, 21, 5369-5376.	4.5	19
24	Flexible Resistance-Type Strain Sensors toward Monitoring Finger Movements. Synlett, 2021, 32, 1939-1942.	1.0	2
25	Capture of ambient air CO <sub>2</sub> from municipal wastewater mineralization by using an ion-exchange membrane. Science of the Total Environment, 2021, 790, 148136.	3.9	5
26	On the snake-like lateral un-dulatory locomotion in terrestrial, aquatic and sand environments. Journal of the Mechanics and Physics of Solids, 2021, 157, 104629.	2.3	3
27	Flexible Composite Solid Electrolyte with an Active Inorganic Filler. ACS Sustainable Chemistry and Engineering, 2021, 9, 2237-2245.	3.2	13
28	Photocatalytic reduction of CO <sub>2</sub> by halide perovskites: recent advances and future perspectives. Materials Advances, 2021, 2, 7187-7209.	2.6	27
29	Screening and Understanding Li Adsorption on Two-Dimensional Metallic Materials by Learning Physics and Physics-Simplified Learning. JACS Au, 2021, 1, 1904-1914.	3.6	12
30	CO <sub>2</sub> removal from natural gas by moisture swing adsorption. Chemical Engineering Research and Design, 2021, 176, 162-168.	2.7	11
31	Nanostructure Engineering of Graphitic Carbon Nitride for Electrochemical Applications. ACS Nano, 2021, 15, 18777-18793.	7.3	61
32	A PVA/LiCl/PEO interpenetrating composite electrolyte with a three-dimensional dual-network for all-solid-state flexible aluminumâ€œair batteries. RSC Advances, 2021, 11, 39476-39483.	1.7	10
33	Effects of low-temperature plasma treatment on wettability of glass surface: Molecular dynamic simulation and experimental study. Applied Surface Science, 2020, 503, 144257.	3.1	29
34	Sorbenten zur direkten Gewinnung von CO <sub>2</sub> aus der Umgebungsluft. Angewandte Chemie, 2020, 132, 7048-7072.	1.6	18
35	Sorbents for the Direct Capture of CO <sub>2</sub> from Ambient Air. Angewandte Chemie - International Edition, 2020, 59, 6984-7006.	7.2	341
36	Engineering interfacial adhesion for high-performance lithium metal anode. Nano Energy, 2020, 67, 104242.	8.2	34

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37	Comment on "Accelerated Discovery of New 8-Electron Half-Heusler Compounds as Promising Energy and Topological Quantum Materials", Journal of Physical Chemistry C, 2020, 124, 2247-2249.	1.5	13
38	Sea-island nanostructured polyvinylidene fluoride/zeolitic imidazolate framework-8 polyelectrolyte for high-performance all-solid-state supercapacitors. Journal of Power Sources, 2020, 448, 227587.	4.0	23
39	Interface characterization and scratch resistance of plasma sprayed TiO <sub>2</sub> -CNTs nanocomposite coating. Journal of Alloys and Compounds, 2020, 819, 153009.	2.8	18
40	Interaction between mechanosensitive channels embedded in lipid membrane. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 103, 103543.	1.5	2
41	Nacre-Inspired Composite Electrolytes for Load-Bearing Solid-State Lithium-Metal Batteries. Advanced Materials, 2020, 32, e1905517.	11.1	100
42	Latest Advances in Flexible Symmetric Supercapacitors: From Material Engineering to Wearable Applications. Accounts of Chemical Research, 2020, 53, 1468-1477.	7.6	72
43	Filtration performance of the granular bed filter used for industrial flue gas purification: A review of simulation and experiment. Separation and Purification Technology, 2020, 251, 117318.	3.9	26
44	How interlayer twist angles affect thermal conduction of double-walled nanotubes: A non-equilibrium molecular dynamics study. International Journal of Heat and Mass Transfer, 2020, 160, 120234.	2.5	5
45	Moisture-Driven CO <sub>2</sub> Sorbents. Joule, 2020, 4, 1823-1837.	11.7	65
46	Carbon nanotubes/graphitic carbon nitride nanocomposites for all-solid-state supercapacitors. Science China Technological Sciences, 2020, 63, 1714-1720.	2.0	14
