

Sylvio Indris

List of Publications by Year in Descending Order

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

210 papers	5,270 citations	41 h-index	60 g-index
235 ext. papers	6,419 ext. citations	6.9 avg, IF	5.82 L-index

#	Paper	IF	Citations
210	High-Entropy Polyanionic Lithium Superionic Conductors 2022 , 4, 418-423		5
209	Photo-Crosslinked Single-Ion Conducting Polymer Electrolyte for Lithium-Metal Batteries.. <i>Macromolecular Rapid Communications</i> , 2022 , e2100820	4.8	1
208	Probing thermally-induced structural evolution during the synthesis of layered Li-, Na-, or K-containing 3d transition-metal oxides. <i>EScience</i> , 2022 ,		7
207	The first lithiation/delithiation mechanism of MFeOPO ₄ (M: Co, Ni) as revealed by ⁵⁷ Fe Mössbauer spectroscopy. <i>Journal of Alloys and Compounds</i> , 2022 , 906, 164373	5.7	1
206	Reactions of metal chlorides with hexamethyldisilazane: Novel precursors to aluminum nitride and beyond. <i>Journal of the American Ceramic Society</i> , 2022 , 105, 2474-2488	3.8	
205	Unraveling a cathode/anode compatible electrolyte for high-performance aqueous rechargeable zinc batteries. <i>Energy Storage Materials</i> , 2022 , 50, 464-472	19.4	0
204	Long-Term Stable, High-Capacity Anode Material for Sodium-Ion Batteries: Taking a Closer Look at CrPS from an Electrochemical and Mechanistic Point of View. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 54936-54950	9.5	0
203	Enhancement of ionic conductivity in novel LiON-AlO _x multilayer heterostructures prepared by atomic layer deposition. <i>Solid State Ionics</i> , 2021 , 373, 115796	3.3	
202	Activating Inert Surface Pt Single Atoms via Subsurface Doping for Oxygen Reduction Reaction. <i>Nano Letters</i> , 2021 , 21, 7970-7978	11.5	4
201	Polyoxometalate Modified Separator for Performance Enhancement of MagnesiumSulfur Batteries. <i>Advanced Functional Materials</i> , 2021 , 31, 2100868	15.6	10
200	Atomic Cobalt Vacancy-Cluster Enabling Optimized Electronic Structure for Efficient Water Splitting. <i>Advanced Functional Materials</i> , 2021 , 31, 2101797	15.6	13
199	Structural Evolution of Layered Manganese Oxysulfides during Reversible Electrochemical Lithium Insertion and Copper Extrusion. <i>Chemistry of Materials</i> , 2021 , 33, 3989-4005	9.6	1
198	CuFeS as a Very Stable High-Capacity Anode Material for Sodium-Ion Batteries: A Multimethod Approach for Elucidation of the Complex Reaction Mechanisms during Discharge and Charge Processes. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 26034-26045	9.5	0
197	Li+/Na+ Ion Exchange in Layered Na ₂ /3(Ni _{0.25} Mn _{0.75})O ₂ : A Simple and Fast Way to Synthesize O3/O2-Type Layered Oxides. <i>Chemistry of Materials</i> , 2021 , 33, 5606-5617	9.6	5
196	Co _{0.5} TiOPO ₄ @C as new negative electrode for sodium ion batteries: Synthesis, characterization, and elucidation of the electrochemical mechanism using in operando synchrotron diffraction. <i>Journal of Power Sources</i> , 2021 , 498, 229924	8.9	0
195	Magnesium-Sulfur Batteries: Polyoxometalate Modified Separator for Performance Enhancement of MagnesiumSulfur Batteries (Adv. Funct. Mater. 26/2021). <i>Advanced Functional Materials</i> , 2021 , 31, 2170189	15.6	1
194	Investigation of Na ₂ /3Co ₂ /3Ti ₁ /3O ₂ as a multi-phase positive electrode material for sodium batteries. <i>Journal of Power Sources</i> , 2021 , 481, 229120	8.9	6

