Rdiger-Albert Eichel

List of Publications by Year in Descending Order

196 papers	4,482 citations	36 h-index	58 g-index
233 ext. papers	5,463 ext. citations	5.9 avg, IF	6.03 L-index

#	Paper	IF	Citations
196	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	8.9	2
195	The role of the double layer for the pseudocapacitance of the hydrogen adsorption on platinum.. *Scientific Reports*, **2022**, 12, 3375	4.9	0
194	Boundary Investigation of High-Temperature Co-Electrolysis Towards Direct CO2 Electrolysis. *Journal of the Electrochemical Society*, **2022**, 169, 034531	3.9	0
193	Sr Substituted La2SrxNi0.8Co0.2O4+(0 x 0.8): Impact on Oxygen Stoichiometry and Electrochemical Properties. *Energies*, **2022**, 15, 2136	3.1	
192	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	2
191	ZnFe2O4 hollow rods enabling accelerated polysulfide conversion for advanced lithium-sulfur batteries. *Electrochimica Acta*, **2022**, 414, 140231	6.7	1
190	Soft-sensor based operation of a solid oxide fuel cell system with anode exhaust gas recirculation. *Journal of Power Sources*, **2022**, 532, 231354	8.9	
189	Li+ concentration waves in a liquid electrolyte of Li-ion batteries with porous graphite-based electrodes. *Energy Storage Materials*, **2022**, 48, 475-486	19.4	0
188	Exploring the Solvation Sphere and Spatial Accumulation of Dissolved Transition-Metal Ions in Batteries: A Case Study of Vanadyl Ions Released from V2O5 Cathodes. *ACS Applied Energy Materials*, **2022**, 5, 449-460	6.1	2
187	Ion transport and limited currents in supporting electrolytes and ionic liquids.. *Scientific Reports*, **2022**, 12, 6215	4.9	0
186	Active Interphase Enables Stable Performance for an All-Phosphate-Based Composite Cathode in an All-Solid-State Battery.. *Small*, **2022**, e2200266	11	1
185	Quantifying local pH changes in carbonate electrolyte during copper-catalysed [Formula: see text] electroreduction using in operando [Formula: see text] NMR.. *Scientific Reports*, **2022**, 12, 8274	4.9	
184	Independent component analysis combined with Laplace inversion of spectrally resolved spin-alignment echo/T 1 3D 7Li NMR of superionic Li10GeP2S12. *Zeitschrift Fur Physikalische Chemie* , **2021**,	3.1	1
183	A Review of Degradation Mechanisms and Recent Achievements for Ni-Rich Cathode-Based Li-Ion Batteries. *Advanced Energy Materials*, **2021**, 11, 2103005	21.8	29
182	Microstructural details of spindle-like lithium titanium phosphate revealed in three dimensions.. *RSC Advances*, **2021**, 11, 34605-34612	3.7	
181	The effect of cobalt on morphology, structure, and ORR activity of electrospun carbon fibre mats in aqueous alkaline environments. *Beilstein Journal of Nanotechnology*, **2021**, 12, 1173-1186	3	
180	Physicochemical Mechanisms of the Double-Layer Capacitance Dispersion and Dynamics: An Impedance Analysis. *Journal of Physical Chemistry C*, **2021**, 125, 5870-5879	3.8	3

