RÃ¼diger-Albert Eichel

List of Publications by Year
in descending order

224 papers	6,591 citations	71102 41 h-index	88630 70 g-index
233 all docs	233 docs citations	233 times ranked	6606 citing authors

#	Article	IF	Citations
1	Nanodomain structure ofPb[Zr1â^'xTix]O3at its morphotropic phase boundary: Investigations from local to average structure. Physical Review B, 2007, 75, .	3.2	264
2	Host Materials Anchoring Polysulfides in Liâ€“S Batteries Reviewed. Advanced Energy Materials, 2021, 11, 2001304.	19.5	254
3	Powerâ€toâ€Syngas: An Enabling Technology for the Transition of the Energy System?. Angewandte Chemie - International Edition, 2017, 56, 5402-5411.	13.8	212
4	A Review of Degradation Mechanisms and Recent Achievements for Niâ€Rich Cathodeâ€Based Liâ€ion Batteries. Advanced Energy Materials, 2021, 11, 2103005.	19.5	206
5	Structural and dynamic properties of oxygen vacancies in perovskite oxidesâ€”analysis of defect chemistry by modern multi-frequency and pulsed EPR techniques. Physical Chemistry Chemical Physics, 2011, 13, 368-384.	2.8	202
6	Quantitative and time-resolved detection of lithium plating on graphite anodes in lithium ion batteries. Materials Today, 2018, 21, 231-240.	14.2	163
7	Strategies towards enabling lithium metal in batteries: interphases and electrodes. Energy and Environmental Science, 2021, 14, 5289-5314.	30.8	156
8	Singlet Oxygen Formation during the Charging Process of an Aprotic Lithiumâ€“Oxygen Battery. Angewandte Chemie - International Edition, 2016, 55, 6892-6895.	13.8	146
9	Operando electron paramagnetic resonance spectroscopy â€“ formation of mossy lithium on lithium anodes during chargeâ€“discharge cycling. Energy and Environmental Science, 2015, 8, 1358-1367.	30.8	128
10	Defect structure of oxide ferroelectricsâ€”valence state, site of incorporation, mechanisms of charge compensation and internal bias fields. Journal of Electroceramics, 2007, 19, 11-23.	2.0	120
11	Defect-Dipole Formation in Copper-Doped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>PbTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>Ferroelectrics. Physical Review Letters, 2008, 100, 095504.	7.8	118
12	Synthesis, Characterization, Defect Chemistry, and FET Properties of Microwave-Derived Nanoscaled Zinc Oxide. Chemistry of Materials, 2010, 22, 2203-2212.	6.7	117
13	Reorientation of (MnTiâ€³â^'VOâ€¢â€¢)Ã— defect dipoles in acceptor-modified BaTiO3 single crystals: An electron paramagnetic resonance study. Applied Physics Letters, 2008, 93, .	3.3	111
14	Association of oxygen vacancies with impurity metal ions in lead titanate. Physical Review B, 2007, 76, .	3.2	94
15	Singlet Oxygen Formation during the Charging Process of an Aprotic Lithiumâ€“Oxygen Battery. Angewandte Chemie, 2016, 128, 7006-7009.	2.0	87
16	Characterization of Defect Structure in Acceptor-Modified Piezoelectric Ceramics by Multifrequency and Multipulse Electron Paramagnetic Resonance Spectroscopy. Journal of the American Ceramic Society, 2008, 91, 691-701.	3.8	82
17	Insights into a layered hybrid solid electrolyte and its application in long lifespan high-voltage all-solid-state lithium batteries. Journal of Materials Chemistry A, 2019, 7, 3882-3894.	10.3	82
18	Defect structure and materials â€œhardeningâ€•in Fe2O3-doped [Bi0.5Na0.5]TiO3 ferroelectrics. Applied Physics Letters, 2010, 97, .	3.3	79

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19	Position of defects with respect to domain walls in Fe3+-doped Pb[Zr0.52Ti0.48]O3 piezoelectric ceramics. Applied Physics Letters, 2011, 98, .	3.3	77
20	Effect of Nb-donor and Fe-acceptor dopants in (Bi1/2Na1/2)TiO3â€“BaTiO3â€“(K0.5Na0.5)NbO3 lead-free piezoceramics. Journal of Applied Physics, 2010, 108, .	2.5	75
