Joachim Maier

List of Publications by Year
in descending order

391 papers	49,730 citations	1231 110 h-index	1745 212 g-index
403 all docs	403 docs citations	403 times ranked	33150 citing authors

#	Article	IF	Citations
1	Nanoionics: ion transport and electrochemical storage in confined systems. Nature Materials, 2005, 4, 805-815.	13.3	1,356
2	Guidelines and trends for next-generation rechargeable lithium and lithium-ion batteries. Chemical Society Reviews, 2020, 49, 1569-1614.	18.7	1,326
3	Efficient Synthesis of Heteroatom (N or S)â€Doped Graphene Based on Ultrathin Graphene Oxideâ€Porous Silica Sheets for Oxygen Reduction Reactions. Advanced Functional Materials, 2012, 22, 3634-3640.	7.8	1,180
4	Mixedâ€Organicâ€Cation Perovskite Photovoltaics for Enhanced Solarâ€Light Harvesting. Angewandte Chemie - International Edition, 2014, 53, 3151-3157.	7.2	1,117
5	Lithium Storage in Carbon Nanostructures. Advanced Materials, 2009, 21, 2664-2680.	11.1	1,029
6	Ionic conduction in space charge regions. Progress in Solid State Chemistry, 1995, 23, 171-263.	3.9	1,002
7	Hollow Carbon Nanospheres with Superior Rate Capability for Sodiumâ€Based Batteries. Advanced Energy Materials, 2012, 2, 873-877.	10.2	996
8	Superior Storage Performance of a Si@SiO_{<i>x</i>}/C Nanocomposite as Anode Material for Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2008, 47, 1645-1649.	7.2	910
9	New horizons for inorganic solid state ion conductors. Energy and Environmental Science, 2018, 11, 1945-1976.	15.6	894
10	High Lithium Electroactivity of Nanometer-Sized Rutile TiO2. Advanced Materials, 2006, 18, 1421-1426.	11.1	830
11	Singleâ€Layered Ultrasmall Nanoplates of MoS₂ Embedded in Carbon Nanofibers with Excellent Electrochemical Performance for Lithium and Sodium Storage. Angewandte Chemie - International Edition, 2014, 53, 2152-2156.	7.2	826
12	Mesoscopic fast ion conduction in nanometre-scale planar heterostructures. Nature, 2000, 408, 946-949.	13.7	761
13	Nanocrystallinity effects in lithium battery materials. Physical Chemistry Chemical Physics, 2003, 5, 5215.	1.3	668
14	Synthesis of Hierarchically Porous Carbon Monoliths with Highly Ordered Microstructure and Their Application in Rechargeable Lithium Batteries with Highâ€Rate Capability. Advanced Functional Materials, 2007, 17, 1873-1878.	7.8	664
15	Fully Reversible Homogeneous and Heterogeneous Li Storage in RuO2 with High Capacity. Advanced Functional Materials, 2003, 13, 621-625.	7.8	598
16	Superior Electrode Performance of Nanostructured Mesoporous TiO₂ (Anatase) through Efficient Hierarchical Mixed Conducting Networks. Advanced Materials, 2007, 19, 2087-2091.	11.1	592
17	Proton conducting alkaline earth zirconates and titanates for high drain electrochemical applications. Solid State Ionics, 2001, 145, 295-306.	1.3	575
18	Li-Storage via Heterogeneous Reaction in Selected Binary Metal Fluorides and Oxides. Journal of the Electrochemical Society, 2004, 151, A1878.	1.3	559

#	Article	IF	Citations
19	Reversible Storage of Lithium in Silverâ€Coated Threeâ€Dimensional Macroporous Silicon. Advanced Materials, 2010, 22, 2247-2250.	11.1	558
20	Encapsulation of Sn@carbon Nanoparticles in Bambooâ€like Hollow Carbon Nanofibers as an Anode Material in Lithiumâ€Based Batteries. Angewandte Chemie - International Edition, 2009, 48, 6485-6489.	7.2	551
21	Sustained Lithiumâ€Storage Performance of Hierarchical, Nanoporous Anatase TiO₂ at High Rates: Emphasis on Interfacial Storage Phenomena. Advanced Functional Materials, 2011, 21, 3464-3472.	7.8	543
22	Nitrogen doped porous carbon fibres as anode materials for sodium ion batteries with excellent rate performance. Nanoscale, 2014, 6, 1384-1389.	2.8	542
23	Challenges and Perspectives for NASICONâ€Type Electrode Materials for Advanced Sodiumâ€Ion Batteries. Advanced Materials, 2017, 29, 1700431.	11.1	499
24	Fundamentals, status and promise of sodium-based batteries. Nature Reviews Materials, 2021, 6, 1020-1035.	23.3	496
25	Nanographeneâ€Constructed Hollow Carbon Spheres and Their Favorable Electroactivity with Respect to Lithium Storage. Advanced Materials, 2010, 22, 838-842.	11.1	473
26	Grapheneâ€Based Nanosheets with a Sandwich Structure. Angewandte Chemie - International Edition, 2010, 49, 4795-4799.	7.2	457
27	The Significance of Ion Conduction in a Hybrid Organicâ€“Inorganic Leadâ€Iodideâ€Based Perovskite Photosensitizer. Angewandte Chemie - International Edition, 2015, 54, 7905-7910.	7.2	447
28	Carbon-Coated Na₃V₂(PO₄)₃ Embedded in Porous Carbon Matrix: An Ultrafast Na-Storage Cathode with the Potential of Outperforming Li Cathodes. Nano Letters, 2014, 14, 2175-2180.	4.5	446
29	Large tunable photoeffect on ion conduction in halide perovskites and implications for photodecomposition. Nature Materials, 2018, 17, 445-449.	13.3	410
30	Tin Nanoparticles Encapsulated in Porous Multichannel Carbon Microtubes: Preparation by Single-Nozzle Electrospinning and Application as Anode Material for High-Performance Li-Based Batteries. Journal of the American Chemical Society, 2009, 131, 15984-15985.	6.6	404
31	Towards better Li metal anodes: Challenges and strategies. Materials Today, 2020, 33, 56-74.	8.3	404
32	Uniform yolkâ€“shell Sn₄P₃@C nanospheres as high-capacity and cycle-stable anode materials for sodium-ion batteries. Energy and Environmental Science, 2015, 8, 3531-3538.	15.6	401
33	Generalised equivalent circuits for mass and charge transport: chemical capacitance and its implications. Physical Chemistry Chemical Physics, 2001, 3, 1668-1678.	1.3	396
34	Improved Electrode Performance of Porous LiFePO₄ Using RuO₂ as an Oxidic Nanoscale Interconnect. Advanced Materials, 2007, 19, 1963-1966.	11.1	380
35	Oxygen-Deficient TiO_{2âˆ’Î´} Nanoparticles via Hydrogen Reduction for High Rate Capability Lithium Batteries. Chemistry of Materials, 2012, 24, 543-551.	3.2	373
36	Grain Boundary Blocking Effect in Zirconia: A Schottky Barrier Analysis. Journal of the Electrochemical Society, 2001, 148, E121.	1.3	362

#	Article	IF	Citations
37	Space charge regions in solid two-phase systems and their conduction contributionâ€”I. Conductance enhancement in the system ionic conductor-â€˜inertâ€™ phase and application on AgC1:Al2O3 and AgC1:SiO2. Journal of Physics and Chemistry of Solids, 1985, 46, 309-320.	1.9	341
38	Reversible Formation and Decomposition of LiF Clusters Using Transition Metal Fluorides as Precursors and Their Application in Rechargeable Li Batteries. Advanced Materials, 2003, 15, 736-739.	11.1	334
39	How Is Oxygen Incorporated into Oxides? A Comprehensive Kinetic Study of a Simple Solidâ€State Reaction with SrTiO₃ as a Model Material. Angewandte Chemie - International Edition, 2008, 47, 3874-3894.	7.2	325
40	Dualâ€Functionalized Double Carbon Shells Coated Silicon Nanoparticles for High Performance Lithiumâ€Ion Batteries. Advanced Materials, 2017, 29, 1605650.	11.1	325
41	MOFâ€Derived Hollow Co₉S₈ Nanoparticles Embedded in Graphitic Carbon Nanocages with Superior Liâ€Ion Storage. Small, 2016, 12, 2354-2364.	5.2	306
42	On the Conductivity Mechanism of Nanocrystalline Ceria. Journal of the Electrochemical Society, 2002, 149, J73.	1.3	295
43	Treatment of the Impedance of Mixed Conductors Equivalent Circuit Model and Explicit Approximate Solutions. Journal of the Electrochemical Society, 1999, 146, 4183-4188.	1.3	292
44	Fabrication of Cobalt and Cobalt Oxide/Graphene Composites: Towards Highâ€Performance Anode Materials for Lithium Ion Batteries. ChemSusChem, 2010, 3, 236-239.	3.6	290
45	Blocking Grain Boundaries in Yttriaâ€Doped and Undoped Ceria Ceramics of High Purity. Journal of the American Ceramic Society, 2003, 86, 77-87.	1.9	288
46	Anisotropy of Electronic and Ionic Transport in LiFePO[sub 4] Single Crystals. Electrochemical and Solid-State Letters, 2007, 10, A13.	2.2	287
47	A Germaniumâ€“Carbon Nanocomposite Material for Lithium Batteries. Advanced Materials, 2008, 20, 3079-3083.	11.1	271
48	Electrospun Na3V2(PO4)3/C nanofibers as stable cathode materials for sodium-ion batteries. Nanoscale, 2014, 6, 5081.	2.8	266
49	A new ultrafast superionic Li-conductor: ion dynamics in Li₁₁Si₂PS₁₂and comparison with other tetragonal LGPS-type electrolytes. Physical Chemistry Chemical Physics, 2014, 16, 14669-14674.	1.3	256
50	Energy Storage Materials from Nature through Nanotechnology: A Sustainable Route from Reed Plants to a Silicon Anode for Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2015, 54, 9632-9636.	7.2	245
51	Combined theoretical and experimental analysis of processes determining cathode performance in solid oxide fuel cells. Physical Chemistry Chemical Physics, 2013, 15, 5443.	1.3	240
52	Peapodâ€Like Carbonâ€Encapsulated Cobalt Chalcogenide Nanowires as Cycleâ€Stable and Highâ€Rate Materials for Sodiumâ€Ion Anodes. Advanced Materials, 2016, 28, 7276-7283.	11.1	237
53	The nanoscale circuitry of battery electrodes. Science, 2017, 358, .	6.0	235
54	Synthesis and Electrode Performance of Nanostructured V₂O₅ by Using a Carbon Tubeâ€inâ€Tube as a Nanoreactor and an Efficient Mixedâ€Conducting Network. Angewandte Chemie - International Edition, 2009, 48, 210-214.	7.2	229

