

Rong Xu

List of Publications by Year in descending order

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66
papers

3,673
citations

117625

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133252

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docs citations

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times ranked

3476
citing authors

#	ARTICLE	IF	CITATIONS
1	Oxygen Release Induced Chemomechanical Breakdown of Layered Cathode Materials. <i>Nano Letters</i> , 2018, 18, 3241-3249.	9.1	237
2	High-Voltage Charging-Induced Strain, Heterogeneity, and Micro-Cracks in Secondary Particles of a Nickel-Rich Layered Cathode Material. <i>Advanced Functional Materials</i> , 2019, 29, 1900247.	14.9	219
3	Free-standing ultrathin lithium metal-graphene oxide host foils with controllable thickness for lithium batteries. <i>Nature Energy</i> , 2021, 6, 790-798.	39.5	198
4	Capturing the swelling of solid-electrolyte interphase in lithium metal batteries. <i>Science</i> , 2022, 375, 66-70.	12.6	183
5	Quantification of Heterogeneous Degradation in Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2019, 9, 1900674.	19.5	176
6	Heterogeneous damage in Li-ion batteries: Experimental analysis and theoretical modeling. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 129, 160-183.	4.8	164
7	Mechanical and Structural Degradation of $\text{LiNi}_{0.8}\text{Mn}_{0.1}\text{Co}_{0.1}\text{O}_2$ Cathode in Li-Ion Batteries: An Experimental Study. <i>Journal of the Electrochemical Society</i> , 2017, 164, A3333-A3341.	2.9	134
8	Charge distribution guided by grain crystallographic orientations in polycrystalline battery materials. <i>Nature Communications</i> , 2020, 11, 83.	12.8	129
9	Dynamic spatial progression of isolated lithium during battery operations. <i>Nature</i> , 2021, 600, 659-663.	27.8	111
10	Accurate Determination of Sr Isotopic Compositions in Clinopyroxene and Silicate Glasses by LA-MC-ICP-MS. <i>Geostandards and Geoanalytical Research</i> , 2016, 40, 85-99.	3.1	100
11	Corrosive fracture of electrodes in Li-ion batteries. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 121, 258-280.	4.8	84
12	Grid indentation analysis of mechanical properties of composite electrodes in Li-ion batteries. <i>Extreme Mechanics Letters</i> , 2016, 9, 495-502.	4.1	83
13	Laser sintered single layer graphene oxide reinforced titanium matrix nanocomposites. <i>Composites Part B: Engineering</i> , 2016, 93, 352-359.	12.0	77
14	A Morphologically Stable Li/Electrolyte Interface for All-Solid-State Batteries Enabled by 3D-Micropatterned Garnet. <i>Advanced Materials</i> , 2021, 33, e2104009.	21.0	76
15	Printing 3D Gel Polymer Electrolyte in Lithium-Ion Microbattery Using Stereolithography. <i>Journal of the Electrochemical Society</i> , 2017, 164, A1852-A1857.	2.9	74
16	Localized corrosion behaviour of AA7150 after ultrasonic shot peening: Corrosion depth vs. impact energy. <i>Corrosion Science</i> , 2018, 130, 218-230.	6.6	74
17	Ultrastrong nanocrystalline stainless steel and its Hall-Petch relationship in the nanoscale. <i>Scripta Materialia</i> , 2018, 155, 26-31.	5.2	72
18	Taming Active Material-Solid Electrolyte Interfaces with Organic Cathode for All-Solid-State Batteries. <i>Joule</i> , 2019, 3, 1349-1359.	24.0	70

