H Martin R Wilkening

List of Publications by Year
in descending order

213 papers	8,760 citations	34105 52 h-index	54911 84 g-index
230 all docs	230 docs citations	230 times ranked	6859 citing authors

#	Article	IF	Citations
1	Structure and dynamics of the fast lithium ion conductor â€œLi7La3Zr2O12â€. Physical Chemistry Chemical Physics, 2011, 13, 19378.	2.8	559
2	Singlet oxygen generation as a major cause for parasitic reactions during cycling of aprotic lithiumâ€“oxygen batteries. Nature Energy, 2017, 2, .	39.5	328
3	Mechanochemical reactions and syntheses of oxides. Chemical Society Reviews, 2013, 42, 7507.	38.1	274
4	Structural and Electrochemical Consequences of Al and Ga Cosubstitution in Li₇La₃Zr₂O₁₂ Solid Electrolytes. Chemistry of Materials, 2016, 28, 2384-2392.	6.7	258
5	Li conduction in garnet-type Li7La3Zr2O12: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>7</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>La<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Zr<mml:math	3.2	177
6	Crystal Structure of Garnet-Related Li-Ion Conductor Li_{7â€“3x}Ga_xLa₃Zr₂O₁₂: Fast Li-Ion Conduction Caused by a Different Cubic Modification?. Chemistry of Materials, 2016, 28, 1861-1871.	6.7	168
7	NMR and impedance studies of nanocrystalline and amorphous ion conductors: lithium niobate as a model system. Faraday Discussions, 2007, 134, 67-82.	3.2	151
8	Mechanism and performance of lithiumâ€“oxygen batteries â€“ a perspective. Chemical Science, 2017, 8, 6716-6729.	7.4	146
9	Ultraslow Li diffusion in spinel-type structured Li4Ti5O12â€”A comparison of results from solid state NMR and impedance spectroscopy. Physical Chemistry Chemical Physics, 2007, 9, 1239-1246.	2.8	144
10	From Micro to Macro: Access to Longâ€Range Li⁺ Diffusion Parameters in Solids via Microscopic ^{6,â€‰7}Li Spinâ€Alignment Echo NMR Spectroscopy. ChemPhysChem, 2012, 13, 53-65.	2.1	138
11	Substitutional disorder: structure and ion dynamics of the argyrodites Li₆PS₅Cl, Li₆PS₅Br and Li₆PS₅I. Physical Chemistry Chemical Physics, 2019, 21, 8489-8507.	2.8	133
12	Separating bulk from grain boundary Li ion conductivity in the solâ€“gel prepared solid electrolyte Li_{1.5}Al_{0.5}Ti_{1.5}(PO₄)₃. Journal of Materials Chemistry A, 2015, 3, 21343-21350.	10.3	127
13	Mechanosynthesis of Solid Electrolytes: Preparation, Characterization, and Li Ion Transport Properties of Garnet-Type Al-Doped Li₇La₃Zr₂O₁₂ Crystallizing with Cubic Symmetry. Journal of Physical Chemistry C, 2012, 116, 15192-15202.	3.1	121
14	Highly Mobile Ions: Low-Temperature NMR Directly Probes Extremely Fast Li⁺ Hopping in Argyrodite-Type Li₆PS₅Br. Journal of Physical Chemistry Letters, 2013, 4, 2118-2123.	4.6	118
15	Li Ion Diffusion in the Anode Material Li₁₂Si₇: Ultrafast Quasi-1D Diffusion and Two Distinct Fast 3D Jump Processes Separately Revealed by ⁷Li NMR Relaxometry. Journal of the American Chemical Society, 2011, 133, 11018-11021.	13.7	117
16	Tuning the Li Diffusivity of Poor Ionic Conductors by Mechanical Treatment: High Li Conductivity of Strongly Defective LiTaO₃ Nanoparticles. Journal of Physical Chemistry C, 2008, 112, 9291-9300.	3.1	112
17	NMR relaxometry as a versatile tool to study Li ion dynamics in potential battery materials. Solid State Nuclear Magnetic Resonance, 2012, 42, 2-8.	2.3	109