#	Article	IF	Citations
55	Electrospinning of Highly Electroactive Carbonâ€Coated Singleâ€Crystalline LiFePO₄ Nanowires. Angewandte Chemie - International Edition, 2011, 50, 6278-6282.	7.2	223
56	Partial Conductivities in SrTiO3: Bulk Polarization Experiments, Oxygen Concentration Cell Measurements, and Defect-Chemical Modeling. Journal of the American Ceramic Society, 1995, 78, 3265-3272.	1.9	219
57	Electrochemical lithiation synthesis of nanoporous materials with superior catalytic and capacitive activity. Nature Materials, 2006, 5, 713-717.	13.3	219
58	Direct Observation of Lithium Staging in Partially Delithiated LiFePO₄ at Atomic Resolution. Journal of the American Chemical Society, 2011, 133, 4661-4663.	6.6	219
59	Hollow Carbon Nanospheres with a High Rate Capability for Lithiumâ€Based Batteries. ChemSusChem, 2012, 5, 400-403.	3.6	215
60	The Nature of Ion Conduction in Methylammonium Lead Iodide: A Multimethod Approach. Angewandte Chemie - International Edition, 2017, 56, 7755-7759.	7.2	213
61	Lowâ€Temperature Ionicâ€Liquidâ€Based Synthesis of Nanostructured Ironâ€Based Fluoride Cathodes for Lithium Batteries. Advanced Materials, 2010, 22, 3650-3654.	11.1	209
62	High Powerâ€“High Energy Sodium Battery Based on Threefold Interpenetrating Network. Advanced Materials, 2016, 28, 2409-2416.	11.1	205
63	Quantitative Comparison of Mixed Conducting SOFC Cathode Materials by Means of Thin Film Model Electrodes. Journal of the Electrochemical Society, 2007, 154, B931.	1.3	204
64	Second Phase Effects on the Conductivity of Non-Aqueous Salt Solutions:â€œSoggy Sand Electrolytesâ€. Advanced Materials, 2004, 16, 811-814.	11.1	202
65	Carbonâ€Encapsulated Pyrite as Stable and Earthâ€Abundant High Energy Cathode Material for Rechargeable Lithium Batteries. Advanced Materials, 2014, 26, 6025-6030.	11.1	201
66	Evidence for Interfacial-Storage Anomaly in Nanocomposites for Lithium Batteries from First-Principles Simulations. Physical Review Letters, 2006, 96, 058302.	2.9	200
67	Mixedâ€Conducting Perovskites as Cathode Materials for Protonic Ceramic Fuel Cells: Understanding the Trends in Proton Uptake. Advanced Functional Materials, 2018, 28, 1801241.	7.8	198
68	Defect Chemistry and Conductivity Effects in Heterogeneous Solid Electrolytes. Journal of the Electrochemical Society, 1987, 134, 1524-1535.	1.3	196
69	Defect chemistry and ion transport in nanostructured materials Part II. Aspects of nanoionics. Solid State Ionics, 2003, 157, 327-334.	1.3	193
70	Symbiotic Coaxial Nanocables: Facile Synthesis and an Efficient and Elegant Morphological Solution to the Lithium Storage Problem. Chemistry of Materials, 2010, 22, 1908-1914.	3.2	193
71	Precursorâ€Controlled Formation of Novel Carbon/Metal and Carbon/Metal Oxide Nanocomposites. Advanced Materials, 2008, 20, 1727-1731.	11.1	192
72	Enhanced Potential of Amorphous Electrode Materials: Case Study of RuO₂. Advanced Materials, 2008, 20, 501-505.	11.1	185

#	Article	IF	Citations
73	Ionic and electronic transport in single crystalline LiFePO4 grown by optical floating zone technique. Solid State Ionics, 2008, 179, 1683-1687.	1.3	183
74	Electron and Ion Transport In Li₂O₂. Advanced Materials, 2013, 25, 3129-3133.	11.1	182
75	Thermodynamics of Electrochemical Lithium Storage. Angewandte Chemie - International Edition, 2013, 52, 4998-5026.	7.2	181
76	Transforming Hybrid Organic Inorganic Perovskites by Rapid Halide Exchange. Chemistry of Materials, 2015, 27, 2181-2188.	3.2	179
77	A Oneâ€Step Approach Towards Carbonâ€Encapsulated Hollow Tin Nanoparticles and Their Application in Lithium Batteries. Small, 2007, 3, 2066-2069.	5.2	178
78	Electrochemical Investigations of SrTiO3 Boundaries. Journal of the Electrochemical Society, 1997, 144, 3526-3536.	1.3	177
79	On the correlation of macroscopic and microscopic rate constants in solid state chemistry. Solid State Ionics, 1998, 112, 197-228.	1.3	177
80	An FeF₃Â·0.5H₂O Polytype: A Microporous Framework Compound with Intersecting Tunnels for Li and Na Batteries. Journal of the American Chemical Society, 2013, 135, 11425-11428.	6.6	177
81	On the Conductivity of Polycrystalline Materials. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1986, 90, 26-33.	0.9	176
82	Characterization of adsorbed water layers on Y2O3-doped ZrO2. Solid State Ionics, 2001, 143, 181-204.	1.3	160
83	Pathways for Oxygen Incorporation in Mixed Conducting Perovskites: A DFT-Based Mechanistic Analysis for (La, Sr)MnO_{3â^'Î´}. Journal of Physical Chemistry C, 2010, 114, 3017-3027.	1.5	160
84	Fast Li Storage in MoS₂â€Grapheneâ€Carbon Nanotube Nanocomposites: Advantageous Functional Integration of 0D, 1D, and 2D Nanostructures. Advanced Energy Materials, 2015, 5, 1401170.	10.2	155
85	Space charge conduction: Simple analytical solutions for ionic and mixed conductors and application to nanocrystalline ceria. Physical Chemistry Chemical Physics, 2003, 5, 2268-2273.	1.3	154
86	Three-dimensionally interconnected nickelâ€"antimony intermetallic hollow nanospheres as anode material for high-rate sodium-ion batteries. Nano Energy, 2015, 16, 389-398.	8.2	150
87	Carbon Nanotube Wiring of Electrodes for High-Rate Lithium Batteries Using an Imidazolium-Based Ionic Liquid Precursor as Dispersant and Binder: A Case Study on Iron Fluoride Nanoparticles. ACS Nano, 2011, 5, 2930-2938.	7.3	149
88	A Mesoporous Ironâ€Based Fluoride Cathode of Tunnel Structure for Rechargeable Lithium Batteries. Advanced Functional Materials, 2011, 21, 1391-1397.	7.8	149
89	Ultrafast lithium diffusion in bilayer graphene. Nature Nanotechnology, 2017, 12, 895-900.	15.6	149
90	High Lithium Storage Performance of FeS Nanodots in Porous Graphitic Carbon Nanowires. Advanced Functional Materials, 2015, 25, 2335-2342.	7.8	148