179	Enhanced sulfur utilization in lithium-sulfur batteries by hybrid modified separators. *Materials Today Communications*, **2021**, 26, 102133	2.5	1
178	Oxygen Nonstoichiometry and Valence State of Manganese in La Ca MnO. *ACS Omega*, **2021**, 6, 9638-9652	3.9	3
177	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	8.9	11
176	Integrated Co-Electrolysis and Syngas Methanation for the Direct Production of Synthetic Natural Gas from CO and H O. *ChemSusChem*, **2021**, 14, 2295-2302	8.3	3
175	Study of CO2 Sorption Kinetics on Electrospun Polyacrylonitrile-Based Carbon Nanofibers. *Chemical Engineering and Technology*, **2021**, 44, 1168-1177	2	0
174	An electrochemical cell for in operando ¹³C nuclear magnetic resonance investigations of carbon dioxide/carbonate processes in aqueous solution. *Magnetic Resonance*, **2021**, 2, 265-280	2.9	2
173	Nano-Scale Complexions Facilitate Li Dendrite-Free Operation in LATP Solid-State Electrolyte. *Advanced Energy Materials*, **2021**, 11, 2100707	21.8	13
172	Ultrathin 2D Fe-Nanosheets Stabilized by 2D Mesoporous Silica: Synthesis and Application in Ammonia Synthesis. *ACS Applied Materials & Interfaces*, **2021**, 13, 30187-30197	9.5	1
171	Lithium deposition in single-ion conducting polymer electrolytes. *Cell Reports Physical Science*, **2021**, 2, 100496	6.1	3
170	Host Materials Anchoring Polysulfides in Li S Batteries Reviewed. *Advanced Energy Materials*, **2021**, 11, 2001304	21.8	91
169	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	8.9	5
168	Erosion behavior of Y2O3 in fluorine-based etching plasmas: Orientation dependency and reaction layer formation. *Journal of the American Ceramic Society*, **2021**, 104, 1465-1474	3.8	3
167	Polyethylene oxide-Li6.5La3Zr1.5Ta0.5O12 hybrid electrolytes: Lithium salt concentration and biopolymer blending. *Electrochemical Science Advances*, **2021**, 1, e2000029		2
166	Exploring the Interface of Skin-Layered Titanium Fibers for Electrochemical Water Splitting. *Advanced Energy Materials*, **2021**, 11, 2002926	21.8	17
165	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	3.6	3
164	Transient morphology of lithium anodes in batteries monitored by in operando pulse electron paramagnetic resonance. *Communications Materials*, **2021**, 2,	6	6
163	Interface Aspects in All-Solid-State Li-Based Batteries Reviewed. *Advanced Energy Materials*, **2021**, 11, 2003939	21.8	18
162	Signal Origin of Electrochemical Strain Microscopy and Link to Local Chemical Distribution in Solid State Electrolytes.. *Small Methods*, **2021**, 5, e2001279	12.8	4

161	Analysis of the DRT as Evaluation Tool for EIS Data Analysis. *ECS Meeting Abstracts*, **2021**, MA2021-03, 61-61	0	
160	Analysis of the DRT as Evaluation Tool for EIS Data Analysis. *ECS Transactions*, **2021**, 103, 1403-1412	1	2
159	Complexions at the Electrolyte/Electrode Interface in Solid Oxide Cells. *Advanced Materials Interfaces*, **2021**, 8, 2100967	4.6	0
158	Fracture behavior of solid electrolyte LATP material based on micro-pillar splitting method. *Journal of the European Ceramic Society*, **2021**, 41, 5240-5247	6	1
157	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	17.1	6
156	Formation of a Stable Solid-Electrolyte Interphase at Metallic Lithium Anodes Induced by LiNbO3 Protective Layers. *ACS Applied Energy Materials*, **2021**, 4, 10333-10343	6.1	3
155	Structural Study of Polyacrylonitrile-Based Carbon Nanofibers for Understanding Gas Adsorption. *ACS Applied Materials & Interfaces*, **2021**, 13, 46665-46670	9.5	1
154	Fabrication and interfacial characterization of Ni-rich thin-film cathodes for stable Li-ion batteries. *Electrochimica Acta*, **2021**, 398, 139316	6.7	5
153	Overpotential analysis of graphite-based Li-ion batteries seen from a porous electrode modeling perspective. *Journal of Power Sources*, **2021**, 509, 230345	8.9	1
152	Single-Ion-Conducting "Polymer-in-Ceramic" Hybrid Electrolyte with an Intertwined NASICON-Type Nanofiber Skeleton.. *ACS Applied Materials & Interfaces*, **2021**, 13, 61067-61077	9.5	3
151	Defects and Phase Formation in Non-Stoichiometric LaFeO3: a Combined Theoretical and Experimental Study. *Chemistry of Materials*, **2021**, 33, 9473-9485	9.6	3
150	On the reaction rate distribution in porous electrodes. *Electrochemistry Communications*, **2020**, 121, 106865	5.1	3
149	Direct Solid Oxide Electrolysis of Carbon Dioxide: Analysis of Performance and Processes. *Processes* , **2020**, 8, 1390	2.9	4
148	Post-Test Raman Investigation of Silver Based Gas Diffusion Electrodes. *Journal of the Electrochemical Society*, **2020**, 167, 086505	3.9	2
147	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	6.1	8
146	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	6.1	14
145	Tailored Gas Adsorption Properties of Electrospun Carbon Nanofibers for Gas Separation and Storage. *ChemSusChem*, **2020**, 13, 3180-3191	8.3	16
144	Sustainable Syngas Production by High-Temperature Co-electrolysis. *Chemie-Ingenieur-Technik*, **2020**, 92, 40-44	0.8	4

