Torsten Brezesinski

List of Publications by Year
in descending order

196 papers	18,140 citations	13865 67 h-index	12946 131 g-index
208 all docs	208 docs citations	208 times ranked	17344 citing authors

#	Article	IF	Citations
1	Ordered mesoporous Î±-MoO3 with iso-oriented nanocrystalline walls for thin-film pseudocapacitors. Nature Materials, 2010, 9, 146-151.	27.5	2,801
2	Templated Nanocrystal-Based Porous TiO₂ Films for Next-Generation Electrochemical Capacitors. Journal of the American Chemical Society, 2009, 131, 1802-1809.	13.7	887
3	High entropy oxides for reversible energy storage. Nature Communications, 2018, 9, 3400.	12.8	643
4	Tuning Transition Metal Oxideâ€"Sulfur Interactions for Long Life Lithium Sulfur Batteries: The â€œGoldilocksâ€• Principle. Advanced Energy Materials, 2016, 6, 1501636.	19.5	623
5	Chemo-mechanical expansion of lithium electrode materials â€" on the route to mechanically optimized all-solid-state batteries. Energy and Environmental Science, 2018, 11, 2142-2158.	30.8	512
6	Anisotropic Lattice Strain and Mechanical Degradation of High- and Low-Nickel NCM Cathode Materials for Li-Ion Batteries. Journal of Physical Chemistry C, 2017, 121, 3286-3294.	3.1	472
7	Highâ€Entropy Oxides: Fundamental Aspects and Electrochemical Properties. Advanced Materials, 2019, 31, e1806236.	21.0	412
8	There and Back Againâ€"The Journey of LiNiO₂ as a Cathode Active Material. Angewandte Chemie - International Edition, 2019, 58, 10434-10458.	13.8	400
9	Periodically ordered nanoscale islands and mesoporous films composed of nanocrystalline multimetallic oxides. Nature Materials, 2004, 3, 787-792.	27.5	327
10	Pseudocapacitive Contributions to Charge Storage in Highly Ordered Mesoporous Group V Transition Metal Oxides with Iso-Oriented Layered Nanocrystalline Domains. Journal of the American Chemical Society, 2010, 132, 6982-6990.	13.7	320
11	Chemical, Structural, and Electronic Aspects of Formation and Degradation Behavior on Different Length Scales of Niâ€Rich NCM and Liâ€Rich HEâ€NCM Cathode Materials in Liâ€Ion Batteries. Advanced Materials, 2019, 31, e1900985.	21.0	319
12	Highly Crystalline Cubic Mesoporous TiO2with 10-nm Pore Diameter Made with a New Block Copolymer Template. Chemistry of Materials, 2004, 16, 2948-2952.	6.7	309
13	Hierarchical Porous Silica Materials with a Trimodal Pore System Using Surfactant Templates. Journal of the American Chemical Society, 2004, 126, 10534-10535.	13.7	299
14	High-entropy energy materials: challenges and new opportunities. Energy and Environmental Science, 2021, 14, 2883-2905.	30.8	282
15	Volume Changes of Graphite Anodes Revisited: A Combined <i>Operando</i> X-ray Diffraction and <i>In Situ</i> Pressure Analysis Study. Journal of Physical Chemistry C, 2018, 122, 8829-8835.	3.1	256
16	Charge-Transfer-Induced Lattice Collapse in Ni-Rich NCM Cathode Materials during Delithiation. Journal of Physical Chemistry C, 2017, 121, 24381-24388.	3.1	242
17	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
18	Between Scylla and Charybdis: Balancing Among Structural Stability and Energy Density of Layered NCM Cathode Materials for Advanced Lithium-Ion Batteries. Journal of Physical Chemistry C, 2017, 121, 26163-26171.	3.1	233

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19	The critical role of lithium nitrate in the gas evolution of lithiumâ€“sulfur batteries. Energy and Environmental Science, 2016, 9, 2603-2608.	30.8	202
20	Impact of Cathode Material Particle Size on the Capacity of Bulk-Type All-Solid-State Batteries. ACS Energy Letters, 2018, 3, 992-996.	17.4	201