#	Article	IF	Citations
91	Nanoionics: ionic charge carriers in small systems. Physical Chemistry Chemical Physics, 2009, 11, 3011.	1.3	144
92	The Significance of Ion Conduction in a Hybrid Organicâ€"Inorganic Leadâ€Iodideâ€Based Perovskite Photosensitizer. Angewandte Chemie, 2015, 127, 8016-8021.	1.6	143
93	Ion conduction and redistribution at grain boundaries in oxide systems. Progress in Materials Science, 2017, 89, 252-305.	16.0	143
94	A High Powerâ€"High Energy Na₃V₂(PO₄)₂F₃ Sodium Cathode: Investigation of Transport Parameters, Rational Design and Realization. Chemistry of Materials, 2017, 29, 5207-5215.	3.2	141
95	Interaction of oxygen with halide perovskites. Journal of Materials Chemistry A, 2018, 6, 10847-10855.	5.2	140
96	Li₇PS₆ and Li₆PS₅<i>X</i> (<i>X</i>: Cl, Br, I): Possible Threeâ€dimensional Diffusion Pathways for Lithium Ions and Temperature Dependence of the Ionic Conductivity by Impedance Measurements. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2011, 637, 1287-1294.	0.6	133
97	A quantum molecular dynamics study of proton conduction phenomena in BaCeO3. Solid State Ionics, 1996, 86-88, 647-652.	1.3	131
98	Hydrothermal carbon spheres containing silicon nanoparticles: synthesis and lithium storage performance. Chemical Communications, 2008, , 3759.	2.2	131
99	Microcontact Impedance Spectroscopy at Single Grain Boundaries in Feâ€Doped SrTiO₃ Polycrystals. Journal of the American Ceramic Society, 2001, 84, 521-530.	1.9	126
100	Local and overall ionic conductivity in nanocrystalline CaF2. Solid State Ionics, 2000, 131, 159-164.	1.3	123
101	Jahn-Teller distortion around<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi mathvariant="normal">Fe</mml:mi><mml:mrow><mml:mn>4</mml:mn><mml:mo>+</mml:mo></mml:mrow></mml:msup></mml:mat xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi		

#	Article	IF	Citations
109	Oxygen incorporation into Fe-doped SrTiO3: Mechanistic interpretation of the surface reaction. Physical Chemistry Chemical Physics, 2002, 4, 4140-4148.	1.3	113
110	Extremely High Silver Ionic Conductivity in Composites of Silver Halide (AgBr, AgI) and Mesoporous Alumina. Advanced Functional Materials, 2006, 16, 525-530.	7.8	111
111	Formation and migration of oxygen vacancies in La_{1â^'x}Sr_xCo_{1â^'y}Fe_yO_{3â^'Î´}perovskites: insight from ab initio calculations and comparison with Ba_{1â^'x}Sr_xCo_{1â^'y}Fe_yO_{3â^'Î´}. Physical Chemistry Chemical Physics, 2013, 15, 911-918.	1.3	111
112	A Highâ€Capacity Cathode for Lithium Batteries Consisting of Porous Microspheres of Highly Amorphized Iron Fluoride Densified from Its Open Parent Phase. Advanced Energy Materials, 2013, 3, 113-119.	10.2	111
113	Defect Chemistry: Composition, Transport, and Reactions in the Solid State; Part I: Thermodynamics. Angewandte Chemie International Edition in English, 1993, 32, 313-335.	4.4	106
114	Dopant Segregation and Space Charge Effects in Proton-Conducting BaZrO₃ Perovskites. Journal of Physical Chemistry C, 2012, 116, 2453-2461.	1.5	106
115	Finiteâ€Element Calculations on the Impedance of Electroceramics with Highly Resistive Grain Boundaries: I, Laterally Inhomogeneous Grain Boundaries. Journal of the American Ceramic Society, 1999, 82, 3485-3493.	1.9	105
116	Enhancement of the Li Conductivity in LiF by Introducing Glass/Crystal Interfaces. Advanced Functional Materials, 2012, 22, 1145-1149.	7.8	104
117	Synergistic, ultrafast mass storage and removal in artificial mixed conductors. Nature, 2016, 536, 159-164.	13.7	104
118	Electrical and Structural Characterization of a Lowâ€Angle Tilt Grain Boundary in Ironâ€Doped Strontium Titanate. Journal of the American Ceramic Society, 2003, 86, 922-928.	1.9	103
119	Multi-electron reaction materials for sodium-based batteries. Materials Today, 2018, 21, 960-973.	8.3	103
120	Roadmap on organicâ€"inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	2.2	102
121	Ionically Conducting Twoâ€Dimensional Heterostructures. Advanced Materials, 2009, 21, 2619-2631.	11.1	99
122	Cross-Linking Hollow Carbon Sheet Encapsulated CuP₂ Nanocomposites for High Energy Density Sodium-Ion Batteries. ACS Nano, 2018, 12, 7018-7027.	7.3	99
123	A Finite Element Study on the Grain Boundary Impedance of Different Microstructures. Journal of the Electrochemical Society, 1998, 145, 2081-2089.	1.3	98
124	First-principles study of bulk and surface oxygen vacancies in SrTiO3 crystal. European Physical Journal B, 2009, 72, 53-57.	0.6	94
125	Relevance of solid electrolytes for lithium-based batteries: A realistic view. Journal of Electroceramics, 2017, 38, 128-141.	0.8	94
126	Long-Range and Short-Range Structure of Proton-Conducting Y:BaZrO₃. Chemistry of Materials, 2011, 23, 2994-3002.	3.2	93

#	Article	IF	Citations
127	Simple phenomenological approach to premelting and sublattice melting in Frenkel disordered ionic crystals. Physical Review B, 1995, 51, 15789-15797.	1.1	91
128	Soggy-sand electrolytes: status and perspectives. Physical Chemistry Chemical Physics, 2013, 15, 18318.	1.3	91
129	Thermochemical Stability of Hybrid Halide Perovskites. ACS Energy Letters, 2019, 4, 2859-2870.	8.8	91
130	Nonlinear electrical grain boundary properties in proton conducting Yâ€“BaZrO₃supporting the space charge depletion model. Physical Chemistry Chemical Physics, 2012, 14, 730-740.	1.3	90
131	Proton conductivity in mixed-conducting BSFZ perovskite from thermogravimetric relaxation. Physical Chemistry Chemical Physics, 2014, 16, 16446.	1.3	89
132	Electrochemically driven conversion reaction in fluoride electrodes for energy storage devices. Npj Computational Materials, 2018, 4, .	3.5	89
133	Space Charge Regions in Solid Two Phase Systems and Their Conduction Contribution â€" II Contact Equilibrium at the Interface of Two Ionic Conductors and the Related Conductivity Effect. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1985, 89, 355-362.	0.9	87
134	On the proton conductivity in pure and gadolinium doped nanocrystalline cerium oxide. Physical Chemistry Chemical Physics, 2011, 13, 937-940.	1.3	85
135	Oxygen exchange kinetics on solid oxide fuel cell cathode materialsâ€"general trends and their mechanistic interpretation. Journal of Materials Research, 2012, 27, 2000-2008.	1.2	85
136	First Principles Calculations of Oxygen Vacancy Formation and Migration in Ba_{1âˆ'x}Sr_xCo_{1âˆ'y}Fe_yO_{3âˆ'Î´}Perovskites. Journal of the Electrochemical Society, 2011, 159, B219-B226.	1.3	84
137	3D Honeycomb Architecture Enables a Highâ€Rate and Longâ€Life Iron (III) Fluorideâ€“Lithium Battery. Advanced Materials, 2019, 31, e1905146.	11.1	84
138	Mass storage in space charge regions of nano-sized systems : (Nano-ionics. Part V). Faraday Discussions, 2007, 134, 51-66.	1.6	83
139	Proton uptake into the protonic cathode material BaCo0.4Fe0.4Zr0.2O3-Î´ and comparison to protonic electrolyte materials. Solid State Ionics, 2017, 299, 64-69.	1.3	82
140	Heterogeneous doping of silver bromide (AgBr:Al2O3). Materials Research Bulletin, 1985, 20, 383-392.	2.7	80
141	Oxygen Tracer Diffusion in La2-xSrxCuO4-y Single Crystals. Journal of the American Ceramic Society, 1993, 76, 2363-2369.	1.9	80
142	Hierarchical Metal Sulfide/Carbon Spheres: A Generalized Synthesis and High Sodiumâ€Storage Performance. Angewandte Chemie - International Edition, 2019, 58, 7238-7243.	7.2	80
143	Proton Conduction in Dense and Porous Nanocrystalline Ceria Thin Films. Advanced Functional Materials, 2013, 23, 5861-5867.	7.8	79
144	Interaction of oxygen with oxides: How to interpret measured effective rate constants?. Solid State Ionics, 2000, 135, 575-588.	1.3	78

