

H Martin R Wilkening

List of Publications by Citations

Source: <https://exaly.com/author-pdf/2253803/h-martin-r-wilkening-publications-by-citations.pdf>

Version: 2024-04-17

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

198
papers

6,721
citations

47
h-index

73
g-index

230
ext. papers

7,797
ext. citations

5.9
avg, IF

6.21
L-index

#	Paper	IF	Citations
198	Structure and dynamics of the fast lithium ion conductor "Li ₇ La ₃ Zr ₂ O ₁₂ ". <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 19378-92	3.6	446
197	Singlet oxygen generation as a major cause for parasitic reactions during cycling of aprotic lithium-oxygen batteries. <i>Nature Energy</i> , 2017 , 2,	62.3	243
196	Mechanochemical reactions and syntheses of oxides. <i>Chemical Society Reviews</i> , 2013 , 42, 7507-20	58.5	226
195	Structural and Electrochemical Consequences of Al and Ga Cosubstitution in LiLaZrO Solid Electrolytes. <i>Chemistry of Materials</i> , 2016 , 28, 2384-2392	9.6	181
194	Li self-diffusion in garnet-type Li ₇ La ₃ Zr ₂ O ₁₂ as probed directly by diffusion-induced Li ⁷ spin-lattice relaxation NMR spectroscopy. <i>Physical Review B</i> , 2011 , 83,	3.3	144
193	Ultraslow Li diffusion in spinel-type structured Li ₄ Ti ₅ O ₁₂ - a comparison of results from solid state NMR and impedance spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2007 , 9, 1239-46	3.6	131
192	NMR and impedance studies of nanocrystalline and amorphous ion conductors: lithium niobate as a model system. <i>Faraday Discussions</i> , 2007 , 134, 67-82; discussion 103-18, 415-9	3.6	127
191	Crystal Structure of Garnet-Related Li-Ion Conductor Li ₇ GaLaZrO: Fast Li-Ion Conduction Caused by a Different Cubic Modification?. <i>Chemistry of Materials</i> , 2016 , 28, 1861-1871	9.6	116
190	Mechanism and performance of lithium-oxygen batteries - a perspective. <i>Chemical Science</i> , 2017 , 8, 6716-6729	67.29	116
189	From micro to macro: access to long-range Li ⁺ diffusion parameters in solids via microscopic (6, 7) Li spin-alignment echo NMR spectroscopy. <i>ChemPhysChem</i> , 2012 , 13, 53-65	3.2	104
188	Li ion diffusion in the anode material Li ₁₂ Si ₇ : ultrafast quasi-1D diffusion and two distinct fast 3D jump processes separately revealed by ⁷ Li NMR relaxometry. <i>Journal of the American Chemical Society</i> , 2011 , 133, 11018-21	16.4	104
187	Mechanosynthesis of Solid Electrolytes: Preparation, Characterization, and Li Ion Transport Properties of Garnet-Type Al-Doped Li ₇ La ₃ Zr ₂ O ₁₂ Crystallizing with Cubic Symmetry. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 15192-15202	3.8	102
186	Separating bulk from grain boundary Li ion conductivity in the sol-gel prepared solid electrolyte Li _{1.5} Al _{0.5} Ti _{1.5} (PO ₄) ₃ . <i>Journal of Materials Chemistry A</i> , 2015 , 3, 21343-21350	13	101
185	Short-range Li diffusion vs. long-range ionic conduction in nanocrystalline lithium peroxide Li ₂ O ₂ - the discharge product in lithium-air batteries. <i>Energy and Environmental Science</i> , 2014 , 7, 2739-2752	35.4	100
184	NMR relaxometry as a versatile tool to study Li ion dynamics in potential battery materials. <i>Solid State Nuclear Magnetic Resonance</i> , 2012 , 42, 2-8	3.1	94
183	Highly Mobile Ions: Low-Temperature NMR Directly Probes Extremely Fast Li ⁺ Hopping in Arggyrodite-Type Li ₆ PS ₅ Br. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 2118-2123	6.4	90
182	Tuning the Li Diffusivity of Poor Ionic Conductors by Mechanical Treatment: High Li Conductivity of Strongly Defective LiTaO ₃ Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 9291-9300	3.8	89

