

Congrui Jin

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

1,347
citations

361388

20
h-index

361001

35
g-index

53
all docs

53
docs citations

53
times ranked

1176
citing authors

#	ARTICLE	IF	CITATIONS
1	Revitalizing interface in protonic ceramic cells by acid etch. <i>Nature</i> , 2022, 604, 479-485.	27.8	132
2	Anisotropic elastic, strength, and fracture properties of Marcellus shale. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2018, 109, 124-137.	5.8	111
3	Interactions of fungi with concrete: Significant importance for bio-based self-healing concrete. <i>Construction and Building Materials</i> , 2018, 164, 275-285.	7.2	110
4	On the contact behavior of micro-/nano-structured interface used in vertical-contact-mode triboelectric nanogenerators. <i>Nano Energy</i> , 2016, 27, 68-77.	16.0	82
5	Screening of Fungi for Potential Application of Self-Healing Concrete. <i>Scientific Reports</i> , 2019, 9, 2075.	3.3	81
6	Protocol efficiently measuring the swelling rate of hydrogels. <i>MethodsX</i> , 2020, 7, 100779.	1.6	66
7	Analysis of electrolyte imbibition through lithium-ion battery electrodes. <i>Journal of Power Sources</i> , 2019, 424, 193-203.	7.8	61
8	A multiscale framework for the simulation of the anisotropic mechanical behavior of shale. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2017, 41, 1494-1522.	3.3	53
9	Characterization of Surface Free Energy of Composite Electrodes for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2018, 165, A2493-A2501.	2.9	52
10	Effect of calendaring and temperature on electrolyte wetting in lithium-ion battery electrodes. <i>Journal of Energy Storage</i> , 2019, 26, 101034.	8.1	52
11	Strength optimization of cementitious composites reinforced by carbon nanotubes and Titania nanoparticles. <i>Construction and Building Materials</i> , 2021, 303, 124510.	7.2	51
12	Analytical modelling of the electromechanical behaviour of surface-bonded piezoelectric actuators including the adhesive layer. <i>Engineering Fracture Mechanics</i> , 2011, 78, 2547-2562.	4.3	46
13	Adhesive contact between a rippled elastic surface and a rigid spherical indenter: from partial to full contact. <i>Soft Matter</i> , 2011, 7, 10728.	2.7	41
14	Lattice discrete particle modeling of fiber reinforced concrete: Experiments and simulations. <i>European Journal of Mechanics, A/Solids</i> , 2016, 57, 85-107.	3.7	41
15	On electrolyte wetting through lithium-ion battery separators. <i>Extreme Mechanics Letters</i> , 2020, 40, 100960.	4.1	38
16	Fabrication of SnO ₂ Asymmetric Membranes for High Performance Lithium Battery Anode. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 13946-13956.	8.0	26
17	The dynamic behaviour of surface-bonded piezoelectric actuators with debonded adhesive layers. <i>Acta Mechanica</i> , 2010, 211, 215-235.	2.1	25
18	Fungi: A Neglected Candidate for the Application of Self-Healing Concrete. <i>Frontiers in Built Environment</i> , 2018, 4, .	2.3	24

