

# Maximilian Fichtner

## List of Publications by Citations

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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.

278 papers	10,838 citations	56 h-index	88 g-index
300 ext. papers	12,444 ext. citations	7.2 avg, IF	6.77 L-index

#	Paper	IF	Citations
278	Batteries based on fluoride shuttle. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 17059		287
277	Synthesis and properties of magnesium tetrahydroborate, Mg(BH <sub>4</sub> ) <sub>2</sub> . <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 3496		287
276	Performance Improvement of Magnesium Sulfur Batteries with Modified Non-Nucleophilic Electrolytes. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1401155	21.8	241
275	A new class of non-corrosive, highly efficient electrolytes for rechargeable magnesium batteries. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 10815-10820	13	219
274	Nanotechnological Aspects in Materials for Hydrogen Storage. <i>Advanced Engineering Materials</i> , <b>2005</b> , 7, 443-455	3.5	216
273	Performance study of magnesium-sulfur battery using a graphene based sulfur composite cathode electrode and a non-nucleophilic Mg electrolyte. <i>Nanoscale</i> , <b>2016</b> , 8, 3296-306	7.7	190
272	On the Interaction of Dihydrogen with Aromatic Systems□ <i>Journal of Physical Chemistry A</i> , <b>2004</b> , 108, 3019-3023	2.8	169
271	Small Ti clusters for catalysis of hydrogen exchange in NaAlH <sub>4</sub> . <i>Nanotechnology</i> , <b>2003</b> , 14, 778-785	3.4	166
270	Altered thermodynamic and kinetic properties of MgH(2) infiltrated in microporous scaffold. <i>Chemical Communications</i> , <b>2010</b> , 46, 8353-5	5.8	159
269	The Controlled Oxidation of Hydrogen from an Explosive Mixture of Gases Using a Microstructured Reactor/Heat Exchanger and Pt/Al <sub>2</sub> O <sub>3</sub> Catalyst. <i>Journal of Catalysis</i> , <b>2000</b> , 191, 282-293	7.3	159
268	Toward Highly Reversible Magnesium Sulfur Batteries with Efficient and Practical Mg[B(hfp) <sub>4</sub> ] <sub>2</sub> Electrolyte. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 2005-2013	20.1	149
267	Bisamide based non-nucleophilic electrolytes for rechargeable magnesium batteries. <i>RSC Advances</i> , <b>2013</b> , 3, 16330	3.7	139
266	Preparation of microstructure compatible porous supports by sol-gel synthesis for catalyst coatings. <i>Applied Catalysis A: General</i> , <b>2001</b> , 220, 79-92	5.1	139
265	Fluoride ion batteries: Theoretical performance, safety, toxicity, and a combinatorial screening of new electrodes. <i>Journal of Fluorine Chemistry</i> , <b>2016</b> , 182, 76-90	2.1	136
264	In situ synchrotron diffraction studies of phase transitions and thermal decomposition of Mg(BH <sub>4</sub> ) <sub>2</sub> and Ca(BH <sub>4</sub> ) <sub>2</sub> . <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 4939		135
263	Interface in Solid-State Lithium Battery: Challenges, Progress, and Outlook. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 22029-22050	9.5	127
262	Single step transformation of sulphur to Li <sub>2</sub> S <sub>2</sub> /Li <sub>2</sub> S in Li-S batteries. <i>Scientific Reports</i> , <b>2015</b> , 5, 12146	4.9	125

261	Nanostructured Fluorite-Type Fluorides As Electrolytes for Fluoride Ion Batteries. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 4943-4950	3.8	122
260	Disordered Lithium-Rich Oxyfluoride as a Stable Host for Enhanced Li <sup>+</sup> Intercalation Storage. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1401814	21.8	119
259	Metal oxychlorides as cathode materials for chloride ion batteries. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 13621-4	16.4	116
258	Towards stable and efficient electrolytes for room-temperature rechargeable calcium batteries. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 3496-3501	35.4	115
257	Magnesium alanate material for reversible hydrogen storage?. <i>Journal of Alloys and Compounds</i> , <b>2003</b> , 356-357, 418-422	5.7	112
256	Synthesis and structures of magnesium alanate and two solvent adducts. <i>Journal of Alloys and Compounds</i> , <b>2002</b> , 345, 286-296	5.7	110
255	Chloride ion battery: A new member in the rechargeable battery family. <i>Journal of Power Sources</i> , <b>2014</b> , 245, 706-711	8.9	108
254	Solid electrolytes for fluoride ion batteries: ionic conductivity in polycrystalline tysonite-type fluorides. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 2103-10	9.5	102
253	Nanoconfinement effects in energy storage materials. <i>Physical Chemistry Chemical Physics</i> , <b>2011</b> , 13, 21186-95	3.6	101
252	Chemical State and Local Structure around Titanium Atoms in NaAlH <sub>4</sub> Doped with TiCl <sub>3</sub> Using X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 16372-16376	3.4	101
251	Thermal decomposition of Mg(BH <sub>4</sub> ) <sub>2</sub> under He flow and H <sub>2</sub> pressure. <i>Journal of Materials Chemistry</i> , <b>2008</b> , 18, 2611		99
250	Reversible hydrogen storage in LiBH <sub>4</sub> /AlH <sub>3</sub> composite powder. <i>Scripta Materialia</i> , <b>2008</b> , 58, 963-965	5.6	93
249	Diborane Release from LiBH <sub>4</sub> /Silica-Gel Mixtures and the Effect of Additives. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 14026-14029	3.8	92
248	Effect of Ti catalyst with different chemical form on Li-Ni hydrogen storage properties. <i>Journal of Alloys and Compounds</i> , <b>2005</b> , 404-406, 439-442	5.7	90
247	Insight into Sodium Insertion and the Storage Mechanism in Hard Carbon. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 2851-2857	20.1	89
246	The structure of magnesium alanate. <i>Inorganic Chemistry</i> , <b>2003</b> , 42, 7060-6	5.1	88
245	Properties of nanoscale metal hydrides. <i>Nanotechnology</i> , <b>2009</b> , 20, 204009	3.4	87
244	Structure of Ca(BD <sub>4</sub> ) <sub>2</sub> beta-phase from combined neutron and synchrotron X-ray powder diffraction data and density functional calculations. <i>Journal of Physical Chemistry B</i> , <b>2008</b> , 112, 8042-8	3.4	87