21	Exceptional Photocatalytic Activity of Ordered Mesoporous Î²-Bi₂O₃ Thin Films and Electrospun Nanofiber Mats. Chemistry of Materials, 2010, 22, 3079-3085.	6.7	197
22	Origin of Carbon Dioxide Evolved during Cycling of Nickel-Rich Layered NCM Cathodes. ACS Applied Materials & Interfaces, 2018, 10, 38892-38899.	8.0	193
23	Toward Silicon Anodes for Next-Generation Lithium Ion Batteries: A Comparative Performance Study of Various Polymer Binders and Silicon Nanopowders. ACS Applied Materials & Interfaces, 2013, 5, 7299-7307.	8.0	192
24	Thermally Stable Nanocrystalline Î³-Alumina Layers with Highly Ordered 3D Mesoporosity. Angewandte Chemie - International Edition, 2005, 44, 4589-4592.	13.8	182
25	Highly Crystalline WO 3 Thin Films with Ordered 3D Mesoporosity and Improved Electrochromic Performance. Small, 2006, 2, 1203-1211.	10.0	180
26	Ordered Mesoporous Sb-, Nb-, and Ta-Doped SnO₂ Thin Films with Adjustable Doping Levels and High Electrical Conductivity. ACS Nano, 2009, 3, 1373-1378.	14.6	175
27	Stabilizing Effect of a Hybrid Surface Coating on a Ni-Rich NCM Cathode Material in All-Solid-State Batteries. Chemistry of Materials, 2019, 31, 9664-9672.	6.7	174
28	Ordered Large-Pore Mesoporous Li₄Ti₅O₁₂ Spinel Thin Film Electrodes with Nanocrystalline Framework for High Rate Rechargeable Lithium Batteries: Relationships among Charge Storage, Electrical Conductivity, and Nanoscale Structure. Chemistry of Materials, 2011, 23, 4384-4393.	6.7	171
29	Highly Organized Mesoporous TiO2 Films with Controlled Crystallinity: A Li-Insertion Study. Advanced Functional Materials, 2007, 17, 123-132.	14.9	158
30	Nonaqueous Synthesis of Uniform Indium Tin Oxide Nanocrystals and Their Electrical Conductivity in Dependence of the Tin Oxide Concentration. Chemistry of Materials, 2006, 18, 2848-2854.	6.7	157
31	Vertically oriented hexagonal mesoporousÂfilms formed through nanometre-scaleÂepitaxy. Nature Materials, 2008, 7, 712-717.	27.5	148
32	Phase Transformation Behavior and Stability of LiNiO₂ Cathode Material for Liâ€‘Ion Batteries Obtained from Inâ€…Situ Gas Analysis and Operando Xâ€‘Ray Diffraction. ChemSusChem, 2019, 12, 2240-2250.	6.8	146
33	Ordered Mesoporous Silicon through Magnesium Reduction of Polymer Templated Silica Thin Films. Nano Letters, 2008, 8, 3075-3079.	9.1	140
34	On the Correlation between Mechanical Flexibility, Nanoscale Structure, and Charge Storage in Periodic Mesoporous CeO₂ Thin Films. ACS Nano, 2010, 4, 967-977.	14.6	127
35	Ordered Mesoporous Î±â€‘Fe₂O₃ (Hematite) Thinâ€‘Film Electrodes for Application in High Rate Rechargeable Lithium Batteries. Small, 2011, 7, 407-414.	10.0	127
36	Nanocrystalline NiMoO4 with an ordered mesoporous morphology as potential material for rechargeable thin film lithium batteries. Chemical Communications, 2012, 48, 6726.	4.1	125

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37	High entropy oxides as anode material for Li-ion battery applications: A practical approach. Electrochemistry Communications, 2019, 100, 121-125.	4.7	125
38	Mesostructured Crystalline Ceria with a Bimodal Pore System Using Block Copolymers and Ionic Liquids as Rational Templates. Chemistry of Materials, 2005, 17, 1683-1690.	6.7	122
39	The Working Principle of a Li₂CO₃/LiNbO₃ Coating on NCM for Thiophosphate-Based All-Solid-State Batteries. Chemistry of Materials, 2021, 33, 2110-2125.	6.7	116
40	Investigation into Mechanical Degradation and Fatigue of High-Ni NCM Cathode Material: A Long-Term Cycling Study of Full Cells. ACS Applied Energy Materials, 2019, 2, 7375-7384.	5.1	106
41	Polyisobutylene-block-Poly(ethylene oxide) for Robust Templating of Highly Ordered Mesoporous Materials. Advanced Materials, 2005, 17, 1158-1162.	21.0	105