18	DFT Study of the Role of Al³⁺ in the Fast Ion-Conductor Li_{7â€“3x}Al³⁺_xLa₃Zr₂O₁₂ Garnet. Chemistry of Materials, 2014, 26, 2617-2623.	6.7	108

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19	Short-range Li diffusion vs. long-range ionic conduction in nanocrystalline lithium peroxide Li2O2â€"the discharge product in lithium-air batteries. Energy and Environmental Science, 2014, 7, 2739-2752.	30.8	104
20	Small Changeâ€"Great Effect: Steep Increase of Li Ion Dynamics in Li₄Ti₅O₁₂ at the Early Stages of Chemical Li Insertion. Chemistry of Materials, 2015, 27, 1740-1750.	6.7	102
21	Singlet Oxygen during Cycling of the Aprotic Sodiumâ€"O₂ Battery. Angewandte Chemie - International Edition, 2017, 56, 15728-15732.	13.8	99
22	Li jump process in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>h</mml:mi><mml:mtext>â'</mml:mtext><mml:msub><mml:mi mathvariant="normal">Li</mml:mi><mml:mn>0.7</mml:mn></mml:msub><mml:mi mathvariant="normal">Ti</mml:mi><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>studied by two-time<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mmu	3.2	95
23	From Ultraslow to Fast Lithium Diffusion in the 2D Ion ConductorLi0.7TiS2Probed Directly by Stimulated-Echo NMR and Nuclear Magnetic Relaxation. Physical Review Letters, 2006, 97, 065901.	7.8	94
24	Superionic Diffusion through Frustrated Energy Landscape. CheM, 2019, 5, 2450-2460.	11.7	92
25	Fast Rotational Dynamics in Argyrodite-Type Li₆PS₅X (X: Cl, Br, I) as Seen by ³¹P Nuclear Magnetic Relaxationâ€"On Cationâ€"Anion Coupled Transport in Thiophosphates. Chemistry of Materials, 2019, 31, 4591-4597.	6.7	92
26	Diffusion in amorphous LiNbO3 studied by 7Li NMR â€" comparison with the nano- and microcrystalline materialDedicated to Prof. Dr Hermann Schmalzried on the occasion of his 70th birthday.. Physical Chemistry Chemical Physics, 2002, 4, 3246-3251.	2.8	91
27	The natural critical current density limit for Li₇La₃Zr₂O₁₂ garnets. Journal of Materials Chemistry A, 2020, 8, 15782-15788.	10.3	90
28	An Electrolyte for Reversible Cycling of Sodium Metal and Intercalation Compounds. ChemSusChem, 2017, 10, 401-408.	6.8	89
29	Very fast bulk Li ion diffusivity in crystalline Li_{1.5}Al_{0.5}Ti_{1.5}(PO₄)₃as seen using NMR relaxometry. Physical Chemistry Chemical Physics, 2015, 17, 32115-32121.	2.8	83
30	Ion dynamics in solid electrolytes for lithium batteries. Journal of Electroceramics, 2017, 38, 142-156.	2.0	83
31	Interface Instability of Fe-Stabilized Li₇La₃Zr₂O₁₂ versus Li Metal. Journal of Physical Chemistry C, 2018, 122, 3780-3785.	3.1	83
32	Mechanosynthesized BiFeO₃ Nanoparticles with Highly Reactive Surface and Enhanced Magnetization. Journal of Physical Chemistry C, 2011, 115, 7209-7217.	3.1	82
33	Electric field gradient calculations forLixTiS2and comparison withLi7NMR results. Physical Review B, 2004, 70, .	3.2	79
34	Order vs. disorderâ€"a huge increase in ionic conductivity of nanocrystalline LiAlO2 embedded in an amorphous-like matrix of lithium aluminate. Journal of Materials Chemistry A, 2014, 2, 20295-20306.	10.3	79
35	Microscopic Li self-diffusion parameters in the lithiated anode material Li4+xTi5O12 (0 â‰¤xâ‰¤ 3) measured by 7Li solid state NMR. Physical Chemistry Chemical Physics, 2007, 9, 6199.	2.8	78
36	Fast Li diffusion in crystalline<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>LiBH</mml:mtext></mml:mrow><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:ma to reduced dimensionality: Frequency-dependent NMR spectroscopy. Physical Review B, 2010, 82, .	3.2	78