243	Double-bridge bonding of aluminium and hydrogen in the crystal structure of gamma-AlH <sub>3</sub> . <i>Inorganic Chemistry</i> , <b>2007</b> , 46, 1051-5	5.1	83
242	CuF <sub>2</sub> as Reversible Cathode for Fluoride Ion Batteries. <i>Advanced Functional Materials</i> , <b>2017</b> , 27, 1701051	15.6	81
241	The kinetic properties of Mg(BH <sub>4</sub> ) <sub>2</sub> infiltrated in activated carbon. <i>Nanotechnology</i> , <b>2009</b> , 20, 204029	3.4	81
240	A ferrocene-based carbon//iron lithium fluoride nanocomposite as a stable electrode material in lithium batteries. <i>Journal of Materials Chemistry</i> , <b>2010</b> , 20, 1871		79
239	Thermodynamic effects in nanoscale NaAlH <sub>4</sub> . <i>ChemPhysChem</i> , <b>2010</b> , 11, 789-92	3.2	79
238	Exploits, advances and challenges benefiting beyond Li-ion battery technologies. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 817, 153261	5.7	79
237	Development of new anode composite materials for fluoride ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 20861-20872	13	77
236	LiBH <sub>4</sub> //Mg(BH <sub>4</sub> ) <sub>2</sub> : A Physical Mixture of Metal Borohydrides as Hydrogen Storage Material. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 6095-6101	3.8	73
235	Fast kinetics of multivalent intercalation chemistry enabled by solvated magnesium-ions into self-established metallic layered materials. <i>Nature Communications</i> , <b>2018</b> , 9, 5115	17.4	73
234	Nanocrystalline aluminium hydrides for hydrogen storage. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2004</b> , 108, 42-47	3.1	71
233	A Density Functional Study of $\beta$ -Mg(BH <sub>4</sub> ) <sub>2</sub> . <i>Chemistry of Materials</i> , <b>2008</b> , 20, 4952-4956	9.6	70
232	Determination of the crystal structure of Mg(AlH <sub>4</sub> ) <sub>2</sub> by combined X-ray and neutron diffraction. <i>Journal of Alloys and Compounds</i> , <b>2005</b> , 387, 47-51	5.7	68
231	Microstructured Rhodium Catalysts for the Partial Oxidation of Methane to Syngas under Pressure. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 3475-3483	3.9	65
230	CF <sub>x</sub> Derived Carbon//FeF <sub>2</sub> Nanocomposites for Reversible Lithium Storage. <i>Advanced Energy Materials</i> , <b>2013</b> , 3, 308-313	21.8	63
229	The effect of Al on the hydrogen sorption mechanism of LiBH <sub>4</sub> . <i>Physical Chemistry Chemical Physics</i> , <b>2009</b> , 11, 1515-20	3.6	63
228	Halide-Based Materials and Chemistry for Rechargeable Batteries. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 5902-5949	16.4	63
227	Evolution of the local structure around Ti atoms in NaAlH <sub>4</sub> doped with TiCl <sub>3</sub> or Ti <sub>13</sub> .6THF by ball milling using X-ray absorption and X-ray photoelectron spectroscopy. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 1192-200	3.4	62
226	Thermal coupling of a high temperature PEM fuel cell with a complex hydride tank. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 3457-3466	6.7	61

225	A Porphyrin Complex as a Self-Conditioned Electrode Material for High-Performance Energy Storage. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 10341-10346	16.4	57
224	Magnesium anode for chloride ion batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 10997-10009	9.5	57
223	Selenium and selenium-sulfur cathode materials for high-energy rechargeable magnesium batteries. <i>Journal of Power Sources</i> , <b>2016</b> , 323, 213-219	8.9	57
222	Thermal decomposition of AlH <sub>3</sub> studied by in situ synchrotron X-ray diffraction and thermal desorption spectroscopy. <i>Journal of Alloys and Compounds</i> , <b>2007</b> , 446-447, 280-289	5.7	56
221	Hydrogen exchange kinetics in NaAlH <sub>4</sub> catalyzed in different decomposition states. <i>Journal of Applied Physics</i> , <b>2004</b> , 95, 7748-7753	2.5	56
220	Synthesis of amorphous Mg(BH <sub>4</sub> ) <sub>2</sub> from MgB <sub>2</sub> and H <sub>2</sub> at room temperature. <i>Journal of Alloys and Compounds</i> , <b>2010</b> , 508, 212-215	5.7	55
219	Beyond Intercalation Chemistry for Rechargeable Mg Batteries: A Short Review and Perspective. <i>Frontiers in Chemistry</i> , <b>2018</b> , 6, 656	5	55
218	VOCl as a Cathode for Rechargeable Chloride Ion Batteries. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 4285-90	16.4	52
217	Development of tysonite-type fluoride conducting thin film electrolytes for fluoride ion batteries. <i>Solid State Ionics</i> , <b>2015</b> , 272, 39-44	3.3	52
216	A fluoride-doped PEG matrix as an electrolyte for anion transportation in a room-temperature fluoride ion battery. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 1214-1218	13	51
215	A facile synthesis of encapsulated CoFe <sub>2</sub> O <sub>4</sub> into carbon nanofibres and its application as conversion anodes for lithium ion batteries. <i>Journal of Power Sources</i> , <b>2014</b> , 260, 205-210	8.9	51
214	Corrosion Resistance of Current Collector Materials in Bisamide Based Electrolyte for Magnesium Batteries. <i>ECS Electrochemistry Letters</i> , <b>2014</b> , 4, C8-C10		51
213	The identification of a hitherto unknown intermediate phase CaB <sub>2</sub> H <sub>x</sub> from decomposition of Ca(BH <sub>4</sub> ) <sub>2</sub> . <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 2754		51
212	Rate limiting steps of the phase transformations in Ti-doped NaAlH <sub>4</sub> investigated by isotope exchange. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	51
211	Li(+) intercalation in isostructural Li <sub>2</sub> VO <sub>3</sub> and Li <sub>2</sub> VO <sub>2</sub> F with O(2-) and mixed O(2-)/F(-) anions. <i>Physical Chemistry Chemical Physics</i> , <b>2015</b> , 17, 17288-95	3.6	50
210	Effect of several metal chlorides on the thermal decomposition behaviour of Mg(BH <sub>4</sub> ) <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12313-12318	6.7	50
209	Pressure Effect on the 2NaH + MgB <sub>2</sub> Hydrogen Absorption Reaction. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 21816-21823	3.8	50
208	Vibrational Spectra of Ca(BH <sub>4</sub> ) <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 11575-11579	3.8	50