42	Gas Evolution in Operating Lithium-Ion Batteries Studied In Situ by Neutron Imaging. Scientific Reports, 2015, 5, 15627.	3.3	104
43	On the Correlation between Nanoscale Structure and Magnetic Properties in Ordered Mesoporous Cobalt Ferrite (CoFe₂O₄) Thin Films. Nano Letters, 2010, 10, 2982-2988.	9.1	101
44	Gas Evolution in All-Solid-State Battery Cells. ACS Energy Letters, 2018, 3, 2539-2543.	17.4	100
45	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
46	Highâ€Entropy Metalâ€“Organic Frameworks for Highly Reversible Sodium Storage. Advanced Materials, 2021, 33, e2101342.	21.0	97
47	Electrochromic Stability of WO3Thin Films with Nanometer-Scale Periodicity and Varying Degrees of Crystallinity. Journal of Physical Chemistry C, 2007, 111, 7200-7206.	3.1	96
48	Generation of Self-Assembled 3D Mesostructured SnO2 Thin Films with Highly Crystalline Frameworks. Advanced Functional Materials, 2006, 16, 1433-1440.	14.9	92
49	Gas Evolution in LiNi_{0.5}Mn_{1.5}O₄/Graphite Cells Studied In Operando by a Combination of Differential Electrochemical Mass Spectrometry, Neutron Imaging, and Pressure Measurements. Analytical Chemistry, 2016, 88, 2877-2883.	6.5	91
50	Effect of Low-Temperature Al2O3 ALD Coating on Ni-Rich Layered Oxide Composite Cathode on the Long-Term Cycling Performance of Lithium-Ion Batteries. Scientific Reports, 2019, 9, 5328.	3.3	91
51	Li₂ZrO₃-Coated NCM622 for Application in Inorganic Solid-State Batteries: Role of Surface Carbonates in the Cycling Performance. ACS Applied Materials & Interfaces, 2020, 12, 57146-57154.	8.0	90
52	Online Continuous Flow Differential Electrochemical Mass Spectrometry with a Realistic Battery Setup for High-Precision, Long-Term Cycling Tests. Analytical Chemistry, 2015, 87, 5878-5883.	6.5	89
53	Defect Chemistry of Oxide Nanomaterials with High Surface Area: Ordered Mesoporous Thin Films of the Oxygen Storage Catalyst CeO₂â€“ZrO₂. ACS Nano, 2013, 7, 2999-3013.	14.6	85
54	Transparent Conducting Films of Indium Tin Oxide with 3D Mesopore Architecture. Advanced Materials, 2006, 18, 2980-2983.	21.0	84

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55	Soft-templating synthesis of mesoporous magnetic CuFe2O4 thin films with ordered 3D honeycomb structure and partially inverted nanocrystalline spinel domains. Chemical Communications, 2012, 48, 4471.	4.1	81
56	Crystal-to-Crystal Phase Transition in Self-Assembled Mesoporous Iron Oxide Films. Angewandte Chemie - International Edition, 2006, 45, 781-784.	13.8	79
57	The Role of Intragranular Nanopores in Capacity Fade of Nickel-Rich Layered Li(Ni_{1â€“<i>x</i>â€“<i>y</i>}Co_{<i>x</i>}Mn_{<i>y</i>})O₂ Cathode Materials. ACS Nano, 2019, 13, 10694-10704.	14.6	79
58	Room temperature, liquid-phase Al₂O₃ surface coating approach for Ni-rich layered oxide cathode material. Chemical Communications, 2019, 55, 2174-2177.	4.1	79
59	Evaporation-Induced Self-Assembly (EISA) at Its Limit: Ultrathin, Crystalline Patterns by Templating of Micellar Monolayers. Advanced Materials, 2006, 18, 2260-2263.	21.0	78
60	Ionic Liquid-Derived Nitrogen-Enriched Carbon/Sulfur Composite Cathodes with Hierarchical Microstructureâ€"A Step Toward Durable High-Energy and High-Performance Lithiumâ€“Sulfur Batteries. Chemistry of Materials, 2015, 27, 1674-1683.	6.7	76
61	On the gassing behavior of lithium-ion batteries with NCM523 cathodes. Journal of Solid State Electrochemistry, 2016, 20, 2961-2967.	2.5	76
62	Molecular Surface Modification of NCM622 Cathode Material Using Organophosphates for Improved Li-Ion Battery Full-Cells. ACS Applied Materials & Interfaces, 2018, 10, 20487-20498.	8.0	76