181	From ultraslow to fast lithium diffusion in the 2D ion conductor Li _{0.7} TiS ₂ probed directly by stimulated-echo NMR and nuclear magnetic relaxation. <i>Physical Review Letters</i> , 2006 , 97, 065901	7.4	89
180	Li jump process in h _h Li _{0.7} TiS ₂ studied by two-time Li ⁷ spin-alignment echo NMR and comparison with results on two-dimensional diffusion from nuclear magnetic relaxation. <i>Physical Review B</i> , 2008 , 77,	3.3	82
179	Small Change, Great Effect: Steep Increase of Li Ion Dynamics in Li ₄ Ti ₅ O ₁₂ at the Early Stages of Chemical Li Insertion. <i>Chemistry of Materials</i> , 2015 , 27, 1740-1750	9.6	81
178	DFT Study of the Role of Al in the Fast Ion-Conductor Li Al LaZrO Garnet. <i>Chemistry of Materials</i> , 2014 , 26, 2617-2623	9.6	80
177	Singlet Oxygen during Cycling of the Aprotic Sodium-O Battery. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 15728-15732	16.4	78
176	Diffusion in amorphous LiNbO ₃ studied by ⁷ Li NMR [comparison with the nano- and microcrystalline material. <i>Physical Chemistry Chemical Physics</i> , 2002 , 4, 3246-3251	3.6	76
175	Electric field gradient calculations for Li _x TiS ₂ and comparison with Li ⁷ NMR results. <i>Physical Review B</i> , 2004 , 70,	3.3	74
174	Microscopic Li self-diffusion parameters in the lithiated anode material Li ₄ + xTi ₅ O ₁₂ (0 Physical Chemistry Chemical Physics, 2007 , 9, 6199-202	3.6	72
173	Mechanosynthesized BiFeO ₃ Nanoparticles with Highly Reactive Surface and Enhanced Magnetization. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 7209-7217	3.8	70
172	Fast Li diffusion in crystalline LiBH ₄ due to reduced dimensionality: Frequency-dependent NMR spectroscopy. <i>Physical Review B</i> , 2010 , 82,	3.3	70
171	Substitutional disorder: structure and ion dynamics of the argyrodites LiPSCl, LiPSBr and LiPSI. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 8489-8507	3.6	69
170	An Electrolyte for Reversible Cycling of Sodium Metal and Intercalation Compounds. <i>ChemSusChem</i> , 2017 , 10, 401-408	8.3	67
169	Order vs. disorder → huge increase in ionic conductivity of nanocrystalline LiAlO ₂ embedded in an amorphous-like matrix of lithium aluminate. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 20295-20306	13	64
168	Anion diffusivity in highly conductive nanocrystalline BaF ₂ :CaF ₂ composites prepared by high-energy ball milling. <i>Journal of Materials Chemistry</i> , 2008 , 18, 5412		63
167	Heterogeneous lithium diffusion in nanocrystalline Li ₂ O:Al ₂ O ₃ composites. <i>Physical Chemistry Chemical Physics</i> , 2003 , 5, 2225-2231	3.6	63
166	Mechanically Induced Phase Transformation of γAl ₂ O ₃ into δAl ₂ O ₃ . Access to Structurally Disordered δAl ₂ O ₃ with a Controllable Amount of Pentacoordinated Al Sites. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 22770-22780	3.8	62
165	Ion dynamics in solid electrolytes for lithium batteries. <i>Journal of Electroceramics</i> , 2017 , 38, 142-156	1.5	59
164	Superionic Diffusion through Frustrated Energy Landscape. <i>CheM</i> , 2019 , 5, 2450-2460	16.2	59

163	"Ionic liquids-in-salt"--a promising electrolyte concept for high-temperature lithium batteries?. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 12341-9	3.6	59
162	Very fast bulk Li ion diffusivity in crystalline Li(1.5)Al(0.5)Ti(1.5)(PO ₄) ₃ as seen using NMR relaxometry. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 32115-21	3.6	59
161	Macroscopic and microscopic Li ⁺ transport parameters in cubic garnet-type Li _{6.5} La _{2.5} Ba _{0.5} ZrTaO ₁₂ as probed by impedance spectroscopy and NMR. <i>RSC Advances</i> , 2012 , 2, 2553	3.7	59
160	Fast Rotational Dynamics in Argyrodite-Type Li ₆ PS ₅ X (X: Cl, Br, I) as Seen by ³¹ P Nuclear Magnetic Relaxation On Cation-Anion Coupled Transport in Thiophosphates. <i>Chemistry of Materials</i> , 2019 , 31, 4591-4597	9.6	57
159	Interface Instability of Fe-Stabilized LiLaZrO versus Li Metal. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 3780-3785	3.8	55
158	Mixed Alkaline-Earth Effect in the Metastable Anion Conductor Ba _{1-x} CaxF ₂ (0 ≤ x ≤ 1): Correlating Long-Range Ion Transport with Local Structures Revealed by Ultrafast ¹⁹ F MAS NMR. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 23784-23789	3.8	55
157	Site Occupation of Ga and Al in Stabilized Cubic Li ₇ B _{x+y} GaxAlyLa ₃ Zr ₂ O ₁₂ Garnets As Deduced from ²⁷ Al and ⁷¹ Ga MAS NMR at Ultrahigh Magnetic Fields. <i>Chemistry of Materials</i> , 2015 , 27, 3135-3142	9.6	54
156	Atomic-scale measurement of ultraslow Li motions in glassy LiAlSi ₂ O ₆ by two-time ⁶ Li spin-alignment echo NMR correlation spectroscopy. <i>Physical Review B</i> , 2008 , 78,	3.3	52
155	Long-range Li ⁺ dynamics in the lithium argyrodite Li ₇ PSe ₆ as probed by rotating-frame spin-lattice relaxation NMR. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 7123-32	3.6	51
154	The natural critical current density limit for Li ₇ La ₃ Zr ₂ O ₁₂ garnets. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 15782-15788	13	50
153	Ion Dynamics in Solid Electrolytes: NMR Reveals the Elementary Steps of Li ⁺ Hopping in the Garnet Li _{6.5} La ₃ Zr _{1.75} Mo _{0.25} O ₁₂ . <i>Chemistry of Materials</i> , 2015 , 27, 6571-6582	9.6	49
152	Lithium motion in the anode material LiC ₆ as seen via time-domain ⁷ Li NMR. <i>Physical Review B</i> , 2013 , 88,	3.3	48
151	Ion Dynamics at Interfaces: Nuclear Magnetic Resonance Studies. <i>MRS Bulletin</i> , 2009 , 34, 915-922	3.2	46
150	Solid Electrolytes: Extremely Fast Charge Carriers in Garnet-Type Li ₆ La ₃ ZrTaO ₁₂ Single Crystals. <i>Annalen Der Physik</i> , 2017 , 529, 1700140	2.6	45
149	Untangling the Structure and Dynamics of Lithium-Rich Anti-Perovskites Envisaged as Solid Electrolytes for Batteries. <i>Chemistry of Materials</i> , 2018 , 30, 8134-8144	9.6	44
148	Extremely slow Li ion dynamics in monoclinic Li ₂ TiO ₃ --probing macroscopic jump diffusion via ⁷ Li NMR stimulated echoes. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 11974-80	3.6	43
147	Mechanosynthesized nanocrystalline BaLiF(3): The impact of grain boundaries and structural disorder on ionic transport. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 11251-62	3.6	43
146	Ion transport and diffusion in nanocrystalline and glassy ceramics. <i>European Physical Journal: Special Topics</i> , 2008 , 161, 97-108	2.3	43