207	Hydrogen sensing with diameter- and chirality-sorted carbon nanotubes. <i>ACS Nano</i> , <b>2011</b> , 5, 1670-6	16.7	49
206	Room-Temperature, Rechargeable Solid-State Fluoride-Ion Batteries. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 4766-4775	6.1	48
205	Improved Voltage and Cycling for Li Intercalation in High-Capacity Disordered Oxyfluoride Cathodes. <i>Advanced Science</i> , <b>2015</b> , 2, 1500128	13.6	48
204	Vanadium oxychloride/magnesium electrode systems for chloride ion batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 22430-5	9.5	48
203	Structure and Thermodynamic Properties of the NaMgH <sub>3</sub> Perovskite: A Comprehensive Study. <i>Chemistry of Materials</i> , <b>2011</b> , 23, 2317-2326	9.6	48
202	Synthesis and properties of calcium alanate and two solvent adducts. <i>Inorganic Chemistry</i> , <b>2005</b> , 44, 3479-84	3.4	48
201	Multi-Electron Reactions Enabled by Anion-Based Redox Chemistry for High-Energy Multivalent Rechargeable Batteries. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 11483-11490	16.4	47
200	Novel transmetalation reaction for electrolyte synthesis for rechargeable magnesium batteries. <i>RSC Advances</i> , <b>2014</b> , 4, 26924-26927	3.7	46
199	Altered reaction pathways of eutectic LiBH <sub>4</sub> /Mg(BH <sub>4</sub> ) <sub>2</sub> by nanoconfinement. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 3379	13	46
198	Modified synthesis of [Fe/LiF/C] nanocomposite, and its application as conversion cathode material in lithium batteries. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 5936-5944	8.9	46
197	New Organic Electrode Materials for Ultrafast Electrochemical Energy Storage. <i>Advanced Materials</i> , <b>2019</b> , 31, e1806599	24	44
196	Overcoming the Interfacial Limitations Imposed by the Solid-Solid Interface in Solid-State Batteries Using Ionic Liquid-Based Interlayers. <i>Small</i> , <b>2020</b> , 16, e2000279	11	41
195	Investigation on the Properties of the Mixture Consisting of Mg(NH <sub>2</sub> ) <sub>2</sub> , LiH, and LiBH <sub>4</sub> as a Hydrogen Storage Material. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 7089-7094	9.6	41
194	Kinetic studies of the decomposition of NaAlH <sub>4</sub> doped with a Ti-based catalyst. <i>Journal of Alloys and Compounds</i> , <b>2005</b> , 404-406, 339-342	5.7	40
193	Hindered Rotational Energy Barriers of BH <sub>4</sub> <sup>-</sup> Tetrahedra in Mg(BH <sub>4</sub> ) <sub>2</sub> from Quasielastic Neutron Scattering and DFT Calculations. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 2013-2023	3.8	39
192	Reaction steps in the Li/Mg/NH <sub>3</sub> hydrogen storage system. <i>Journal of Alloys and Compounds</i> , <b>2007</b> , 446-447, 332-335	5.7	39
191	Fe <sub>3</sub> O <sub>4</sub> anchored onto helical carbon nanofibers as high-performance anode in lithium-ion batteries. <i>ChemSusChem</i> , <b>2012</b> , 5, 1397-400	8.3	38
190	Structural Phase Transitions of Mg(BH <sub>4</sub> ) <sub>2</sub> under Pressure. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 486-492	3.8	38

189	SSH2S: Hydrogen storage in complex hydrides for an auxiliary power unit based on high temperature proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , <b>2017</b> , 342, 853-860	8.9	37
188	Chemical state of Ti in sodium alanate doped with TiCl <sub>3</sub> using X-ray photoelectron spectroscopy. <i>Journal of Alloys and Compounds</i> , <b>2005</b> , 404-406, 766-770	5.7	37
187	SEM and TEM characterization of sodium alanate doped with TiCl <sub>3</sub> or small Ti clusters (Ti <sub>13</sub> ITHF). <i>Journal of Alloys and Compounds</i> , <b>2006</b> , 414, 190-203	5.7	37
186	Conductivity Optimization of Tysonite-type LaBaF Solid Electrolytes for Advanced Fluoride Ion Battery. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 23707-23715	9.5	36
185	Improving the energy density and power density of CF <sub>x</sub> by mechanical milling: a primary lithium battery electrode. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 11207-11	9.5	36
184	Investigation of the Nature of a TiAl Cluster Formed upon Cycling under Hydrogen in Na Alanate Doped with a Ti-Based Precursor. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 12545-12549	3.8	35
183	Development of a water based process for stable conversion cathodes on the basis of FeF <sub>3</sub> . <i>Journal of Power Sources</i> , <b>2016</b> , 313, 213-222	8.9	34
182	Catalytic Influence of Various Cerium Precursors on the Hydrogen Sorption Properties of NaAlH <sub>4</sub> . <i>Advanced Energy Materials</i> , <b>2012</b> , 2, 560-568	21.8	34
181	Calcined chicken eggshell electrode for battery and supercapacitor applications.. <i>RSC Advances</i> , <b>2019</b> , 9, 26981-26995	3.7	33
180	Tailored heat transfer characteristics of pelletized LiNH <sub>2</sub> MgH <sub>2</sub> and NaAlH <sub>4</sub> hydrogen storage materials. <i>Journal of Power Sources</i> , <b>2012</b> , 205, 173-179	8.9	33
179	Structure of the Orthorhombic Phase and Phase Transitions of Ca(BD <sub>4</sub> ) <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 17223-17230	3.8	33
178	Thermal decomposition of Mg(AlH <sub>4</sub> ) <sub>2</sub> studied by in situ synchrotron X-ray diffraction. <i>Journal of Alloys and Compounds</i> , <b>2005</b> , 404-406, 752-756	5.7	33
177	Insights into the electrochemical processes of rechargeable magnesium-sulfur batteries with a new cathode design. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 25490-25502	13	33
176	The metamorphosis of rechargeable magnesium batteries. <i>Joule</i> , <b>2021</b> , 5, 581-617	27.8	32
175	Copper Porphyrin as a Stable Cathode for High-Performance Rechargeable Potassium Organic Batteries. <i>ChemSusChem</i> , <b>2020</b> , 13, 2286-2294	8.3	31
174	Polysulfides Formation in Different Electrolytes from the Perspective of X-ray Absorption Spectroscopy. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, A5014-A5019	3.9	31
173	Study of the structural, thermodynamic and cyclic effects of vanadium and titanium substitution in laves-phase AB <sub>2</sub> hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 20103-20110	6.7	31
172	Functions of LiBH <sub>4</sub> in the hydrogen sorption reactions of the 2LiH-Mg(NH <sub>2</sub> ) <sub>2</sub> system. <i>Dalton Transactions</i> , <b>2010</b> , 39, 9100-7	4.3	31