21	CuO as a sintering additive for (Bi1/2Na1/2)TiO3â€“BaTiO3â€“(K0.5Na0.5)NbO3 lead-free piezoceramics. Journal of the European Ceramic Society, 2011, 31, 2107-2117.	5.7	72
22	Processing of Manganese-Doped [Bi0.5Na0.5]TiO3 Ferroelectrics: Reduction and Oxidation Reactions During Calcination and Sintering. Journal of the American Ceramic Society, 2011, 94, 1363-1367.	3.8	70
23	Monolithic All-Phosphate Solid-State Lithium-Ion Battery with Improved Interfacial Compatibility. ACS Applied Materials & Interfaces, 2018, 10, 22264-22277.	8.0	68
24	Interface Aspects in Allâ€Solidâ€State Liâ€Based Batteries Reviewed. Advanced Energy Materials, 2021, 11, 2003939.	19.5	66
25	Axial Solvent Coordination in â€œBase-Offâ€•Cob(II)alamin and Related Co(II)-Corrinates Revealed by 2D-EPR. Journal of the American Chemical Society, 2003, 125, 5915-5927.	13.7	62
26	Local variations in defect polarization and covalent bonding in ferroelectric Cu2+-doped PZT and KNN functional ceramics at the morphotropic phase boundary. Physical Chemistry Chemical Physics, 2009, 11, 8698.	2.8	62
27	Interactions of defect complexes and domain walls in CuO-doped ferroelectric (K,Na)NbO3. Applied Physics Letters, 2013, 102, .	3.3	62
28	Influence of microstructure and AlPO₄ secondary-phase on the ionic conductivity of Li1.3Al0.3Ti1.7(PO4)3 solid-state electrolyte. Functional Materials Letters, 2016, 09, 1650066.	1.2	61
29	Superionic bulk conductivity in Li1.3Al0.3Ti1.7(PO4)3 solid electrolyte. Solid State Ionics, 2017, 309, 180-186.	2.7	60
30	High-frequency electron paramagnetic resonance investigation of the Fe3+ impurity center in polycrystalline PbTiO3 in its ferroelectric phase. Journal of Applied Physics, 2004, 96, 7440-7444.	2.5	55
31	A Small Paramagnetic Platinum Cluster in an NaY Zeolite:Â Characterization and Hydrogen Adsorption and Desorption. Journal of Physical Chemistry B, 2006, 110, 2013-2023.	2.6	55
32	Improving the rate capability of high voltage lithium-ion battery cathode material LiNi0.5Mn1.5O4 by ruthenium doping. Journal of Power Sources, 2014, 267, 533-541.	7.8	55
33	Temperature-dependent cycling performance and ageing mechanisms of C6/LiNi1/3Mn1/3Co1/3O2 batteries. Journal of Power Sources, 2018, 396, 444-452.	7.8	55
34	Double-Shelled Co₃O₄/C Nanocages Enabling Polysulfides Adsorption for High-Performance Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2019, 2, 8153-8162.	5.1	55
35	Iron-oxygen vacancy defect association in polycrystalline iron-modifiedPbZrO3antiferroelectrics: Multifrequency electron paramagnetic resonance and Newman superposition model analysis. Physical Review B, 2006, 73, .	3.2	48
36	Exploring the Interface of Skinâ€Layered Titanium Fibers for Electrochemical Water Splitting. Advanced Energy Materials, 2021, 11, 2002926.	19.5	48

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37	Luminescence of heat-treated silicon-based polymers: promising materials for LED applications. Journal of Materials Science, 2008, 43, 5790-5796.	3.7	46
38	Silicon and Iron as Resource-Efficient Anode Materials for Ambient-Temperature Metal-Air Batteries: A Review. Materials, 2019, 12, 2134.	2.9	46
39	Self-standing NASICON-type electrodes with high mass loading for fast-cycling all-phosphate sodium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 18304-18317.	10.3	44
40	Influence of sintering temperature on conductivity and mechanical behavior of the solid electrolyte LATP. Ceramics International, 2019, 45, 14697-14703.	4.8	43
41	Size effects in Fe3+-doped PbTiO3 nanocrystalsâ€"Formation and orientation of defect-dipoles. Journal of the European Ceramic Society, 2010, 30, 289-293.	5.7	42