193	The structural origin of enhanced stability of Na _{3.32} Fe _{2.11} Ca _{0.23} (P ₂ O ₇) ₂ cathode for Na-ion batteries. <i>Nano Energy</i> , 2021 , 79, 105417	17.1	9
192	Phosphoric acid and thermal treatments reveal the peculiar role of surface oxygen anions in lithium and manganese-rich layered oxides. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 264-273	13	10
191	Improved performance of high-voltage Li-ion batteries using a novel chemically activated coating process. <i>Materials Research Bulletin</i> , 2021 , 134, 111095	5.1	5
190	Organic Liquid Crystals as Single-Ion Li Conductors. <i>ChemSusChem</i> , 2021 , 14, 655-661	8.3	4
189	Mechanochemical synthesis of novel rutile-type high entropy fluorides for electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 8998-9009	13	11
188	Garnet to hydrogarnet: effect of post synthesis treatment on cation substituted LLZO solid electrolyte and its effect on Li ion conductivity.. <i>RSC Advances</i> , 2021 , 11, 30283-30294	3.7	3
187	Kinetic Control of Long-Range Cationic Ordering in the Synthesis of Layered Ni-Rich Oxides. <i>Advanced Functional Materials</i> , 2021 , 31, 2009949	15.6	11
186	A Solvent-Free Crystal Structure of [Fe(N(SiMe ₃) ₂) ₃] Synthesis, Structure and Properties. <i>European Journal of Inorganic Chemistry</i> , 2021 , 2021, 951-959	2.3	1
185	An Alternative Charge-Storage Mechanism for High-Performance Sodium-Ion and Potassium-Ion Anodes. <i>ACS Energy Letters</i> , 2021 , 6, 915-924	20.1	10
184	Ionic (Proton) transport and molecular interaction of ionic Liquid/BI blends for the use as electrolyte membranes. <i>Journal of Molecular Liquids</i> , 2021 , 116964	6	0
183	Managing Life Span of High-Energy LiNi _{0.88} Co _{0.11} Al _{0.01} O ₂ /C/BI Li-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2021 , 4, 9982-10002	6.1	3
182	New Insights into Lithium Hopping and Ordering in LiNiO ₂ Cathodes during Li (De)intercalation. <i>Chemistry of Materials</i> , 2021 , 33, 9546-9559	9.6	5
181	Solution Combustion-Mechanochemical Syntheses of Composites and Core-Shell xLi ₂ MnO ₃ [(1-x)LiNi _{0.5} Mn _{0.3} Co _{0.2} O ₂ (0 ≤ x ≤ 0.7) Cathode Materials for Lithium-Ion Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 18590-18605	8.3	2
180	Chemical and Structural Evolution during the Synthesis of Layered Li(Ni,Co,Mn)O ₂ Oxides. <i>Chemistry of Materials</i> , 2020 , 32, 4984-4997	9.6	20
179	In Situ X-ray Diffraction and X-ray Absorption Spectroscopic Studies of a Lithium-Rich Layered Positive Electrode Material: Comparison of Composite and Core-Shell Structures. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 13852-13868	9.5	13
178	New maximally disordered High entropy intermetallic phases (MD-HEIP) of the Gd _{1-x} La _x Sn _{2-y} Sb _y M _z (M=Li, Na, Mg): Synthesis, structure and some properties. <i>Journal of Alloys and Compounds</i> , 2020 , 838, 155643	5.7	2
177	Manipulating Layered P ₂ @P ₃ Integrated Spinel Structure Evolution for High-Performance Sodium-Ion Batteries. <i>Angewandte Chemie</i> , 2020 , 132, 9385-9390	3.6	21
176	Manipulating Layered P ₂ @P ₃ Integrated Spinel Structure Evolution for High-Performance Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 9299-9304	16.4	43

175	Mechanochemical synthesis of amorphous and crystalline NaPS- elucidation of local structural changes by X-ray total scattering and NMR. <i>Dalton Transactions</i> , 2020 , 49, 1668-1673	4.3	3
174	Local Electronic Structure in AlN Studied by Single-Crystal Al and N NMR and DFT Calculations. <i>Molecules</i> , 2020 , 25,	4.8	7
173	Na ⁺ ion mobility in Na ₃ Sc ₂ (SiO ₄) ₂ (PO ₄) ₃ ·0.1H ₂ O. <i>Solid State Ionics</i> , 2020 , 348, 115277	3.3	3
172	Understanding the Lifetime of Battery Cells Based on Solid-State LiPSCl Electrolyte Paired with Lithium Metal Electrode. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 20012-20025	9.5	18
171	Development and Investigation of a NASICON-Type High-Voltage Cathode Material for High-Power Sodium-Ion Batteries. <i>Angewandte Chemie</i> , 2020 , 132, 2470-2477	3.6	15
170	Development and Investigation of a NASICON-Type High-Voltage Cathode Material for High-Power Sodium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 2449-2456	16.4	60
169	Thermally Induced Structural Reordering in Li- and Mn-Rich Layered Oxide Li Ion Cathode Materials. <i>Chemistry of Materials</i> , 2020 , 32, 1210-1223	9.6	10
168	Influence of electronically conductive additives on the cycling performance of argyrodite-based all-solid-state batteries.. <i>RSC Advances</i> , 2020 , 10, 1114-1119	3.7	28
167	Influence of residual water and cation acidity on the ionic transport mechanism in proton-conducting ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 1145-1153	3.6	7
166	LiPSCl, a Lithium Chlorothiophosphate as a Solid-State Ionic Conductor. <i>Inorganic Chemistry</i> , 2020 , 59, 226-234	5.1	4
165	What happens structurally and chemically during sodium uptake and release by Ni ₂ P ₂ S ₆ : a combined X-ray diffraction, X-ray absorption, pair distribution function and MAS NMR analysis. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 22401-22415	13	3
164	From LiNiO ₂ to Li ₂ NiO ₃ : Synthesis, Structures and Electrochemical Mechanisms in Li-Rich Nickel Oxides. <i>Chemistry of Materials</i> , 2020 , 32, 9211-9227	9.6	11
163	Mechanistic Insights into the Lithiation and Delithiation of Iron-Doped Zinc Oxide: The Nucleation Site Model. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 8206-8218	9.5	12
162	Multiregion Janus-Featured Cobalt Phosphide-Cobalt Composite for Highly Reversible Room-Temperature Sodium-Sulfur Batteries. <i>ACS Nano</i> , 2020 , 14, 10284-10293	16.7	44
161	Lithium-ion (de)intercalation mechanism in core-shell layered Li(Ni,Co,Mn)O ₂ cathode materials. <i>Nano Energy</i> , 2020 , 78, 105231	17.1	21
160	CuCo ₂ S ₄ Deposited on TiO ₂ : Controlling the pH Value Boosts Photocatalytic Hydrogen Evolution. <i>European Journal of Inorganic Chemistry</i> , 2020 , 2020, 3692-3702	2.3	1
159	Effect of sintering temperature on Li diffusivity in Li _{0.29} La _{0.57} TiO ₃ : Local hopping and long-range transport. <i>Solid State Ionics</i> , 2020 , 357, 115486	3.3	4
158	Synthesis and Characterization of a Multication Doped Mn Spinel, LiNiCuFeMnO ₄ , as 5 V Positive Electrode Material. <i>ACS Omega</i> , 2020 , 5, 22861-22873	3.9	7