- 171 Formation and Stability of Ternary Imides in the  $\text{LiMgNiH}$  Hydrogen Storage System. *Chemistry of Materials*, **2009**, 21, 3485-3490 9.6 30
- 170 Recent developments and future perspectives of anionic batteries. *Journal of Power Sources*, **2021**, 481, 228877 8.9 30
- 169 Electrochemical fluorination of perovskite type  $\text{BaFeO}_{2.5}$ . *Dalton Transactions*, **2014**, 43, 15771-8 4.3 29
- 168 Nanostructured composites of mesoporous carbons and boranates as hydrogen storage materials. *Journal of Alloys and Compounds*, **2011**, 509, S705-S708 5.7 29
- 167 Conversion materials for hydrogen storage and electrochemical applications—Concepts and similarities. *Journal of Alloys and Compounds*, **2011**, 509, S529-S534 5.7 29
- 166 Nanocrystalline alanates—Phase transformations, and catalysts. *Journal of Alloys and Compounds*, **2005**, 404-406, 732-737 5.7 29
- 165 Phase-structural transformations in a metal hydride battery anode  $\text{La}_{1.5}\text{Nd}_{0.5}\text{MgNi}_9$  alloy and its electrochemical performance. *International Journal of Hydrogen Energy*, **2016**, 41, 9954-9967 6.7 28
- 164 Metal (boro-) hydrides for high energy density storage and relevant emerging technologies. *International Journal of Hydrogen Energy*, **2020**, 45, 33687-33730 6.7 28
- 163 Performance boost for primary magnesium cells using iron complexing agents as electrolyte additives. *Scientific Reports*, **2018**, 8, 7578 4.9 28
- 162 Hydrogenation Reaction Pathway in  $\text{Li}_2\text{Mg}(\text{NH})_2$ . *Journal of Physical Chemistry C*, **2009**, 113, 15772-15773 3.8 27
- 161 Nitrogen Rich Hierarchically Organized Porous Carbon/Sulfur Composite Cathode Electrode for High Performance Li/S Battery: A Mechanistic Investigation by Operando Spectroscopic Studies. *Advanced Materials Interfaces*, **2016**, 3, 1600372 4.6 27
- 160 Bio-waste chicken eggshells to store energy. *Dalton Transactions*, **2018**, 47, 16828-16834 4.3 27
- 159 Insight into Sulfur Confined in Ultramicroporous Carbon. *ACS Omega*, **2018**, 3, 11290-11299 3.9 27
- 158 Synthesis of a nitrogen rich (2D/1D) hybrid carbon nanomaterial using a  $\text{MnO}_2$  nanorod template for high performance Li-ion battery applications. *Journal of Materials Chemistry A*, **2015**, 3, 6810-6818 13 26
- 157 High resolution Raman and neutron investigation of  $\text{Mg}(\text{BH}_4)_2$  in an extensive temperature range. *Journal of Physical Chemistry A*, **2010**, 114, 2788-93 2.8 26
- 156 Synthesis of Fast Fluoride-Ion-Conductive Fluorite-Type  $\text{BaSbF}$  ( $0.1 \leq x \leq 0.4$ ): A Potential Solid Electrolyte for Fluoride-Ion Batteries. *ACS Applied Materials & Interfaces*, **2018**, 10, 17249-17256 9.5 25
- 155 Design of Nickel-Based Cation-Disordered Rock-Salt Oxides: The Effect of Transition Metal ( $\text{M} = \text{V}, \text{Ti}, \text{Zr}$ ) Substitution in  $\text{LiNiMO}$  Binary Systems. *ACS Applied Materials & Interfaces*, **2018**, 10, 21957-21964 9.5 25
- 154 Hydrogen diffusion in  $\text{La}_{1.5}\text{Nd}_{0.5}\text{MgNi}_9$  alloy electrodes of the Ni/MH battery. *Journal of Alloys and Compounds*, **2015**, 645, S288-S291 5.7 25



153	Additive Effects of LiBH <sub>4</sub> and ZrCoH <sub>3</sub> on the Hydrogen Sorption of the Li-Mg-N-H Hydrogen Storage System. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 20246-20253	3.8	25
152	The Role of Ca(BH <sub>4</sub> ) <sub>2</sub> Polymorphs. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 13472-13479	3.8	25
151	Synthesis of [Co/LiF/C] nanocomposite and its application as cathode in lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 530, 121-126	5.7	25
150	Monitoring the Electrochemical Energy Storage Processes of an Organic Full Rechargeable Battery via Operando Raman Spectroscopy: A Mechanistic Study. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 3239-3247	9.6	24
149	The crystal structure of the first borohydride borate, Ca <sub>3</sub> (BD <sub>4</sub> ) <sub>3</sub> (BO <sub>3</sub> ). <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 7188		24
148	Feasibility and performance of the mixture of MgH <sub>2</sub> and LiNH <sub>2</sub> (1:1) as a hydrogen-storage material. <i>Acta Materialia</i> , <b>2011</b> , 59, 5821-5831	8.4	24
147	Effects of catalysts on the dehydriding of alanates monitored by proton NMR. <i>Journal of Alloys and Compounds</i> , <b>2005</b> , 404-406, 738-742	5.7	24
146	Electrochemical performance of all solid-state fluoride-ion batteries based on thin-film electrolyte using alternative conductive additives and anodes. <i>Journal of Solid State Electrochemistry</i> , <b>2018</b> , 22, 997-1006	2.6	24
145	Study of all solid-state rechargeable fluoride ion batteries based on thin-film electrolyte. <i>Journal of Solid State Electrochemistry</i> , <b>2017</b> , 21, 1243-1251	2.6	23
144	Improved cycling stability in high-capacity Li-rich vanadium containing disordered rock salt oxyfluoride cathodes. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 21244-21253	13	23
143	Oxygen Activity in Li-Rich Disordered Rock-Salt Oxide and the Influence of LiNbO <sub>3</sub> Surface Modification on the Electrochemical Performance. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 4330-4340	9.6	23
142	In situ TEM studies of micron-sized all-solid-state fluoride ion batteries: Preparation, prospects, and challenges. <i>Microscopy Research and Technique</i> , <b>2016</b> , 79, 615-24	2.8	23
141	Nanoconfined Magnesium Borohydride for Hydrogen Storage Applications Investigated by SANS and SAXS. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 18785-18789	3.8	23
140	Experimental evidence of librational vibrations determining the stability of calcium borohydride. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	23
139	A new phase in the decomposition of Mg(BH <sub>4</sub> ) <sub>2</sub> : first-principles simulated annealing. <i>Journal of Materials Chemistry</i> , <b>2009</b> , 19, 7081		23
138	Synchrotron X-ray studies of Ti-doped NaAlH <sub>4</sub> . <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 3051-4	3.4	23
137	Rechargeable Batteries of the Future—The State of the Art from a BATTERY 2030+ Perspective. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 2102904	21.8	23
136	Introducing Interlayer Electrolytes: Toward Room-Temperature High-Potential Solid-State Rechargeable Fluoride Ion Batteries. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 1553-1562	6.1	22