145	Diffusion in Confined Dimensions: Li ⁺ Transport in Mixed Conducting TiO ₂ B Nanowires. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 4741-4744	3.8	41
144	New prospects in studying Li diffusion two-time stimulated echo NMR of spin-3/2 nuclei. <i>Solid State Ionics</i> , 2006 , 177, 3031-3036	3.3	40
143	Correlated fluorine diffusion and ionic conduction in the nanocrystalline F(-) solid electrolyte Ba _{0.6} La _{0.4} F _{2.4} -(19)F T1 (1) NMR relaxation vs. conductivity measurements. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 9580-90	3.6	39
142	Microscopic access to long-range diffusion parameters of the fast lithium ion conductor Li ₇ BiO ₆ by solid state ⁷ Li stimulated echo NMR. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 8691-4	3.4	39
141	Extremely slow cation exchange processes in Li ₄ SiO ₄ probed directly by two-time ⁷ Li stimulated-echo nuclear magnetic resonance spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2006 , 18, 9849-9862	1.8	39
140	Ionic Conduction Mechanism in the Na ₂ (B ₁₂ H ₁₂) _{0.5} (B ₁₀ H ₁₀) _{0.5} closo-Borate Solid-State Electrolyte: Interplay of Disorder and Ion-Ion Interactions. <i>Chemistry of Materials</i> , 2019 , 31, 3449-3460	9.6	38
139	High anion conductivity in a ternary non-equilibrium phase of BaF(2) and CaF(2) with mixed cations. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 3071-81	3.6	38
138	Ultraslow Li Exchange Processes in Diamagnetic Li ₂ ZrO ₃ As Monitored by EXSY NMR. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 8114-8119	3.8	37
137	Enhancing photoinduced electron transfer efficiency of fluorescent pH-probes with halogenated phenols. <i>Analytical Chemistry</i> , 2014 , 86, 9293-300	7.8	36
136	Access to metastable complex ion conductors via mechanosynthesis: preparation, microstructure and conductivity of (Ba,Sr)LiF ₃ with inverse perovskite structure. <i>Journal of Materials Chemistry</i> , 2011 , 21, 6238		36
135	Synthesis, Crystal Structure, and Stability of Cubic LiLaZrBiO. <i>Inorganic Chemistry</i> , 2016 , 55, 12211-12219	5.1	35
134	Fast Li ion dynamics in the solid electrolyte Li ₇ P ₃ S ₁₁ as probed by (6,7) Li NMR spin-lattice relaxation. <i>ChemPhysChem</i> , 2015 , 16, 2582-93	3.2	34
133	Discriminating the Mobile Ions from the Immobile Ones in Li ₄ +xTi ₅ O ₁₂ : ⁶ Li NMR Reveals the Main Li ⁺ Diffusion Pathway and Proposes a Refined Lithiation Mechanism. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 11372-11381	3.8	34
132	Li NMR spectroscopy on crystalline Li ₁₂ Si ₇ : experimental evidence for the aromaticity of the planar cyclopentadienyl-analogous Si ₅ (6-) rings. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 12099-102	16.4	33
131	Evaluating the trade-off between mechanical and electrochemical performance of separators for lithium-ion batteries: Methodology and application. <i>Journal of Power Sources</i> , 2016 , 306, 702-710	8.9	32
130	Unravelling Ultraslow Lithium-Ion Diffusion in LiAlO ₂ : Experiments with Tracers, Neutrons, and Charge Carriers. <i>Chemistry of Materials</i> , 2016 , 28, 915-924	9.6	31
129	Synthesis of ternary transition metal fluorides Li ₃ MF ₆ via a sol-gel route as candidates for cathode materials in lithium-ion batteries. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15819		31
128	A simple and straightforward mechanochemical synthesis of the far-from-equilibrium zinc aluminate, ZnAl ₂ O ₄ , and its response to thermal treatment. <i>RSC Advances</i> , 2015 , 5, 54321-54328	3.7	29

