

# Congrui Jin

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

50  
papers

746  
citations

16  
h-index

26  
g-index

53  
ext. papers

1,005  
ext. citations

5.9  
avg, IF

4.55  
L-index

#	Paper	IF	Citations
50	Revitalizing interface in protonic ceramic cells by acid etch.. <i>Nature</i> , <b>2022</b> , 604, 479-485	50.4	10
49	Bio-inspired nanotechnology for easy-to-recycle lithium-ion batteries <b>2022</b> , 141-158		
48	Innovative and Economically Beneficial Use of Corn and Corn Products in Electrochemical Energy Storage Applications. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 10678-10703	8.3	1
47	Strength optimization of cementitious composites reinforced by carbon nanotubes and Titania nanoparticles. <i>Construction and Building Materials</i> , <b>2021</b> , 303, 124510	6.7	10
46	Exploring the structural uniformity and integrity of protonic ceramic thin film electrolyte using wet powder spraying. <i>Journal of Power Sources Advances</i> , <b>2021</b> , 11, 100067	3.3	3
45	Tin asymmetric membranes for high capacity sodium ion battery anodes. <i>Materials Today Communications</i> , <b>2020</b> , 24, 100998	2.5	1
44	Manufacturing Techniques of Thin Electrolyte for Planar Solid Oxide Electrochemical Cells. <i>Electrochemical Society Interface</i> , <b>2020</b> , 29, 47-53	3.6	2
43	Bio-inspired interfaces for easy-to-recycle lithium-ion batteries. <i>Extreme Mechanics Letters</i> , <b>2020</b> , 34, 100594	3.9	7
42	Etching Asymmetric Germanium Membranes with Hydrogen Peroxide for High-Capacity Lithium-Ion Battery Anodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2020</b> , 217, 1900963	1.6	2
41	Protocol efficiently measuring the swelling rate of hydrogels. <i>MethodsX</i> , <b>2020</b> , 7, 100779	1.9	17
40	Asymmetric complementary interface for directional adhesion. <i>International Journal of Solids and Structures</i> , <b>2020</b> , 191-192, 110-121	3.1	
39	On electrolyte wetting through lithium-ion battery separators. <i>Extreme Mechanics Letters</i> , <b>2020</b> , 40, 100960	3.6	6
38	Analysis of electrolyte imbibition through lithium-ion battery electrodes. <i>Journal of Power Sources</i> , <b>2019</b> , 424, 193-203	8.9	34
37	Screening of Fungi for Potential Application of Self-Healing Concrete. <i>Scientific Reports</i> , <b>2019</b> , 9, 2075	4.9	38
36	Co-axial fibrous silicon asymmetric membranes for high-capacity lithium-ion battery anode. <i>Journal of Applied Electrochemistry</i> , <b>2019</b> , 49, 1013-1025	2.6	3
35	Effect of calendaring and temperature on electrolyte wetting in lithium-ion battery electrodes. <i>Journal of Energy Storage</i> , <b>2019</b> , 26, 101034	7.8	24
34	Interactions of fungi with concrete: Significant importance for bio-based self-healing concrete. <i>Construction and Building Materials</i> , <b>2018</b> , 164, 275-285	6.7	63

