

Sulin Zhang

List of Publications by Year in descending order

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42
papers

4,605
citations

201575

27
h-index

254106

43
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all docs

43
docs citations

43
times ranked

7614
citing authors

#	ARTICLE	IF	CITATIONS
1	In situ Observation of Li Deposition-Induced Cracking in Garnet Solid Electrolytes. <i>Energy and Environmental Materials</i> , 2022, 5, 524-532.	7.3	36
2	Spatiotemporal Oscillation in Confined Epithelial Motion upon Fluid-to-Solid Transition. <i>ACS Nano</i> , 2021, 15, 7618-7627.	7.3	12
3	Molecular insights into the complex mechanics of plant epidermal cell walls. <i>Science</i> , 2021, 372, 706-711.	6.0	148
4	Progressive growth of the solid-electrolyte interphase towards the Si anode interior causes capacity fading. <i>Nature Nanotechnology</i> , 2021, 16, 1113-1120.	15.6	147
5	Lithium Deposition-Induced Fracture of Carbon Nanotubes and Its Implication to Solid-State Batteries. <i>Nano Letters</i> , 2021, 21, 6859-6866.	4.5	9
6	Molecular Ferroelectric-Based Flexible Sensors Exhibiting Supersensitivity and Multimodal Capability for Detection. <i>Advanced Materials</i> , 2021, 33, e2104107.	11.1	29
7	Mechanical forces drive a reorientation cascade leading to biofilm self-patterning. <i>Nature Communications</i> , 2021, 12, 6632.	5.8	41
8	Lithium whisker growth and stress generation in an in situ atomic force microscope-environmental transmission electron microscope set-up. <i>Nature Nanotechnology</i> , 2020, 15, 94-98.	15.6	217
9	Actin-ring segment switching drives nonadhesive gap closure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 33263-33271.	3.3	12
10	Molar-volume asymmetry enabled low-frequency mechanical energy harvesting in electrochemical cells. <i>Applied Energy</i> , 2020, 273, 115230.	5.1	12
11	Highly Stretchable Polymer Composite with Strain-Enhanced Electromagnetic Interference Shielding Effectiveness. <i>Advanced Materials</i> , 2020, 32, e1907499.	11.1	242
12	Extracellular and intercellular force distribution in circularly shaped epithelia. <i>Extreme Mechanics Letters</i> , 2019, 31, 100526.	2.0	10
13	Probing the Origin of Gold Dissolution and Tunneling Across Ni ₂ P Shell Using in situ Transmission Electron Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 46947-46952.	4.0	2
14	Nanoconfinement-Induced Giant Electrocaloric Effect in Ferroelectric Polymer Nanowire Array Integrated with Aluminum Oxide Membrane to Exhibit Record Cooling Power Density. <i>Advanced Materials</i> , 2019, 31, e1806642.	11.1	56
15	Ferroelectric Polymer Nanocomposites with Complementary Nanostructured Fillers for Electrocaloric Cooling with High Power Density and Great Efficiency. <i>ACS Applied Energy Materials</i> , 2018, 1, 1344-1354.	2.5	42
16	Flexible three-dimensional interconnected piezoelectric ceramic foam based composites for highly efficient concurrent mechanical and thermal energy harvesting. <i>Energy and Environmental Science</i> , 2018, 11, 2046-2056.	15.6	188
17	Active cell-matrix coupling regulates cellular force landscapes of cohesive epithelial monolayers. <i>Npj Computational Materials</i> , 2018, 4, .	3.5	13
18	Mechanotargeting: Mechanics-Dependent Cellular Uptake of Nanoparticles. <i>Advanced Materials</i> , 2018, 30, e1707464.	11.1	38

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19	Coupling of electrochemically triggered thermal and mechanical effects to aggravate failure in a layered cathode. <i>Nature Communications</i> , 2018, 9, 2437.	5.8	200
20	Mechanical mismatch-driven rippling in carbon-coated silicon sheets for stress-resilient battery anodes. <i>Nature Communications</i> , 2018, 9, 2924.	5.8	94
21	ReaxFF Reactive Force-Field Study of Molybdenum Disulfide (MoS ₂). <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 631-640.	2.1	126
22	Two-Fold Anisotropy Governs Morphological Evolution and Stress Generation in Sodiated Black Phosphorus for Sodium Ion Batteries. <i>Nano Letters</i> , 2017, 17, 2299-2306.	4.5	48
23	Chemomechanical modeling of lithiation-induced failure in high-volume-change electrode materials for lithium ion batteries. <i>Npj Computational Materials</i> , 2017, 3, .	3.5	86
24	The role of substrate topography on the cellular uptake of nanoparticles. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2016, 104, 488-495.	1.6	31
25	Reversible host cell remodeling underpins deformability changes in malaria parasite sexual blood stages. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 4800-4805.	3.3	73
26	Electrochemically driven mechanical energy harvesting. <i>Nature Communications</i> , 2016, 7, 10146.	5.8	123
27	Inward lithium-ion breathing of hierarchically porous silicon anodes. <i>Nature Communications</i> , 2015, 6, 8844.	5.8	217
28	Strong kinetics-stress coupling in lithiation of Si and Ge anodes. <i>Extreme Mechanics Letters</i> , 2015, 2, 1-6.	2.0	66
29	Cooperative Transmembrane Penetration of Nanoparticles. <i>Scientific Reports</i> , 2015, 5, 10525.	1.6	51
30	Physical Principles of Nanoparticle Cellular Endocytosis. <i>ACS Nano</i> , 2015, 9, 8655-8671.	7.3	852
31	Multiple stiffening effects of nanoscale knobs on human red blood cells infected with <i>Plasmodium falciparum</i> malaria parasite. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6068-6073.	3.3	108
32	Germanium-Based Electrode Materials for Lithium-Ion Batteries. <i>ChemElectroChem</i> , 2014, 1, 706-713.	1.7	59
33	Lithiation induced corrosive fracture in defective carbon nanotubes. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	27
34	Chemomechanics control of tearing paths in graphene. <i>Physical Review B</i> , 2012, 85, .	1.1	33
35	In Situ TEM Experiments of Electrochemical Lithiation and Delithiation of Individual Nanostructures. <i>Advanced Energy Materials</i> , 2012, 2, 722-741.	10.2	341
36	Radial Corrugations of Multi-Walled Carbon Nanotubes Driven by Inter-Wall Nonbonding Interactions. <i>Nanoscale Research Letters</i> , 2011, 6, 53.	3.1	17

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37	Anisotropic Swelling and Fracture of Silicon Nanowires during Lithiation. Nano Letters, 2011, 11, 3312-3318.	4.5	691
38	Membrane-Mediated Inter-Domain Interactions. BioNanoScience, 2011, 1, 97-102.	1.5	4
39	Coordinated buckling of thick multi-walled carbon nanotubes under uniaxial compression. Nano Research, 2010, 3, 32-42.	5.8	22
40	Coarse-grained molecular dynamics modeling of DNA-carbon nanotube complexes. International Journal for Numerical Methods in Engineering, 2010, 83, 968-985.	1.5	18
41	Dynamic shape transformations of fluid vesicles. Soft Matter, 2010, 6, 4571.	1.2	43
42	Effective coarse-grained simulations of super-thick multi-walled carbon nanotubes under torsion. Journal of Applied Physics, 2009, 105, 033516.	1.1	19