127	Li Ion Dynamics in Al-Doped Garnet-Type Li ₇ La ₃ Zr ₂ O ₁₂ Crystallizing with Cubic Symmetry. <i>Zeitschrift Fur Physikalische Chemie</i> , 2012 , 226, 525-537	3.1	29
126	Li diffusion properties of mixed conducting TiO ₂ -B nanowires. <i>Physical Review B</i> , 2009 , 80,	3.3	29
125	Mechanically induced decrease of the Li conductivity in an aluminosilicate glass. <i>Solid State Ionics</i> , 2009 , 180, 302-307	3.3	29
124	Motion of Li(+) in nanoengineered LiBH(4) and LiBH(4):Al(2)O(3) comparison with the microcrystalline form. <i>ChemPhysChem</i> , 2013 , 14, 3706-13	3.2	27
123	Mechanochemically synthesized fluorides: local structures and ion transport. <i>Dalton Transactions</i> , 2016 , 45, 8675-87	4.3	26
122	Diffusion parameters in single-crystalline Li ₃ N as probed by ⁶ Li and ⁷ Li spin-alignment echo NMR spectroscopy in comparison with results from ⁸ Li μ -radiation detected NMR. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 022201	1.8	26
121	Rapid Li Ion Dynamics in the Interfacial Regions of Nanocrystalline Solids. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 2093-2097	6.4	25
120	Structure and ion dynamics of mechanosynthesized oxides and fluorides. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2017 , 232, 107-127	1	25
119	The microstructure matters: breaking down the barriers with single crystalline silicon as negative electrode in Li-ion batteries. <i>Scientific Reports</i> , 2016 , 6, 31712	4.9	24
118	Li ion dynamics in TiO ₂ anode materials with an ordered hierarchical pore structure--insights from ex situ NMR. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 1894-901	3.6	24
117	Ultraslow Diffusion in Polycrystalline h-LiTiS ₂ Studied by ⁷ Li Spin-Alignment Echo NMR Spectroscopy. <i>Defect and Diffusion Forum</i> , 2005 , 237-240, 1182-1187	0.7	24
116	Dispersed Solid Conductors: Fast Interfacial Li-Ion Dynamics in Nanostructured LiF and LiF:Al ₂ O ₃ Composites. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 5222-5230	3.8	24
115	Nuclear Spin Relaxation in Nanocrystalline Li ₃ PS ₄ Reveals Low-Dimensional Li Diffusion in an Isotropic Matrix. <i>Chemistry of Materials</i> , 2018 , 30, 7575-7586	9.6	24
114	Long-Cycle-Life Na-Ion Anodes Based on Amorphous Titania Nanotubes--Interfaces and Diffusion. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 25757-69	9.5	23
113	Understanding the Origin of Enhanced Li-Ion Transport in Nanocrystalline Argyrodite-Type LiPSI. <i>Chemistry of Materials</i> , 2020 , 32, 4754-4766	9.6	22
112	Towards a lattice-matching solid-state battery: synthesis of a new class of lithium-ion conductors with the spinel structure. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 6107-12	3.6	22
111	Quantifying Total Superoxide, Peroxide, and Carbonaceous Compounds in Metal-O ₂ Batteries and the Solid Electrolyte Interphase. <i>ACS Energy Letters</i> , 2018 , 3, 170-176	20.1	21
110	Aging of Tesla's 18650 Lithium-Ion Cells: Correlating Solid-Electrolyte-Interphase Evolution with Fading in Capacity and Power. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A3503-A3510	3.9	21