33	Anisotropic elastic, strength, and fracture properties of Marcellus shale. <i>International Journal of Rock Mechanics and Minings Sciences</i> , <b>2018</b> , 109, 124-137	6	59
32	Micron-size Silicon Monoxide Asymmetric Membranes for Highly Stable Lithium Ion Battery Anode. <i>ChemistrySelect</i> , <b>2018</b> , 3, 8662-8668	1.8	6
31	Characterization of Surface Free Energy of Composite Electrodes for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, A2493-A2501	3.9	33
30	Fungi: A Neglected Candidate for the Application of Self-Healing Concrete. <i>Frontiers in Built Environment</i> , <b>2018</b> , 4,	2.2	13
29	Spherical indentation of a freestanding circular membrane revisited: Analytical solutions and experiments. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2017</b> , 100, 85-102	5	15
28	A multiscale framework for the simulation of the anisotropic mechanical behavior of shale. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2017</b> , 41, 1494-1522	4	38
27	Reinvigorating Reverse-Osmosis Membrane Technology to Stabilize the V2O5 Lithium-Ion Battery Cathode. <i>ChemElectroChem</i> , <b>2017</b> , 4, 1181-1189	4.3	6
26	Elastic Microplane Formulation for Transversely Isotropic Materials. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2017</b> , 84,	2.7	7
25	Nanoindentation of compliant materials using Berkovich tips and flat tips. <i>Journal of Materials Research</i> , <b>2017</b> , 32, 435-450	2.5	17
24	Comment on Nanoindentation models and Young's modulus of monolayer graphene: A molecular dynamics study [Appl. Phys. Lett. 102, 071908 (2013)]. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 176101	3.4	2
23	On the contact behavior of micro-/nano-structured interface used in vertical-contact-mode triboelectric nanogenerators. <i>Nano Energy</i> , <b>2016</b> , 27, 68-77	17.1	54
22	Integrated Experimental and Computational Characterization of Shale at Multiple Length Scales <b>2016</b> , 389-434		7
21	Mechanical characterization of crosslinking effect in polydimethylsiloxane using nanoindentation. <i>Polymer Testing</i> , <b>2016</b> , 56, 329-336	4.5	13
20	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> , <b>2016</b> , 30, 1223-1242		6
19	Lattice discrete particle modeling of fiber reinforced concrete: Experiments and simulations. <i>European Journal of Mechanics, A/Solids</i> , <b>2016</b> , 57, 85-107	3.7	30
18	Deformation of Pyramidal PDMS Stamps During Microcontact Printing. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2016</b> , 83,	2.7	8
17	Fabrication of SnO2 Asymmetric Membranes for High Performance Lithium Battery Anode. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 13946-56	9.5	22
16	Dynamics Simulations of Concrete and Concrete Structures through the Lattice Discrete Particle Model <b>2015</b> ,		1

15	Microstructures: Structure and Energetics of Dislocations at Micro-Structured Complementary Interfaces Govern Adhesion (Adv. Funct. Mater. 27/2013). <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3452-3452	15.6	3
14	Structure and Energetics of Dislocations at Micro-Structured Complementary Interfaces Govern Adhesion. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 3453-3462	15.6	5
13	On the estimation of dynamic mass density of random composites. <i>Journal of the Acoustical Society of America</i> , <b>2012</b> , 132, 615-20	2.2	4
12	Analytical modelling of the electromechanical behaviour of surface-bonded piezoelectric actuators including the adhesive layer. <i>Engineering Fracture Mechanics</i> , <b>2011</b> , 78, 2547-2562	4.2	37
11	Adhesive contact between a rippled elastic surface and a rigid spherical indenter: from partial to full contact. <i>Soft Matter</i> , <b>2011</b> , 7, 10728	3.6	39
10	An easy-to-implement numerical simulation method for adhesive contact problems involving asymmetric adhesive contact. <i>Journal Physics D: Applied Physics</i> , <b>2011</b> , 44, 405303	3	12
9	Adhesion selectivity by electrostatic complementarity. II. Two-dimensional analysis. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 054903	2.5	6
8	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> , <b>2011</b> , 22, 655-670	2.3	5
7	Adhesion selectivity by electrostatic complementarity. I. One-dimensional stripes of charge. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 054902	2.5	7
6	The dynamic behaviour of surface-bonded piezoelectric actuators with debonded adhesive layers. <i>Acta Mechanica</i> , <b>2010</b> , 211, 215-235	2.1	24
5	Theoretical study of mechanical behavior of thin circular film adhered to a flat punch. <i>International Journal of Mechanical Sciences</i> , <b>2009</b> , 51, 481-489	5.5	13
4	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> , <b>2008</b> , 56, 2815-2831	5	20
3	Analysis of energy release rate and bending-to-stretching behavior in the shaft-loaded blister test. <i>International Journal of Solids and Structures</i> , <b>2008</b> , 45, 6485-6500	3.1	13
2	Molybdenum oxide nanoporous asymmetric membranes for high-capacity lithium ion battery anode. <i>Journal of Materials Research</i> , 1	2.5	0
1	Comment on Multiphase, Multiscale Chemomechanics at Extreme Low Temperatures: Battery Electrodes for Operation in a Wide Temperature Range <i>Advanced Energy Materials</i> , 2200686	21.8	