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37	Mechanically Induced Phase Transformation of Î³-Al₂O₃ into Î±-Al₂O₃. Access to Structurally Disordered Î³-Al₂O₃ with a Controllable Amount of Pentacoordinated Al Sites. Journal of Physical Chemistry C, 2011, 115, 22770-22780.	3.1	77
38	â€œIonic liquids-in-saltâ€•â€“ a promising electrolyte concept for high-temperature lithium batteries?. Physical Chemistry Chemical Physics, 2014, 16, 12341-12349.	2.8	76
39	Anion diffusivity in highly conductive nanocrystalline BaF2:CaF2 composites prepared by high-energy ball milling. Journal of Materials Chemistry, 2008, 18, 5412.	6.7	73
40	Heterogeneous lithium diffusion in nanocrystalline Li2O:Al2O3composites. Physical Chemistry Chemical Physics, 2003, 5, 2225-2231.	2.8	71
41	Long-range Li+ dynamics in the lithium argyrodite Li7PSe6 as probed by rotating-frame spinâ€“lattice relaxation NMR. Physical Chemistry Chemical Physics, 2013, 15, 7123.	2.8	70
42	Untangling the Structure and Dynamics of Lithium-Rich Anti-Perovskites Envisaged as Solid Electrolytes for Batteries. Chemistry of Materials, 2018, 30, 8134-8144.	6.7	70
43	Mixed Alkaline-Earth Effect in the Metastable Anion Conductor Ba_{1â€“x}Ca_xF₂ (0 â‰¤ x â‰¤ 1): Correlating Long-Range Ion Transport with Local Structures Revealed by Ultrafast ¹⁹F MAS NMR. Journal of Physical Chemistry C, 2011, 115, 23784-23789.	3.1	65
44	Site Occupation of Ga and Al in Stabilized Cubic Li_{7â€“3(x+y)}Ga_xAl_yLa₃Zr₂O₁₂ Garnets As Deduced from ²⁷Al and ⁷¹Ga MAS NMR at Ultrahigh Magnetic Fields. Chemistry of Materials, 2015, 27, 3135-3142.	6.7	65
45	Lithium motion in the anode material LiC<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>6</mml:mn></mml:msub></mml:math>as seen via time-domain<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>7</mml:mn></mml:msup></mml:math>Li NMR. Physical Review B, 2013, 88, .	3.2	63
46	Macroscopic and microscopic Li+ transport parameters in cubic garnet-type â€œLi6.5La2.5Ba0.5ZrTaO12â€• as probed by impedance spectroscopy and NMR. RSC Advances, 2012, 2, 2553.	3.6	62
47	Ion Dynamics in Solid Electrolytes: NMR Reveals the Elementary Steps of Li⁺ Hopping in the Garnet Li_{6.5}La₃Zr_{1.75}Mo_{0.25}O₁₂. Chemistry of Materials, 2015, 27, 6571-6582.	6.7	60
48	Solid Electrolytes: Extremely Fast Charge Carriers in Garnetâ€Type Li₆La₃ZrTaO₁₂ Single Crystals. Annalen Der Physik, 2017, 529, 1700140.	2.4	60
49	Ion Dynamics at Interfaces: Nuclear Magnetic Resonance Studies. MRS Bulletin, 2009, 34, 915-922.	3.5	56
50	Atomic-scale measurement of ultraslow Li motions in glassyLiAlSi2O6by two-timeL6ispin-alignment echo NMR correlation spectroscopy. Physical Review B, 2008, 78, .	3.2	54
51	Mechanosynthesized nanocrystalline BaLiF3: The impact of grain boundaries and structural disorder on ionic transport. Physical Chemistry Chemical Physics, 2010, 12, 11251.	2.8	54
52	Ionic Conduction Mechanism in the Na₂(B₁₂H₁₂)_{0.5}(B₁₀H₁₀)_{0.5} closo-Borate Solid-State Electrolyte: Interplay of Disorder and Ionâ€“Ion Interactions. Chemistry of Materials, 2019, 31, 3449-3460.	6.7	54
53	Ion transport and diffusion in nanocrystalline and glassy ceramics. European Physical Journal: Special Topics, 2008, 161, 97-108.	2.6	53