42	RECENT DEVELOPMENTS AND FUTURE PERSPECTIVES OF LEAD-FREE FERROELECTRICS. Functional Materials Letters, 2010, 03, 1-4.	1.2	42
43	High-field/high-frequency EPR of paramagnetic functional centers in Cu2+- and Fe3+-modified polycrystalline Pb[ZrxTi1â^'x]O3 ferroelectrics. Magnetic Resonance in Chemistry, 2005, 43, S166-S173.	1.9	41
44	Formation of magnetic grains in ferroelectric Pb[Zr0.6Ti0.4]O3 ceramics doped with Fe3+ above the solubility limit. Applied Physics Letters, 2009, 94, 142901.	3.3	41
45	Degradation mechanisms of C6/LiNi0.5Mn0.3Co0.2O2 Li-ion batteries unraveled by non-destructive and post-mortem methods. Journal of Power Sources, 2019, 416, 163-174.	7.8	40
46	Tailored Gas Adsorption Properties of Electrospun Carbon Nanofibers for Gas Separation and Storage. ChemSusChem, 2020, 13, 3180-3191.	6.8	40
47	Insights into the reactive sintering and separated specific grain/grain boundary conductivities of Li1.3Al0.3Ti1.7(PO4)3. Journal of Power Sources, 2021, 492, 229631.	7.8	40
48	Manganese-doped<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo>(</mml:mo><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi><mml:mo>)<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>â€“<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>x</mml:mi></mml:math>PbTiO<mml:math xmlns:mml="http://www.w3.org/199	3.2	39
49	Understanding the nanoscale redox-behavior of iron-anodes for rechargeable iron-air batteries. Nano Energy, 2017, 41, 706-716.	16.0	39
50	EPR Imaging of Metallic Lithium and its Application to Dendrite Localisation in Battery Separators. Scientific Reports, 2018, 8, 14331.	3.3	39
51	Characterization of (Fe_{Zr,Ti}-V_o ^{ldrldr})^{ldr} defect dipoles in (La,Fe)-codoped PZT 52.5/47.5 piezoelectric ceramics by multifrequency electron paramagnetic resonance spectroscopy. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 1061-1068.	3.0	37
52	Defect structure and formation of defect complexes in Cu2+-modified metal oxides derived from a spin-Hamiltonian parameter analysis. Molecular Physics, 2009, 107, 1981-1986.	1.7	37
53	Defect structure in lithium-doped polymer-derived SiCN ceramics characterized by Raman and electron paramagnetic resonance spectroscopy. Physical Chemistry Chemical Physics, 2009, 11, 5628.	2.8	37
54	Synthesis of Ni-Rich Layered-Oxide Nanomaterials with Enhanced Li-Ion Diffusion Pathways as High-Rate Cathodes for Li-Ion Batteries. ACS Applied Energy Materials, 2020, 3, 6583-6590.	5.1	37

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55	Multifrequency electron paramagnetic resonance analysis of polycrystalline gadolinium-doped PbTiO3â€"Charge compensation and site of incorporation. Applied Physics Letters, 2006, 88, 122506.	3.3	36
56	Carbon-coated coreâ€"shell Li₂S@C nanocomposites as high performance cathode materials for lithiumâ€"sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 1428-1433.	10.3	36
57	Nanoâ€Scale Complexions Facilitate Li Dendriteâ€Free Operation in LATP Solidâ€State Electrolyte. Advanced Energy Materials, 2021, 11, 2100707.	19.5	36
58	Defect structure of the mixed ionicâ€"electronic conducting Sr[Ti,Fe]Ox solid-solution system â€" Change in iron oxidation states and defect complexation. Solid State Ionics, 2011, 184, 47-51.	2.7	35
59	The carbonization of polyacrylonitrile-derived electrospun carbon nanofibers studied by in situ transmission electron microscopy. RSC Advances, 2019, 9, 6267-6277.	3.6	35
60	Molecular precursor derived and solution processed indiumâ€"zinc oxide as a semiconductor in a field-effect transistor device. Towards an improved understanding of semiconductor film composition. Journal of Materials Chemistry C, 2013, 1, 2577.	5.5	34