47	MnO <sub>2</sub> Synergized with N/S Codoped Graphene as a Flexible Cathode Efficient Electrocatalyst for Advanced Honeycomb-Shaped Stretchable Aluminum-Air Batteries. Langmuir, 2020, 36, 12954-12962.	1.6	14
48	Highly efficient reduction of O <sub>2</sub> -containing CO <sub>2</sub> via chemical looping based on perovskite nanocomposites. Nano Energy, 2020, 78, 105320.	8.2	32
49	CO <sub>2</sub> Absorption over Ion Exchange Resins: The Effect of Amine Functional Groups and Microporous Structures. Industrial & Engineering Chemistry Research, 2020, 59, 16507-16515.	1.8	25
50	Development of Adhesion Durability Evaluation of Surface Coatings Using Repeated Laser Shock-wave Adhesion Test. Journal of Nondestructive Evaluation, 2020, 39, 1.	1.1	2
51	A carbon-doped anatase TiO <sub>2</sub> -Based flexible silicon anode with high-performance and stability for flexible lithium-ion battery. Journal of Power Sources, 2020, 466, 228339.	4.0	29
52	Separation of binary organic mixture in T-shaped carbon nanotube separator: Insights from molecular dynamics simulation. Journal of Molecular Liquids, 2020, 312, 113371.	2.3	7
53	Monodispersed LiFePO <sub>4</sub> @C Core-Shell Nanoparticles Anchored on 3D Carbon Cloth for High-Rate Performance Binder-Free Lithium Ion Battery Cathode. Journal of Nanomaterials, 2020, 2020, 1-11.	1.5	4
54	Understanding transport and separation of organic mixed working fluids in T-junction from multi-scale insights: Literature review and case study. International Journal of Heat and Mass Transfer, 2020, 154, 119702.	2.5	12

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55	Measurements of fracture properties of MWCNTs modified LiNi <sub>0.5</sub> Mn <sub>0.3</sub> Co <sub>0.2</sub> O <sub>2</sub> electrodes by a modified shear lag model. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 781, 139223.	2.6	2
56	Single-Atom Catalytic Materials for Advanced Battery Systems. <i>Advanced Materials</i> , 2020, 32, e1906548.	11.1	156
57	Rapid and continuous regulating adhesion strength by mechanical micro-vibration. <i>Nature Communications</i> , 2020, 11, 1583.	5.8	23
58	Single-atom Catalytic Materials for Lean-electrolyte Ultrastable Lithium-Sulfur Batteries. <i>Nano Letters</i> , 2020, 20, 5522-5530.	4.5	111
59	Hydrothermal Synthesis of Nanomaterials. <i>Journal of Nanomaterials</i> , 2020, 2020, 1-3.	1.5	249
60	Flexible and Electroactive Ionogel Graphene Composite Actuator. <i>Materials</i> , 2020, 13, 656.	1.3	16
61	A Nano-shield Design for Separators to Resist Dendrite Formation in Lithium-Metal Batteries. <i>Angewandte Chemie</i> , 2020, 132, 6623-6628.	1.6	14
62	Two-step synthesis of millimeter-scale flexible tubular supercapacitors. <i>Communications Chemistry</i> , 2020, 3, .	2.0	13
63	All-Temperature Flexible Supercapacitors Enabled by Antifreezing and Thermally Stable Hydrogel Electrolyte. <i>Nano Letters</i> , 2020, 20, 1907-1914.	4.5	232
64	A Nano-shield Design for Separators to Resist Dendrite Formation in Lithium-Metal Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 6561-6566.	7.2	128
65	High-performance silicon nanocomposite based ionic actuators. <i>Journal of Materials Chemistry A</i> , 2020, 8, 9228-9238.	5.2	16
66	Surface buckling delamination patterns of film on soft spherical substrates. <i>Soft Matter</i> , 2020, 16, 3952-3961.	1.2	4
67	Flexible and ion-conductive ionogel towards energy storage application. <i>Chemical Physics Letters</i> , 2020, 755, 137814.	1.2	4
68	Porous Perovskite towards Oxygen Reduction Reaction in Flexible Aluminum-Air Battery. <i>Acta Chimica Sinica</i> , 2020, 78, 557.	0.5	3