#	Article	IF	Citations
145	Boundary effects on the electrical conductivity of pure and doped cerium oxide thin films. Physical Chemistry Chemical Physics, 2010, 12, 14351.	1.3	78
146	Tiny Li4Ti5O12 nanoparticles embedded in carbon nanofibers as high-capacity and long-life anode materials for both Li-ion and Na-ion batteries. Physical Chemistry Chemical Physics, 2013, 15, 20813.	1.3	78
147	A novel germanium/carbon nanotubes nanocomposite for lithium storage material. Electrochimica Acta, 2010, 55, 985-988.	2.6	77
148	Proton uptake in the H⁺-SOFC cathode material Ba_{0.5}Sr_{0.5}Fe_{0.8}Zn_{0.2}O_{3â^'Î´}: transition from hydration to hydrogenation with increasing oxygen partial pressure. Faraday Discussions, 2015, 182, 129-143.	1.6	76
149	Oxygen nonstoichiometry of nanosized ceria powder. Surface Science, 2004, 549, 196-202.	0.8	75
150	Preparation of Silicon@Silicon Oxide Coreâ€"Shell Nanowires from a Silica Precursor toward a High Energy Density Li-Ion Battery Anode. ACS Applied Materials & Interfaces, 2013, 5, 12340-12345.	4.0	75
151	Pushing Nanoionics to the Limits: Charge Carrier Chemistry in Extremely Small Systems. Chemistry of Materials, 2014, 26, 348-360.	3.2	75
152	Decoupling electron and ion storage and the path from interfacial storage to artificial electrodes. Nature Energy, 2018, 3, 102-108.	19.8	75
153	Size effects on mass transport and storage in lithium batteries. Journal of Power Sources, 2007, 174, 569-574.	4.0	74
154	Phase evolution in single-crystalline LiFePO4 followed by in situ scanning X-ray microscopy of a micrometre-sized battery. Nature Communications, 2015, 6, 6045.	5.8	72
155	Enhancement of the Ionic Conductivity in Solidâ€Solidâ€Dispersions by Surface Induced Defects. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1984, 88, 1057-1062.	0.9	71
156	Defect Chemistry: Composition, Transport, and Reactions in the Solid State; Part II: Kinetics. Angewandte Chemie International Edition in English, 1993, 32, 528-542.	4.4	71
157	Title is missing!. , 1997, 1, 73-89.		69
158	Metalâ€"Organic Framework-Derived Nanoconfinements of CoF₂ and Mixed-Conducting Wiring for High-Performance Metal Fluoride-Lithium Battery. ACS Nano, 2021, 15, 1509-1518.	7.3	69
159	Separation of Electronic and Ionic Contributions to the Grain Boundary Conductivity in Acceptor-Doped SrTiO[sub 3]. Journal of the Electrochemical Society, 2001, 148, J50.	1.3	68
160	Hydration entropy of BaZrO₃ from first principles phonon calculations. Journal of Materials Chemistry A, 2015, 3, 7639-7648.	5.2	68
161	Tracer diffusion and chemical diffusion of oxygen in acceptor doped SrTiO 3. Journal of Physics and Chemistry of Solids, 2000, 61, 1199-1207.	1.9	67
162	Atomistic Characterisation of Li⁺ Mobility and Conductivity in Li_{7â^'<i>x</i>}PS_{6â^'<i>x</i>}I_{<i>x</i>} Argyrodites from Molecular Dynamics Simulations, Solidâ€State NMR, and Impedance Spectroscopy. Chemistry - A European Journal, 2010, 16, 8347-8354.	1.7	67

#	Article	IF	Citations
163	Influence of Line Defects on the Electrical Properties of Single Crystal TiO₂. Advanced Functional Materials, 2013, 23, 1798-1806.	7.8	67
164	<i>In situ</i> Profiles of Oxygen Diffusion in SrTiO₃: Bulk Behavior and Boundary Effects. Journal of the American Ceramic Society, 1997, 80, 279-285.	1.9	66
165	The p(O2) dependence of oxygen surface coverage and exchange current density of mixed conducting oxide electrodes: model considerations. Physical Chemistry Chemical Physics, 2007, 9, 2713.	1.3	66
166	Transport and Charge Carrier Chemistry in Lithium Oxide. Journal of the Electrochemical Society, 2019, 166, A2215-A2220.	1.3	66
167	Evaluation of Electrochemical Methods in Solid State Research and Their Generalization for Defects with Variable Charges. Zeitschrift Fur Physikalische Chemie, 1984, 140, 191-215.	1.4	65
168	Mass Transport in the Presence of Internal Defect Reactions-Concept of Conservative Ensembles: III, Trapping Effect of Dopants on Chemical Diffusion. Journal of the American Ceramic Society, 1993, 76, 1223-1227.	1.9	65
169	Local Conductivity Effects in Polymer Electrolytes. Advanced Materials, 2005, 17, 2630-2634.	11.1	64
170	⁶Li MAS NMR Investigation of Electrochemical Lithiation of RuO₂: Evidence for an Interfacial Storage Mechanism. Chemistry of Materials, 2009, 21, 856-861.	3.2	64
171	Thermodynamics of Lithium Storage at Abrupt Junctions: Modeling and Experimental Evidence. Physical Review Letters, 2014, 112, .	2.9	64
172	Stoichiometry Variation in Materials with Three Mobile Carriersâ€"Thermodynamics and Transport Kinetics Exemplified for Protons, Oxygen Vacancies, and Holes. Advanced Functional Materials, 2015, 25, 1542-1557.	7.8	64
173	Tunable Oxygen Diffusion and Electronic Conduction in SrTiO₃ by Dislocationâ€Induced Space Charge Fields. Advanced Functional Materials, 2017, 27, 1700243.	7.8	64
174	Solid-State Ionics of Hybrid Halide Perovskites. Journal of the American Chemical Society, 2019, 141, 8382-8396.	6.6	64
175	Electrical resistance of low-angle tilt grain boundaries in acceptor-doped SrTiO3 as a function of misorientation angle. Journal of Applied Physics, 2005, 97, 053502.	1.1	63
176	Complex oxides: high temperature defect chemistry vs. low temperature defect chemistry. Physical Chemistry Chemical Physics, 2003, 5, 2164-2173.	1.3	62
177	Mesoscopic electrical conduction in nanocrystalline SrTiO3. Applied Physics Letters, 2006, 88, 062109.	1.5	62
178	Space charge depletion in grain boundaries of BaZrO3 proton conductors. Solid State Ionics, 2012, 225, 304-307.	1.3	62
179	Reversible lithium storage in LiF/Ti nanocomposites. Physical Chemistry Chemical Physics, 2009, 11, 9497.	1.3	61
180	Mesoscopic Charge Carriers Chemistry in Nanocrystalline SrTiO₃. Angewandte Chemie - International Edition, 2010, 49, 10123-10126.	7.2	61

#	ARTICLE	IF	CITATIONS
181	Highly reversible lithium storage in Si (core)â€“hollow carbon nanofibers (sheath) nanocomposites. Nanoscale, 2013, 5, 2647.	2.8	60
182	Structure and Oxide Ion Conductivity: Local Order, Defect Interactions and Grain Boundary Effects in Acceptor-Doped Ceria. Chemistry of Materials, 2014, 26, 5994-6006.	3.2	60
183	On the Tammann-Rule. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2005, 631, 1163-1166.	0.6	58
184	Charge Carrier Accumulation in Lithium Fluoride Thin Films due to Li-Ion Absorption by Titania (100) Subsurface. Nano Letters, 2012, 12, 1241-1246.	4.5	58
185	Transport in electroceramics: micro- and nano-structural aspects. Journal of the European Ceramic Society, 2004, 24, 1251-1257.	2.8	57
186	Interfacial Effects in Lithium and Sodium Batteries. Advanced Energy Materials, 2021, 11, 2001455.	10.2	57
187	Single Alkalineâ€Ion (Li⁺, Na⁺) Conductors by Ion Exchange of Protonâ€Conducting Ionomers and Polyelectrolytes. ChemPhysChem, 2011, 12, 2558-2560.	1.0	55
188	DFT plane wave calculations of the atomic and electronic structure of LaMnO3(001) surface. Physical Chemistry Chemical Physics, 2005, 7, 2346.	1.3	54
189	High-temperature superconductivity in space-charge regions of lanthanum cuprate induced by two-dimensional doping. Nature Communications, 2015, 6, 8586.	5.8	53
190	Ion Transport, Defect Chemistry, and the Device Physics of Hybrid Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 1566-1576.	8.8	53
191	Interface effect on the silver ion conductivity during the crystallization of AgIAg2OV2O5 glasses. Solid State Ionics, 1995, 75, 193-201.	1.3	52
192	Top-down synthesis of interconnected two-dimensional carbon/antimony hybrids as advanced anodes for sodium storage. Energy Storage Materials, 2018, 10, 122-129.	9.5	50
193	Natural Vermiculite Enables Highâ€Performance in Lithiumâ€“Sulfur Batteries via Electrical Double Layer Effects. Advanced Functional Materials, 2019, 29, 1902820.	7.8	50
194	Transport and Charge Carrier Chemistry in Lithium Sulfide. Advanced Functional Materials, 2019, 29, 1807688.	7.8	50
195	Comparative studies of microstructure and impedance of small-angle symmetrical and asymmetrical grain boundaries in SrTiO3. Acta Materialia, 2005, 53, 5007-5015.	3.8	49
196	A Carbon/Titanium Vanadium Nitride Composite for Lithium Storage. ChemPhysChem, 2010, 11, 3219-3223.	1.0	49
197	Oxides with Mixed Protonic and Electronic Conductivity. Annual Review of Materials Research, 2021, 51, 461-493.	4.3	49
198	Ionic Conductivity Enhancement of the Fluoride Conductor CaF2 by Grain Boundary Activation Using Lewis Acids. Journal of the Electrochemical Society, 1995, 142, 3078-3083.	1.3	48