- 135 On the decomposition of the 0.6LiBH<sub>4</sub>-0.4Mg(BH<sub>4</sub>)<sub>2</sub> eutectic mixture for hydrogen storage. *International Journal of Hydrogen Energy*, **2011**, 36, 13676-13682 6.7 22
- 134 Complex hydrides as solid storage materials: First safety tests. *International Journal of Hydrogen Energy*, **2009**, 34, 5981-5985 6.7 22
- 133 High-Pressure Investigation on Calcium Borohydride. *Journal of Physical Chemistry C*, **2009**, 113, 15087-15090 3.8 22
- 132 A Porphyrin Complex as a Self-Conditioned Electrode Material for High-Performance Energy Storage. *Angewandte Chemie*, **2017**, 129, 10477-10482 3.6 21
- 131 Unlocking the Potential of Fluoride-Based Solid Electrolytes for Solid-State Lithium Batteries. *ACS Applied Energy Materials*, **2019**, 2, 7196-7203 6.1 21
- 130 Reversible Delithiation of Disordered Rock Salt LiVO<sub>2</sub>. *ChemElectroChem*, **2018**, 5, 1484-1490 4.3 21
- 129 Wide-Line Solid-State NMR Characterizations of Sodium Alanates. *Journal of Physical Chemistry C*, **2009**, 113, 15467-15472 3.8 21
- 128 Experimental results of an air-cooled lab-scale H<sub>2</sub> storage tank based on sodium alanate. *International Journal of Hydrogen Energy*, **2011**, 36, 3556-3565 6.7 21
- 127 Quantitative analysis of ionic solids by secondary neutral mass spectrometry. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **1992**, 10, 362-367 2.9 21
- 126 Investigation on the formation of Mg metal anode/electrolyte interfaces in Mg/S batteries with electrolyte additives. *Journal of Materials Chemistry A*, **2020**, 8, 22998-23010 13 21
- 125 Interlayer-Expanded Vanadium Oxychloride as an Electrode Material for Magnesium-Based Batteries. *ChemElectroChem*, **2017**, 4, 738-745 4.3 20
- 124 Vanadium oxychloride as electrode material for sodium ion batteries. *Electrochemistry Communications*, **2015**, 60, 180-184 5.1 20
- 123 A review on current anode materials for rechargeable Mg batteries. *Journal of Magnesium and Alloys*, **2020**, 8, 963-979 8.8 20
- 122 GeTe nanoparticles produced by inert gas condensation and their application as anode material for lithium ion batteries. *Electrochemistry Communications*, **2013**, 35, 116-119 5.1 20
- 121 Influence of Crystal Structure of Bulk Phase on the Stability of Nanoscale Phases: Investigation on MgH<sub>2</sub> Derived Nanostructures. *Journal of Physical Chemistry C*, **2012**, 116, 18965-18972 3.8 20
- 120 A facile synthesis of a carbon-encapsulated Fe<sub>3</sub>O<sub>4</sub> nanocomposite and its performance as anode in lithium-ion batteries. *Beilstein Journal of Nanotechnology*, **2013**, 4, 699-704 3 20
- 119 Hydrogen Rotational and Translational Diffusion in Calcium Borohydride from Quasielastic Neutron Scattering and DFT Calculations. *Journal of Physical Chemistry C*, **2010**, 114, 20249-20257 3.8 20
- 118 Small-angle scattering investigations of Mg-borohydride infiltrated in activated carbon. *Nanotechnology*, **2009**, 20, 505702 3.4 20