69	Examination of Prestressed Coating/Substrate Systems Using Spherical Indentation—Determination of Film Prestress, Film Modulus, and Substrate Modulus. <i>Journal of Engineering Materials and Technology</i> , <i>Transactions of the ASME</i> , 2020, 142, .	0.8	0
70	Strain-Guided Oxidative Nanoperforation on Graphene. <i>Small</i> , 2019, 15, e1903213.	5.2	5
71	On the surface hydrophilization of a blended polysulfone membrane: atomic force microscopy measurement and molecular dynamics simulation. <i>Surface Topography: Metrology and Properties</i> , 2019, 7, 035003.	0.9	6
72	An interfacial polymerization strategy towards high-performance flexible supercapacitors. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20158-20161.	5.2	24

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73	Moisture Swing Ion-Exchange Resin-PO <sub>4</sub> Sorbent for Reversible CO <sub>2</sub> Capture from Ambient Air. <i>Energy &amp; Fuels</i> , 2019, 33, 6562-6567.	2.5	24
74	Preparation of Three-Layer Graphene Sheets from Asphaltenes Using a Montmorillonite Template. <i>Journal of Nanomaterials</i> , 2019, 2019, 1-6.	1.5	7
75	Electrospun Polyaniline Nanofiber Networks toward High-Performance Flexible Supercapacitors. <i>Advanced Materials Technologies</i> , 2019, 4, 1900564.	3.0	39
76	Effect of Local Terrace on Structure and Mechanics of Graphene Grain Boundary. <i>Journal of Physical Chemistry C</i> , 2019, 123, 28460-28468.	1.5	4
77	Strengthening effect of rhenium on different substitution positions of tungsten nanofilm at high temperature: DFT and molecular dynamics simulation. <i>Materials Research Express</i> , 2019, 6, 115013.	0.8	0
78	Vibration-to-Electric Energy Conversion via Electric Double Layer Redistribution of Graphene-Nickel Foam Electrode. <i>Journal of the Electrochemical Society</i> , 2019, 166, A3280-A3286.	1.3	1
79	Degradation of tetracycline by peroxymonosulfate activated with zero-valent iron: Performance, intermediates, toxicity and mechanism. <i>Chemical Engineering Journal</i> , 2019, 364, 45-56.	6.6	466
80	Designing Flexible Lithium-Ion Batteries by Structural Engineering. <i>ACS Energy Letters</i> , 2019, 4, 690-701.	8.8	175
81	Three-dimensional auxetic properties in group V-VI binary monolayer crystals X <sub>3</sub> M <sub>2</sub> (X = S, Se; M = N, P, As). <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 5916-5924.	1.3	10
82	Harvesting Low-Grade Heat via Thermal-Induced Electric Double Layer Redistribution of Nanoporous Graphene Films. <i>Langmuir</i> , 2019, 35, 7713-7719.	1.6	10
83	<i>In situ</i> synthesized PEO/NBR composite ionogels for high-performance all-solid-state supercapacitors. <i>Chemical Communications</i> , 2019, 55, 8470-8473.	2.2	17
84	Buckling morphology of an elastic ring confined in an annular channel. <i>Soft Matter</i> , 2019, 15, 5443-5448.	1.2	6
85	Ultra-Thin Conductive Graphitic Carbon Nitride Assembly through van der Waals Epitaxy toward High-Energy-Density Flexible Supercapacitors. <i>Nano Letters</i> , 2019, 19, 4103-4111.	4.5	80
86	Mechanical modeling of pimple growth. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 95, 191-195.	1.5	1
87	Effects of technology parameters on stress in silicon-graphite based multilayer electrodes for lithium ion batteries. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 345501.	1.3	4
88	Elementary Slender Soft Robots Inspired by Skeleton Joint System of Animals. <i>Soft Robotics</i> , 2019, 6, 377-388.	4.6	10
89	Effects of cycle times and C-rate on mechanical properties of copper foil and adhesive strength of electrodes in commercial LiCoO <sub>2</sub> LIBs. <i>Engineering Failure Analysis</i> , 2019, 101, 193-205.	1.8	22