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19	All-Solid-State Lithium-Sulfur Batteries Enhanced by Redox Mediators. <i>Journal of the American Chemical Society</i> , 2021, 143, 18188-18195.	13.7	66
20	Effects of sintering and mixed oxide growth on the interface cracking of air-plasma-sprayed thermal barrier coating system at high temperature. <i>Applied Surface Science</i> , 2016, 360, 461-469.	6.1	65
21	In-situ trace elements and Li and Sr isotopes in peridotite xenoliths from Kuandian, North China Craton: Insights into Pacific slab subduction-related mantle modification. <i>Chemical Geology</i> , 2013, 354, 107-123.	3.3	62
22	Computational analysis of chemomechanical behaviors of composite electrodes in Li-ion batteries. <i>Journal of Materials Research</i> , 2016, 31, 2715-2727.	2.6	60
23	Air-Filtering Masks for Respiratory Protection from PM2.5 and Pandemic Pathogens. <i>One Earth</i> , 2020, 3, 574-589.	6.8	60
24	Mechanical interactions regulated kinetics and morphology of composite electrodes in Li-ion batteries. <i>Extreme Mechanics Letters</i> , 2016, 8, 13-21.	4.1	56
25	Electrochemomechanics of Electrodes in Li-Ion Batteries: A Review. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2016, 13, .	2.1	47
26	Strain rate sensitivity of the ultrastrong gradient nanocrystalline 316L stainless steel and its rate-dependent modeling at nanoscale. <i>International Journal of Plasticity</i> , 2020, 129, 102696.	8.8	46
27	Efficient Lithium Metal Cycling over a Wide Range of Pressures from an Anion-Derived Solid-Electrolyte Interphase Framework. <i>ACS Energy Letters</i> , 2021, 6, 816-825.	17.4	46
28	Interfacial delamination of double-ceramic-layer thermal barrier coating system. <i>Ceramics International</i> , 2014, 40, 13793-13802.	4.8	45
29	Interfacial fracture mechanism associated with mixed oxides growth in thermal barrier coating system. <i>Surface and Coatings Technology</i> , 2014, 253, 139-147.	4.8	42
30	Carbonated sediment recycling and its contribution to lithospheric refertilization under the northern North China Craton. <i>Chemical Geology</i> , 2017, 466, 641-653.	3.3	41
31	Pyroxenite and peridotite xenoliths from Hexigten, Inner Mongolia: Insights into the Paleo-Asian Ocean subduction-related melt/fluid-peridotite interaction. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 140, 435-454.	3.9	40
32	Ultrafast direct fabrication of flexible substrate-supported designer plasmonic nanoarrays. <i>Nanoscale</i> , 2016, 8, 172-182.	5.6	40
33	Electrolyte-Resistant Dual Materials for the Synergistic Safety Enhancement of Lithium-Ion Batteries. <i>Nano Letters</i> , 2021, 21, 2074-2080.	9.1	37
34	Computational Modeling of Heterogeneity of Stress, Charge, and Cyclic Damage in Composite Electrodes of Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2020, 167, 040527.	2.9	36
35	Trace element and Sr isotope records of multi-episode carbonatite metasomatism on the eastern margin of the N China Craton. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 220-237.	2.5	35
36	Transient thermal stress due to the penetration of calcium-magnesium-alumino-silicate in EB-PVD thermal barrier coating system. <i>Ceramics International</i> , 2018, 44, 12655-12663.	4.8	35