109	Ion dynamics in Al-Stabilized Li ₇ La ₃ Zr ₂ O ₁₂ single crystals [Macroscopic transport and the elementary steps of ion hopping. <i>Energy Storage Materials</i> , 2020 , 24, 220-228	19.4	21
108	Combined Effects of Anion Substitution and Nanoconfinement on the Ionic Conductivity of Li-Based Complex Hydrides. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 2806-2816	3.8	20
107	Mismatch in cation size causes rapid anion dynamics in solid electrolytes: the role of the Arrhenius pre-factor. <i>Dalton Transactions</i> , 2018 , 47, 4105-4117	4.3	20
106	Bulk and grain-boundary ionic conductivity in sodium zirconophosphosilicate Na ₃ Zr ₂ (SiO ₄) ₂ PO ₄ (NASICON). <i>Chemical Physics Letters</i> , 2018 , 701, 147-150	2.5	20
105	Defect-enhanced F ⁻ ion conductivity in layer-structured nanocrystalline BaSnF ₄ prepared by high-energy ball milling combined with soft annealing. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2015 , 12, 10-14		20
104	Li intercalation and anion/cation substitution of transition metal chalcogenides: Effects on crystal structure, microstructure, magnetic properties and Li ⁺ ion mobility. <i>Progress in Solid State Chemistry</i> , 2009 , 37, 206-225	8	20
103	Crystal chemistry of "Li ₇ La ₃ Zr ₂ O ₁₂ " garnet doped with Al, Ga, and Fe: a short review on local structures as revealed by NMR and Möbauer spectroscopy studies. <i>European Journal of Mineralogy</i> , 2016 , 28, 619-629	2.2	19
102	Evidence of low dimensional ion transport in mechanosynthesized nanocrystalline BaMgF ₄ . <i>Dalton Transactions</i> , 2014 , 43, 9901-8	4.3	19
101	Li ion dynamics along the inner surfaces of layer-structured 2H-LixNbs ₂ . <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 4089-99	9.5	19
100	Fast Li ⁺ Self-Diffusion in Amorphous Li ₈ Electrochemically Prepared from Semiconductor Grade, Monocrystalline Silicon: Insights from Spin-Locking Nuclear Magnetic Relaxometry. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 12183-12192	3.8	18
99	Long-Chain Li and Na Alkyl Carbonates as Solid Electrolyte Interphase Components: Structure, Ion Transport, and Mechanical Properties. <i>Chemistry of Materials</i> , 2018 , 30, 3338-3345	9.6	18
98	An Unexpected Pathway: 6Li-Exchange NMR Spectroscopy Points to Vacancy-Driven Out-of-Plane Li-Ion Hopping in Crystalline Li ₂ SnO ₃ . <i>Journal of Physical Chemistry C</i> , 2016 , 120, 3130-3138	3.8	18
97	Nanostructured Ceramics: Ionic Transport and Electrochemical Activity. <i>Zeitschrift Fur Physikalische Chemie</i> , 2017 , 231,	3.1	18
96	Spin-alignment echo NMR: probing Li ⁺ hopping motion in the solid electrolyte Li ₇ La ₃ Zr ₂ O ₁₂ with garnet-type tetragonal structure. <i>Journal of Physics Condensed Matter</i> , 2012 , 24, 035901	1.8	18
95	High-Energy Mechanical Treatment Boosts Ion Transport in Nanocrystalline Li ₂ B ₄ O ₇ . <i>Journal of the American Ceramic Society</i> , 2016 , 99, 1687-1693	3.8	17
94	Investigation of the Electron Transfer at Si Electrodes: Impact and Removal of the Native SiO ₂ Layer. <i>Journal of the Electrochemical Society</i> , 2016 , 163, A504-A512	3.9	17
93	Solid-State NMR to Study Translational Li Ion Dynamics in Solids with Low-Dimensional Diffusion Pathways. <i>Zeitschrift Fur Physikalische Chemie</i> , 2017 , 231, 1215-1241	3.1	17
92	Time-Resolved and Site-Specific Insights into Migration Pathways of Li ⁺ in Li ₃ VF ₆ by 6Li 2D Exchange MAS NMR. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 19083-19088	3.8	17

91	Tuning the structural and physical properties of Cr ₂ Ti ₃ Se ₈ by lithium intercalation: a study of the magnetic properties, investigation of ion mobility with NMR spectroscopy and electronic band structure calculations. <i>Journal of the American Chemical Society</i> , 2008 , 130, 288-99	16.4	17
90	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. <i>Batteries</i> , 2016 , 2, 8	5.7	17
89	Fast Na ion transport triggered by rapid ion exchange on local length scales. <i>Scientific Reports</i> , 2018 , 8, 11970	4.9	16
88	Li-NMR-Spektroskopie an kristallinem Li ₁₂ Si ₇ : zur Aromatizität planarer, Cyclopentadienyl-analoger Si ₅ -Ringe. <i>Angewandte Chemie</i> , 2011 , 123, 12305-12308	3.6	16
87	Analytical Dissection of an Automotive Li-Ion Pouch Cell. <i>Batteries</i> , 2019 , 5, 67	5.7	16
86	F anion dynamics in cation-mixed nanocrystalline LaF ₃ : SrF ₂ . <i>Journal of Materials Science</i> , 2018 , 53, 13662-13681	4.3	15
85	Singulett-Sauerstoff in der aprotischen Natrium-O ₂ -Batterie. <i>Angewandte Chemie</i> , 2017 , 129, 15934-15938	3.8	14
84	Nascent SEI-Surface Films on Single Crystalline Silicon Investigated by Scanning Electrochemical Microscopy. <i>ACS Applied Energy Materials</i> , 2019 , 2, 1388-1392	6.1	14
83	Arrhenius Behavior of the Bulk Na-Ion Conductivity in NaSc(PO) ₃ Single Crystals Observed by Microcontact Impedance Spectroscopy. <i>Chemistry of Materials</i> , 2018 , 30, 1776-1781	9.6	14
82	Electrochemical properties of spinel Li ₄ Ti ₅ O ₁₂ nanoparticles prepared via a low-temperature solid route. <i>Journal of Solid State Electrochemistry</i> , 2016 , 20, 2673-2683	2.6	14
81	Ultra-slow Li ion dynamics in Li ₂ C ₂ --on the similarities of results from ⁷ Li spin-alignment echo NMR and impedance spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2010 , 22, 245901	1.8	14
80	Lithium Intercalation into Monoclinic Cr ₄ TiSe ₈ : Synthesis, Structural Phase Transition, and Properties of Li _x Cr ₄ TiSe ₈ (x = 0.1-0.8). <i>Chemistry of Materials</i> , 2006 , 18, 1569-1576	9.6	14
79	Li-Ion Diffusion in Nanoconfined LiBH-LiI/AlO: From 2D Bulk Transport to 3D Long-Range Interfacial Dynamics. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 38570-38583	9.5	14
78	LiBi ₃ S ₅ lithium bismuth sulfide with strong cation disorder. <i>Journal of Solid State Chemistry</i> , 2016 , 238, 60-67	3.3	13
77	Li Conductivity of Nanocrystalline Li ₄ Ti ₅ O ₁₂ Prepared by a Sol-Gel Method and High-Energy Ball Milling. <i>Defect and Diffusion Forum</i> , 2009 , 289-292, 565-570	0.7	13
76	Diffusion in Nanocrystalline Ion Conductors Studied by Solid State NMR and Impedance Spectroscopy. <i>Defect and Diffusion Forum</i> , 2009 , 283-286, 705-715	0.7	13
75	Diffusion-induced ⁷ Li NMR spin-lattice relaxation of fully lithiated, mixed-conducting Li ₇ Ti ₅ O ₁₂ . <i>Solid State Ionics</i> , 2016 , 287, 77-82	3.3	13
74	Ion conduction and dynamics in mechanosynthesized nanocrystalline BaLiF ₃ . <i>Solid State Ionics</i> , 2011 , 184, 65-69	3.3	12