54	Correlated fluorine diffusion and ionic conduction in the nanocrystalline F^{â^'} solid electrolyte Ba_{0.6}La_{0.4}F_{2.4}â€”¹⁹F T_{1(Ï)} NMR relaxation vs. conductivity measurements. Physical Chemistry Chemical Physics, 2014, 16, 9580-9590.	2.8	50

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55	Unravelling Ultraslow Lithium-Ion Diffusion in Î³-LiAlO₂: Experiments with Tracers, Neutrons, and Charge Carriers. Chemistry of Materials, 2016, 28, 915-924.	6.7	49
56	Synthesis, Crystal Structure, and Stability of Cubic Li_{7â€“x}La₃Zr_{2â€“x}Bi_xO₁₂. Inorganic Chemistry, 2016, 55, 12211-12219.	4.0	48
57	Diffusion in Confined Dimensions: Li+ Transport in Mixed Conducting TiO2â^'B Nanowires. Journal of Physical Chemistry C, 2009, 113, 4741-4744.	3.1	45
58	High anion conductivity in a ternary non-equilibrium phase of BaF2 and CaF2 with mixed cations. Physical Chemistry Chemical Physics, 2009, 11, 3071.	2.8	45
59	Extremely slow cation exchange processes in Li4SiO4probed directly by two-time7Li stimulated-echo nuclear magnetic resonance spectroscopy. Journal of Physics Condensed Matter, 2006, 18, 9849-9862.	1.8	44
60	Understanding the Origin of Enhanced Li-Ion Transport in Nanocrystalline Argyrodite-Type Li₆PS₅I. Chemistry of Materials, 2020, 32, 4754-4766.	6.7	44
61	Extremely slow Li ion dynamics in monoclinic Li2TiO3â€”probing macroscopic jump diffusion via7Li NMR stimulated echoes. Physical Chemistry Chemical Physics, 2012, 14, 11974.	2.8	43
62	New prospects in studying Li diffusionâ€”two-time stimulated echo NMR of spin-3/2 nuclei. Solid State Ionics, 2006, 177, 3031-3036.	2.7	41
63	Ultraslow Li Exchange Processes in Diamagnetic Li₂ZrO₃ As Monitored by EXSY NMR. Journal of Physical Chemistry C, 2013, 117, 8114-8119.	3.1	41
64	Microscopic Access to Long-Range Diffusion Parameters of the Fast Lithium Ion Conductor Li7BiO6 by Solid State 7Li Stimulated Echo NMR. Journal of Physical Chemistry B, 2007, 111, 8691-8694.	2.6	40
65	Discriminating the Mobile Ions from the Immobile Ones in Li_{4+x}Ti₅O₁₂: ⁶Li NMR Reveals the Main Li⁺ Diffusion Pathway and Proposes a Refined Lithiation Mechanism. Journal of Physical Chemistry C, 2016, 120, 11372-11381.	3.1	40
66	Mechanochemically synthesized fluorides: local structures and ion transport. Dalton Transactions, 2016, 45, 8675-8687.	3.3	40
67	Li NMR Spectroscopy on Crystalline Li₁₂Si₇: Experimental Evidence for the Aromaticity of the Planar Cyclopentadienylâ€Analogous Si₅^{6â^'} Rings. Angewandte Chemie - International Edition, 2011, 50, 12099-12102.	13.8	39
68	Enhancing Photoinduced Electron Transfer Efficiency of Fluorescent pH-Probes with Halogenated Phenols. Analytical Chemistry, 2014, 86, 9293-9300.	6.5	39
69	Access to metastable complex ion conductors via mechanosynthesis: preparation, microstructure and conductivity of (Ba,Sr)LiF3 with inverse perovskite structure. Journal of Materials Chemistry, 2011, 21, 6238.	6.7	38
70	Fast Li Ion Dynamics in the Solid Electrolyte Li₇P₃S₁₁ as Probed by ^{6,7}Li NMR Spinâ€Lattice Relaxation. ChemPhysChem, 2015, 16, 2582-2593.	2.1	38
71	Aging of Tesla's 18650 Lithium-Ion Cells: Correlating Solid-Electrolyte-Interphase Evolution with Fading in Capacity and Power. Journal of the Electrochemical Society, 2017, 164, A3503-A3510.	2.9	38
72	Opening Diffusion Pathways through Site Disorder: The Interplay of Local Structure and Ion Dynamics in the Solid Electrolyte Li_{6+x}P_{1â€“x}Ge_xS₅I as Probed by Neutron Diffraction and NMR. Journal of the American Chemical Society, 2022, 144, 1795-1812.	13.7	38