157	LiAlO/LiAlO Membranes Derived from Flame-Synthesized Nanopowders as a Potential Electrolyte and Coating Material for All-Solid-State Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 46119-46131	9.5	6
156	New Li _{0.8} M _{0.1} Ti ₂ (PO ₄) ₃ (M=Co, Mg) Electrode Materials for Lithium-Ion Batteries: In Operando X-Ray Diffraction and Ex Situ X-ray Photoelectron Spectroscopy Investigations. <i>ChemElectroChem</i> , 2020 , 7, 3637-3645	4.3	1
155	SnCN ₂ : A Carbodiimide with an Innovative Approach for Energy Storage Systems and Phosphors in Modern LED Technology. <i>ChemElectroChem</i> , 2020 , 7, 4550-4561	4.3	7
154	Synthesis, Characterization, Electrochemistry, and In Situ X-ray Diffraction Investigation of Ni ₃ (PO ₄) ₂ as a Negative Electrode Material for Lithium-Ion Batteries. <i>ChemElectroChem</i> , 2020 , 7, 3866-3873	4.3	7
153	Structure and Diffusion Pathways in Li ₆ PS ₅ Cl Argyrodite from Neutron Diffraction, Pair-Distribution Function Analysis, and NMR. <i>Chemistry of Materials</i> , 2020 , 32, 8420-8430	9.6	9
152	LiGeSBr-An Argyrodite Li-Ion Conductor Prepared by Mechanochemical Synthesis. <i>Inorganic Chemistry</i> , 2020 , 59, 12954-12959	5.1	7
151	Phase transformation, charge transfer, and ionic diffusion of Na ₄ MnV(PO ₄) ₃ in sodium-ion batteries: a combined first-principles and experimental study. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 17477-17486	13	11
150	Doped Nanoscale NMC333 as Cathode Materials for Li-Ion Batteries. <i>Materials</i> , 2019 , 12,	3.5	11
149	Unveiling the Reaction Mechanism during Li Uptake and Release of Nanosized "NiFeMnO": Operando X-ray Absorption, X-ray Diffraction, and Pair Distribution Function Investigations. <i>ACS Omega</i> , 2019 , 4, 2398-2409	3.9	9
148	General Electron-Assisted Strategy for Ir, Pt, Ru, Pd, Fe, Ni Single-Atom Electrocatalysts with Bifunctional Active Sites for Highly Efficient Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 11868-11873	16.4	120
147	General Electron-Assisted Strategy for Ir, Pt, Ru, Pd, Fe, Ni Single-Atom Electrocatalysts with Bifunctional Active Sites for Highly Efficient Water Splitting. <i>Angewandte Chemie</i> , 2019 , 131, 11994-11999	3.6	19
146	Synthesis and electrochemical properties of rGO/polypyrrole/ferrites nanocomposites obtained via a hydrothermal route for hybrid aqueous supercapacitors. <i>Journal of Electroanalytical Chemistry</i> , 2019 , 845, 72-83	4.1	33
145	Electrochemical Lithium Extraction and Insertion Process of Sol-Gel Synthesized LiMnPO ₄ via Two-Phase Mechanism. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A1257-A1265	3.9	8
144	Editors' Choice Understanding Chemical Stability Issues between Different Solid Electrolytes in All-Solid-State Batteries. <i>Journal of the Electrochemical Society</i> , 2019 , 166, A975-A983	3.9	43
143	Amorphous versus Crystalline Li ₃ PS ₄ : Local Structural Changes during Synthesis and Li Ion Mobility. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 10280-10290	3.8	33
142	NASICON-type air-stable and all-climate cathode for sodium-ion batteries with low cost and high-power density. <i>Nature Communications</i> , 2019 , 10, 1480	17.4	145
141	Ni _{0.5} TiOPO ₄ phosphate: Sodium insertion mechanism and electrochemical performance in sodium-ion batteries. <i>Journal of Power Sources</i> , 2019 , 418, 211-217	8.9	11
140	Study of the Na Storage Mechanism in Silicon Oxycarbide Evidence for Reversible Silicon Redox Activity. <i>Small Methods</i> , 2019 , 3, 1800177	12.8	14