143	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	10.7	12
142	Morphology-controllable synthesis of LiCoPO4 and its influence on electrochemical performance for high-voltage lithium ion batteries. *Journal of Power Sources*, **2020**, 450, 227726	8.9	10
141	All-ceramic Li batteries based on garnet structured Li7La3Zr2O12. *Materials Technology*, **2020**, 35, 656-674	1.1	13
140	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	6.1	15
139	Analysis on discharge behavior and performance of As- and B-doped silicon anodes in non-aqueous Si□air batteries under pulsed discharge operation. *Journal of Applied Electrochemistry*, **2020**, 50, 93-109	2.6	4
138	Flexible All-Solid-State Li-Ion Battery Manufacturable in Ambient Atmosphere. *ACS Applied Materials & Interfaces*, **2020**, 12, 37067-37078	9.5	7
137	Accessing Lithium□Oxygen Battery Discharge Products in Their Native Environments via Transmission Electron Microscopy Grid Electrode. *ACS Applied Energy Materials*, **2020**, 3, 9509-9515	6.1	3
136	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	6.1	23
135	Carbonisation temperature dependence of electrochemical activity of nitrogen-doped carbon fibres from electrospinning as air-cathodes for aqueous-alkaline metal-air batteries.. *RSC Advances*, **2019**, 9, 27231-27241	3.7	9
134	High-Temperature Co-Electrolysis: A Versatile Method to Sustainably Produce Tailored Syngas Compositions. *Journal of the Electrochemical Society*, **2019**, 166, F971-F975	3.9	9
133	Insights into Water Interaction at the Interface of Nitrogen-Functionalized Hydrothermal Carbons. *Journal of Physical Chemistry C*, **2019**, 123, 25146-25156	3.8	6
132	Sol Gel vs Solid State Synthesis of the Fast Lithium-Ion Conducting Solid State Electrolyte Li7La3Zr2O12Substituted with□ron. *Journal of the Electrochemical Society*, **2019**, 166, A5403-A5409	3.9	17
131	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	13	48
130	Electrode thickness-dependent formation of porous iron electrodes for secondary alkaline iron-air batteries. *Electrochimica Acta*, **2019**, 314, 61-71	6.7	10
129	Influence of sintering temperature on conductivity and mechanical behavior of the solid electrolyte LATP. *Ceramics International*, **2019**, 45, 14697-14703	5.1	22
128	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	6
127	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	8.9	23
126	Anisotropy of the mechanical properties of Li1□3Al0□3Ti1□7(PO4)3 solid electrolyte material. *Journal of Power Sources*, **2019**, 437, 226940	8.9	11