61	Development towards cell-to-cell monolithic integration of a thin-film solar cell and lithium-ion accumulator. Journal of Power Sources, 2016, 327, 340-344.	7.8	33
62	Overpotential analysis of graphite-based Li-ion batteries seen from a porous electrode modeling perspective. Journal of Power Sources, 2021, 509, 230345.	7.8	33
63	Defect structure in aliovalently-doped and isovalently-substituted PbTiO₃nano-powders. Journal of Physics Condensed Matter, 2010, 22, 345901.	1.8	32
64	Cobalt substituted Pr2Ni1-Co O4+ (x = 0, 0.1, 0.2) oxygen electrodes: Impact on electrochemical performance and durability of solid oxide electrolysis cells. Journal of Power Sources, 2021, 482, 228909.	7.8	32
65	Direct Observation of SEI Formation and Lithiation in Thin-Film Silicon Electrodes via in Situ Electrochemical Atomic Force Microscopy. ACS Applied Energy Materials, 2019, 2, 6761-6767.	5.1	31
66	Local symmetry-reduction in tetragonal (La,Fe)-codoped Pb[Zr_{0.4}Ti_{0.6}]O₃piezoelectric ceramics. Physica Scripta, 2007, T129, 12-16.	2.5	30
67	FORMATION OF $({m Ti}'_{m Ti} - V_{m O}^{ullet ullet})^{ullet}$ DEFECT DIPOLES IN BaTiO3 CERAMICS HEAT-TREATED UNDER REDUCED OXYGEN PARTIAL-PRESSURE. Functional Materials Letters, 2010, 03, 65-68.	1.2	30
68	Long run discharge, performance and efficiency of primary Siliconâ€"air cells with alkaline electrolyte. Electrochimica Acta, 2017, 225, 215-224.	5.2	30
69	Long-run in operando NMR to investigate the evolution and degradation of battery cells. Physical Chemistry Chemical Physics, 2018, 20, 13765-13776.	2.8	30
70	Modeling the degradation mechanisms of C6/LiFePO4 batteries. Journal of Power Sources, 2018, 375, 106-117.	7.8	30
71	Origin of Degradation in Siâ€Based Allâ€Solidâ€State Liâ€Ion Microbatteries. Advanced Energy Materials, 2018, 8, 1801430.	19.5	29
72	Efficient Area Matched Converter Aided Solar Charging of Lithium Ion Batteries Using High Voltage Perovskite Solar Cells. ACS Applied Energy Materials, 2020, 3, 431-439.	5.1	29

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73	Combined quantitative microscopy on the microstructure and phase evolution in Li1.3Al0.3Ti1.7(PO4)3 ceramics. Journal of Advanced Ceramics, 2020, 9, 149-161.	17.4	29
74	Determination of functional center local environment in copper-modified Pb[Zr0.54Ti0.46]O3 ceramics. Journal of Applied Physics, 2004, 95, 8092-8096.	2.5	28
75	New insight into the discharge mechanism of siliconâ€“air batteries using electrochemical impedance spectroscopy. Physical Chemistry Chemical Physics, 2013, 15, 3256.	2.8	28
76	Microstructure of sodium-potassium niobate ceramics sintered under high alkaline vapor pressure atmosphere. Journal of the European Ceramic Society, 2014, 34, 4213-4221.	5.7	28
77	Quantitative Analysis of Time-Domain Supported Electrochemical Impedance Spectroscopy Data of Li-Ion Batteries: Reliable Activation Energy Determination at Low Frequencies. Journal of the Electrochemical Society, 2016, 163, H521-H527.	2.9	28
78	DEFECT STRUCTURE OF COPPER DOPED POTASSIUM NIOBATE CERAMICS. Functional Materials Letters, 2010, 03, 19-24.	1.2	26
79	Morphology Dependency of Li3V2(PO4)3/C Cathode Material Regarding to Rate Capability and Cycle Life in Lithium-ion Batteries. Electrochimica Acta, 2017, 232, 310-322.	5.2	26
80	Interaction and Reaction of Ethylene and Oxygen on Six-Atom Silver Clusters Supported on LTA Zeolite. Journal of Physical Chemistry C, 2009, 113, 19623-19632.	3.1	25
81	Limitation of Discharge Capacity and Mechanisms of Airâ€Electrode Deactivation in Siliconâ€“Air Batteries. ChemSusChem, 2012, 5, 2278-2285.	6.8	25