- 139 Synthesis, Structure, and Electronic Properties of $\text{SnOCl}(\text{CN})$. *Inorganic Chemistry*, **2019**, 58, 14560-14567. 5.1 5
- 138 Amorphous MoO_3 -Type/Carbon Nanocomposite with Enhanced Electrochemical Capability for Lithium-Ion Batteries. *Nanomaterials*, **2019**, 10, 1-10. 5.4 3
- 137 Evidence of a Pseudo-Capacitive Behavior Combined with an Insertion/Extraction Reaction Upon Cycling of the Positive Electrode Material $\text{P2-Na}_x\text{Co}_{0.9}\text{Ti}_{0.1}\text{O}_2$ for Sodium-ion Batteries. *ChemElectroChem*, **2019**, 6, 892-903. 4.3 12
- 136 Structural insights into the formation and voltage degradation of lithium- and manganese-rich layered oxides. *Nature Communications*, **2019**, 10, 5365. 17.4 79
- 135 (De)Lithiation Mechanism of Hierarchically Layered $\text{LiNi}_{1/3}\text{Co}_{1/3}\text{Mn}_{1/3}\text{O}_2$ Cathodes during High-Voltage Cycling. *Journal of the Electrochemical Society*, **2019**, 166, A5025-A5032. 3.9 19
- 134 A Hydrostable Cathode Material Based on the Layered P2@P3 Composite that Shows Redox Behavior for Copper in High-Rate and Long-Cycling Sodium-Ion Batteries. *Angewandte Chemie - International Edition*, **2019**, 58, 1412-1416. 16.4 62
- 133 In Operando Synchrotron Diffraction and in Operando X-ray Absorption Spectroscopy Investigations of Orthorhombic VO Nanowires as Cathode Materials for Mg-Ion Batteries. *Journal of the American Chemical Society*, **2019**, 141, 2305-2315. 16.4 37
- 132 A Hydrostable Cathode Material Based on the Layered P2@P3 Composite that Shows Redox Behavior for Copper in High-Rate and Long-Cycling Sodium-Ion Batteries. *Angewandte Chemie*, **2019**, 131, 1426-1430. 3.6 17
- 131 Lithium/Oxygen Incorporation and Microstructural Evolution during Synthesis of Li-Rich Layered $\text{Li}[\text{Li}_{0.2}\text{Ni}_{0.2}\text{Mn}_{0.6}]\text{O}_2$ Oxides. *Advanced Energy Materials*, **2019**, 9, 1803094. 21.8 52
- 130 Observation of electrochemically active Fe/Fe in LiCoFeMnO by in situ Mössbauer spectroscopy and X-ray absorption spectroscopy. *Physical Chemistry Chemical Physics*, **2018**, 21, 89-95. 3.6 8
- 129 Electrochemical performance of nanosized MnO_2 synthesized by redox route using biological reducing agents. *Journal of Alloys and Compounds*, **2018**, 746, 227-237. 5.7 16
- 128 High electrochemical performance of 3D highly porous $\text{Zn}_{0.2}\text{Ni}_{0.8}\text{Co}_2\text{O}_4$ microspheres as an electrode material for electrochemical energy storage. *CrystEngComm*, **2018**, 20, 2159-2168. 3.3 18
- 127 Fabrication and characterization of monodispersed $\text{Mn}_{0.8}\text{Ni}_{0.2}\text{Co}_2\text{O}_4$ mesoporous microspheres for supercapacitor application. *Ceramics International*, **2018**, 44, 8864-8869. 5.1 7
- 126 Anatase TiO_2 nanoparticles for lithium-ion batteries. *Ionics*, **2018**, 24, 2925-2934. 2.7 38
- 125 Green synthesis of nanosized manganese dioxide as positive electrode for lithium-ion batteries using lemon juice and citrus peel. *Electrochimica Acta*, **2018**, 262, 74-81. 6.7 23
- 124 Activation and degradation of electrospun LiFePO_4 battery cathodes. *Journal of Power Sources*, **2018**, 396, 386-394. 8.9 14
- 123 EDTA as chelating agent for sol-gel synthesis of spinel LiMn_2O_4 cathode material for lithium batteries. *Journal of Alloys and Compounds*, **2018**, 737, 758-766. 5.7 30
- 122 High-Resolution Surface Analysis on Aluminum Oxide-Coated LiMnNiCoO with Improved Capacity Retention. *ACS Applied Materials & Interfaces*, **2018**, 10, 43131-43143. 9.5 26

121	Slurry-Based Processing of Solid Electrolytes: A Comparative Binder Study. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A3993-A3999	3.9	29
120	Operando Studies of Antiperovskite Lithium Battery Cathode Material (Li ₂ Fe)SO. <i>ACS Applied Energy Materials</i> , 2018 , 1, 6593-6599	6.1	9
119	Improved All-Vanadium Redox Flow Batteries using Catholyte Additive and a Cross-linked Methylated Polybenzimidazole Membrane. <i>ACS Applied Energy Materials</i> , 2018 , 1, 6047-6055	6.1	20
118	Inducing High Ionic Conductivity in the Lithium Superionic Argyrodites LiPGe SI for All-Solid-State Batteries. <i>Journal of the American Chemical Society</i> , 2018 , 140, 16330-16339	16.4	205
117	Ionic conduction and dielectric properties of yttrium doped LiZr ₂ (PO ₄) ₃ obtained by a Pechini-type polymerizable complex route. <i>Ceramics International</i> , 2018 , 44, 15509-15516	5.1	10
116	Li ⁺ -Ion Dynamics in Li ₃ PS ₄ Observed by NMR: Local Hopping and Long-Range Transport. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 15954-15965	3.8	55
115	Transition metal cations on the move: simultaneous operando X-ray absorption spectroscopy and X-ray diffraction investigations during Li uptake and release of a NiFeO/CNT composite. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 19129-19141	3.6	10
114	Stability of NASICON materials against water and CO ₂ uptake. <i>Solid State Ionics</i> , 2017 , 302, 102-106	3.3	25
113	Li ₄ PS ₄ I: A Li ⁺ Superionic Conductor Synthesized by a Solvent-Based Soft Chemistry Approach. <i>Chemistry of Materials</i> , 2017 , 29, 1830-1835	9.6	76
112	Unravelling the growth mechanism of hierarchically structured Ni _{1/3} Co _{1/3} Mn _{1/3} (OH) ₂ and their application as precursors for high-power cathode materials. <i>Electrochimica Acta</i> , 2017 , 232, 123-131	6.7	37
111	Synthesis, Structural Characterization, and Lithium Ion Conductivity of the Lithium Thiophosphate LiPS. <i>Inorganic Chemistry</i> , 2017 , 56, 6681-6687	5.1	67
110	CuVS: A High Rate Capacity and Stable Anode Material for Sodium Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 21283-21291	9.5	44
109	Fast Na ⁺ Ion Conduction in NASICON-Type Na _{3.4} Sc ₂ (SiO ₄) _{0.4} (PO ₄) _{2.6} Observed by ²³ Na NMR Relaxometry. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 1449-1454	3.8	27
108	Effect of Titanium Substitution in a P ₂ -NaCoTiO Cathode Material on the Structural and Electrochemical Properties. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 37778-37785	9.5	23
107	Local Structures and Li Ion Dynamics in a Li ₁₀ SnP ₂ S ₁₂ -Based Composite Observed by Multinuclear Solid-State NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 23370-23376	3.8	22
106	Delithiation/relithiation process of LiCoMnO ₄ spinel as 5 V electrode material. <i>Journal of Power Sources</i> , 2017 , 371, 55-64	8.9	12
105	Pseudocapacitance of Mesoporous Spinel-Type MCoO (M = Co, Zn, and Ni) Rods Fabricated by a Facile Solvothermal Route. <i>ACS Omega</i> , 2017 , 2, 6003-6013	3.9	61
104	Understanding the lithiation/delithiation process in SnP ₂ O ₇ anode material for lithium-ion batteries. <i>Electrochimica Acta</i> , 2017 , 252, 446-452	6.7	10