73	Safety assessment of electrically cycled cells at high temperatures under mechanical crush loads. <i>ETransportation</i> , 2020 , 6, 100087	12.7	12
72	Heterogeneous F anion transport, local dynamics and electrochemical stability of nanocrystalline La _{1-x} BaxF ₃ . <i>Energy Storage Materials</i> , 2019 , 16, 481-490	19.4	12
71	The Electronic Conductivity of Single Crystalline Ga-Stabilized Cubic Li ₇ La ₃ Zr ₂ O ₁₂ : A Technologically Relevant Parameter for All-Solid-State Batteries. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2000450	4.6	11
70	A study of Li intercalation into Cr ₃ Ti ₂ Se ₈ using electrochemistry, in-situ energy dispersive X-ray diffractometry and NMR spectroscopy. <i>Solid State Ionics</i> , 2007 , 178, 759-768	3.3	11
69	Spatial confinement - rapid 2D F diffusion in micro- and nanocrystalline RbSnF. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 1872-1883	3.6	10
68	Lithium ion dynamics in LiZr(PO) and LiCaZr(PO). <i>Dalton Transactions</i> , 2019 , 48, 9376-9387	4.3	10
67	Li-ion Dynamics in Solids as Seen Via Relaxation NMR. <i>Materials and Energy</i> , 2015 , 133-190		10
66	Two-dimensional diffusion in Li _{0.7} NbS ₂ as directly probed by frequency-dependent ⁷ Li NMR. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 195402	1.8	10
65	Highly Conductive Garnet-Type Electrolytes: Access to LiLaZrTaO Prepared by Molten Salt and Solid-State Methods. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 48580-48590	9.5	10
64	Myth and Reality about the Origin of Inductive Loops in Impedance Spectra of Lithium-Ion Electrodes – A Critical Experimental Approach. <i>Electrochimica Acta</i> , 2016 , 207, 218-223	6.7	10
63	Lithium barrier materials for on-chip Si-based microbatteries. <i>Journal of Materials Science: Materials in Electronics</i> , 2017 , 28, 14605-14614	2.1	9
62	Lithium Distribution in Monocrystalline Silicon-Based Lithium-Ion Batteries. <i>ECS Transactions</i> , 2014 , 62, 247-253	1	9
61	Proton Bulk Diffusion in Cubic Li ₇ La ₃ Zr ₂ O ₁₂ Garnets as Probed by Single X-ray Diffraction. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 1094-1098	3.8	9
60	Li Ion Dynamics in Nanocrystalline and Structurally Disordered Li ₂ TiO ₃ . <i>Zeitschrift Fur Physikalische Chemie</i> , 2015 , 229, 1363-1374	3.1	8
59	Insights into Li(+) Migration Pathways in Li ₃ VF ₆ : A First-Principles Investigation. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 3120-4	6.4	8
58	Proton conductivity of ordered mesoporous materials containing aluminium. <i>Journal of Power Sources</i> , 2010 , 195, 7781-7786	8.9	8
57	Opening Diffusion Pathways through Site Disorder: The Interplay of Local Structure and Ion Dynamics in the Solid Electrolyte LiPGeSI as Probed by Neutron Diffraction and NMR.. <i>Journal of the American Chemical Society</i> , 2022 ,	16.4	8
56	Structural Disorder in LiPSI Speeds Li Nuclear Spin Recovery and Slows Down P Relaxation-Implications for Translational and Rotational Jumps as Seen by Nuclear Magnetic Resonance. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 22934-22940	3.8	8