63	The generation of mesostructured crystalline CeO2, ZrO2and CeO2â€“ZrO2films using evaporation-induced self-assembly. New Journal of Chemistry, 2005, 29, 237-242.	2.8	75
64	Ordered Mesoporous MFe₂O₄ (M = Co, Cu, Mg, Ni, Zn) Thin Films with Nanocrystalline Walls, Uniform 16 nm Diameter Pores and High Thermal Stability: Template-Directed Synthesis and Characterization of Redox Active Trevorite. Inorganic Chemistry, 2010, 49, 11619-11626.	4.0	73
65	Self-Assembly and Crystallization Behavior of Mesoporous, Crystalline HfO2 Thin Films: A Model System for the Generation of Mesostructured Transition-Metal Oxides. Small, 2005, 1, 889-898.	10.0	72
66	An <i>in situ</i> structural study on the synthesis and decomposition of LiNiO₂. Journal of Materials Chemistry A, 2020, 8, 1808-1820.	10.3	72
67	Fair performance comparison of different carbon blacks in lithiumâ€“sulfur batteries with practical mass loadings â€“ Simple design competes with complex cathode architecture. Journal of Power Sources, 2015, 296, 454-461.	7.8	69
68	Rational Design of Quasi-Zero-Strain NCM Cathode Materials for Minimizing Volume Change Effects in All-Solid-State Batteries. , 2020, 2, 84-88.		66
69	Periodically Ordered Mesoâ€•and Macroporous SiO₂ Thin Films and Their Induced Electrochemical Activity as a Function of Pore Hierarchy. Advanced Functional Materials, 2007, 17, 3241-3250.	14.9	64
70	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
71	Gas Evolution in Lithium-Ion Batteries: Solid versus Liquid Electrolyte. ACS Applied Materials & Interfaces, 2020, 12, 20462-20468.	8.0	62
72	Electrochemical Cross-Talk Leading to Gas Evolution and Capacity Fade in LiNi_{0.5}Mn_{1.5}O₄/Graphite Full-Cells. Journal of Physical Chemistry C, 2017, 121, 211-216.	3.1	57

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73	Enhancing the Electrochemical Performance of LiNi_{0.70}Co_{0.15}Mn_{0.15}O₂ Cathodes Using a Practical Solution-Based Al₂O₃ Coating. ACS Applied Materials & Interfaces, 2020, 12, 31392-31400.	8.0	57
74	Simultaneous acquisition of differential electrochemical mass spectrometry and infrared spectroscopy data for in situ characterization of gas evolution reactions in lithium-ion batteries. Electrochemistry Communications, 2015, 60, 64-69.	4.7	56
75	Next generation pseudocapacitor materials from solâ€"gel derived transition metal oxides. Journal of Sol-Gel Science and Technology, 2011, 57, 330-335.	2.4	55
76	Simple cathode design for Liâ€"S batteries: cell performance and mechanistic insights by in operando X-ray diffraction. Physical Chemistry Chemical Physics, 2014, 16, 18765-18771.	2.8	55
77	Surfactant-Mediated Generation of Iso-Oriented Dense and Mesoporous Crystalline Metal-Oxide Layers. Advanced Materials, 2006, 18, 1827-1831.	21.0	50
78	Influence of electronically conductive additives on the cycling performance of argyrodite-based all-solid-state batteries. RSC Advances, 2020, 10, 1114-1119.	3.6	50
79	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
80	High Performance All-Solid-State Batteries with a Ni-Rich NCM Cathode Coated by Atomic Layer Deposition and Lithium Thiophosphate Solid Electrolyte. ACS Applied Energy Materials, 2021, 4, 7338-7345.	5.1	48
81	Lithium containing layered high entropy oxide structures. Scientific Reports, 2020, 10, 18430.	3.3	47
82	Morphology-Controlled Synthesis of Nanocrystalline Î·-Al₂O₃ Thin Films, Powders, Microbeads, and Nanofibers with Tunable Pore Sizes from Preformed Oligomeric Oxo-Hydroxo Building Blocks. Chemistry of Materials, 2012, 24, 486-494.	6.7	46