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37	Comparative analysis of a novel disease phenotype network based on clinical manifestations. <i>Journal of Biomedical Informatics</i> , 2015, 53, 113-120.	4.3	33
38	Mechanisms governing the interfacial delamination of thermal barrier coating system with double ceramic layers. <i>Applied Surface Science</i> , 2016, 370, 394-402.	6.1	31
39	Crust recycling induced compositional-temporal-spatial variations of Cenozoic basalts in the Trans-North China Orogen. <i>Lithos</i> , 2017, 274-275, 383-396.	1.4	31
40	In-situ trace element and Sr isotopic compositions of mantle xenoliths constrain two-stage metasomatism beneath the northern North China Craton. <i>Lithos</i> , 2017, 288-289, 338-351.	1.4	31
41	Roll to roll manufacturing of fast charging, mechanically robust 0D/2D nanolayered Si-graphene anode with well-interfaced and defect engineered structures. <i>Energy Storage Materials</i> , 2019, 22, 450-460.	18.0	31
42	Operando Nanoindentation: A New Platform to Measure the Mechanical Properties of Electrodes during Electrochemical Reactions. <i>Journal of the Electrochemical Society</i> , 2017, 164, A3840-A3847.	2.9	30
43	Generation of continental intraplate alkali basalts and implications for deep carbon cycle. <i>Earth-Science Reviews</i> , 2020, 201, 103073.	9.1	30
44	Microstructure, corrosion behaviour and thermal stability of AA 7150 after ultrasonic shot peening. <i>Surface and Coatings Technology</i> , 2020, 398, 126127.	4.8	30
45	Numerical study on interfacial delamination of thermal barrier coatings with multiple separations. <i>Surface and Coatings Technology</i> , 2014, 244, 117-122.	4.8	29
46	Nanograined surface fabricated on the pure copper by ultrasonic shot peening and an energy-density based criterion for peening intensity quantification. <i>Journal of Manufacturing Processes</i> , 2018, 32, 656-663.	5.9	27
47	Composite bending-dominated hollow nanolattices: A stiff, cyclable mechanical metamaterial. <i>Materials Today</i> , 2018, 21, 467-474.	14.2	26
48	Al-in-olivine thermometry evidence for the mantle plume origin of the Emeishan large igneous province. <i>Lithos</i> , 2016, 266-267, 362-366.	1.4	25
49	Langshan basalts record recycled Paleo-Asian oceanic materials beneath the northwest North China Craton. <i>Chemical Geology</i> , 2019, 524, 88-103.	3.3	21
50	Melting of a hydrous peridotite mantle source under the Emeishan large igneous province. <i>Earth-Science Reviews</i> , 2020, 207, 103253.	9.1	19
51	Long distance chemical gradient induced by surface nanocrystallization. <i>Applied Materials Today</i> , 2019, 14, 137-142.	4.3	17
52	Quantitative spatiotemporal Li profiling using nanoindentation. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 144, 104102.	4.8	16
53	Ultrastrong medium entropy alloy with simultaneous strength-ductility improvement via heterogeneous nanocrystalline structures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 823, 141631.	5.6	16
54	SimQ: Real-Time Retrieval of Similar Consumer Health Questions. <i>Journal of Medical Internet Research</i> , 2015, 17, e43.	4.3	15

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55	Ultrasound-assisted water-confined laser micromachining (UWLM) of metals: Experimental study and time-resolved observation. <i>Journal of Materials Processing Technology</i> , 2017, 245, 259-269.	6.3	14
56	Origin of low-MgO primitive intraplate alkaline basalts from partial melting of carbonate-bearing eclogite sources. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 324, 240-261.	3.9	13
57	Decoupled Zn-Sr-Nd isotopic composition of continental intraplate basalts caused by two-stage melting process. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 326, 234-252.	3.9	13
58	Enhanced Mechanical and Biological Performance of an Extremely Fine Nanograined 316L Stainless Steel Cellâ€“Substrate Interface Fabricated by Ultrasonic Shot Peening. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 1609-1621.	5.2	12
59	Microhole Drilling by Double Laser Pulses With Different Pulse Energies. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2018, 140, .	2.2	10
60	Network Analysis of Human Disease Comorbidity Patterns Based on Large-Scale Data Mining. <i>Lecture Notes in Computer Science</i> , 2014, , 243-254.	1.3	7
61	Semi-supervised image classification for automatic construction of a health image library. , 2012, , .		6
62	Deciphering the origin of a basanite-alkali basalt-tholeiite suite using Zn isotopes. <i>Chemical Geology</i> , 2021, 585, 120585.	3.3	6
63	Grooving of Metals by High-Intensity Focused Ultrasound-Assisted Water-Confined Laser Micromachining. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2021, 143, .	2.2	5
64	Understanding the role of monolayer graphene during long range shock strengthening of metal-graphene heterostructure. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 837, 142741.	5.6	4
65	Fracture of thermal barrier coating with multiple surface cracks and delaminations: Interlayer effect. <i>Journal of Central South University</i> , 2014, 21, 2579-2583.	3.0	3
66	Integrating Large, Disparate Biomedical Ontologies to Boost Organ Development Network Connectivity. <i>Lecture Notes in Computer Science</i> , 2012, , 71-82.	1.3	2