55	Two-Dimensional Substitution: Toward a Better Understanding of the Structure-Transport Correlations in the Li-Superionic Thio-LISICONs. <i>Chemistry of Materials</i> , 2021 , 33, 727-740	9.6	8
54	Tracking Ions the Direct Way: Long-Range Li Dynamics in the Thio-LISICON Family LiMCh (M = Sn, Ge; Ch = S, Se) as Probed by Li NMR Relaxometry and Li Spin-Alignment Echo NMR. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 2306-2317	3.8	8
53	Mechanical detection of ultraslow, Debye-like Li-ion motions in LiAlO single crystals. <i>Annalen Der Physik</i> , 2015 , 527, 523-530	2.6	7
52	New Solar Cell-Battery Hybrid Energy System: Integrating Organic Photovoltaics with Li-Ion and Na-Ion Technologies. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 19155-19168	8.3	7
51	Overall conductivity and NCL-type relaxation behavior in nanocrystalline sodium peroxide Na ₂ O ₂ - Consequences for Na-oxygen batteries. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2016 , 211, 85-93	3.1	7
50	Fluoride-Ion Batteries: On the Electrochemical Stability of Nanocrystalline LaBaF against Metal Electrodes. <i>Nanomaterials</i> , 2019 , 9,	5.4	7
49	Fluorine Translational Anion Dynamics in Nanocrystalline Ceramics: SrF ₂ -YF ₃ Solid Solutions. <i>Crystals</i> , 2018 , 8, 122	2.3	7
48	Self-diffusion and ionic exchange in mechanosynthesized, nanocrystalline solid solutions of PbF ₂ and CaF ₂ 19F 2D NMR visualizes the fluorine hopping preferences. <i>Solid State Ionics</i> , 2019 , 343, 115067	3.3	6
47	Novel amino propyl substituted organo tin compounds. <i>Canadian Journal of Chemistry</i> , 2014 , 92, 565-573	3.9	6
46	Fast Li Ion Dynamics in the Mechanosynthesized Nanostructured Form of the Solid Electrolyte Li ₃ YBr ₆ . <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 743-755	8.3	6
45	Diffusion-induced ⁷ Li NMR relaxation of layer-structured tin disulphide - Li diffusion along the buried interfaces in Li _{0.17} SnS ₂ . <i>Solid State Ionics</i> , 2015 , 276, 56-61	3.3	5
44	Low-Temperature Synthesis, Characterization, and Stability of Spinel-Type Li ₂ NiF ₄ and Solid-Solutions Li ₂ Ni _{1-x} CoxF ₄ . <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2013 , 639, 326-333	1.3	5
43	Conductor-Insulator Interfaces in Solid Electrolytes: A Design Strategy to Enhance Li-Ion Dynamics in Nanoconfined LiBH/AIO. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 15052-15060	3.8	5
42	Redox processes in sodium vanadium phosphate cathodes - insights from operando magnetometry. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 20151-20155	3.6	4
41	Partial electronic conductivity of nanocrystalline Na ₂ O ₂ . <i>Materials Research Express</i> , 2017 , 4, 075508	1.7	4
40	Lowering the Interfacial Resistance in Li _{6.4} La ₃ Zr _{1.4} Ta _{0.6} O ₁₂ Poly(Ethylene Oxide) Composite Electrolytes. <i>Cell Reports Physical Science</i> , 2020 , 1, 100214	6.1	4
39	Rapid Low-Dimensional Li Ion Hopping Processes in Synthetic Hectorite-Type Li[MgLi]SiOF. <i>Chemistry of Materials</i> , 2020 , 32, 7445-7457	9.6	4
38	High Li ⁺ and Na ⁺ Conductivity in New Hybrid Solid Electrolytes based on the Porous MIL-121 Metal Organic Framework. <i>Advanced Energy Materials</i> , 2021 , 11, 2003542	21.8	4

37	Dynamical Aspects of Nanocrystalline Ion Conductors Studied by NMR. <i>Kluwer International Series in Electronic Materials: Science and Technology</i> , 2008 , 227-246		4
36	Glass in Two Forms: Heterogeneous Electrical Relaxation in Nanoglassy Petalite. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 10153-10162	3.8	3
35	Ultra-slow Li ion jump diffusion in Li ₂ SnO ₃ studied by two-time ⁷ Li spin-alignment echo NMR and ⁷ Li NMR relaxometry. <i>Solid State Ionics</i> , 2016 , 293, 85-93	3.3	3
34	Evaluation of carboxylic, phosphonic, and sulfonic acid protogenic moieties on tunable poly(meta-phenylene oxide) ionomer scaffolds. <i>Journal of Polymer Science Part A</i> , 2019 , 57, 2209-2213	2.5	3
33	Extended composite temporoparietal fascial flap: clinical implications for tissue engineering in mandibular reconstruction. <i>Journal of Craniofacial Surgery</i> , 2013 , 24, 273-7	1.2	3
32	Studying Li Dynamics in a Gas-Phase Synthesized Amorphous Oxide by NMR and Impedance Spectroscopy. <i>Zeitschrift Fur Physikalische Chemie</i> , 2012 , 226, 513-524	3.1	3
31	Festkörperchemie 2008. <i>Nachrichten Aus Der Chemie</i> , 2009 , 57, 239-251	0.1	3
30	Anomalies in Bulk Ion Transport in the Solid Solutions of LiLaMO (M = Hf, Sn) and LiLaTaO. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 16796-16805	3.8	3
29	The 3R modification of Li _x TiS ₂ Insights into local electronic structures from high-temperature in situ NMR spectroscopy. <i>Philosophical Magazine</i> , 2015 , 95, 861-868	1.6	2
28	Influence of defects on ionic transport in LiTaO ₃ A study using EXAFS and positron annihilation lifetime spectroscopy. <i>Solid State Ionics</i> , 2020 , 352, 115355	3.3	2
27	An X-Ray Absorption Spectroscopy Study of Ball-Milled Lithium Tantalate and Lithium Titanate Nanocrystals. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 169, 012015	0.4	2
26	A Lithium-Silicon Microbattery with Anode and Housing Directly Made from Semiconductor Grade Monocrystalline Si. <i>Advanced Materials Technologies</i> , 2100405	6.8	2
25	With a Little Help from P NMR: The Complete Picture on Localized and Long-Range Li Diffusion in LiPSi. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 22457-22463	3.8	2
24	Fuzzy logic: about the origins of fast ion dynamics in crystalline solids. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200434	3	2
23	On the dependence of ionic transport on crystal orientation in NaSICON-type solid electrolytes. <i>JPhys Energy</i> , 2020 , 2, 035003	4.9	2
22	Isolable Geminal Bisgermenolates: A New Synthone in Organometallic Chemistry. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 23646-23650	16.4	2
21	Insulator:conductor interfacial regions Li ion dynamics in the nanocrystalline dispersed ionic conductor LiF:TiO ₂ . <i>Solid State Ionics</i> , 2021 , 369, 115726	3.3	2
20	Niederdimensionale Materialien für die ersten Li-Ionenbatterien. <i>Nachrichten Aus Der Chemie</i> , 2019 , 67, 48-51	0.1	2

