Ben Breitung

List of Publications by Year
in descending order

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56 papers	3,257 citations	218677 26 h-index	168389 53 g-index
61 all docs	61 docs citations	61 times ranked	3089 citing authors

#	Article	IF	Citations
1	High entropy oxides for reversible energy storage. Nature Communications, 2018, 9, 3400.	12.8	643
2	Highâ€Entropy Oxides: Fundamental Aspects and Electrochemical Properties. Advanced Materials, 2019, 31, e1806236.	21.0	412
3	High-entropy energy materials: challenges and new opportunities. Energy and Environmental Science, 2021, 14, 2883-2905.	30.8	282
4	Multi-anionic and -cationic compounds: new high entropy materials for advanced Li-ion batteries. Energy and Environmental Science, 2019, 12, 2433-2442.	30.8	241
5	High entropy oxides: The role of entropy, enthalpy and synergy. Scripta Materialia, 2020, 187, 43-48.	5.2	165
6	Printed Electronics Based on Inorganic Semiconductors: From Processes and Materials to Devices. Advanced Materials, 2018, 30, e1707600.	21.0	148
7	High entropy oxides as anode material for Li-ion battery applications: A practical approach. Electrochemistry Communications, 2019, 100, 121-125.	4.7	125
8	The Critical Role of Fluoroethylene Carbonate in the Gassing of Silicon Anodes for Lithium-Ion Batteries. ACS Energy Letters, 2017, 2, 2228-2233.	17.4	97
9	Highâ€Entropy Metalâ€“Organic Frameworks for Highly Reversible Sodium Storage. Advanced Materials, 2021, 33, e2101342.	21.0	97
10	On the homogeneity of high entropy oxides: An investigation at the atomic scale. Scripta Materialia, 2019, 166, 58-63.	5.2	90
11	CFx Derived Carbonâ€“FeF₂ Nanocomposites for Reversible Lithium Storage. Advanced Energy Materials, 2013, 3, 308-313.	19.5	76
12	In situ and operando atomic force microscopy of high-capacity nano-silicon based electrodes for lithium-ion batteries. Nanoscale, 2016, 8, 14048-14056.	5.6	64
13	Improving the Energy Density and Power Density of CF_x by Mechanical Milling: A Primary Lithium Battery Electrode. ACS Applied Materials & Interfaces, 2013, 5, 11207-11211.	8.0	60
14	Highâ€Entropy Sulfides as Electrode Materials for Liâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	19.5	57
15	[Ag₁₁₅S₃₄(SCH₂C₆H₄^tBu)₄₇(dpph)<su synthesis, crystal structure and NMR investigations of a soluble silver chalcogenide nanocluster. Chemical Science, 2017, 8, 2235-2240.	7.4	55
16	Hierarchical Carbon with High Nitrogen Doping Level: A Versatile Anode and Cathode Host Material for Long-Life Lithium-Ion and Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2016, 8, 10274-10282.	8.0	49
17	Lithium containing layered high entropy oxide structures. Scientific Reports, 2020, 10, 18430.	3.3	47
18	Mechanochemical synthesis of novel rutile-type high entropy fluorides for electrocatalysis. Journal of Materials Chemistry A, 2021, 9, 8998-9009.	10.3	45

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19	Highâ€Entropy Energy Materials in the Age of Big Data: A Critical Guide to Nextâ€Generation Synthesis and Applications. Advanced Energy Materials, 2021, 11, 2102355.	19.5	37
20	Resolving the Role of Configurational Entropy in Improving Cycling Performance of Multicomponent Hexacyanoferrate Cathodes for Sodiumâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	14.9	37
21	Influence of Humidity on the Performance of Composite Polymer Electrolyte-Gated Field-Effect Transistors and Circuits. IEEE Transactions on Electron Devices, 2019, 66, 2202-2207.	3.0	35
22	Spinel to Rock-Salt Transformation in High Entropy Oxides with Li Incorporation. Electrochem, 2020, 1, 60-74.	3.3	35
23	Microwave synthesis of high-quality and uniform 4 nm ZnFe₂O₄ nanocrystals for application in energy storage and nanomagnetics. Beilstein Journal of Nanotechnology, 2016, 7, 1350-1360.	2.8	32
24	Gassing Behavior of Highâ€Entropy Oxide Anode and Oxyfluoride Cathode Probed Using Differential Electrochemical Mass Spectrometry. Batteries and Supercaps, 2020, 3, 361-369.	4.7	31
25	Functionalised Silver Chalcogenide Clusters. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2011, 637, 995-1006.	1.2	28
26	Silicon Nanoparticles with a Polymer-Derived Carbon Shell for Improved Lithium-Ion Batteries: Investigation into Volume Expansion, Gas Evolution, and Particle Fracture. ACS Omega, 2018, 3, 16706-16713.	3.5	27
27	Influence of particle size and fluorination ratio of CF_x precursor compounds on the electrochemical performance of Câ€“FeF₂ nanocomposites for reversible lithium storage. Beilstein Journal of Nanotechnology, 2013, 4, 705-713.	2.8	19
28	Development of Fully Printed Electrolyte-Gated Oxide Transistors Using Graphene Passive Structures. ACS Applied Electronic Materials, 2019, 1, 1538-1544.	4.3	19
29	Mechanochemical synthesis: route to novel rock-salt-structured high-entropy oxides and oxyfluorides. Journal of Materials Science, 2020, 55, 16879-16889.	3.7	15
30	Determining role of individual cations in high entropy oxides: Structure and reversible tuning of optical properties. Scripta Materialia, 2022, 207, 114273.	5.2	15
31	Facile Synthesis of Carbonâ€“Metal Fluoride Nanocomposites for Lithiumâ€Ion Batteries. Energy Technology, 2016, 4, 201-211.	3.8	14
32	High entropy fluorides as conversion cathodes with tailorable electrochemical performance. Journal of Energy Chemistry, 2022, 72, 342-351.	12.9	14
33	Facile synthesis of Câ€“FeF₂ nanocomposites from CFx: influence of carbon precursor on reversible lithium storage. RSC Advances, 2018, 8, 36802-36811.	3.6	13
34	Embroidered Copper Microwire Current Collector for Improved Cycling Performance of Silicon Anodes in Lithium-Ion Batteries. Scientific Reports, 2017, 7, 13010.	3.3	12
35	Inkâ€Jet Printable, Selfâ€Assembled, and Chemically Crosslinked Ionâ€Gel as Electrolyte for Thin Film, Printable Transistors. Advanced Materials Interfaces, 2019, 6, 1901074.	3.7	11
36	Fully Printed Inverters using Metalâ€Oxide Semiconductor and Graphene Passives on Flexible Substrates. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000252.	2.4	11