#	Article	IF	Citations
199	Optically Tuning the Rate of Stoichiometry Changes: Surface-Controlled Oxygen Incorporation into Oxides under UV Irradiation. Angewandte Chemie - International Edition, 2001, 40, 2126-2129.	7.2	48
200	Sizeâ€Dependent Staging and Phase Transition in LiFePO₄/FePO₄. Advanced Functional Materials, 2014, 24, 312-318.	7.8	48
201	Ab Initio Study of BiFeO₃: Thermodynamic Stability Conditions. Journal of Physical Chemistry Letters, 2015, 6, 2847-2851.	2.1	48
202	Alloying Reaction Confinement Enables High-Capacity and Stable Anodes for Lithium-Ion Batteries. ACS Nano, 2019, 13, 9511-9519.	7.3	48
203	Structures of BaF2â€“CaF2 heterolayers and their influences on ionic conductivity. Journal of Chemical Physics, 2004, 120, 2375-2381.	1.2	46
204	Evidence for space charge effects in Y-doped BaZrO3 from reduction experiments. Solid State Ionics, 2012, 216, 1-5.	1.3	46
205	Li_{0.6}[Li_{0.2}Sn_{0.8}S₂] â€“ a layered lithium superionic conductor. Energy and Environmental Science, 2016, 9, 2578-2585.	15.6	46
206	Slow CH₃NH₃⁺ Diffusion in CH₃NH₃PbI₃ under Light Measured by Solid-State NMR and Tracer Diffusion. Journal of Physical Chemistry C, 2018, 122, 21803-21806.	1.5	46
207	Partial electronic and ionic conduction in nanocrystalline ceria: role of space charge. Journal of the European Ceramic Society, 2004, 24, 1919-1923.	2.8	45
208	TRANSPORT ACROSS BOUNDARY LAYERS IN IONIC CRYSTALS PART II: STATIONARY CHEMICAL DIFFUSION. Journal of Physics and Chemistry of Solids, 1998, 59, 1555-1569.	1.9	44
209	Unravelling the Behavior of Dionâ€“Jacobson Layered Hybrid Perovskites in Humid Environments. ACS Energy Letters, 2021, 6, 337-344.	8.8	44
210	Photoâ€Effect on Ion Transport in Mixed Cation and Halide Perovskites and Implications for Photoâ€Demixing**. Angewandte Chemie - International Edition, 2021, 60, 820-826.	7.2	43
211	Comprehensive Modeling of Ion Conduction of Nanosized CaF₂/BaF₂ Multilayer Heterostructures. Advanced Functional Materials, 2009, 19, 96-101.	7.8	42
212	Surface Segregation Entropy of Protons and Oxygen Vacancies in BaZrO₃. Chemistry of Materials, 2016, 28, 1363-1368.	3.2	42
213	Short-range ion dynamics in methylammonium lead iodide by multinuclear solid state NMR and¹²⁷I NQR. Physical Chemistry Chemical Physics, 2018, 20, 20043-20055.	1.3	42
214	KrÃ¶ger-vink diagrams for boundary regions. Solid State Ionics, 1989, 32-33, 727-733.	1.3	41
215	Transport across Boundary Layers in Ionic Crystals Part I: General Formalism and Conception. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1997, 101, 23-40.	0.9	41
216	Thermodynamics of Nanosystems with a Special View to Charge Carriers. Advanced Materials, 2009, 21, 2571-2585.	11.1	41

#	Article	IF	Citations
217	Enhancement of the Fluoride Vacancy Conduction in PbF2â€‰:â€‰SiO2 and PbF2â€‰:â€‰Al2â€‰Oâ€‰3 Composites. Journal of the Electrochemical Society, 1995, 142, 3469-3473.	1.3	40
218	Microcontact impedance measurements of individual highly conductive grain boundaries: General aspects and application to AgCl. Physical Chemistry Chemical Physics, 1999, 1, 3315-3320.	1.3	39
219	Acid-Base Centers and Acid-Base Scales in Ionic Solids. Chemistry - A European Journal, 2001, 7, 4762-4770.	1.7	39
220	The significance of defect chemistry for the rate of gasâ€“solid reactions: three examples. Topics in Catalysis, 2006, 38, 141-145.	1.3	38
221	Electrochemical Investigations of Polyethylene Glycolâ€Based â€œSoggy Sandâ€•Electrolytes â€“ From the Local Mechanism to the Overall Conduction. Advanced Functional Materials, 2011, 21, 3961-3966.	7.8	38
222	Surface termination effects on the oxygen reduction reaction rate at fuel cell cathodes. Journal of Materials Chemistry A, 2018, 6, 11929-11940.	5.2	38
223	Thermodynamic investigations of Na2ZrO3 by electrochemical means. Journal of Chemical Thermodynamics, 1986, 18, 309-316.	1.0	37
224	New class of soft matter electrolytes obtained via heterogeneous doping: Percolation effects in â€œsoggy sandâ€•electrolytes. Solid State Ionics, 2006, 177, 2565-2568.	1.3	37
225	Charge carrier chemistry in methylammonium lead iodide. Solid State Ionics, 2018, 321, 69-74.	1.3	37
226	First-principles comparative study of perfect and defective CsPbX₃ (X = Br, I) crystals. Physical Chemistry Chemical Physics, 2020, 22, 3914-3920.	1.3	37
227	â€œJob-Sharingâ€•Storage of Hydrogen in Ru/Li₂O Nanocomposites. Nano Letters, 2015, 15, 4170-4175.	4.5	36
228	Defect chemical modeling of mesoscopic ion conduction in nanosizedCaF2â^•BaF2multilayer heterostructures. Physical Review B, 2007, 76, .	1.1	35
229	High Lithium Transference Number Electrolytes Containing Tetratriflylpropeneâ€™s Lithium Salt. Journal of Physical Chemistry Letters, 2018, 9, 5116-5120.	2.1	35
230	Defect chemistry of the high-Tc superconductors. Advanced Materials, 1991, 3, 292-297.	11.1	34
231	Mass and charge transport involving interfaces. Journal of the European Ceramic Society, 1999, 19, 675-681.	2.8	34
232	Improved Li-Battery Electrolytes by Heterogeneous Doping of Nonaqueous Li-Salt Solutions. Electrochemical and Solid-State Letters, 2004, 7, A432.	2.2	34
233	Enhanced ionic conductivity in polycrystalline TiO2 by â€œone-dimensional dopingâ€• Physical Chemistry Chemical Physics, 2014, 16, 4942.	1.3	34
234	Lithium Potential Variations for Metastable Materials: Case Study of Nanocrystalline and Amorphous LiFePO₄. Nano Letters, 2014, 14, 5342-5349.	4.5	33

#	Article	IF	Citations
235	Ab initio modelling of oxygen vacancies and protonic defects in La_{1âˆ’x}Sr_xFeO_{3âˆ’Î´} perovskite solid solutions. Journal of Materials Chemistry A, 2016, 4, 13093-13104.	5.2	33
236	Thermodynamics of NASICON (Na1+xZr2SixP3âˆ’xO12). Journal of Solid State Chemistry, 1988, 72, 113-125.	1.4	32
237	Enhanced lithium storage and chemical diffusion in metal-LiF nanocomposites: Experimental and theoretical results. Physical Review B, 2007, 76, .	1.1	32
238	Concentration Polarization of Saltâ€Containing Liquid Electrolytes. Advanced Functional Materials, 2011, 21, 1448-1455.	7.8	32
239	Completing the Picture of 2-(Aminomethylpyridinium) Lead Hybrid Perovskites: Insights into Structure, Conductivity Behavior, and Optical Properties. Chemistry of Materials, 2018, 30, 6289-6297.	3.2	32
240	Oxygen exchange kinetics on systematically doped ceria: a pulsed isotope exchange study. Journal of Materials Chemistry A, 2019, 7, 21854-21866.	5.2	32
241	Excess free enthalpy of nanocrystalline silver, determined in a solid electrolyte cell. Solid State Ionics, 2004, 173, 95-101.	1.3	31
242	Thermodynamic stability and disordering in La Sr1âˆ’MnO3 solid solutions. Solid State Ionics, 2006, 177, 217-222.	1.3	31
243	Highly Stable Lithium Storage Performance in a Porous Carbon/Silicon Nanocomposite. ChemSusChem, 2010, 3, 231-235.	3.6	31
244	Solid Electrolyte Interphase Evolution on Lithium Metal in Contact with Glymeâ€Based Electrolytes. Small, 2020, 16, e2000756.	5.2	31
245	Giant Haven Ratio for Proton Transport in Sodium Hydroxide. Journal of Solid State Chemistry, 1999, 148, 169-177.	1.4	30
246	Nano-Ionics: More Than Just a Fashionable Slogan. Journal of Electroceramics, 2004, 13, 593-598.	0.8	30
247	Electrical Transport and Oxygen Exchange in the Superoxides of Potassium, Rubidium, and Cesium. Advanced Functional Materials, 2015, 25, 2552-2563.	7.8	30
248	Thermodynamic stability of non-stoichiometric SrFeO_{3âˆ’Î´}: a hybrid DFT study. Physical Chemistry Chemical Physics, 2019, 21, 3918-3931.	1.3	30
249	Mass Transport in the Presence of Internal Defect Reactions-Concept of Conservative Ensembles: II, Evaluation of Electrochemical Transport Measurements. Journal of the American Ceramic Society, 1993, 76, 1218-1222.	1.9	29
250	Heterogeneous Doping of a Weak Covalent Electrolyte: Proton Conductivity Enhancement of Imidazole by Admixture of Oxide Particles. Advanced Materials, 2008, 20, 1274-1278.	11.1	29
251	Electronically blocking grain boundaries in donor doped cerium dioxide. Solid State Ionics, 2012, 215, 45-51.	1.3	29
252	Soggy-sand effects in liquid composite electrolytes with mesoporous materials as fillers. Journal of Materials Chemistry A, 2013, 1, 12560.	5.2	29