117	Degradation Mechanisms in Li <sub>2</sub> VO <sub>2</sub> F Li-Rich Disordered Rock-Salt Cathodes. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 6084-6096	9.6	19
116	Role of hydrogen tanks in the life cycle assessment of fuel cell-based auxiliary power units. <i>Applied Energy</i> , <b>2018</b> , 215, 1-12	10.7	19
115	Material properties and empirical rate equations for hydrogen sorption reactions in 2 LiNH <sub>2</sub> ·1.1 MgH <sub>2</sub> ·0.1 LiBH <sub>4</sub> wt.% ZrCoH <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 8283-8292	6.7	19
114	Perspective on ultramicroporous carbon as sulphur host for LiS batteries. <i>Journal of Energy Chemistry</i> , <b>2021</b> , 59, 242-256	12	19
113	Cost reduction possibilities of vanadium-based solid solutions [Microstructural, thermodynamic, cyclic and environmental effects of ferrovanadium substitution. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 648, 1024-1030	5.7	18
112	Effect of oxygen on the microstructure and hydrogen storage properties of V <sub>0.1</sub> Cr <sub>0.9</sub> Be quaternary solid solutions. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 20000-20008	6.7	18
111	Suppressing Dissolution of Vanadium from Cation-Disordered Li <sub>2</sub> VVO <sub>2</sub> F via a Concentrated Electrolyte Approach. <i>Chemistry of Materials</i> , <b>2019</b> , 31, 7941-7950	9.6	17
110	Influence of particle size and fluorination ratio of CF <sub>x</sub> precursor compounds on the electrochemical performance of C-FeF <sub>2</sub> nanocomposites for reversible lithium storage. <i>Beilstein Journal of Nanotechnology</i> , <b>2013</b> , 4, 705-13	3	17
109	Magnesium imide: synthesis and structure determination of an unconventional alkaline earth imide from decomposition of magnesium amide. <i>Inorganic Chemistry</i> , <b>2011</b> , 50, 1116-22	5.1	17
108	Electrochemical and compositional characterization of solid interphase layers in an interface-modified solid-state LiSulfur battery. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 16451-16462	13	17
107	Design and Tuning of the Electrochemical Properties of Vanadium-Based Cation-Disordered Rock-Salt Oxide Positive Electrode Material for Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 39848-39858	9.5	15
106	A Lithium-Free Energy-Storage Device Based on an Alkyne-Substituted-Porphyrin Complex. <i>ChemSusChem</i> , <b>2019</b> , 12, 3737-3741	8.3	15
105	Beneficial effects of stoichiometry and nanostructure for a LiBH <sub>4</sub> /MgH <sub>2</sub> hydrogen storage system. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 66-72	13	15
104	Fluorescence XAFS study of NaAlH <sub>4</sub> doped with a Ce-based precursor. <i>Physical Chemistry Chemical Physics</i> , <b>2009</b> , 11, 8829-34	3.6	15
103	Variation and Influence of the Local Structure around Ti in NaAlH <sub>4</sub> Doped with a Ti-Based Precursor. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 16664-16669	3.8	15
102	Vanadium Oxyfluoride/Few-Layer Graphene Composite as a High-Performance Cathode Material for Lithium Batteries. <i>Inorganic Chemistry</i> , <b>2016</b> , 55, 3789-96	5.1	15
101	Development of dense solid state thin-film electrolyte for fluoride ion batteries. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 684, 733-738	5.7	15
100	Differentiating Molecular and Solid-State Vanadium Oxides as Active Materials in Battery Electrodes. <i>ChemElectroChem</i> , <b>2019</b> , 6, 398-403	4.3	15

- 99 Mechanical Milling Assisted Synthesis and Electrochemical Performance of High Capacity LiFeBO<sub>3</sub> for Lithium Batteries. *ACS Applied Materials & Interfaces*, **2016**, 8, 2166-72 9.5 14
- 98 Hydrogen release and structural transformations in LiNH<sub>2</sub>/MgH<sub>2</sub> systems. *Journal of Alloys and Compounds*, **2011**, 509, S719-S723 5.7 14
- 97 Comparison of the Calculated and Experimental Scenarios for Solid-State Reactions Involving Ca(AlH<sub>4</sub>)<sub>2</sub>. *Journal of Physical Chemistry C*, **2008**, 112, 131-138 3.8 14
- 96 Mass spectrometry of secondary neutrals and ions for chemical analysis of salts. *Surface and Interface Analysis*, **1991**, 17, 151-157 1.5 14
- 95 Insights into Self-Discharge of Lithium and Magnesium Sulfur Batteries. *ACS Applied Energy Materials*, **2020**, 3, 8457-8474 6.1 14
- 94 VOCl as a Cathode for Rechargeable Chloride Ion Batteries. *Angewandte Chemie*, **2016**, 128, 4357-4362 3.6 14
- 93 Synthesis and characterisation of a mesoporous carbon/calcium borohydride nanocomposite for hydrogen storage. *International Journal of Hydrogen Energy*, **2012**, 37, 16631-16635 6.7 13
- 92 Metal Oxychlorides as Cathode Materials for Chloride Ion Batteries. *Angewandte Chemie*, **2013**, 125, 13866-13869 5.6 13
- 91 <sup>27</sup>Al, <sup>23</sup>Na, and <sup>45</sup>Sc Solid-State NMR Studies of ScCl<sub>3</sub>-Doped NaAlH<sub>4</sub>. *Journal of Physical Chemistry C*, **2011**, 115, 13100-13106 3.8 13
- 90 On the enthalpy of formation of aluminum diboride, AlB<sub>2</sub>. *Journal of Alloys and Compounds*, **2009**, 477, L11-L12 5.7 13
- 89 In-situ neutron diffraction study of magnesium amide/lithium hydride stoichiometric mixtures with lithium hydride excess. *International Journal of Hydrogen Energy*, **2010**, 35, 5448-5453 6.7 13
- 88 Establishing a Stable Anode-Electrolyte Interface in Mg Batteries by Electrolyte Additive. *ACS Applied Materials & Interfaces*, **2021**, 13, 33123-33132 9.5 13
- 87 A quasielastic and inelastic neutron scattering study of the alkaline and alkaline-earth borohydrides LiBH and Mg(BH) and the mixture LiBH + Mg(BH). *Physical Chemistry Chemical Physics*, **2019**, 21, 718-728 3.6 12
- 86 Pseudo-ternary LiBH/LiCl/PS system as structurally disordered bulk electrolyte for all-solid-state lithium batteries. *Physical Chemistry Chemical Physics*, **2020**, 22, 13872-13879 3.6 12
- 85 Effect of NaH/MgB<sub>2</sub> ratio on the hydrogen absorption kinetics of the system NaH + MgB<sub>2</sub>. *International Journal of Hydrogen Energy*, **2014**, 39, 5030-5036 6.7 12
- 84 Al K Edge XANES Measurements in NaAlH<sub>4</sub> Doped with TiCl<sub>3</sub> by Ball Milling. *Journal of Physical Chemistry C*, **2007**, 111, 3795-3798 3.8 12
- 83 Is the enhanced solubility in nanocomposites an electronic effect?. *Scripta Materialia*, **2002**, 46, 497-500 5.6 12
- 82 Rechargeable Calcium-Sulfur Batteries Enabled by an Efficient Borate-Based Electrolyte. *Small*, **2020**, 16, e2001806 11 12