90	In-operando deformation studies on the mechano-electrochemical mechanism in free-standing MWCNTs/V <sub>2</sub> O <sub>5</sub> lithium ion battery electrode. <i>Electrochimica Acta</i> , 2019, 305, 101-115.	2.6	24

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91	Molecular Dynamics-Decorated Finite Element Method (MDeFEM): Application to the Gating Mechanism of Mechanosensitive Channels. , 2019, , 77-128.		0
92	Correlation between the infiltration behaviors and nanoporous structures of silica gel/liquid energy absorption system. Journal of Applied Physics, 2019, 125, 065106.	1.1	3
93	Porous g-C <sub>3</sub> N <sub>4</sub> covered MOF-derived nanocarbon materials for high-performance supercapacitors. RSC Advances, 2019, 9, 39076-39081.	1.7	14
94	Reversible SO <sub>2</sub> Removal from Simulated Flue Gas by Ion Exchange Membranes Using the Humidity-Swing. Energy & Fuels, 2019, 33, 10953-10958.	2.5	3
95	Synergistic effect of supercritical CO <sub>2</sub> and organic solvent on exfoliation of graphene: experiment and atomistic simulation studies. Physical Chemistry Chemical Physics, 2019, 21, 22149-22157.	1.3	13
96	Gating and inactivation of mechanosensitive channels of small conductance: A continuum mechanics study. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 90, 502-514.	1.5	2
97	In situ strain measurements and stress analysis of SiO@C composite electrodes during electrochemical cycling by using digital image correlation. Solid State Ionics, 2019, 331, 56-65.	1.3	21
98	Rapid Programmable Nanodroplet Motion on a Strain-Gradient Surface. Langmuir, 2019, 35, 2865-2870.	1.6	19
99	Three dimensional buckling beam under cylindrical constraint. International Journal of Mechanical Sciences, 2019, 150, 348-355.	3.6	11
100	Porous insulating matrix for lithium metal anode with long cycling stability and high power. Energy Storage Materials, 2019, 17, 31-37.	9.5	36
101	High Energy Density Foldable Battery Enabled by Zigzag Like Design. Advanced Energy Materials, 2019, 9, 1802998.	10.2	53
102	Accordion-like stretchable Li-ion batteries with high energy density. Energy Storage Materials, 2019, 17, 136-142.	9.5	57
103	Mechanisms of electromechanical wrinkling for highly stretched substrate-free dielectric elastic membrane. Journal of the Mechanics and Physics of Solids, 2019, 122, 520-537.	2.3	21
104	Indentation Fatigue Mechanics. , 2019, , 401-431.		0
105	Helical Buckling Behaviors of the Nanowire/Substrate System. , 2019, , 241-287.		0
106	Uniqueness of Elastoplastic Properties Measured by Instrumented Indentation. , 2019, , 211-240.		1
107	Spherical Indentation on a Prestressed Elastic Coating/Substrate System. , 2019, , 129-152.		0
108	Hydrogen Embrittlement Cracking Produced by Indentation Test. , 2019, , 289-313.		0

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109	Effects of Temperature and Strain Rate on Mechanical Behaviors of Stone-Island Defective Monolayer Black Phosphorene. <i>Journal of Physical Chemistry C</i> , 2018, 122, 6368-6378.	1.5	17
110	Crush behaviors of polyvinyl chloride cellular structures with liquid filler. <i>Composite Structures</i> , 2018, 189, 428-434.	3.1	2
111	Snell's law of elastic waves propagation on moving property interface of time-varying materials. <i>International Journal of Solids and Structures</i> , 2018, 143, 18-28.	1.3	4
112	Bioinspired, Spine-Like, Flexible, Rechargeable Lithium-Ion Batteries with High Energy Density. <i>Advanced Materials</i> , 2018, 30, e1704947.	11.1	109
113	Closed-edged bilayer phosphorene nanoribbons producing from collapsing armchair phosphorene nanotubes. <i>Nanotechnology</i> , 2018, 29, 085707.	1.3	8