19	Electrochemical properties of arylsilanes. <i>Electrochemistry Communications</i> , 2019 , 102, 13-18	5.1	1
18	Ion dynamics in a new class of materials: nanoglassy lithium alumosilicates. <i>Materials Research Express</i> , 2018 , 5, 035202	1.7	1
17	Fast Na Ion Transport Triggered By Rapid Ion Exchange on Local Length Scales. <i>SSRN Electronic Journal</i> ,	1	1
16	Ionic and electronic transport in the fast Ag conductor β -AgSI. <i>Solid State Sciences</i> , 2021 , 118, 106680	3.4	1
15	Lithium-Ion Transport in Nanocrystalline Spinel-Type Li[InLi]Br as Seen by Conductivity Spectroscopy and NMR. <i>Frontiers in Chemistry</i> , 2020 , 8, 100	5	0
14	Li transport in crystalline and glassy ion conductors as microscopically probed by ^6Li stimulated echo NMR. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2008 , 634, 2018-2018	1.3	0
13	Hybrid Solid-Electrolytes: High Li ⁺ and Na ⁺ Conductivity in New Hybrid Solid Electrolytes based on the Porous MIL-121 Metal Organic Framework (Adv. Energy Mater. 16/2021). <i>Advanced Energy Materials</i> , 2021 , 11, 2170060	21.8	0
12	Direct Assessment of Ultralow Li ⁺ Jump Rates in Single Crystalline Li ₃ N by Evolution-Time-Resolved ^7Li Spin-Alignment Echo NMR. <i>European Journal of Inorganic Chemistry</i> , 2021 , 2021, 1028-1033	2.3	0
11	Extremely Fast Interfacial Li Ion Dynamics in Crystalline LiTFSI Combined with EMIM-TFSI. <i>ACS Physical Chemistry Au</i> , 2022 , 2, 136-142		0
10	Lithium-Festelektrolyte ffEnergiespeicher. <i>Nachrichten Aus Der Chemie</i> , 2018 , 66, 499-504	0.1	
9	Inside Cover: From Micro to Macro: Access to Long-Range Li ⁺ Diffusion Parameters in Solids via Microscopic $^6, ^7\text{Li}$ Spin-Alignment Echo NMR Spectroscopy (ChemPhysChem 1/2012). <i>ChemPhysChem</i> , 2012 , 13, 2-2	3.2	
8	Innenrktitelbild: Singulett-Sauerstoff in der aprotischen Natrium-O ₂ -Batterie (Angew. Chem. 49/2017). <i>Angewandte Chemie</i> , 2017 , 129, 15977-15977	3.6	
7	2D Li Diffusion in Layer-Structured Li _x NbS ₂ as Probed by Frequency-Dependent T ₁ NMR Measurements. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2012 , 638, 1607-1607	1.3	
6	Synthesis, Microstructure, and Transport Properties of Non-Equilibrium Fluorine Ion Conductors. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2012 , 638, 1635-1635	1.3	
5	Time-resolved and Site-specific Insights into Migration Pathways of Li ⁺ in $\beta\text{-Li}_3\text{VF}_6$ by ^6Li 2D EXSY NMR Spectroscopy. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2010 , 636, 2039-2039	1.3	
4	Effect of anion distribution on Li diffusion in Li _x TiS ₂ ySey. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2006 , 632, 2087-2087	1.3	
3	Lowering the Interfacial Resistance in LLZTO:PEO Electrolytes By Covalent Surface Modifications. <i>ECS Meeting Abstracts</i> , 2020 , MA2020-02, 962-962	0	
2	Electrochemical preparation of tin-titania nanocomposite arrays. <i>RSC Advances</i> , 2016 , 6, 98243-98247	3.7	

- 1 Isolable Geminal Bisgermenolates: A New Synthone in Organometallic Chemistry. *Angewandte Chemie*, **2021**, 133, 23838 3.6