81	Hydrogen dynamics in $\text{Mg}(\text{BH}_4)_2$ on the picosecond timescale. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 14323-32	3.6	12
80	Alkali metal insertion into hard carbon [The full picture. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 14205-14213	11	
79	Production of nanocrystalline lithium fluoride by planetary ball-milling. <i>Powder Technology</i> , <b>2014</b> , 264, 409-417	5.2	11
78	Experimental study of powder bed behavior of sodium alanate in a lab-scale $\text{H}_2$ storage tank with flow-through mode. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 7645-7653	6.7	11
77	Preparation, scale-up and testing of nanoscale, doped amide systems for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 1439-1449	6.7	11
76	A novel conversion anode composite for lithium ion batteries based on $\text{MnF}_2$ /carbon nanotubes with hierarchical structure. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 724, 1101-1108	5.7	11
75	Studies of mixed hydrides based on Mg and Ca by reactive ball milling. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 476, 639-643	5.7	11
74	Depth-resolved chemical analysis of environmental microparticles by secondary mass spectrometry. <i>Applied Surface Science</i> , <b>1993</b> , 70-71, 63-67	6.7	11
73	Facile Synthesis of Carbon/Metal Fluoride Nanocomposites for Lithium-Ion Batteries. <i>Energy Technology</i> , <b>2016</b> , 4, 201-211	3.5	11
72	On the rehydrogenation of decomposed $\text{Ca}(\text{BH}_4)_2$ . <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 632, 800-804	5.7	10
71	Stabilization of Li-Rich Disordered Rocksalt Oxyfluoride Cathodes by Particle Surface Modification. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 5937-5948	6.1	10
70	A simple synthesis of $\text{MnNO}_{0.43}\text{C}$ nanocomposite: characterization and application as battery material. <i>Journal of Nanoparticle Research</i> , <b>2014</b> , 16, 1	2.3	10
69	Influence of nanoconfinement on morphology and dehydrogenation of the $\text{Li}_{11}\text{BD}_4\text{-Mg}(\text{11BD}_4)_2$ system. <i>Nanotechnology</i> , <b>2012</b> , 23, 255704	3.4	10
68	Microstructured Catalysts for Methanol-Steam Reforming		10
67	Polyoxometalate Modified Separator for Performance Enhancement of Magnesium/Sulfur Batteries. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2100868	15.6	10
66	Thermochemical Energy Storage through De/Hydrogenation of Organic Liquids: Reactions of Organic Liquids on Metal Hydrides. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 13993-4003	9.5	10
65	Performance Study of MXene/Carbon Nanotube Composites for Current Collector- and Binder-Free Mg-S Batteries. <i>ChemSusChem</i> , <b>2021</b> , 14, 1864-1873	8.3	10
64	Facile synthesis of C-FeF nanocomposites from CFx: influence of carbon precursor on reversible lithium storage.. <i>RSC Advances</i> , <b>2018</b> , 8, 36802-36811	3.7	10

63	Preparation of Li-Mg-N-H hydrogen storage materials for an auxiliary power unit. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 17144-17148	6.7	9
62	Modeling of Ion Agglomeration in Magnesium Electrolytes and its Impacts on Battery Performance. <i>ChemSusChem</i> , <b>2020</b> , 13, 3599-3604	8.3	9
61	Oxidation state and local structure of a high-capacity LiF/Fe(V <sub>2</sub> O <sub>5</sub> ) conversion cathode for Li-ion batteries. <i>Acta Materialia</i> , <b>2014</b> , 68, 179-188	8.4	9
60	LiF/Fe/V <sub>2</sub> O <sub>5</sub> nanocomposite as high capacity cathode for lithium ion batteries. <i>Journal of Power Sources</i> , <b>2014</b> , 267, 203-211	8.9	9
59	Effect of a Ti-Based Additive on the Desorption in Isotope-Labeled LiB(H,D) <sub>4</sub> Mg(H,D) <sub>2</sub> Nanocomposites. <i>Journal of Physical Chemistry C</i> , <b>2012</b> , 116, 11877-11885	3.8	9
58	Analysis of ionic solids with SNMS. <i>Fresenius Journal of Analytical Chemistry</i> , <b>1991</b> , 341, 260-264		9
57	First results from in situ transmission electron microscopy studies of all-solid-state fluoride ion batteries. <i>Journal of Power Sources</i> , <b>2020</b> , 466, 228283	8.9	9
56	Superoxide formation in Li <sub>2</sub> VO <sub>2</sub> F cathode material: a combined computational and experimental investigation of anionic redox activity. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 16551-16559	13	9
55	Insights into Structural Transformations in the Local Structure of LiVOF Using X-ray Diffraction and Total Scattering: Amorphization and Recrystallization. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 27010-27016	9.5	8
54	Understanding the Origin of Higher Capacity for Ni-Based Disordered Rock-Salt Cathodes. <i>Chemistry of Materials</i> , <b>2020</b> , 32, 3447-3461	9.6	8
53	Performance Improvement of V-Fe-Cr-Ti Solid State Hydrogen Storage Materials in Impure Hydrogen Gas. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 1662-1671	9.5	8
52	Raman and inelastic neutron scattering study on a melt-infiltrated composite of NaAlH <sub>4</sub> and nanoporous carbon. <i>Journal of Physical Chemistry A</i> , <b>2011</b> , 115, 7503-10	2.8	8
51	Investigation of (Mg, Al, Li, H)-based hydride and alanate mixtures produced by reactive ball milling. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 476, 425-428	5.7	8
50	Functional Coatings for Microstructure Reactors and Heat Exchangers <b>2000</b> , 90-101		8
49	Electrochemical synthesis of carbon-metal fluoride nanocomposites as cathode materials for lithium batteries. <i>Electrochemistry Communications</i> , <b>2020</b> , 120, 106846	5.1	8
48	A Self-Conditioned Metalloporphyrin as a Highly Stable Cathode for Fast Rechargeable Magnesium Batteries. <i>ChemSusChem</i> , <b>2021</b> , 14, 1840-1846	8.3	8
47	Fluoride Cathodes for Secondary Batteries <b>2015</b> , 51-76		7
46	Influence of Nanoconfinement on Reaction Pathways of Complex Metal Hydrides. <i>Energy Procedia</i> , <b>2012</b> , 29, 731-737	2.3	7