#	ARTICLE	IF	CITATIONS
19	A theoretical study of a thin-film delamination using shaft-loaded blister test: Constitutive relation without delamination. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 2815-2831.	4.8	22
20	Nanoindentation of compliant materials using Berkovich tips and flat tips. <i>Journal of Materials Research</i> , 2017, 32, 435-450.	2.6	22
21	Spherical indentation of a freestanding circular membrane revisited: Analytical solutions and experiments. <i>Journal of the Mechanics and Physics of Solids</i> , 2017, 100, 85-102.	4.8	20
22	Mechanical characterization of crosslinking effect in polydimethylsiloxane using nanoindentation. <i>Polymer Testing</i> , 2016, 56, 329-336.	4.8	17
23	Theoretical study of mechanical behavior of thin circular film adhered to a flat punch. <i>International Journal of Mechanical Sciences</i> , 2009, 51, 481-489.	6.7	15
24	Analysis of energy release rate and bending-to-stretching behavior in the shaft-loaded blister test. <i>International Journal of Solids and Structures</i> , 2008, 45, 6485-6500.	2.7	14
25	An easy-to-implement numerical simulation method for adhesive contact problems involving asymmetric adhesive contact. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 405303.	2.8	14
26	Numerical investigation of indentation tests on a transversely isotropic elastic material by power-law shaped axisymmetric indenters. <i>Journal of Adhesion Science and Technology</i> , 2016, 30, 1223-1242.	2.6	10
27	Bio-inspired interfaces for easy-to-recycle lithium-ion batteries. <i>Extreme Mechanics Letters</i> , 2020, 34, 100594.	4.1	10
28	Exploring the structural uniformity and integrity of protonic ceramic thin film electrolyte using wet powder spraying. <i>Journal of Power Sources Advances</i> , 2021, 11, 100067.	5.1	10
29	Deformation of Pyramidal PDMS Stamps During Microcontact Printing. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2016, 83, .	2.2	9
30	Elastic Microplane Formulation for Transversely Isotropic Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017, 84, .	2.2	9
31	Innovative and Economically Beneficial Use of Corn and Corn Products in Electrochemical Energy Storage Applications. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 10678-10703.	6.7	9
32	Reinvigorating Reverse-Osmosis Membrane Technology to Stabilize the V ₂ O ₅ Lithium-Ion Battery Cathode. <i>ChemElectroChem</i> , 2017, 4, 1181-1189.	3.4	8
33	Adhesion selectivity by electrostatic complementarity. I. One-dimensional stripes of charge. <i>Journal of Applied Physics</i> , 2011, 110, 054902.	2.5	7
34	Structure and Energetics of Dislocations at Micro-Structured Complementary Interfaces Govern Adhesion. <i>Advanced Functional Materials</i> , 2013, 23, 3453-3462.	14.9	7
35	Integrated Experimental and Computational Characterization of Shale at Multiple Length Scales. , 2016, , 389-434.		7
36	Adhesion selectivity by electrostatic complementarity. II. Two-dimensional analysis. <i>Journal of Applied Physics</i> , 2011, 110, 054903.	2.5	6

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37	The Effect of Adhesive Layers on the Dynamic Behavior of Surface-bonded Piezoelectric Sensors with Debonding. <i>Journal of Intelligent Material Systems and Structures</i> , 2011, 22, 655-670.	2.5	6
38	Micron-size Silicon Monoxide Asymmetric Membranes for Highly Stable Lithium Ion Battery Anode. <i>ChemistrySelect</i> , 2018, 3, 8662-8668.	1.5	6
39	Manufacturing Techniques of Thin Electrolyte for Planar Solid Oxide Electrochemical Cells. <i>Electrochemical Society Interface</i> , 2020, 29, 47-53.	0.4	5
40	On the estimation of dynamic mass density of random composites. <i>Journal of the Acoustical Society of America</i> , 2012, 132, 615-620.	1.1	4
41	Co-axial fibrous silicon asymmetric membranes for high-capacity lithium-ion battery anode. <i>Journal of Applied Electrochemistry</i> , 2019, 49, 1013-1025.	2.9	4
42	Microstructures: Structure and Energetics of Dislocations at Micro-Structured Complementary Interfaces Govern Adhesion (<i>Adv. Funct. Mater.</i> 27/2013). <i>Advanced Functional Materials</i> , 2013, 23, 3452-3452.	14.9	3
43	Etching Asymmetric Germanium Membranes with Hydrogen Peroxide for High-Capacity Lithium-Ion Battery Anodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1900963.	1.8	3
44	Molybdenum oxide nanoporous asymmetric membranes for high-capacity lithium ion battery anode. <i>Journal of Materials Research</i> , 2022, 37, 2204-2215.	2.6	3
45	Comment on "Nanindentation models and Young's modulus of monolayer graphene: A molecular dynamics study" [<i>Appl. Phys. Lett.</i> 102, 071908 (2013)]. <i>Applied Physics Letters</i> , 2017, 110, 176101.	3.3	2
46	Dynamics Simulations of Concrete and Concrete Structures through the Lattice Discrete Particle Model. , 2015, , .		1
47	Asymmetric complementary interface for directional adhesion. <i>International Journal of Solids and Structures</i> , 2020, 191-192, 110-121.	2.7	1
48	Tin asymmetric membranes for high capacity sodium ion battery anodes. <i>Materials Today Communications</i> , 2020, 24, 100998.	1.9	1
49	Predicting the Output of a Triboelectric Energy Harvester Undergoing Mechanical Pressure. , 2016, , .		0
50	Bio-inspired nanotechnology for easy-to-recycle lithium-ion batteries. , 2022, , 141-158.		0
51	Comment on "Multiphase, Multiscale Chemomechanics at Extreme Low Temperatures: Battery Electrodes for Operation in a Wide Temperature Range" <i>Advanced Energy Materials</i> , 0, , 2200686.	19.5	0