82	Sol Gel vs Solid State Synthesis of the Fast Lithium-Ion Conducting Solid State Electrolyte Li₇La₃Zr₂O₁₂Substituted withÂIron. Journal of the Electrochemical Society, 2019, 166, A5403-A5409.	2.9	25
83	Double layer capacitances analysed with impedance spectroscopy and cyclic voltammetry: validity and limits of the constant phase element parameterization. Physical Chemistry Chemical Physics, 2021, 23, 21097-21105.	2.8	25
84	CuO-doped NaNbO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>antiferroelectrics: Impact of aliovalent doping and nonstoichiometry on the defect structure and formation of secondary phases. Physical Review B, 2011, 84, .	3.2	24
85	Defect structure of non-stoichiometric and aliovalently doped perovskite oxides. Materials Technology, 2013, 28, 241-246.	3.0	24
86	High Power and High Capacity 3D-Structured TiO₂Electrodes for Lithium-Ion Microbatteries. Journal of the Electrochemical Society, 2016, 163, A2385-A2389.	2.9	24
87	Powerâ€toâ€Syngas â€“ eine SchlÃ¼sseltechnologie fÃ¼r die Umstellung des Energiesystems?. Angewandte Chemie, 2017, 129, 5488-5498.	2.0	24
88	Monitoring local redox processes in LiNi0.5Mn1.5O4 battery cathode material by in operando EPR spectroscopy. Journal of Chemical Physics, 2018, 148, 014705.	3.0	23
89	Carbonisation temperature dependence of electrochemical activity of nitrogen-doped carbon fibres from electrospinning as air-cathodes for aqueous-alkaline metalâ€“air batteries. RSC Advances, 2019, 9, 27231-27241.	3.6	23
90	In operando EPR investigation of redox mechanisms in LiCoO2. Chemical Physics Letters, 2019, 716, 231-236.	2.6	23

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91	All-ceramic Li batteries based on garnet structured Li₇La₃Zr₂O₁₂. Materials Technology, 2020, 35, 656-674.	3.0	22
92	Influence of Al Alloying on the Electrochemical Behavior of Zn Electrodes for Znâ€“Air Batteries With Neutral Sodium Chloride Electrolyte. Frontiers in Chemistry, 2019, 7, 800.	3.6	21
93	Reference electrode assembly and its use in the study of fluorohydrogenate ionic liquid silicon electrochemistry. Physical Chemistry Chemical Physics, 2013, 15, 17837.	2.8	19
94	LiTi₂(PO₄)₃/C Anode Material with a Spindleâ€Like Morphology for Batteries with High Rate Capability and Improved Cycle Life. ChemElectroChem, 2016, 3, 1157-1169.	3.4	19
95	Analysis of the effects of different carbon coating strategies on structure and electrochemical behavior of LiCoPO4 material as a high-voltage cathode electrode for lithium ion batteries. Electrochimica Acta, 2018, 279, 108-117.	5.2	19
96	Electrochemical and Electronic Charge Transport Properties of Ni-Doped LiMn2O4 Spinel Obtained from Polyol-Mediated Synthesis. Materials, 2018, 11, 806.	2.9	19
97	High-Temperature Co-Electrolysis: A Versatile Method to Sustainably Produce Tailored Syngas Compositions. Journal of the Electrochemical Society, 2019, 166, F971-F975.	2.9	19
98	Morphology-controllable synthesis of LiCoPO4 and its influence on electrochemical performance for high-voltage lithium ion batteries. Journal of Power Sources, 2020, 450, 227726.	7.8	19
99	Electron paramagnetic resonance studies of a platinum cluster in Linde L and faujasite zeolites. Physical Chemistry Chemical Physics, 2003, 5, 3076.	2.8	18
100	Local coordination of Fe3+ in Li[Co0.98Fe0.02]O2 as cathode material for lithium ion batteriesâ€"multi-frequency EPR and Monte-Carlo Newman-superposition model analysis. Physical Chemistry Chemical Physics, 2011, 13, 9344.	2.8	18
101	Processing of Al-doped ZnO protective thin films on aluminum current collectors for lithium ion batteries. Thin Solid Films, 2016, 619, 302-307.	1.8	18