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73	A simple and straightforward mechanochemical synthesis of the far-from-equilibrium zinc aluminate, ZnAl₂O₄, and its response to thermal treatment. RSC Advances, 2015, 5, 54321-54328.	3.6	37
74	Evaluating the trade-off between mechanical and electrochemical performance of separators for lithium-ion batteries: Methodology and application. Journal of Power Sources, 2016, 306, 702-710.	7.8	37
75	Bulk and grain-boundary ionic conductivity in sodium zirconophosphosilicate Na3Zr2(SiO4)2PO4 (NASICON). Chemical Physics Letters, 2018, 701, 147-150.	2.6	37
76	Ion dynamics in Al-Stabilized Li7La3Zr2O12 single crystals â€“ Macroscopic transport and the elementary steps of ion hopping. Energy Storage Materials, 2020, 24, 220-228.	18.0	37
77	Rapid Li Ion Dynamics in the Interfacial Regions of Nanocrystalline Solids. Journal of Physical Chemistry Letters, 2018, 9, 2093-2097.	4.6	36
78	Mechanically induced decrease of the Li conductivity in an alumosilicate glass. Solid State Ionics, 2009, 180, 302-307.	2.7	35
79	The microstructure matters: breaking down the barriers with single crystalline silicon as negative electrode in Li-ion batteries. Scientific Reports, 2016, 6, 31712.	3.3	35
80	Dispersed Solid Conductors: Fast Interfacial Li-Ion Dynamics in Nanostructured LiF and LiF:Î³-Al₂O₃ Composites. Journal of Physical Chemistry C, 2019, 123, 5222-5230.	3.1	35
81	Motion of Li⁺ in Nanoengineered LiBH₄ and LiBH₄:Al₂O₃ Comparison with the Microcrystalline Form. ChemPhysChem, 2013, 14, 3706-3713.	2.1	33
82	The Electronic Conductivity of Single Crystalline Gaâ€Stabilized Cubic Li₇La₃Zr₂O₁₂: A Technologically Relevant Parameter for Allâ€Solidâ€State Batteries. Advanced Materials Interfaces, 2020, 7, 2000450.	3.7	33
83	Synthesis of ternary transition metal fluorides Li3MF6via a solâ€“gel route as candidates for cathode materials in lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 15819.	6.7	32
84	Li Ion Dynamics in Al-Doped Garnet-Type Li₇La₃Zr₂O₁₂ Crystallizing with Cubic Symmetry. Zeitschrift Fur Physikalische Chemie, 2012, 226, 525-537.	2.8	32
85	Combined Effects of Anion Substitution and Nanoconfinement on the Ionic Conductivity of Li-Based Complex Hydrides. Journal of Physical Chemistry C, 2020, 124, 2806-2816.	3.1	32
86	Li diffusion properties of mixed conductingTiO2-Bnanowires. Physical Review B, 2009, 80, .	3.2	31
87	Structure and ion dynamics of mechanosynthesized oxides and fluorides. Zeitschrift Fur Kristallographie - Crystalline Materials, 2017, 232, 107-127.	0.8	30
88	Diffusion parameters in single-crystalline Li3N as probed by6Li and7Li spin-alignment echo NMR spectroscopy in comparison with results from8Li Î²-radiation detected NMR. Journal of Physics Condensed Matter, 2008, 20, 022201.	1.8	29
89	Towards a lattice-matching solid-state battery: synthesis of a new class of lithium-ion conductors with the spinel structure. Physical Chemistry Chemical Physics, 2013, 15, 6107.	2.8	29
90	Nuclear Spin Relaxation in Nanocrystalline Î²-Li₃PS₄ Reveals Low-Dimensional Li Diffusion in an Isotropic Matrix. Chemistry of Materials, 2018, 30, 7575-7586.	6.7	29

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91	Safety assessment of electrically cycled cells at high temperatures under mechanical crush loads. ETransportation, 2020, 6, 100087.	14.8	29