103	LiCaFeF6: A zero-strain cathode material for use in Li-ion batteries. <i>Journal of Power Sources</i> , 2017 , 362, 192-201	8.9	16
102	Lithium ion conductivity in Li2S2S5 glasses [building units and local structure evolution during the crystallization of superionic conductors Li3PS4, Li7P3S11 and Li4P2S7. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 18111-18119	13	159
101	Shape-controlled synthesis of hierarchically layered lithium transition-metal oxide cathode materials by shear exfoliation in continuous stirred-tank reactors. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 25391-25400	13	46
100	A long cycle-life and high safety Na+/Mg2+ hybrid-ion battery built by using a TiS2 derived titanium sulfide cathode. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 600-608	13	48
99	Local Structural Investigations, Defect Formation, and Ionic Conductivity of the Lithium Ionic Conductor Li4P2S6. <i>Chemistry of Materials</i> , 2016 , 28, 8764-8773	9.6	74
98	Local Electronic Structure in α -LiAlO Studied by Single-Crystal Al NMR and DFT Calculations. <i>Journal of Physical Chemistry A</i> , 2016 , 120, 7839-7846	2.8	6
97	Polystyrene comb architectures as model systems for the optimized solution electrospinning of branched polymers. <i>Polymer</i> , 2016 , 104, 240-250	3.9	15
96	Comparison of electrospun and conventional LiFePO4/C composite cathodes for Li-ion batteries. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2016 , 213, 98-104	3.1	5
95	Blend formed by oxygen deficient MoO3 oxides as lithium-insertion compounds. <i>Journal of Alloys and Compounds</i> , 2016 , 686, 744-752	5.7	15
94	Single-crystal neutron diffraction on α -LiAlO2: structure determination and estimation of lithium diffusion pathway. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2016 , 231, 189-193	1	17
93	Variations in structure and electrochemistry of iron- and titanium-doped lithium nickel manganese oxyfluoride spinels. <i>Journal of Power Sources</i> , 2016 , 315, 269-276	8.9	15
92	Identifying the redox activity of cation-disordered Li-Fe-V-Ti oxide cathodes for Li-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 7695-701	3.6	22
91	Electrochemical lithiation/delithiation of SnPO ₃ observed by in situ XRD and ex situ $^{67}\text{Li}/^{119}\text{Sn}$ NMR, and ^{119}Sn Mössbauer spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 10375-82	3.6	8
90	What Happens Structurally and Electronically during the Li Conversion Reaction of CoFe2O4 Nanoparticles: An Operando XAS and XRD Investigation. <i>Chemistry of Materials</i> , 2016 , 28, 434-444	9.6	57
89	Elucidation of the Conversion Reaction of CoMnFeO4 Nanoparticles in Lithium Ion Battery Anode via Operando Studies. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 15320-32	9.5	29
88	Structural properties and application in lithium cells of Li(Ni0.5Co0.5)1-xFeyO2 (0 \leq y \leq 0.25) prepared by sol-gel route: Doping optimization. <i>Journal of Power Sources</i> , 2016 , 320, 168-179	8.9	13
87	Observing Local Oxygen Interstitial Diffusion in Donor-Doped Ceria by ^{17}O NMR Relaxometry. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 8568-8577	3.8	21
86	Toward On-and-Off Magnetism: Reversible Electrochemistry to Control Magnetic Phase Transitions in Spinel Ferrites. <i>Advanced Functional Materials</i> , 2016 , 26, 7507-7515	15.6	54