83	Free-standing and binder-free highly N-doped carbon/sulfur cathodes with tailorable loading for high-areal-capacity lithiumâ€"sulfur batteries. Journal of Materials Chemistry A, 2015, 3, 20482-20486.	10.3	46
84	Surface Modification Strategies for Improving the Cycling Performance of Niâ€Rich Cathode Materials. European Journal of Inorganic Chemistry, 2020, 2020, 3117-3130.	2.0	46
85	Advanced Nanoparticle Coatings for Stabilizing Layered Niâ€Rich Oxide Cathodes in Solidâ€State Batteries. Advanced Functional Materials, 2022, 32, .	14.9	45
86	Block copolymer-templated BiFeO3 nanoarchitectures composed of phase-pure crystallites intermingled with a continuous mesoporosity: Effective visible-light photocatalysts?. Nano Research, 2011, 4, 414-424.	10.4	44
87	Thermal Conductivity of Ordered Mesoporous Titania Films Made from Nanocrystalline Building Blocks and Solâˆ'Gel Reagents. Journal of Physical Chemistry C, 2010, 114, 12451-12458.	3.1	43
88	Structural, Optical, and Magnetic Properties of Highly Ordered Mesoporous MCr₂O₄ and MCr_{2â€"<i>x</i>}Fe_{<i>x</i>}O₄ (M = Co, Zn) Spinel Thin Films with Uniform 15 nm Diameter Pores and Tunable Nanocrystalline Domain Sizes. Chemistry of Materials, 2012, 24, 155-165.	6.7	43
89	Visualization of Light Elements using 4D STEM: The Layeredâ€toâ€Rock Salt Phase Transition in LiNiO₂ Cathode Material. Advanced Energy Materials, 2020, 10, 2001026.	19.5	43
90	High-Throughput in Situ Pressure Analysis of Lithium-Ion Batteries. Analytical Chemistry, 2017, 89, 8122-8128.	6.5	42

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91	The interplay between (electro)chemical and (chemo)mechanical effects in the cycling performance of thiophosphate-based solid-state batteries. Materials Futures, 2022, 1, 015102.	8.4	40
92	Cycling Performance and Limitations of LiNiO₂ in Solid-State Batteries. ACS Energy Letters, 2021, 6, 3020-3028.	17.4	39
93	Morphology, Microstructure, and Magnetic Properties of Ordered Large-Pore Mesoporous Cadmium Ferrite Thin Film Spin Glasses. Inorganic Chemistry, 2013, 52, 3744-3754.	4.0	38
94	Template-Free Electrochemical Synthesis of High Aspect Ratio Sn Nanowires in Ionic Liquids: A General Route to Large-Area Metal and Semimetal Nanowire Arrays?. Chemistry of Materials, 2015, 27, 3830-3837.	6.7	38
95	Operando Characterization Techniques for Allâ€Solidâ€State Lithiumâ€Ion Batteries. Advanced Energy and Sustainability Research, 2021, 2, 2100004.	5.8	38
96	Facile and General Synthesis of Thermally Stable Ordered Mesoporous Rare-Earth Oxide Ceramic Thin Films with Uniform Mid-Size to Large-Size Pores and Strong Crystalline Texture. Chemistry of Materials, 2013, 25, 4633-4642.	6.7	37
97	Highly Reversible Sodiation of Tin in Glyme Electrolytes: The Critical Role of the Solid Electrolyte Interphase and Its Formation Mechanism. ACS Applied Materials & Interfaces, 2020, 12, 3697-3708.	8.0	37
98	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
99	Self-Assembled Metal Oxide Bilayer Films with â€œSingle-Crystallineâ€• Overlayer Mesopore Structure. Advanced Materials, 2007, 19, 1074-1078.	21.0	35
100	Thermal Conductivity of Highly-Ordered Mesoporous Titania Thin Films from 30 to 320 K. Journal of Physical Chemistry C, 2011, 115, 14606-14614.	3.1	35
101	Spinel to Rock-Salt Transformation in High Entropy Oxides with Li Incorporation. Electrochem, 2020, 1, 60-74.	3.3	35
102	Room Temperature Magnetic Rare-Earth Iron Garnet Thin Films with Ordered Mesoporous Structure. Chemistry of Materials, 2013, 25, 2527-2537.	6.7	33
103	Oxygen Activity in Li-Rich Disordered Rock-Salt Oxide and the Influence of LiNbO₃ Surface Modification on the Electrochemical Performance. Chemistry of Materials, 2019, 31, 4330-4340.	6.7	33