#	Article	IF	Citations
253	Oxygen Reduction at Dense Thin-Film Microelectrodes on a Proton-Conducting Electrolyte. Journal of the Electrochemical Society, 2015, 162, F939-F950.	1.3	29
254	Infiltrated porous oxide monoliths as high lithium transference number electrolytes. Journal of Materials Chemistry A, 2016, 4, 7135-7140.	5.2	29
255	Space charge storage in composites: thermodynamics. Physical Chemistry Chemical Physics, 2017, 19, 6379-6396.	1.3	29
256	Analysis of self-trapped hole mobility in alkali halides and metal halides. Solid State Ionics, 2017, 302, 3-6.	1.3	29
257	First-principles calculations of iodine-related point defects in CsPbI₃. Physical Chemistry Chemical Physics, 2019, 21, 7841-7846.	1.3	29
258	Hollow Fe-containing carbon fibers with tubular tertiary structure: preparation and Li-storage properties. Journal of Materials Chemistry, 2009, 19, 1616.	6.7	28
259	Ionic space charge effects in lithium fluoride thin films. Solid State Ionics, 2012, 225, 408-411.	1.3	28
260	Ab initio thermodynamic study of (Ba,Sr)(Co,Fe)O3 perovskite solid solutions for fuel cell applications. Journal of Materials Chemistry A, 2013, 1, 14320.	5.2	28
261	Numerical calculations of space charge layer effects in nanocrystalline ceria. Part I: comparison with the analytical models and derivation of improved analytical solutions. Physical Chemistry Chemical Physics, 2014, 16, 10214-10231.	1.3	28
262	Dopant size effects on novel functionalities: High-temperature interfacial superconductivity. Scientific Reports, 2017, 7, 453.	1.6	28
263	Electrochemical Analysis of Anomalous Conductivity Effects in the AgClï£¿AgI Two Phase System. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1992, 96, 111-119.	0.9	27
264	Finite element simulation of diffusion into polycrystalline materials. Solid State Sciences, 2008, 10, 754-760.	1.5	27
265	Symmetrized General Hopping Current Equation. Physical Review Letters, 2008, 100, 205901.	2.9	27
266	Ionic Spaceâ€Charge Depletion in Lithium Fluoride Thin Films on Sapphire (0001) Substrates. Advanced Functional Materials, 2011, 21, 2901-2905.	7.8	27
267	Thermodynamic stability of stoichiometric LaFeO₃ and BiFeO₃: a hybrid DFT study. Physical Chemistry Chemical Physics, 2017, 19, 3738-3755.	1.3	27
268	Effects of NiO addition on sintering and proton uptake of Ba(Zr,Ce,Y)O_{3âˆ'Î´}. Journal of Materials Chemistry A, 2021, 9, 14775-14785.	5.2	27
269	Point Defect Thermodynamics: Macro- vs. Nanocrystals. Electrochemistry, 2000, 68, 395-402.	0.6	27
270	SODIUM ION CONDUCTORS WITH NASICON FRAMEWORK STRUCTURE. , 1989, , 242-279.		26

#	Article	IF	Citations
271	Generalised Maxwell-Garnett equation: application to electrical and chemical transport. Physical Chemistry Chemical Physics, 2006, 8, 1310.	1.3	26
272	Mixed conductivity in nanocrystalline highly acceptor doped cerium oxide thin films under oxidizing conditions. Physical Chemistry Chemical Physics, 2011, 13, 10940.	1.3	26
273	Jarosite Nanosheets Fabricated via Room-Temperature Synthesis as Cathode Materials for High-Rate Lithium Ion Batteries. Chemistry of Materials, 2015, 27, 3143-3149.	3.2	26
274	Impedance Spectroscopic Investigation of the Interface Silver Halide/Oxide: Detection of an Ionic Depletion Layer. Journal of the Electrochemical Society, 1992, 139, 1472-1479.	1.3	25
275	Synthesis and Characterization of Nanocrystalline SrTiO3. Journal of the American Ceramic Society, 2006, 89, 060612075903003-???.	1.9	25
276	Mass Transport in the Presence of Internal Defect Reactions-Concept of Conservative Ensembles: IV, Tracer Diffusion and Intercorrelation with Chemical Diffusion and Ion Conductivity. Journal of the American Ceramic Society, 1993, 76, 1228-1232.	1.9	24
277	In situ EPR studies of chemical diffusion in oxides. Physical Chemistry Chemical Physics, 2000, 2, 3055-3061.	1.3	24
278	Investigation of oxygen exchange kinetics in proton-conducting ceramic fuel cells: Effect of electronic leakage current using symmetricÂcells. Journal of Power Sources, 2013, 242, 784-789.	4.0	24
279	Guidelines for optimizing the architecture of battery insertion electrodes based on the concept of wiring lengths. Physical Chemistry Chemical Physics, 2018, 20, 16449-16462.	1.3	24
280	Interdependence of Oxygenation and Hydration in Mixed-Conducting (Ba,Sr)FeO_{3âˆ'Î´} Perovskites Studied by Density Functional Theory. Journal of Physical Chemistry C, 2020, 124, 11780-11789.	1.5	24
281	Tuning Ionic and Electronic Conductivities in the â€œHollowâ€• Perovskite {<i>en</i>}MAPbI₃. Chemistry of Materials, 2021, 33, 719-726.	3.2	24
282	Proton, Hydroxide Ion, and Oxide Ion Affinities of Closed-Shell Oxides: Importance for the Hydration Reaction and Correlation to Electronic Structure. Journal of Physical Chemistry C, 2020, 124, 1277-1284.	1.5	23
283	First principles calculations of oxygen reduction reaction at fuel cell cathodes. Current Opinion in Electrochemistry, 2020, 19, 122-128.	2.5	23
284	X-ray Spectroscopy of (Ba,Sr,La)(Fe,Zn,Y)O_{3âˆ'Î´} Identifies Structural and Electronic Features Favoring Proton Uptake. Chemistry of Materials, 2020, 32, 8502-8511.	3.2	23
285	Enhanced ion transport in Li₂O and Li₂S films. Chemical Communications, 2021, 57, 6503-6506.	2.2	23
286	The Role of Alkyl Chain Length and Halide Counter Ion in Layered Dionâˆ'Jacobson Perovskites with Aromatic Spacers. Journal of Physical Chemistry Letters, 2021, 12, 10325-10332.	2.1	23
287	Field-induced relaxation of bulk composition due to internal boundaries. Applied Physics Letters, 2003, 82, 2820-2822.	1.5	22
288	Salt concentration polarization of liquid electrolytes and determination of transport properties of cations, anions, ion pairs and ion triples. Electrochimica Acta, 2014, 129, 21-27.	2.6	22