125	Silicon and Iron as Resource-Efficient Anode Materials for Ambient-Temperature Metal-Air Batteries: A Review. *Materials*, **2019**, 12,	3.5	22
124	Dynamics of [Pyr][TfN] ionic liquid confined to carbon black. *Physical Chemistry Chemical Physics*, **2019**, 21, 17018-17028	3.6	5
123	Investigation of the Li□Co antisite exchange in Fe-substituted LiCoPO4 cathode for high-voltage lithium ion batteries. *Energy Storage Materials*, **2019**, 22, 138-146	19.4	10
122	Double-Shelled Co3O4/C Nanocages Enabling Polysulfides Adsorption for High-Performance Lithium□Sulfur Batteries. *ACS Applied Energy Materials*, **2019**, 2, 8153-8162	6.1	32
121	The carbonization of polyacrylonitrile-derived electrospun carbon nanofibers studied by transmission electron microscopy.. *RSC Advances*, **2019**, 9, 6267-6277	3.7	22
120	Influence of Al Alloying on the Electrochemical Behavior of Zn Electrodes for Zn-Air Batteries With Neutral Sodium Chloride Electrolyte. *Frontiers in Chemistry*, **2019**, 7, 800	5	13
119	In operando EPR investigation of redox mechanisms in LiCoO2. *Chemical Physics Letters*, **2019**, 716, 231-236	2.5	13
118	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	0.8	7
117	Impact of the charging conditions on the discharge performance of rechargeable iron-anodes for alkaline iron□air batteries. *Journal of Applied Electrochemistry*, **2018**, 48, 451-462	2.6	10
116	Long-run in operando NMR to investigate the evolution and degradation of battery cells. *Physical Chemistry Chemical Physics*, **2018**, 20, 13765-13776	3.6	20
115	Investigation of the corrosion behavior of highly As-doped crystalline Si in alkaline Si□air batteries. *Electrochimica Acta*, **2018**, 265, 292-302	6.7	6
114	Monitoring local redox processes in LiNiMnO battery cathode material by in operando EPR spectroscopy. *Journal of Chemical Physics*, **2018**, 148, 014705	3.9	10
113	Electrochemical analysis and mixed potentials theory of ionic liquid based Metal□Air batteries with Al/Si alloy anodes. *Electrochimica Acta*, **2018**, 276, 399-411	6.7	10
112	Electrochemical and Electronic Charge Transport Properties of Ni-Doped LiMn□□Spinel Obtained from Polyol-Mediated Synthesis. *Materials*, **2018**, 11,	3.5	11
111	Monolithic All-Phosphate Solid-State Lithium-Ion Battery with Improved Interfacial Compatibility. *ACS Applied Materials & Interfaces*, **2018**, 10, 22264-22277	9.5	49
110	Temperature-dependent cycling performance and ageing mechanisms of C6/LiNi1/3Mn1/3Co1/3O2 batteries. *Journal of Power Sources*, **2018**, 396, 444-452	8.9	34
109	Modeling the degradation mechanisms of C6/LiFePO4 batteries. *Journal of Power Sources*, **2018**, 375, 106-117	8.9	20
108	Quantitative and time-resolved detection of lithium plating on graphite anodes in lithium ion batteries. *Materials Today*, **2018**, 21, 231-240	21.8	105

107	Transformation of carbon-supported Pt-Ni octahedral electrocatalysts into cubes: toward stable electrocatalysis. *Nanoscale*, **2018**, 10, 21353-21362	7.7	5
106	Thin Film Batteries: Origin of Degradation in Si-Based All-Solid-State Li-Ion Microbatteries (Adv. Energy Mater. 30/2018). *Advanced Energy Materials*, **2018**, 8, 1870134	21.8	1
105	EPR Imaging of Metallic Lithium and its Application to Dendrite Localisation in Battery Separators. *Scientific Reports*, **2018**, 8, 14331	4.9	26
104	Origin of Degradation in Si-Based All-Solid-State Li-Ion Microbatteries. *Advanced Energy Materials*, **2018**, 8, 1801430	21.8	18
103	Monitoring the reaction between lithium manganese spinel and Li2MnO3 during heat treatment using Electron Paramagnetic Resonance (EPR) spectroscopy. *Solid State Ionics*, **2018**, 325, 201-208	3.3	2
102	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	13	34
101	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	6.7	11
100	An Advanced All Phosphate Lithium-Ion Battery Providing High Electrochemical Stability, High Rate Capability and Long-Term Cycling Performance. *Journal of the Electrochemical Society*, **2017**, 164, A370-A379	3.9	7
99	Power-to-Syngas – eine Schlüsseltechnologie für die Umstellung des Energiesystems?. *Angewandte Chemie*, **2017**, 129, 5488-5498	3.6	19
98	Coordination of the Mn4+-Center in Layered Li[Co0.98Mn0.02]O2 Cathode Materials for Lithium-Ion Batteries. *Zeitschrift Fur Physikalische Chemie*, **2017**, 231,	3.1	8
97	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	6.7	23
96	Long run discharge, performance and efficiency of primary Silicon–air cells with alkaline electrolyte. *Electrochimica Acta*, **2017**, 225, 215-224	6.7	18
95	Carbon-coated core–shell Li2S@C nanocomposites as high performance cathode materials for lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2017**, 5, 1428-1433	13	28
94	Observing different modes of mobility in lithium titanate spinel by nuclear magnetic resonance. *RSC Advances*, **2017**, 7, 25276-25284	3.7	14
93	Understanding the nanoscale redox-behavior of iron-anodes for rechargeable iron-air batteries. *Nano Energy*, **2017**, 41, 706-716	17.1	30
92	Superionic bulk conductivity in Li1.3Al0.3Ti1.7(PO4)3 solid electrolyte. *Solid State Ionics*, **2017**, 309, 180-186	3.3	37
91	Co-Electrolysis, Quo Vadis?. *ECS Transactions*, **2017**, 78, 3139-3147	1	5
90	Influence of Dopant Type and Orientation of Silicon Anodes on Performance, Efficiency and Corrosion of Silicon–Air Cells with EMIm(HF)2.3F Electrolyte. *Journal of the Electrochemical Society*, **2017**, 164, A2310-A2320	3.9	8