102	Influence of Dopant Type and Orientation of Silicon Anodes on Performance, Efficiency and Corrosion of Siliconâ€“Air Cells with EMIm(HF)_{2.3}F Electrolyte. Journal of the Electrochemical Society, 2017, 164, A2310-A2320.	2.9	18
103	Performance and Degradation of Electrolyte-Supported Single Cell Composed of Mo-Au-Ni/GDC Fuel Electrode and LSCF Oxygen Electrode during High Temperature Steam Electrolysis. Energies, 2022, 15, 2726.	3.1	18
104	Nitrogen oxide reaction with six-atom silver clusters supported on LTA zeolite. Physical Chemistry Chemical Physics, 2009, 11, 6664.	2.8	17
105	High-Frequency EPR Analysis of MnO₂-Doped [Bi_{0.5}Na_{0.5}]TiO₃-BaTiO₃Piezoelectric Ceramics â€“ Manganese Oxidation States and Materials â€˜Hardeningâ€™. Ferroelectrics, 2012, 428, 116-121.	0.6	17
106	Support Effects on Hydrogen Desorption, Isotope Exchange, Chemical Reactivity, and Magnetism of Platinum Nanoclusters in KL Zeolite. Journal of Physical Chemistry C, 2013, 117, 22732-22745.	3.1	17
107	Observing different modes of mobility in lithium titanate spinel by nuclear magnetic resonance. RSC Advances, 2017, 7, 25276-25284.	3.6	17
108	Photoelectrochemical application of thinâ€film silicon tripleâ€junction solar cell in batteries. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1926-1931.	1.8	16

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109	Electrochemical analysis and mixed potentials theory of ionic liquid based Metalâ€“Air batteries with Al/Si alloy anodes. Electrochimica Acta, 2018, 276, 399-411.	5.2	16
110	Electron-Zeeman Resolved Electron Paramagnetic Resonance Spectroscopy. Journal of Magnetic Resonance, 2001, 152, 276-287.	2.1	15
111	DEFECT STRUCTURE IN "SOFT" (Gd,Fe)-CODOPED PZT 52.5/47.5 PIEZOELECTRIC CERAMICS. Functional Materials Letters, 2008, 01, 7-11.	1.2	15
112	Mixed Ionicâ€“Electronic Conducting Li4Ti5O12 as Anode Material for Lithium Ion Batteries with Enhanced Rate Capability â€“ Impact of Oxygen Non-Stoichiometry and Aliovalent Mg2+-Doping Studied by Electron Paramagnetic Resonance. Zeitschrift Fur Physikalische Chemie, 2015, 229, 1439-1450.	2.8	15
113	Investigation of the corrosion behavior of highly As-doped crystalline Si in alkaline Siâ€“air batteries. Electrochimica Acta, 2018, 265, 292-302.	5.2	15
114	Anisotropy of the mechanical properties of Li1Â·3Al0Â·3Ti1Â·7(PO4)3 solid electrolyte material. Journal of Power Sources, 2019, 437, 226940.	7.8	15
115	Investigation of the Liâ€“Co antisite exchange in Fe-substituted LiCoPO4 cathode for high-voltage lithium ion batteries. Energy Storage Materials, 2019, 22, 138-146.	18.0	15
116	Control of oxygen-to-carbon ratio and fuel utilization with regard to solid oxide fuel cell systems with anode exhaust gas recirculation: A review. Journal of Power Sources, 2022, 524, 231077.	7.8	15
117	Secondary-Phase Formation in Spinel-Type LiMn2O4-Cathode Materials for Lithium-Ion Batteries: Quantifying Trace Amounts of Li2MnO3 by Electron Paramagnetic Resonance Spectroscopy. Applied Magnetic Resonance, 2018, 49, 415-427.	1.2	14
118	Impact of the charging conditions on the discharge performance of rechargeable iron-anodes for alkaline ironâ€“air batteries. Journal of Applied Electrochemistry, 2018, 48, 451-462.	2.9	14
119	Flexible All-Solid-State Li-Ion Battery Manufacturable in Ambient Atmosphere. ACS Applied Materials & Interfaces, 2020, 12, 37067-37078.	8.0	14
120	Operando Transmission Electron Microscopy Study of All-Solid-State Battery Interface: Redistribution of Lithium among Interconnected Particles. ACS Applied Energy Materials, 2020, 3, 5101-5106.	5.1	14
121	ZnFe2O4 hollow rods enabling accelerated polysulfide conversion for advanced lithium-sulfur batteries. Electrochimica Acta, 2022, 414, 140231.	5.2	14