114	Ballistic performance of UHMWPE fabrics/EAMS hybrid panel. <i>Journal of Materials Science</i> , 2018, 53, 7357-7371.	1.7	34
115	Theoretical investigation on the oxidation mechanism of dibutyl phthalate by hydroxyl and sulfate radicals in the gas and aqueous phase. <i>Chemical Engineering Journal</i> , 2018, 339, 381-392.	6.6	18
116	Measurement of Interfacial Fracture Toughness of Surface Coatings Using Pulsed-Laser-Induced Ultrasonic Waves. <i>Journal of Nondestructive Evaluation</i> , 2018, 37, 1.	1.1	10
117	Quaternized Chitosan/PVA Aerogels for Reversible CO <sub>2</sub> Capture from Ambient Air. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 4941-4948.	1.8	79
118	Study on Gamma Prime and Carbides of Alloy A286 by Traditional Thermodynamic Calculation. <i>High Temperature Materials and Processes</i> , 2018, 37, 495-507.	0.6	3
119	Narrow band gap and high mobility of lead-free perovskite single crystal Sn-doped MA <sub>3</sub> Sb <sub>2</sub> I <sub>9</sub> . <i>Journal of Materials Chemistry A</i> , 2018, 6, 20753-20759.	5.2	67
120	Unconventional localization prior to wrinkles and controllable surface patterns of film/substrate bilayers through patterned cavities. <i>Extreme Mechanics Letters</i> , 2018, 25, 66-70.	2.0	3
121	Tunable surface morphology via patterned cavities in soft materials. <i>Physical Review E</i> , 2018, 98, .	0.8	2
122	Humidity effect on ion behaviors of moisture-driven CO <sub>2</sub> sorbents. <i>Journal of Chemical Physics</i> , 2018, 149, 164708.	1.2	25
123	In-situ characterizations of chemo-mechanical behavior of free-standing vanadium pentoxide cathode for lithium-ion batteries during discharge-charge cycling using digital image correlation. <i>Journal of Power Sources</i> , 2018, 402, 272-280.	4.0	24
124	Predicting a two-dimensional P2S3 monolayer: A global minimum structure. <i>Computational Materials Science</i> , 2018, 155, 288-292.	1.4	8
125	PVDF/Palygorskite Nanowire Composite Electrolyte for 4 V Rechargeable Lithium Batteries with High Energy Density. <i>Nano Letters</i> , 2018, 18, 6113-6120.	4.5	227
126	Coarse-grained area-difference-elasticity membrane model coupled with IB-LB method for simulation of red blood cell morphology. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 509, 1183-1194.	1.2	3



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127	Effects of superheat and internal heat exchanger on thermo-economic performance of organic Rankine cycle based on fluid type and heat sources. <i>Energy</i> , 2018, 159, 482-495.	4.5	44
128	Oxidation-induced negative Poisson's ratio of phosphorene. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 315302.	0.7	4
129	Investigation of inner mechanism of anisotropic mechanical property of antler bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 88, 1-10.	1.5	7
130	Effect of Degassing on the Stability and Reversibility of Glycerol/ZSM-5 Zeolite System. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1065.	1.3	8
131	Acoustic actuators based on the resonance of an acoustic-film system applied to the actuation of soft robots. <i>Journal of Sound and Vibration</i> , 2018, 432, 310-326.	2.1	1
132	A multilayer structure shear lag model applied in the tensile fracture characteristics of supersonic plasma sprayed thermal barrier coating systems based on digital image correlation. <i>Surface and Coatings Technology</i> , 2018, 350, 211-226.	2.2	31
133	Strain and defect engineering on phase transition of monolayer black phosphorene. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 21832-21843.	1.3	8
134	Prediction of a two-dimensional S <sub>3</sub> N <sub>2</sub> solid for optoelectronic applications. <i>Physical Review Materials</i> , 2018, 2, .	0.9	10