89	Power-to-Syngas: An Enabling Technology for the Transition of the Energy System?. *Angewandte Chemie - International Edition*, **2017**, 56, 5402-5411	16.4	151
88	Processing of Al-doped ZnO protective thin films on aluminum current collectors for lithium ion batteries. *Thin Solid Films*, **2016**, 619, 302-307	2.2	14
87	Photoelectrochemical application of thin-film silicon triple-junction solar cell in batteries. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 1926-1931	1.6	11
86	LiTi2(PO4)3/C Anode Material with a Spindle-Like Morphology for Batteries with High Rate Capability and Improved Cycle Life. *ChemElectroChem*, **2016**, 3, 1157-1169	4.3	17
85	Singlet Oxygen Formation during the Charging Process of an Aprotic Lithium-Oxygen Battery. *Angewandte Chemie - International Edition*, **2016**, 55, 6892-5	16.4	115
84	Singlet Oxygen Formation during the Charging Process of an Aprotic Lithium□Oxygen Battery. *Angewandte Chemie*, **2016**, 128, 7006-7009	3.6	71
83	Hydrogen interstitial defects in acceptor-type CuO-doped PbTiO3□Uptake and dissolution of water vapor and formation of (CuTi?[(OH)O]]? defect complexes. *Applied Physics Letters*, **2016**, 109, 122904	3.4	2
82	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	3.9	23
81	Modeling 3D-Deposition of TiO2 Using a Monte Carlo Chemical Kinetics Approach. *Journal of Physical Chemistry C*, **2016**, 120, 23823-23835	3.8	2
80	High Power and High Capacity 3D-Structured TiO2 Electrodes for Lithium-Ion Microbatteries. *Journal of the Electrochemical Society*, **2016**, 163, A2385-A2389	3.9	19
79	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	41
78	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	8.9	25
77	Mixed Ionic□Electronic Conducting Li4Ti5O12 as Anode Material for Lithium Ion Batteries with Enhanced Rate Capability □Impact of Oxygen Non-Stoichiometry and Aliovalent Mg2+-Doping Studied by Electron Paramagnetic Resonance. *Zeitschrift Fur Physikalische Chemie*, **2015**, 229, 1439-1450	3.1	12
76	The Impact of Heat Treatment on the Domain Configuration and Strain Behavior in Pb[Zr,Ti]O3 Ferroelectrics. *Journal of the American Ceramic Society*, **2015**, 98, 269-277	3.8	5
75	Operando electron paramagnetic resonance spectroscopy □formation of mossy lithium on lithium anodes during charge□discharge cycling. *Energy and Environmental Science*, **2015**, 8, 1358-1367	35.4	107
74	Microstructure of sodium-potassium niobate ceramics sintered under high alkaline vapor pressure atmosphere. *Journal of the European Ceramic Society*, **2014**, 34, 4213-4221	6	22
73	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, 1447-55	3.2	9
72	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	8.9	42