92	Highâ€Energy Mechanical Treatment Boosts Ion Transport in Nanocrystalline Li₂B₄O₇. Journal of the American Ceramic Society, 2016, 99, 1687-1693.	3.8	26
93	Analytical Dissection of an Automotive Li-Ion Pouch Cell. Batteries, 2019, 5, 67.	4.5	26
94	Li-Ion Diffusion in Nanoconfined LiBH₄-LiI/Al₂O₃: From 2D Bulk Transport to 3D Long-Range Interfacial Dynamics. ACS Applied Materials & Interfaces, 2020, 12, 38570-38583.	8.0	26
95	Defectâ€enhanced F^{â€“} ion conductivity in layerâ€structured nanocrystalline BaSnF₄ prepared by highâ€energy ball milling combined with soft annealing. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 10-14.	0.8	25
96	Long-Cycle-Life Na-Ion Anodes Based on Amorphous Titania Nanotubesâ€”Interfaces and Diffusion. ACS Applied Materials & Interfaces, 2015, 7, 25757-25769.	8.0	25
97	Solid-State NMR to Study Translational Li Ion Dynamics in Solids with Low-Dimensional Diffusion Pathways. Zeitschrift Fur Physikalische Chemie, 2017, 231, 1215-1241.	2.8	25
98	Nanostructured Ceramics: Ionic Transport and Electrochemical Activity. Zeitschrift Fur Physikalische Chemie, 2017, 231, 1361-1405.	2.8	25
99	Mismatch in cation size causes rapid anion dynamics in solid electrolytes: the role of the Arrhenius pre-factor. Dalton Transactions, 2018, 47, 4105-4117.	3.3	25
100	Long-Chain Li and Na Alkyl Carbonates as Solid Electrolyte Interphase Components: Structure, Ion Transport, and Mechanical Properties. Chemistry of Materials, 2018, 30, 3338-3345.	6.7	25
101	Ultraslow Diffusion in Polycrystalline h-LiTiS₂ Studied by ⁷Li Spin-Alignment Echo NMR Spectroscopy. Defect and Diffusion Forum, 2005, 237-240, 1182-1187.	0.4	24
102	Li ion dynamics in TiO₂anode materials with an ordered hierarchical pore structure â€“ insights from ex situ NMR. Physical Chemistry Chemical Physics, 2014, 16, 1894-1901.	2.8	24
103	Myth and Reality about the Origin of Inductive Loops in Impedance Spectra of Lithium-Ion Electrodes â€” A Critical Experimental Approach. Electrochimica Acta, 2016, 207, 218-223.	5.2	24
104	Crystal chemistry of "Li7 La3 Zr2 O12" garnet doped with Al, Ga, and Fe: a short review on local structures as revealed by NMR and MÃ¶ÃŸbauer spectroscopy studies. European Journal of Mineralogy, 2016, 28, 619-629.	1.3	24
105	Quantifying Total Superoxide, Peroxide, and Carbonaceous Compounds in Metalâ€“O₂ Batteries and the Solid Electrolyte Interphase. ACS Energy Letters, 2018, 3, 170-176.	17.4	24
106	F anion dynamics in cation-mixed nanocrystalline LaF3: SrF2. Journal of Materials Science, 2018, 53, 13669-13681.	3.7	24
107	Highly Conductive Garnet-Type Electrolytes: Access to Li_{6.5}La₃Zr_{1.5}Ta_{0.5}O₁₂ Prepared by Molten Salt and Solid-State Methods. ACS Applied Materials & Interfaces, 2020, 12, 48580-48590.	8.0	24
108	Fast Li Ion Dynamics in the Mechanosynthesized Nanostructured Form of the Solid Electrolyte Li₃YBr₆. ACS Sustainable Chemistry and Engineering, 2021, 9, 743-755.	6.7	24

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109	High Li⁺ and Na⁺ Conductivity in New Hybrid Solid Electrolytes based on the Porous MILâ€121 Metal Organic Framework. Advanced Energy Materials, 2021, 11, 2003542.	19.5	24
110	Method for Determination of the Internal Short Resistance and Heat Evolution at Different Mechanical Loads of a Lithium Ion Battery Cell Based on Dummy Pouch Cells. Batteries, 2016, 2, 8.	4.5	23