104	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
105	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
106	Ionic Conductivity of Mesostructured Yttria-Stabilized Zirconia Thin Films with Cubic Pore Symmetryâ€"On the Influence of Water on the Surface Oxygen Ion Transport. ACS Applied Materials & Interfaces, 2015, 7, 11792-11801.	8.0	29
107	Mesoporous hollow carbon spheres for lithiumâ€"sulfur batteries: distribution of sulfur and electrochemical performance. Beilstein Journal of Nanotechnology, 2016, 7, 1229-1240.	2.8	28
108	From LiNiO₂ to Li₂NiO₃: Synthesis, Structures and Electrochemical Mechanisms in Li-Rich Nickel Oxides. Chemistry of Materials, 2020, 32, 9211-9227.	6.7	28

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109	Ordered Mesoporous <i>Î²</i>â€MgMoO₄ Thin Films for Lithiumâ€Ion Battery Applications. Small, 2013, 9, 2541-2544.	10.0	27
110	Ordered Mesoporous Thin Film Ferroelectrics of Biaxially Textured Lead Zirconate Titanate (PZT) by Chemical Solution Deposition. Chemistry of Materials, 2014, 26, 2195-2202.	6.7	27
111	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
112	High-Entropy Polyanionic Lithium Superionic Conductors. , 2022, 4, 418-423.		27
113	Indirect state-of-charge determination of all-solid-state battery cells by X-ray diffraction. Chemical Communications, 2019, 55, 11223-11226.	4.1	25
114	Hin und zurÃ¼ck â€“ die Entwicklung von LiNiO₂ als Kathodenaktivmaterial. Angewandte Chemie, 2019, 131, 10542-10569.	2.0	25
115	Kinetic Limitations in Cycled Nickel-Rich NCM Cathodes and Their Effect on the Phase Transformation Behavior. ACS Applied Energy Materials, 2020, 3, 2821-2827.	5.1	25
116	Ordered mesoporous metal oxides for electrochemical applications: correlation between structure, electrical properties and device performance. Physical Chemistry Chemical Physics, 2021, 23, 10706-10735.	2.8	25
117	Large Magnetoresistance and Electrostatic Control of Magnetism in Ordered Mesoporous La_{1â€“<i>x</i>}Ca_{<i>x</i>}MnO₃ Thin Films. Chemistry of Materials, 2014, 26, 5745-5751.	6.7	24
118	Improving the capacity of lithiumâ€“sulfur batteries by tailoring the polysulfide adsorption efficiency of hierarchical oxygen/nitrogen-functionalized carbon host materials. Physical Chemistry Chemical Physics, 2017, 19, 8349-8355.	2.8	24
119	Electrochemical Tuning of Magnetism in Ordered Mesoporous Transition-Metal Ferrite Films for Micromagnetic Actuation. ACS Applied Nano Materials, 2018, 1, 65-72.	5.0	24
120	The effect of gallium substitution on the structure and electrochemical performance of LiNiO₂ in lithium-ion batteries. Materials Advances, 2020, 1, 639-647.	5.4	23
121	Design-of-experiments-guided optimization of slurry-cast cathodes for solid-state batteries. Cell Reports Physical Science, 2021, 2, 100465.	5.6	23
122	Polymerâ€Templated Mesoporous Li₄Ti₅O₁₂ as a Highâ€Rate and Longâ€Life Anode Material for Rechargeable Liâ€Ion Batteries. ChemNanoMat, 2015, 1, 415-421.	2.8	22
123	Quasi-homogenous photocatalysis of quantum-sized Fe-doped TiO2 in optically transparent aqueous dispersions. Scientific Reports, 2021, 11, 17687.	3.3	22
124	Effect of surface carbonates on the cyclability of LiNbO3-coated NCM622 in all-solid-state batteries with lithium thiophosphate electrolytes. Scientific Reports, 2021, 11, 5367.	3.3	21
125	In situ analysis of gas evolution in liquid- and solid-electrolyte-based batteries with current and next-generation cathode materials. Journal of Materials Research, 2022, 37, 3146-3168.	2.6	21
126	Facile synthesis of micrometer-long antimony nanowires by template-free electrodeposition for next generation Li-ion batteries. Journal of Materials Chemistry A, 2016, 4, 12726-12729.	10.3	20