71	Eu2+-doped CsBr photostimulable X-ray storage phosphors □analysis of defect structure by high-frequency EPR. *Functional Materials Letters*, **2014**, 07, 1350073	1.2	11
70	SPACE-CHARGE LAYER, INTRINSIC "BULK" AND SURFACE COMPLEX DEFECTS IN ZnO NANOPARTICLES □A HIGH-FIELD ELECTRON PARAMAGNETIC RESONANCE ANALYSIS. *Functional Materials Letters*, **2013**, 06, 1330004	1.2	12
69	Molecular precursor derived and solution processed indium□inc 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	7.1	32
68	Interactions of defect complexes and domain walls in CuO-doped ferroelectric (K,Na)NbO3. *Applied Physics Letters*, **2013**, 102, 242908	3.4	55
67	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	3.8	13
66	Reference electrode assembly and its use in the study of fluorohydrogenate ionic liquid silicon electrochemistry. *Physical Chemistry Chemical Physics*, **2013**, 15, 17837-45	3.6	12
65	New insight into the discharge mechanism of silicon-air batteries using electrochemical impedance spectroscopy. *Physical Chemistry Chemical Physics*, **2013**, 15, 3256-63	3.6	19
64	Defect structure of non-stoichiometric and aliovalently doped perovskite oxides. *Materials Technology*, **2013**, 28, 241-246	2.1	20
63	Limitation of discharge capacity and mechanisms of air-electrode deactivation in silicon-air batteries. *ChemSusChem*, **2012**, 5, 2278-85	8.3	18
62	High-Frequency EPR Analysis of MnO2-Doped [Bi0.5Na0.5]TiO3-BaTiO3 Piezoelectric Ceramics □ Manganese Oxidation States and Materials □Hardening□*Ferroelectrics*, **2012**, 428, 116-121	0.6	11
61	Characterization of non-stoichiometric co-sputtered Ba0.6Sr0.4(Ti (1-x)Fe(x))(1+x)O(3-)□thin films for tunable passive microwave applications. *Analytical and Bioanalytical Chemistry*, **2012**, 403, 643-50	4.4	5
60	Influence of the A/B Stoichiometry on Defect Structure, Sintering, and Microstructure in Undoped and Cu-Doped KNN **2012**, 209-251		1
59	Characterization of tetravalent vanadium functional centres in metal oxides derived from a spin-Hamiltonian analysis. *Molecular Physics*, **2012**, 110, 277-282	1.7	11
58	Structural and dynamic properties of oxygen vacancies in perovskite oxides--analysis of defect chemistry by modern multi-frequency and pulsed EPR techniques. *Physical Chemistry Chemical Physics*, **2011**, 13, 368-84	3.6	174
57	Manganese-doped (1□)BiScO3□PbTiO3 high-temperature ferroelectrics: Defect structure and mechanism of enhanced electric resistivity. *Physical Review B*, **2011**, 84,	3.3	36
56	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	63
55	CuO as a sintering additive for (Bi1/2Na1/2)TiO3□BaTiO3□(K0.5Na0.5)NbO3 lead-free piezoceramics. *Journal of the European Ceramic Society*, **2011**, 31, 2107-2117	6	58
54	CuO-doped NaNbO3 antiferroelectrics: Impact of aliovalent doping and nonstoichiometry on the defect structure and formation of secondary phases. *Physical Review B*, **2011**, 84,	3.3	23

53	Defect structure of the mixed ionic–electronic conducting Sr[Ti,Fe]Ox solid-solution system – Change in iron oxidation states and defect complexation. *Solid State Ionics*, **2011**, 184, 47-51	3.3	33
52	Interplay between defect structure and catalytic activity in the Mo(10-x)V(x)O(y) mixed-oxide system. *ChemPhysChem*, **2011**, 12, 3578-83	3.2	5
51	Local coordination of Fe3+ in Li[Co(0.98)Fe(0.02)]O2 as cathode material for lithium ion batteries-multi-frequency EPR and Monte-Carlo Newman-superposition model analysis. *Physical Chemistry Chemical Physics*, **2011**, 13, 9344-52	3.6	16
50	Position of defects with respect to domain walls in Fe3+-doped Pb[Zr0.52Ti0.48]O3 piezoelectric ceramics. *Applied Physics Letters*, **2011**, 98, 072907	3.4	64
49	FORMATION OF $({rm Ti}'_{rm Ti} - V_{rm O}^{bullet bullet})^{bullet}$ DEFECT DIPOLES IN BaTiO3 CERAMICS HEAT-TREATED UNDER REDUCED OXYGEN PARTIAL-PRESSURE. *Functional Materials Letters*, **2010**, 03, 65-68	1.2	27
48	Effect of Nb-donor and Fe-acceptor dopants in (Bi1/2Na1/2)TiO3–BaTiO3–(K0.5Na0.5)NbO3 lead-free piezoceramics. *Journal of Applied Physics*, **2010**, 108, 014110	2.5	66
47	DEFECT STRUCTURE OF COPPER DOPED POTASSIUM NIOBATE CERAMICS. *Functional Materials Letters*, **2010**, 03, 19-24	1.2	26
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