#	Article	IF	Citations
289	High spatially resolved cation concentration profile at the grain boundaries of Sc-doped BaZrO3. Solid State Ionics, 2014, 262, 860-864.	1.3	22
290	Effect of NiO addition on proton uptake of BaZr1-xYxO3-x/2 and BaZr1-xScxO3-x/2 electrolytes. Solid State Ionics, 2020, 347, 115256.	1.3	22
291	Electric conduction properties of boron-doped ceria. Solid State Ionics, 2011, 192, 65-69.	1.3	21
292	Effects of Grain Boundary Decoration on the Electrical Conduction of Nanocrystalline CeO₂. Journal of the Electrochemical Society, 2012, 159, B417-B425.	1.3	21
293	Control parameters for electrochemically relevant materials: the significance of size and complexity. Faraday Discussions, 2014, 176, 17-29.	1.6	21
294	Reviewâ€"Battery Materials: Why Defect Chemistry?. Journal of the Electrochemical Society, 2015, 162, A2380-A2386.	1.3	21
295	Porosity of Solid Electrolyte Interphases on Alkali Metal Electrodes with Liquid Electrolytes. ACS Applied Materials & Interfaces, 2021, 13, 51767-51774.	4.0	21
296	Space Charge Regions in Solid Two Phase Systems and Their Conduction Contribution. IV: The Behaviour of Minority Charge Carriers Part A: Concentration Profiles, Conductivity Contribution, Determination by Generalized Wagnerâ€Hebbâ€Procedure. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1989, 93, 1468-1473.	0.9	20
297	Ionic Contact Equilibria in Solidsâ€"Implications for Batteries and Sensors. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1990, 94, 973-978.	0.9	20
298	Electrical Properties of ZnO. Electrochemical and Solid-State Letters, 2003, 6, J7.	2.2	20
299	Use of site symmetry in supercell models of defective crystals: polarons in CeO₂. Physical Chemistry Chemical Physics, 2017, 19, 8340-8348.	1.3	20
300	AgI Nanoplates in Unusual 7H/9R Structures. Journal of the Electrochemical Society, 2007, 154, K51.	1.3	19
301	Defect chemistry of lithium storage in TiO2 as a function of oxygen stoichiometry. Solid State Ionics, 2012, 225, 590-593.	1.3	19
302	Cationic Redistribution at Epitaxial Interfaces in Superconducting Two-Dimensionally Doped Lanthanum Cuprate Films. ACS Applied Materials & Interfaces, 2016, 8, 27368-27375.	4.0	19
303	Solid State Electrochemistry I: Thermodynamics and Kinetics of Charge Carriers in Solids. , 2005, , 1-173.		18
304	Quantitative estimate of the conductivity of a soggy sand electrolyte: example of (LiClO4, THF):SiO2. Physical Chemistry Chemical Physics, 2013, 15, 2050-2054.	1.3	18
305	The Nature of Ion Conduction in Methylammonium Lead Iodide: A Multimethod Approach. Angewandte Chemie, 2017, 129, 7863-7867.	1.6	18
306	Grain boundary blocking effects in Sm/Yb-doped AlN ceramics. Journal of the European Ceramic Society, 2021, 41, 4870-4875.	2.8	18

#	Article	IF	Citations
307	Chemical Sensors for Acidâ€Baseâ€Active Gases: Applications to CO₂ and NH₃. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1995, 99, 1427-1432.	0.9	17
308	Ion conducting particle networks in liquids: modeling of network percolation and stability. Physical Chemistry Chemical Physics, 2011, 13, 2663-2666.	1.3	17
309	In Situ Recording of Particle Network Formation in Liquids by Ion Conductivity Measurements. Journal of the American Chemical Society, 2011, 133, 14514-14517.	6.6	17
310	Interfacial mass storage in nanocomposites. Solid State Ionics, 2018, 318, 54-59.	1.3	17
311	Numerical study of grain boundary diffusion in nanocrystalline ionic materials including blocking space charges. Solid State Ionics, 2006, 177, 1583-1586.	1.3	16
312	Atomic-Scale Quantitative Analysis of Lattice Distortions at Interfaces of Two-Dimensionally Sr-Doped La₂CuO₄ Superlattices. ACS Applied Materials & Interfaces, 2016, 8, 6763-6769.	4.0	16
313	Boosting Sodium Storage in TiF₃/Carbon Core/Sheath Nanofibers through an Efficient Mixedâ€Conducting Network. Advanced Energy Materials, 2019, 9, 1901470.	10.2	16
314	On the Way to Optoionics. Helvetica Chimica Acta, 2020, 103, e2000073.	1.0	16
315	Electrochemical sensor principles for redoxâ€"active and acid-baseâ€"active gases1I would like to dedicate this article to the memory of Wolfgang GÃ¶pel.1. Sensors and Actuators B: Chemical, 2000, 65, 199-203.	4.0	15
316	Thermodynamics of nano- and macrocrystalline anatase using cell voltage measurements. Physical Chemistry Chemical Physics, 2010, 12, 215-219.	1.3	15
317	Heterogeneously doped polyethylene glycol as nano-composite soft matter electrolyte. Electrochimica Acta, 2011, 56, 8115-8121.	2.6	15
318	Seebeck coefficient and electrical conductivity of mesoscopic nanocrystalline SrTiO3. Journal of Materials Science, 2013, 48, 2790-2796.	1.7	15
319	Numerical calculations of space charge layer effects in nanocrystalline ceria. Part II: detailed analysis of the space charge layer properties. Physical Chemistry Chemical Physics, 2014, 16, 10175-10186.	1.3	15
320	Nanosheets of Earth-Abundant Jarosite as Novel Anodes for High-Rate and Long-Life Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 10518-10524.	4.0	15
321	<i /> Bulk Defect Chemistry of PCFC Cathode Materials: Discussion of Defect Interactions. ECS Transactions, 2017, 77, 133-138.	0.3	15
322	Phase constitution, Sr distribution and morphology of self-assembled La-Sr-Co-O composite films prepared by PLD. Solid State Ionics, 2017, 303, 172-180.	1.3	15
323	Oxygen Exchange Activity of La-Sr-Co-O PLD Films and Quantification of (La,Sr)CoO₃₋<i>_{Î´}</i>/(La,Sr)₂CoO₄₊<i>_{Î´}</i>/O₂ Triple Phase Boundary Activity. Journal of the Electrochemical Society, 2017, 164, F454-F463.	1.3	15
324	An XAS Study of the Local Environment of Ions in Soggy Sand Electrolytes. Electrochemical and Solid-State Letters, 2006, 9, A564.	2.2	14

#	Article	IF	Citations
325	An improved procedure for determining grain boundary diffusion coefficients from averaged concentration profiles. Journal of Applied Physics, 2008, 103, .	1.1	14
326	(Invited) Oxygen Reduction Reaction at Cathodes on Proton Conducting Oxide Electrolytes: Contribution from Three Phase Boundary Compared to Bulk Path. ECS Transactions, 2015, 66, 95-102.	0.3	14
327	Photo Deâ€Mixing in Dionâ€Jacobson 2D Mixed Halide Perovskites. Advanced Energy Materials, 2022, 12, .	10.2	14
328	Apparent Surface Rate Constants in Diffusion Problems Flux Constriction Effects. Journal of the Electrochemical Society, 2000, 147, 3029.	1.3	13
329	Chemical diffusion with non-constant DÎ´and the appearance of a parabolic rate law: Model study on SrTiO3. Physical Chemistry Chemical Physics, 2004, 006, 3633-3638.	1.3	13
330	Determination of individual contributions to the ionic conduction in liquid electrolytes: Case study of LiTf/PEGDME-150. Electrochemistry Communications, 2015, 60, 195-198.	2.3	13
331	Glyme-based liquidâ€"solid electrolytes for lithium metal batteries. Journal of Materials Chemistry A, 2019, 7, 13331-13338.	5.2	13
332	Impact of hydration on ion transport in Li₂Sn₂S₅Â·<i>x</i>H₂O. Journal of Materials Chemistry A, 2021, 9, 16532-16544.	5.2	13
333	Passivation Layers in Lithium and Sodium Batteries: Potential Profiles, Stabilities, and Voltage Drops. Advanced Functional Materials, 2021, 31, 2100938.	7.8	13
334	Influence of Y-substitution on phase composition and proton uptake of self-generated Ba(Ce,Fe)O_{3âˆ’<i>Î´</i>}â€"Ba(Fe,Ce)O_{3âˆ’<i>Î´</i>}composites. Journal of Materials Chemistry A, 2022, 10, 2474-2482.	5.2	13
335	Electrochemical Investigations of Lead Zirconate-Titanate Perovskites with Small and High Deviations from Stoichiometry. Zeitschrift Fur Physikalische Chemie, 1982, 130, 97-107.	1.4	12
336	Heterogeneous catalysis with composite electrolytes. Solid State Ionics, 1989, 32-33, 993-999.	1.3	12
337	Kinetics of Space Charge Storage in Composites. Advanced Functional Materials, 2018, 28, 1705999.	7.8	12
338	High-temperature superconductivity at the lanthanum cuprate/lanthanumâ€"strontium nickelate interface. Nanoscale, 2018, 10, 8712-8720.	2.8	12
339	High-Temperature Thermoelectricity in LaNiO₃â€"La₂CuO₄ Heterostructures. ACS Applied Materials & Interfaces, 2018, 10, 22786-22792.	4.0	12
340	Hierarchical Metal Sulfide/Carbon Spheres: A Generalized Synthesis and High Sodiumâ€Storage Performance. Angewandte Chemie, 2019, 131, 7316-7321.	1.6	12
341	The Effect of the Oxygen Exchange at Electrodes on the High-Voltage Electrocoloration of Fe-Doped SrTiO3Single Crystals: A Combined SIMS and Microelectrode Impedance Study. , 2001, 7, 95-105.		11
342	Solid State Electrochemistry II: Devices and Techniques. Modern Aspects of Electrochemistry, 2007, , 1-138.	0.2	11