85	The Role of Reduced Graphite Oxide in Transition Metal Oxide Nanocomposites Used as Li Anode Material: An Operando Study on CoFe O /rGO. <i>Chemistry - A European Journal</i> , 2016 , 22, 16929-16938	4.8	14
84	Enhancement of electrochemical performance by simultaneous substitution of Ni and Mn with Fe in Ni-Mn spinel cathodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2016 , 327, 507-518	8.9	24
83	Direct synthesis of trirutile-type LiMgFeF ₆ and its electrochemical characterization as positive electrode in lithium-ion batteries. <i>Journal of Power Sources</i> , 2015 , 274, 1200-1207	8.9	8
82	Unravelling the mechanism of lithium insertion into and extraction from trirutile-type LiNiFeF ₆ cathode material for Li-ion batteries. <i>CrystEngComm</i> , 2015 , 17, 6163-6174	3.3	15
81	Mechanism of the Delithiation/Lithiation Process in LiFe _{0.4} Mn _{0.6} PO ₄ : in Situ and ex Situ Investigations on Long-Range and Local Structures. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 9016-9024	7.8	36
80	From WCl ₆ to WCl ₂ : Properties of Intermediate Fe-W-Cl Phases. <i>Inorganic Chemistry</i> , 2015 , 54, 9826-32	5.1	6
79	Amendment of the Li-Bi Phase Diagram Crystal and Electronic Structure of Li ₂ Bi. <i>Journal of Phase Equilibria and Diffusion</i> , 2015 , 36, 544-553	1	9
78	Nanoscale spinel LiFeTiO ₄ for intercalation pseudocapacitive Li(+) storage. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 1482-8	3.6	30
77	Is there a universal reaction mechanism of Li insertion into oxidic spinels: a case study using MgFe ₂ O ₄ . <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1549-1561	13	27
76	Electrode Materials Based on Phosphates for Lithium Ion Batteries as an Efficient Energy Storage System 2015 , 343-349		
75	Electrolyte Mixtures Based on Ethylene Carbonate and Dimethyl Sulfone for Li-Ion Batteries with Improved Safety Characteristics. <i>ChemSusChem</i> , 2015 , 8, 1892-900	8.3	20
74	Block-shaped pure and doped Li ₄ Ti ₅ O ₁₂ containing a high content of a Li ₂ TiO ₃ dual phase: an anode with excellent cycle life for high rate performance lithium-ion batteries. <i>RSC Advances</i> , 2015 , 5, 108058-108066	3.7	13
73	CEC and ⁷ Li MAS NMR Study of Interlayer Li ⁺ in the Montmorillonite/Beidellite Series at Room Temperature and After Heating. <i>Clays and Clay Minerals</i> , 2015 , 63, 337-350	2.1	8
72	Sol-Gel Processing and Electrochemical Conversion of Inverse Spinel-Type Li ₂ NiF ₄ . <i>Journal of the Electrochemical Society</i> , 2015 , 162, A679-A686	3.9	10
71	Influence of Iron on the Structural Evolution of LiNi _{0.4} Fe _{0.2} Mn _{1.4} O ₄ during Electrochemical Cycling Investigated by in situ Powder Diffraction and Spectroscopic Methods. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2014 , 640, 3118-3126	1.3	14
70	Electrochemical Delithiation/Relithiation of LiCoPO ₄ : A Two-Step Reaction Mechanism Investigated by in Situ X-ray Diffraction, in Situ X-ray Absorption Spectroscopy, and ex Situ ⁷ Li/ ³¹ P NMR Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 17279-17290	3.8	46
69	Mixtures of Ionic Liquid and Sulfolane as Electrolytes for Li-Ion Batteries. <i>Electrochimica Acta</i> , 2014 , 147, 704-711	6.7	28
68	Reversible Li ⁺ Storage in a LiMnTiO ₄ Spinel and Its Structural Transition Mechanisms. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 12608-12616	3.8	33