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37	Formation of nanocrystalline graphene on germanium. Nanoscale, 2018, 10, 12156-12162.	5.6	10
38	Highâ€Entropy Oxides: Highâ€Entropy Oxides: Fundamental Aspects and Electrochemical Properties (Adv.) Tj ETQq0 0 0 rgBT /Overlock	21.0	10
39	High Entropy and Low Symmetry: Triclinic High-Entropy Molybdates. Inorganic Chemistry, 2021, 60, 115-123.	4.0	10
40	Thin Films of Thermally Stable Ordered Mesoporous Rh₂O₃(I) for Visible-Light Photocatalysis and Humidity Sensing. ACS Applied Nano Materials, 2019, 2, 7126-7133.	5.0	9
41	Artificial Composite Anode Comprising Highâ€Capacity Silicon and Carbonaceous Nanostructures for Long Cycle Life Lithiumâ€Ion Batteries. Batteries and Supercaps, 2018, 1, 27-32.	4.7	8
42	Operando acoustic emission monitoring of degradation processes in lithium-ion batteries with a high-entropy oxide anode. Scientific Reports, 2021, 11, 23381.	3.3	8
43	Acoustic Emission Monitoring of High-Entropy Oxyfluoride Rock-Salt Cathodes during Battery Operation. Coatings, 2022, 12, 402.	2.6	8
44	Reversible control of magnetism: on the conversion of hydrated FeF₃ with Li to Fe and LiF. Journal of Materials Chemistry A, 2019, 7, 24005-24011.	10.3	6
45	Tailoring Threshold Voltages of Printed Electrolyte-Gated Field-Effect Transistors by Chromium Doping of Indium Oxide Channels. ACS Omega, 2019, 4, 20579-20585.	3.5	5
46	Tailored Silicon/Carbon Compounds for Printed Liâ€“Ion Anodes. Batteries and Supercaps, 2020, 3, 713-720.	4.7	5
47	Highâ€Entropy Metalâ€“Organic Frameworks for Highly Reversible Sodium Storage (Adv. Mater. 34/2021). Advanced Materials, 2021, 33, 2170269.	21.0	4
48	Printing Technologies for Integration of Electronic Devices and Sensors. NATO Science for Peace and Security Series C: Environmental Security, 2020, , 1-34.	0.2	4
49	Timeâ€Dependent Cation Selectivity of Titanium Carbide MXene in Aqueous Solution. Advanced Sustainable Systems, 2022, 6, .	5.3	4
50	ALD-Derived, Low-Density Alumina as Solid Electrolyte in Printed Low-Voltage FETs. IEEE Transactions on Electron Devices, 2020, 67, 3828-3833.	3.0	3
51	Adhesive Ionâ€Gel as Gate Insulator of Electrolyteâ€Gated Transistors. ChemElectroChem, 2020, 7, 2735-2739.	3.4	2
52	Energy Storage: CFx Derived Carbonâ€“FeF₂ Nanocomposites for Reversible Lithium Storage (Adv. Energy Mater. 3/2013). Advanced Energy Materials, 2013, 3, 274-274.	19.5	1
53	Highâ€Entropy Sulfides as Electrode Materials for Liâ€Ion Batteries (Adv. Energy Mater. 8/2022). Advanced Energy Materials, 2022, 12, .	19.5	1
54	Electrolyteâ€Gated Transistors: Inkâ€Jet Printable, Selfâ€Assembled, and Chemically Crosslinked Ionâ€Gel as Electrolyte for Thin Film, Printable Transistors (Adv. Mater. Interfaces 21/2019). Advanced Materials Interfaces, 2019, 6, 1970132.	3.7	0

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55	Adhesive Ionâ€Gel as Gate Insulator of Electrolyteâ€Gated Transistors. ChemElectroChem, 2020, 7, 2692-2692.	3.4	0
56	Tailored Silicon/Carbon Compounds for Printed Liâ€“Ion Anodes. Batteries and Supercaps, 2020, 3, 671-671.	4.7	0