#	Article	IF	Citations
343	Interface Effects on the Ion Transport of Epitaxial Y₂Zr₂O₇ Films. ACS Applied Materials & Interfaces, 2017, 9, 27257-27265.	4.0	11
344	Influence of hydration and dopant ionic radius on the elastic properties of BaZrO3. Solid State Ionics, 2020, 344, 115130.	1.3	11
345	Influence of Porosity of Sulfide-Based Artificial Solid Electrolyte Interphases on Their Performance with Liquid and Solid Electrolytes in Li and Na Metal Batteries. ACS Applied Materials & Interfaces, 2022, 14, 16147-16156.	4.0	11
346	Ionic and Mixed Conductors for Electrochemical Devices. Radiation Effects and Defects in Solids, 2003, 158, 1-10.	0.4	10
347	Chemical resistance and chemical capacitance. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2020, 75, 15-22.	0.3	10
348	Ionically Generated Builtâ€In Equilibrium Space Charge Zonesâ€"a Paradigm Change for Lead Halide Perovskite Interfaces. Advanced Functional Materials, 2020, 30, 2002426.	7.8	10
349	Space Charge Regions in Solid Two Phase Systems and Their Conduction Contribution. IV: The Behaviour of Minority Charge Carriers Part B: Application to the Interfaces AgCl/Î³â€Al₂O₃ and SnO₂/O₂. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1989, 93, 1474-1479.	0.9	9
350	Defect chemistry and oxygen transport in Bi2Sr2CaCu2O8+? derived from conductivity, polarization, and hall effect measurements. Journal of Superconductivity and Novel Magnetism, 1996, 9, 121-127.	0.5	9
351	Doping Strategies in Inorganic and Organic Materials. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2017, 643, 2083-2087.	0.6	9
352	Sputter deposition and thermal evaporation of Li2O, Li2S, and Li2Se films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 061515.	0.9	9
353	Defect chemistry and proton uptake of La2-xSrxNiO4Â±Î´ and La2-xBaxNiO4Â±Î´ Ruddlesden-Popper phases. Journal of Solid State Chemistry, 2022, 306, 122731.	1.4	9
354	Electrical transport properties of transparent PLZT ceramics: Bulk and grain boundaries. Solid State Ionics, 2012, 208, 4-7.	1.3	8
355	Oxygen Surface Exchange Kinetics of Pr2(Ni,Co)O4+Î´ Thin-Film Model Electrodes. Journal of the Electrochemical Society, 2019, 166, F1088-F1095.	1.3	8
356	Photoâ€Effect on Ion Transport in Mixed Cation and Halide Perovskites and Implications for Photoâ€Demixing**. Angewandte Chemie, 2021, 133, 833-839.	1.6	8
357	Synthesis, characterization and thermal behaviour of solid phases in the quasi-ternary system Mg(SCN)2â€"H2Oâ€"THF. Dalton Transactions, 2021, 50, 6949-6961.	1.6	8
358	Fabrication of multi-layered structures for proton conducting ceramic cells. Journal of Materials Chemistry A, 2022, 10, 2362-2373.	5.2	8
359	Small radius electron and hole polarons in Pb<i>X</i>₂ (<i>X</i> = F, Cl, Br) crystals: a computational study. Journal of Materials Chemistry C, 2021, 9, 16536-16544.	2.7	8
360	Oxygen surface exchange kinetics and electronic conductivity of the third-order Ruddlesden-Popper phase Pr4Ni2.7Co0.3O10-Î´. Solid State Ionics, 2020, 348, 115282.	1.3	7

#	Article	IF	Citations
361	Electronic modifications in (Ba,La)(Fe,Zn,Y)O_{3âˆ’<i>Î´</i>} unveiled by oxygen K-edge X-ray Raman scattering. Journal of Materials Chemistry A, 2022, 10, 8866-8876.	5.2	7
362	2D Doping of Proton Conductors: BaZrO 3 â€Based Heterostructures. Advanced Energy Materials, 2021, 11, 2003267.	10.2	6
363	Theoretical and Experimental Studies of Charge Ordering in CaFeO₃ and SrFeO₃ Crystals. Physica Status Solidi (B): Basic Research, 2022, 259, 2100238.	0.7	6
364	Photo de-mixing in mixed halide perovskites: the roles of ions and electrons. JPhys Energy, 2022, 4, 011001.	2.3	6
365	Ionic Conductivity of Organicâ€"Inorganic Perovskites: Relevance for Long-Time and Low Frequency Behavior. , 2016, , 107-135.		5
366	Structure and chemistry of interfaces between ceria and yttria-stabilized zirconia studied by analytical STEM. Ultramicroscopy, 2018, 188, 90-100.	0.8	5
367	Interdependence of Point Defects and Reaction Kinetics: CO and CH4 Oxidation on Ceria and Zirconia. Journal of Physical Chemistry C, 2020, 124, 18544-18556.	1.5	5
368	Influence of Hetero Grain Boundaries on Oxygen Exchange Activity: Investigation of Two-Phase (La,Sr)CoO_{3-Î´} / (La,Sr)₂CoO_{4+Î´} Cathode Materials. ECS Transactions, 2015, 68, 579-589.	0.3	4
369	Increased Storage through Heterogeneous Doping. Chemistry of Materials, 2018, 30, 5041-5049.	3.2	4
370	Guidelines for Optimizing the Architecture of Battery Insertion Electrodes with Ohmic Surface, Coating, or Electrolyte Resistances. Journal of the Electrochemical Society, 2020, 167, 080505.	1.3	4
371	Synthesis and characterisation of two lithium-thiocyanate solvates with tetrahydrofuran: Li[SCN]Â·THF and Li[SCN]Â·2THF. Dalton Transactions, 2021, 50, 12292-12300.	1.6	4
372	On the crystal structures of lithium thiocyanate monohydrate LiSCN <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:mo linebreak="goodbreak" linebreakstyle="after">â‹…</mml:mo></mml:mrow></mml:math> 1 H2O and the phase diagram LiSCN â€" H2O. Journal of Physics and Chemistry of Solids, 2022, 160, 110299.	1.9	4
373	Nanoionics and Soft Materials Science. , 2002, , 81-110.		3
374	Nanocrystallinity Effects in Lithium Battery Materials. Aspects of Nano-ionics. Part 4.. ChemInform, 2004, 35, no.	0.1	3
375	Inelastic Electron Tunneling Spectroscopy at Highâ€Temperatures. Advanced Materials, 2021, 33, 2007299.	11.1	3
376	Electrochemical Circuit Elements. Acta Chimica Slovenica, 2016, 63, 578-582.	0.2	3
377	Space charge effects in confined ceramic systems. International Journal of Materials Research, 2008, 99, 24-25.	0.1	3
378	(Invited) The Effect of (La,Sr)MnO 3 Cathode Surface Termination on Its Electronic Structure. ECS Transactions, 2017, 77, 67-73.	0.3	2

#	Article	IF	Citations
379	Synergistic silver storage in the composite RbAg4I5:graphite: Thermodynamics and kinetics. Solid State Ionics, 2017, 312, 97-105.	1.3	2
380	Epitaxial 8YSZ/Y2Zr2O7 multilayers: a conductivity and strain study. Physical Chemistry Chemical Physics, 2018, 20, 19995-20003.	1.3	2
381	Dopant solubility in ceria: alloy thermodynamics combined with the DFT+U calculations. Solid State Ionics, 2018, 325, 258-264.	1.3	1
382	Electrical Characterization of Inhomogeneous and Heterogeneous Systems with Microstuctural Periodicity. Materials Research Society Symposia Proceedings, 2001, 699, 851.	0.1	0
383	Frontispiz: Hierarchical Metal Sulfide/Carbon Spheres: A Generalized Synthesis and High Sodiumâ€Storage Performance. Angewandte Chemie, 2019, 131, .	1.6	0
384	Frontispiece: Hierarchical Metal Sulfide/Carbon Spheres: A Generalized Synthesis and High Sodiumâ€Storage Performance. Angewandte Chemie - International Edition, 2019, 58, .	7.2	0
385	Atomic-scale Identification of High-temperature Superconductivity at La2CuO4 Interfaces. Microscopy and Microanalysis, 2020, 26, 738-739.	0.2	0
386	Atomic-scale Considerations on LaNiO3-La2CuO4 Heterostructures: Interfaceâ€"thermoelectricity Relationship. Microscopy and Microanalysis, 2020, 26, 2626-2627.	0.2	0
387	(Invited) Mass Transport and Storage in Li-Ion Electrodes: Bulk and Interfaces. ECS Meeting Abstracts, 2021, MA2021-01, 95-95.	0.0	0
388	Crystal structure and oxygen nonstoichiometry of the third-order Ruddlesden-Popper phase Pr4(Ni0.9Co0.1)3O10-Î´. Open Ceramics, 2021, 6, 100094.	1.0	0
389	Ion transport in nanocrystalline CaF2 films. Journal of Applied Physics, 2021, 130, 105301.	1.1	0
390	Equilibrium space charges effect at halide perovskite interactions: The role of ionic charge carriers. , 0, , .		0
391	Discrete Modeling of Ionic Space Charge Zones in Solids. Physical Chemistry Chemical Physics, 2022, , .	1.3	0