67	Nebulized spray pyrolysis of Al-doped $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ solid electrolyte for battery applications. <i>Solid State Ionics</i> , 2014 , 263, 49-56	3.3	63
66	Sol-Gel Based Synthesis of LiNiFeF_6 and Its Electrochemical Characterization. <i>Journal of the Electrochemical Society</i> , 2014 , 161, A1071-A1077	3.9	12
65	Electrochemical Characterization of LiMnFeF_6 for Use as Positive Electrode in Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2014 , 161, A1869-A1876	3.9	7
64	Ionic Liquid Based Electrolytes: Correlating Li Diffusion Coefficients and Battery Performance. <i>Journal of the Electrochemical Society</i> , 2014 , 161, A2036-A2041	3.9	18
63	Nanocrystalline solid solutions $\text{Al}_y\text{Sn}_{1-y}\text{O}_2$ ($y=0.57, 0.4$) as electrode materials for lithium-ion batteries. <i>Journal of Power Sources</i> , 2013 , 229, 149-158	8.9	2
62	Electrochemical insertion of Li into nanocrystalline MnFe_2O_4 : a study of the reaction mechanism. <i>RSC Advances</i> , 2013 , 3, 23001	3.7	29
61	Synthesis and electrochemical performance of nanocrystalline $\text{Al}_{0.4}\text{Mg}_{0.2}\text{Sn}_{0.4}\text{O}_{1.6}$ and $\text{Al}_{0.25}\text{Mg}_{0.38}\text{Sn}_{0.38}\text{O}_{1.5}$ investigated by in situ XRD, $^{27}\text{Al}/^{119}\text{Sn}$ MAS NMR, ^{119}Sn Mössbauer spectroscopy, and galvanostatic cycling. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 13842	13	
60	Suppressed lithium dendrite growth in lithium batteries using ionic liquid electrolytes: Investigation by electrochemical impedance spectroscopy, scanning electron microscopy, and in situ ^7Li nuclear magnetic resonance spectroscopy. <i>Journal of Power Sources</i> , 2013 , 228, 237-243	8.9	126
59	Structural Evolution of $\text{Li}_2\text{Fe}_{1-y}\text{Mn}_y\text{SiO}_4$ ($y = 0, 0.2, 0.5, 1$) Cathode Materials for Li-Ion Batteries upon Electrochemical Cycling. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 884-893	3.8	52
58	MnO_2 Nano-Rods Prepared by Redox Reaction as Cathodes in Lithium Batteries. <i>ECS Transactions</i> , 2013 , 50, 125-130	1	13
57	Influence of the Morphology of Lithiated Copper(I) Sulfides with the Formal Composition $\text{Li}_2\text{Cu}_4\text{S}_3$ on Their Stability in Electrochemical Cycling. <i>European Journal of Inorganic Chemistry</i> , 2013 , 2013, 1531-1540	2.3	2
56	Study of local structure and Li dynamics in $\text{Li}_{(4+x)}\text{Ti}_{(5)}\text{O}_{(12)}$ ($0 \leq x \leq 1$) using (^6Li) and (^7Li) NMR spectroscopy. <i>Solid State Nuclear Magnetic Resonance</i> , 2012 , 42, 9-16	3.1	42
55	Chemical and electrochemical insertion of Li into the spinel structure of CuCr_2Se_4 : ex situ and in situ observations by X-ray diffraction and scanning electron microscopy. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 7509-16	3.6	14
54	Synthesis of nanocrystalline solid solutions $\text{Al}_y\text{Sn}_{1-y}\text{O}_2$ ($y = 0.57, 0.4$) investigated by XRD, $^{27}\text{Al}/^{119}\text{Sn}$ MAS NMR, and Mössbauer spectroscopy. <i>RSC Advances</i> , 2012 , 2, 10700	3.7	6
53	Li Ion Dynamics in a LiAlO_2 Single Crystal Studied by ^7Li NMR Spectroscopy and Conductivity Measurements. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 14243-14247	3.8	58
52	Nanocrystalline Solid Solutions $\text{Al}_y\text{Sn}_{1-y}\text{O}_2$ ($y = 0.57, 0.4$) as Electrode Materials for Li-Ion Batteries. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2012 , 638, 1554-1554	1.3	
51	Electrochemical impedance spectroscopy of $\text{Li}_4\text{Ti}_5\text{O}_{12}$ and LiCoO_2 based half-cells and $\text{Li}_4\text{Ti}_5\text{O}_{12}/\text{LiCoO}_2$ cells: Internal interfaces and influence of state-of-charge and cycle number. <i>Solid State Ionics</i> , 2012 , 226, 15-23	3.3	24
50	Multinuclear NMR spectroscopic studies of structure and dynamics in hydrous $\text{NaAlSi}_3\text{O}_8$ and $\text{Ca}_{0.5}\text{AlSi}_3\text{O}_8$ glasses. <i>Journal of Non-Crystalline Solids</i> , 2012 , 358, 2862-2867	3.9	6

49	Nonequilibrium structure of Zn ₂ SnO ₄ spinel nanoparticles. <i>Journal of Materials Chemistry</i> , 2012 , 22, 3117		75
48	Electrochemical insertion of lithium in mechanochemically synthesized Zn ₂ SnO ₄ . <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 19624-31	3.6	27
47	Cycling behaviour of Li/Li ₄ Ti ₅ O ₁₂ cells studied by electrochemical impedance spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 6234-40	3.6	62
46	High-resolution ²⁷ Al MAS NMR spectroscopic studies of the response of spinel aluminates to mechanical action. <i>Journal of Materials Chemistry</i> , 2011 , 21, 8332		37
45	Nanocrystalline Ti ₂ /3Sn ₁ /3O ₂ as anode material for Li-ion batteries. <i>Journal of Power Sources</i> , 2011 , 196, 9689-9695	8.9	33
44	Development of nanocomposites for anode materials in Li-ion batteries. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 471-473	1.6	9
43	Structural and morphological study of mechanochemically synthesized tin diselenide. <i>Journal of Materials Chemistry</i> , 2011 , 21, 5873		28
42	Local Structural Disorder and Relaxation in SnO ₂ Nanostructures Studied by ¹¹⁹ Sn MAS NMR and ¹¹⁹ Sn Mössbauer Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 6433-6437	3.8	33
41	In situ scanning electron microscopy on lithium-ion battery electrodes using an ionic liquid. <i>Journal of Power Sources</i> , 2011 , 196, 6382-6387	8.9	84
40	Nanocrystalline Complex Oxides Prepared by Mechanochemical Reactions 2010 ,		1
39	Festkörperchemie 2009. <i>Nachrichten Aus Der Chemie</i> , 2010 , 58, 257-266	0.1	2
38	Constitution, microstructure, and battery performance of magnetron sputtered LiCoO ₂ thin film cathodes for lithium-ion batteries as a function of the working gas pressure. <i>Surface and Coatings Technology</i> , 2010 , 205, 1589-1594	4.4	21
37	Pyrolysis of a three-dimensional Mn(II)/Mn(III) network to give a multifunctional porous manganese oxide material. <i>Chemistry - A European Journal</i> , 2010 , 16, 1158-62	4.8	33
36	Laser-assisted structuring and modification of LiCoO ₂ thin films 2009 ,		7
35	Defect formation during high-energy ball milling in TiO ₂ and its relation to the photocatalytic activity. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2009 , 207, 231-235	4.7	20
34	A One-Step Mechanochemical Route to Core/Shell Ca ₂ SnO ₄ Nanoparticles Followed by ¹¹⁹ Sn MAS NMR and ¹¹⁹ Sn Mössbauer Spectroscopy. <i>Chemistry of Materials</i> , 2009 , 21, 2518-2524	9.6	42
33	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
32	An electrochemical study of lithium insertion into Cr(5-y)Ti(y)Se(8) (y = 1, 2, 3, 4, 4.5) beyond the intercalation limit. <i>Physical Chemistry Chemical Physics</i> , 2009 , 11, 3250-6	3.6	4