135	Molecular Dynamics-Decorated Finite Element Method (MDeFEM): Application to the Gating Mechanism of Mechanosensitive Channels. , 2018, , 1-52.		0
136	Helical Buckling Behaviors of the Nanowire/Substrate System. , 2018, , 1-47.		0
137	Hydrogen Embrittlement Cracking Produced by Indentation Test. , 2018, , 1-25.		0
138	Spherical Indentation on a Prestressed Elastic Coating/Substrate System. , 2018, , 1-24.		0
139	Indentation Fatigue Mechanics. , 2018, , 1-31.		0
140	Crashworthiness Analysis of Electric Vehicle With Energy-Absorbing Battery Modules. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2017, 139, .	0.8	12
141	Delamination-Based Measurement and Prediction of the Adhesion Energy of Thin Film/Substrate Interfaces. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2017, 139, .	0.8	8
142	Special Issue Honoring Professor George Z. Voyiadjis: Multi-physical Solutions for Harsh Environments: Computations and Experiments. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2017, 139, .	0.8	0
143	Self-Assembly of Islands on Spherical Substrates by Surface Instability. <i>ACS Nano</i> , 2017, 11, 2611-2617.	7.3	14
144	A biologically inspired artificial muscle based on fiber-reinforced and electropneumatic dielectric elastomers. <i>Smart Materials and Structures</i> , 2017, 26, 085018.	1.8	20

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145	Architectures of soft robotic locomotion enabled by simple mechanical principles. <i>Soft Matter</i> , 2017, 13, 4441-4456.	1.2	26
146	Three dimensional wave propagation in time-varying materials: A mathematical model based on the weak solutions of continuity in the moving property interface. <i>Applied Mathematical Modelling</i> , 2017, 48, 134-152.	2.2	3
147	Mechanism of Surface Wrinkle Modulation for a Stiff Film on Compliant Substrate. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017, 84, .	1.1	17
148	Economic analysis of a new class of vanadium redox-flow battery for medium- and large-scale energy storage in commercial applications with renewable energy. <i>Applied Thermal Engineering</i> , 2017, 114, 802-814.	3.0	55
149	A novel slithering locomotion mechanism for a snake-like soft robot. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 99, 304-320.	2.3	30
150	CO <sub>2</sub> adsorption and separation from natural gas on phosphorene surface: Combining DFT and GCMC calculations. <i>Applied Surface Science</i> , 2017, 397, 206-212.	3.1	23
151	Vibration-to-electric energy conversion with porous graphene oxide-nickel electrode. <i>Journal of Power Sources</i> , 2017, 368, 73-77.	4.0	7
152	Helical buckling of wires embedded in a soft matrix under axial compression. <i>Extreme Mechanics Letters</i> , 2017, 17, 71-76.	2.0	10
153	Energy efficiency of mobile soft robots. <i>Soft Matter</i> , 2017, 13, 8223-8233.	1.2	36
154	The catalytic effect of H <sub>2</sub> O on the hydrolysis of CO <sub>3</sub> <sup>2-</sup> in hydrated clusters and its implication in the humidity driven CO <sub>2</sub> air capture. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 27435-27441.	1.3	27
155	Development of a Transferable Reactive Force Field of P/H Systems: Application to the Chemical and Mechanical Properties of Phosphorene. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6135-6149.	1.1	38
156	Direct coupling between molecular dynamics and lattice Boltzmann method based on velocity distribution functions for steady-state isothermal flow. <i>International Journal of Heat and Mass Transfer</i> , 2017, 115, 544-555.	2.5	5
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