122	Single-Ion-Conducting â€œPolymer-in-Ceramicâ€•Hybrid Electrolyte with an Intertwined NASICON-Type Nanofiber Skeleton. ACS Applied Materials & Interfaces, 2021, 13, 61067-61077.	8.0	14
123	SPACE-CHARGE LAYER, INTRINSIC "BULK" AND SURFACE COMPLEX DEFECTS IN ZnO NANOPARTICLES â€” A HIGH-FIELD ELECTRON PARAMAGNETIC RESONANCE ANALYSIS. Functional Materials Letters, 2013, 06, 1330004.	1.2	13
124	Erosion behavior of Y₂O₃ in fluorineâ€based etching plasmas: Orientation dependency and reaction layer formation. Journal of the American Ceramic Society, 2021, 104, 1465-1474.	3.8	13
125	Integrated Coâ€Electrolysis and Syngas Methanation for the Direct Production of Synthetic Natural Gas from CO₂ and H₂O. ChemSusChem, 2021, 14, 2295-2302.	6.8	13
126	Fabrication and interfacial characterization of Ni-rich thin-film cathodes for stable Li-ion batteries. Electrochimica Acta, 2021, 398, 139316.	5.2	13

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127	Characterization of the high-spin Mn 2â€‰+ -functional centre in BaTiO_3 by means of right-angle wiggling electron paramagnetic resonance spectroscopy. Molecular Physics, 2007, 105, 2195-2201.	1.7	12
128	Characterization of tetravalent vanadium functional centres in metal oxides derived from a spin-Hamiltonian analysis. Molecular Physics, 2012, 110, 277-282.	1.7	12
129	Electrode thickness-dependent formation of porous iron electrodes for secondary alkaline iron-air batteries. Electrochimica Acta, 2019, 314, 61-71.	5.2	12
130	Direct Solid Oxide Electrolysis of Carbon Dioxide: Analysis of Performance and Processes. Processes, 2020, 8, 1390.	2.8	12
131	Atomic-scale investigation of Na3V2(PO4)3 formation process in chemical infiltration via in situ transmission electron microscope for solid-state sodium batteries. Nano Energy, 2021, 87, 106144.	16.0	12
132	Instability of the Li₇SiPS₈ Solid Electrolyte at the Lithium Metal Anode and Interphase Formation. Chemistry of Materials, 2022, 34, 3659-3669.	6.7	12
133	Right-angle wiggling electron paramagnetic resonance spectroscopy. Journal of Chemical Physics, 2001, 115, 9126-9135.	3.0	11
134	Eu²⁺-doped CsBr photostimulable X-ray storage phosphors â€” analysis of defect structure by high-frequency EPR. Functional Materials Letters, 2014, 07, 1350073.	1.2	11
135	Influence of PbO stoichiometry on the properties of PZT ceramics and multilayer actuators. Journal of the American Ceramic Society, 2019, 102, 5401-5414.	3.8	11
136	Analysis on discharge behavior and performance of As- and B-doped silicon anodes in non-aqueous Siâ€“air batteries under pulsed discharge operation. Journal of Applied Electrochemistry, 2020, 50, 93-109.	2.9	11
137	Transient morphology of lithium anodes in batteries monitored by in operando pulse electron paramagnetic resonance. Communications Materials, 2021, 2, .	6.9	11
138	Formation of a Stable Solid-Electrolyte Interphase at Metallic Lithium Anodes Induced by LiNbO₃ Protective Layers. ACS Applied Energy Materials, 2021, 4, 10333-10343.	5.1	11
139	Structural Study of Polyacrylonitrile-Based Carbon Nanofibers for Understanding Gas Adsorption. ACS Applied Materials & Interfaces, 2021, 13, 46665-46670.	8.0	11
140	Quantifying local pH changes in carbonate electrolyte during copper-catalysed $$hbox {CO}_2$$ electroreduction using in operando $$^{13}hbox {C}$$ NMR. Scientific Reports, 2022, 12, 8274.	3.3	11
141	Analyzing the defect structure of CuO-Doped PZT and KNN piezoelectrics from electron paramagnetic resonance. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 1447-1455.	3.0	10
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