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127	Understanding the formation of antiphase boundaries in layered oxide cathode materials and their evolution upon electrochemical cycling. Matter, 2021, 4, 3953-3966.	10.0	20
128	Nanocrystalline NaTaO3 thin film materials with ordered 3D mesoporous and nanopillar-like structures through PIB-b-PEO polymer templating: towards high-performance UV-light photocatalysts. RSC Advances, 2012, 2, 5130.	3.6	19
129	General Synthesis of Ordered Mesoporous Rare-Earth Orthovanadate Thin Films and Their Use as Photocatalysts and Phosphors for Lighting Applications. ACS Applied Nano Materials, 2019, 2, 1063-1071.	5.0	19
130	In situ tuning of magnetization via topotactic lithium insertion in ordered mesoporous lithium ferrite thin films. Journal of Materials Chemistry C, 2016, 4, 8889-8896.	5.5	18
131	Investigations into the superionic glass phase of Li₄PS₄I for improving the stability of high-loading all-solid-state batteries. Inorganic Chemistry Frontiers, 2020, 7, 3953-3960.	6.0	18
132	Li₇GeS₅Brâ€”An Argyrodite Li-Ion Conductor Prepared by Mechanochemical Synthesis. Inorganic Chemistry, 2020, 59, 12954-12959.	4.0	17
133	Single step synthesis of W-modified LiNiO₂ using an ammonium tungstate flux. Journal of Materials Chemistry A, 2022, 10, 7841-7855.	10.3	17
134	On the role of surface carbonate species in determining the cycling performance of all-solid-state batteries. Materials Futures, 2022, 1, 023501.	8.4	17
135	The generation of mesoporous CeO2 with crystalline pore walls using novel block copolymer templates. Studies in Surface Science and Catalysis, 2005, 156, 243-248.	1.5	16
136	Polymer-templated ordered large-pore mesoporous anataseâ€“rutile TiO2:Ta nanocomposite films: Microstructure, electrical conductivity, and photocatalytic and photoelectrochemical properties. Catalysis Today, 2014, 225, 55-63.	4.4	16
137	<i>In Situ</i> Monitoring of Thermally Induced Effects in Nickel-Rich Layered Oxide Cathode Materials at the Atomic Level. ACS Applied Materials & Interfaces, 2020, 12, 57047-57054.	8.0	16
138	Understanding the Origin of Higher Capacity for Ni-Based Disordered Rock-Salt Cathodes. Chemistry of Materials, 2020, 32, 3447-3461.	6.7	16
139	Single versus poly-crystalline layered oxide cathode materials for solid-state battery applications - a short review article. Current Opinion in Electrochemistry, 2021, 31, 100877.	4.8	16
140	Illumination-induced properties of highly ordered mesoporous TiO2 layers with controlled crystallinity. Thin Solid Films, 2007, 515, 6541-6543.	1.8	15
141	Highâ€Performance Lithiumâ€“Sulfur Batteries using Yolkâ€“Shell Type Sulfurâ€“Silica Nanocomposite Particles with Raspberryâ€Like Morphology. Energy Technology, 2015, 3, 830-833.	3.8	15
142	Tracing Low Amounts of Mg in the Doped Cathode Active Material LiNiO₂. Journal of the Electrochemical Society, 2022, 169, 030540.	2.9	15
143	Tailoring the protonic conductivity of porous yttria-stabilized zirconia thin films by surface modification. Physical Chemistry Chemical Physics, 2020, 22, 11519-11528.	2.8	14
144	Large-Pore Mesoporous Ho3Fe5O12 Thin Films with a Strong Room-Temperature Perpendicular Magnetic Anisotropy by Solâ€“Gel Processing. Chemistry of Materials, 2014, 26, 2337-2343.	6.7	13

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145	Applying Capacitive Energy Storage for In Situ Manipulation of Magnetization in Ordered Mesoporous Perovskite-Type LSMO Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 22799-22807.	8.0	13
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