31	Mechanochemical activation of MoS ₂ surface properties and catalytic activities in hydrogenation and isomerization of alkenes and in H ₂ /D ₂ exchange. <i>Journal of Catalysis</i> , 2008 , 260, 236-244	7.3	23
30	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
29	Dynamical Aspects of Nanocrystalline Ion Conductors Studied by NMR. <i>Kluwer International Series in Electronic Materials: Science and Technology</i> , 2008 , 227-246		4
28	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
27	Enhanced conductivity at the interface of Li ₂ O:B ₂ O ₃ nanocomposites: atomistic models. <i>Physical Review Letters</i> , 2007 , 99, 145502	7.4	19
26	Local electronic structure in MgB ₂ from B ₁₂ NMR. <i>Physical Review B</i> , 2007 , 75,	3.3	7
25	Direct determination of the cation disorder in nanoscale spinels by NMR, XPS, and Mössbauer spectroscopy. <i>Journal of Alloys and Compounds</i> , 2007 , 434-435, 776-778	5.7	43
24	Nonequilibrium cation distribution in nanocrystalline MgAl ₂ O ₄ spinel studied by ²⁷ Al magic-angle spinning NMR. <i>Solid State Ionics</i> , 2006 , 177, 2487-2490	3.3	39
23	Electrochemical Insertion of Li into Sr ₂ MO ₂ Cu ₂ S ₂ (M = Mn, Co, Ni). <i>Materials Research Society Symposia Proceedings</i> , 2006 , 988, 1		1
22	Local electronic structure in a LiAlO ₂ single crystal studied with Li ⁷ NMR spectroscopy and comparison with quantum chemical calculations. <i>Physical Review B</i> , 2006 , 74,	3.3	20
21	Influence of gas atmosphere and temperature on the conductivity and the photoconductivity of a TiO ₂ single crystal in the surface region. <i>Physical Chemistry Chemical Physics</i> , 2006 , 8, 777-82	3.6	10
20	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
19	Layered oxysulfides Sr ₂ MnO ₂ Cu _{2m-0.5} S _{m+1} (m = 1, 2, and 3) as insertion hosts for Li ion batteries. <i>Journal of the American Chemical Society</i> , 2006 , 128, 13354-5	16.4	41
18	NMR and NMR Studies of Diffusion in Interface-Dominated and Disordered Solids 2005 , 367-415		24
17	Preparation by high-energy milling, characterization, and catalytic properties of nanocrystalline TiO ₂ . <i>Journal of Physical Chemistry B</i> , 2005 , 109, 23274-8	3.4	63
16	AC and DC Conductivity in Nano- and Microcrystalline Li ₂ O : B ₂ O ₃ Composites: Experimental Results and Theoretical Models. <i>Zeitschrift Fur Physikalische Chemie</i> , 2005 , 219, 89-103	3.1	32
15	Fast dynamics of H ₂ O in hydrous aluminosilicate glasses studied with quasielastic neutron scattering. <i>Physical Review B</i> , 2005 , 71,	3.3	17
14	Fast diffusion in nanocrystalline ceramics prepared by ball milling. <i>Journal of Materials Science</i> , 2004 , 39, 5091-5096	4.3	56

13	Tracer diffusion measurements in solid lithium: a test case for the comparison between NMR in static and pulsed magnetic field gradients after upgrading a standard solid state NMR spectrometer. <i>Solid State Nuclear Magnetic Resonance</i> , 2004 , 26, 74-83	3.1	26
12	Li ion transport and interface percolation in nano- and microcrystalline composites. <i>Physical Chemistry Chemical Physics</i> , 2004 , 006, 3680-3683	3.6	23
11	Src family tyrosine kinases inhibit single L-type: Ca ²⁺ channel activity in human atrial myocytes. <i>Journal of Molecular and Cellular Cardiology</i> , 2004 , 37, 735-45	5.8	19
10	Diffusion and ionic conduction in nanocrystalline ceramics. <i>Journal of Physics Condensed Matter</i> , 2003 , 15, R1257-R1289	1.8	217
9	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
8	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
7	Heterogeneous ⁷ Li NMR relaxation in nanocrystalline Li ₂ O:B ₂ O ₃ composites. <i>Journal of Non-Crystalline Solids</i> , 2002 , 307-310, 555-564	3.9	43
6	Diffusion and Ionic Conduction in Nanocrystalline Ceramics. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 676, 661		4
5	Nanocrystalline Oxide Ceramics Prepared by High-Energy Ball Milling. <i>Journal of Materials Synthesis and Processing</i> , 2000 , 8, 245-250		80
4	Nanocrystalline versus microcrystalline Li ₂ O:B ₂ O ₃ composites: anomalous ionic conductivities and percolation theory. <i>Physical Review Letters</i> , 2000 , 84, 2889-92	7.4	106
3	High-Voltage Aqueous Mg-Ion Batteries Enabled by Solvation Structure Reorganization. <i>Advanced Functional Materials</i> , 2110674	15.6	4
2	Structural Origin of Suppressed Voltage Decay in Single-Crystalline Li-Rich Layered Li[Li _{0.2} Ni _{0.2} Mn _{0.6}]O ₂ Cathodes. <i>Small</i> , 2201522	11	2
1	Comprehensive Approach to Investigate the De-/Lithiation Mechanism of Fe-Doped SnO ₂ as Lithium-Ion Anode Material. <i>Advanced Sustainable Systems</i> , 2200102	5.9	0