111	Li intercalation and anion/cation substitution of transition metal chalcogenides: Effects on crystal structure, microstructure, magnetic properties and Li+ ion mobility. Progress in Solid State Chemistry, 2009, 37, 206-225.	7.2	22
112	Li Ion Dynamics along the Inner Surfaces of Layer-Structured 2Hâ€“Li_xNbS₂. ACS Applied Materials & Interfaces, 2015, 7, 4089-4099.	8.0	22
113	Fast Na ion transport triggered by rapid ion exchange on local length scales. Scientific Reports, 2018, 8, 11970.	3.3	22
114	Tracking Ions the Direct Way: Long-Range Li⁺ Dynamics in the Thio-LISICON Family Li₄MCh₄ (M = Sn, Ge; Ch = S, Se) as Probed by ⁷Li NMR Relaxometry and ⁷Li Spin-Alignment Echo NMR. Journal of Physical Chemistry C, 2021, 125, 2306-2317.	3.1	22
115	Nascent SEI-Surface Films on Single Crystalline Silicon Investigated by Scanning Electrochemical Microscopy. ACS Applied Energy Materials, 2019, 2, 1388-1392.	5.1	21
116	Ionic Conductivity of Nanocrystalline and Amorphous Li₁₀GeP₂S₁₂: The Detrimental Impact of Local Disorder on Ion Transport. Journal of the American Chemical Society, 2022, 144, 9597-9609.	13.7	21
117	Spin-alignment echo NMR: probing Li+hopping motion in the solid electrolyte Li7La3Zr2O12with garnet-type tetragonal structure. Journal of Physics Condensed Matter, 2012, 24, 035901.	1.8	20
118	Evidence of low dimensional ion transport in mechanosynthesized nanocrystalline BaMgF₄. Dalton Transactions, 2014, 43, 9901-9908.	3.3	20
119	An Unexpected Pathway: ⁶Li-Exchange NMR Spectroscopy Points to Vacancy-Driven Out-of-Plane Li-Ion Hopping in Crystalline Li₂SnO₃. Journal of Physical Chemistry C, 2016, 120, 3130-3138.	3.1	20
120	Heterogeneous F anion transport, local dynamics and electrochemical stability of nanocrystalline La1â^'Ba F3â^'. Energy Storage Materials, 2019, 16, 481-490.	18.0	20
121	Time-Resolved and Site-Specific Insights into Migration Pathways of Li⁺ in Î±-Li₃VF₆ by ⁶Li 2D Exchange MAS NMR. Journal of Physical Chemistry C, 2010, 114, 19083-19088.	3.1	19
122	Fast Li+ Self-Diffusion in Amorphous Liâ€“Si Electrochemically Prepared from Semiconductor Grade, Monocrystalline Silicon: Insights from Spin-Locking Nuclear Magnetic Relaxometry. Journal of Physical Chemistry C, 2015, 119, 12183-12192.	3.1	19
123	Investigation of the Electron Transfer at Si Electrodes: Impact and Removal of the Native SiO₂Layer. Journal of the Electrochemical Society, 2016, 163, A504-A512.	2.9	19
124	Tuning the Structural and Physical Properties of Cr₂Ti₃Se₈ by Lithium Intercalation:â€‰ A Study of the Magnetic Properties, Investigation of Ion Mobility with NMR Spectroscopy and Electronic Band Structure Calculations. Journal of the American Chemical Society, 2008, 130, 288-299.	13.7	18
125	Diffusion-induced 7Li NMR spin-lattice relaxation of fully lithiated, mixed-conducting Li7Ti5O12. Solid State Ionics, 2016, 287, 77-82.	2.7	18
126	Electrochemical properties of spinel Li4Ti5O12 nanoparticles prepared via a low-temperature solid route. Journal of Solid State Electrochemistry, 2016, 20, 2673-2683.	2.5	17

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127	LiBi3S5â€"A lithium bismuth sulfide with strong cation disorder. Journal of Solid State Chemistry, 2016, 238, 60-67.	2.9	17
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