45	Dual Role of Mo S in Polysulfide Conversion and Shuttle for Mg-S Batteries.. <i>Advanced Science</i> , <b>2022</b> , e2104605	13.6	7
44	Development of Magnesium Borate Electrolytes: Explaining the Success of Mg[B(hfip)4]2 Salt. <i>Energy Storage Materials</i> , <b>2021</b> , 45, 1133-1133	19.4	7
43	Degradation Effects in MetalSulfur Batteries. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 2365-2376	6.1	7
42	Lithium-Magnesium Hybrid Battery with Vanadium Oxychloride as Electrode Material. <i>ChemistrySelect</i> , <b>2017</b> , 2, 7558-7564	1.8	6
41	Hydrogen-storage materials dispersed into nanoporous substrates studied through incoherent inelastic neutron scattering. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 538, 91-99	5.7	6
40	Temperature behavior of the AlH3 polymorph by in situ investigation using high resolution Raman scattering. <i>Journal of Physical Chemistry A</i> , <b>2011</b> , 115, 691-9	2.8	6
39	Synthesis and characterization of NaBD3H, a potential structural probe for hydrogen storage materials. <i>Journal of Physical Chemistry A</i> , <b>2009</b> , 113, 13932-6	2.8	6
38	Toward Better Stability and Reversibility of the Mn4+/Mn2+ Double Redox Activity in Disordered Rocksalt Oxyfluoride Cathode Materials. <i>Chemistry of Materials</i> ,	9.6	6
37	Short-range ordering in the Li-rich disordered rock salt cathode material Li2VO2F revealed by Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , <b>2020</b> , 51, 2095-2101	2.3	6
36	Electrochemical Behavior of Layered Vanadium Oxychloride in Rechargeable Lithium Ion Batteries. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, A2326-A2332	3.9	6
35	Multi-Electron Reactions Enabled by Anion-Based Redox Chemistry for High-Energy Multivalent Rechargeable Batteries. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 11580-11587	3.6	5
34	Preface to the viewpoint set: Nanoscale materials for hydrogen storage. <i>Scripta Materialia</i> , <b>2007</b> , 56, 801-802	5.6	5
33	Recent Research and Progress in Batteries for Electric Vehicles. <i>Batteries and Supercaps</i> ,	5.6	5
32	Ionic Conductivity of Nanocrystalline Metal Fluorides <b>2016</b> , 449-463		5
31	Surface Engineering of a Mg Electrode via a New Additive to Reduce Overpotential. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 37044-37051	9.5	5
30	Combining Quinone-Based Cathode with an Efficient Borate Electrolyte for High-Performance Magnesium Batteries. <i>Batteries and Supercaps</i> ,	5.6	5
29	Resolving the Role of Configurational Entropy in Improving Cycling Performance of Multicomponent Hexacyanoferrate Cathodes for Sodium-Ion Batteries. <i>Advanced Functional Materials</i> , <b>2022</b> , 32, 2202372	15.6	5
28	Konversionsmaterialien für die Energiespeicherung. <i>Chemie in Unserer Zeit</i> , <b>2013</b> , 47, 230-238	0.2	4



27	Halogenid-basierte Materialien und Chemie für wiederaufladbare Batterien. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 5954-6004	3.6	4
26	Toward Improving the Areal Energy Density of Lithium Sulfur Batteries with Ultramicroporous Carbon Sulfur Composite Electrodes. <i>Energy Technology</i> , <b>2019</b> , 7, 1900183	3.5	3
25	Influence of Electrolyte Additives on the Degradation of Li <sub>2</sub> VO <sub>2</sub> F Li-Rich Cathodes. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 12956-12967	3.8	3
24	Reversible In-Situ TEM Electrochemical studies of Fluoride Ion Battery. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1620-1621	0.5	3
23	Polarization-dependent Raman spectroscopy of LiBH <sub>4</sub> single crystals and Mg(BH <sub>4</sub> ) <sub>2</sub> powders. <i>Journal of Raman Spectroscopy</i> , <b>2011</b> , 42, 1796-1801	2.3	3
22	Depth-resolved speciation of nitrogen compounds in environmental solids. <i>Fresenius Journal of Analytical Chemistry</i> , <b>1994</b> , 349, 205-207		3
21	Identification of nitrates and sulphates with dynamic SIMS. <i>Fresenius Journal of Analytical Chemistry</i> , <b>1994</b> , 348, 201-204		3
20	Mitigating self-discharge and improving the performance of Mg battery in Mg[B(hfp) <sub>4</sub> ] <sub>2</sub> electrolyte with a protective interlayer. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 25150-25159	13	3
19	Modeling of Electron-Transfer Kinetics in Magnesium Electrolytes: Influence of the Solvent on the Battery Performance. <i>ChemSusChem</i> , <b>2021</b> , 14, 4820-4835	8.3	3
18	Structural and Electrochemical Insights from the Fluorination of Disordered Mn-Based Rock Salt Cathode Materials. <i>Chemistry of Materials</i> , <b>2022</b> , 34, 2268-2281	9.6	3
17	Designing Gel Polymer Electrolyte with Synergetic Properties for Rechargeable Magnesium Batteries. <i>Energy Storage Materials</i> , <b>2022</b> , 48, 155-163	19.4	3
16	Fluorescence X-ray Absorption Study of ScCl <sub>3</sub> -Doped Sodium Alanate. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 15810-15815	3.8	2
15	Konzept zur chemischen Wärmespeicherung mit flüssigen organischen Hydriden. <i>Chemie-Ingenieur-Technik</i> , <b>2017</b> , 89, 341-345	0.8	2
14	Calcium Sulfur Batteries: Rechargeable Calcium Sulfur Batteries Enabled by an Efficient Borate-Based Electrolyte (Small 39/2020). <i>Small</i> , <b>2020</b> , 16, 2070216	11	2
13	Batteries: Performance Improvement of Magnesium Sulfur Batteries with Modified Non-Nucleophilic Electrolytes (Adv. Energy Mater. 3/2015). <i>Advanced Energy Materials</i> , <b>2015</b> , 5,	21.8	1
12	Nanoscale Materials For Hydrogen and Energy Storage. <i>Frontiers of Nanoscience</i> , <b>2009</b> , 270-297	0.7	1
11	Comment on "A theoretical study of nanoporous organic molecules for hydrogen storage" [Micropor. Mesopor. Mater. 89 (2006) 138]. <i>Microporous and Mesoporous Materials</i> , <b>2006</b> , 94, 371-372	5.3	1
10	Investigation of the Anode-Electrolyte Interface in a Magnesium Full-Cell with Fluorinated Alkoxyborate-Based Electrolyte. <i>Batteries and Supercaps</i> ,	5.6	1

9	Visualization of structural changes and degradation of porphyrin-based battery electrodes. <i>Journal of Power Sources</i> , <b>2022</b> , 522, 231002	8.9	1
8	Effects of Ball Milling and TiF <sub>3</sub> Addition on the Dehydrogenation Temperature of Ca(BH <sub>4</sub> ) <sub>2</sub> Polymorphs. <i>Energies</i> , <b>2020</b> , 13, 4828	3.1	1
7	Magnesium-Sulfur Batteries: Polyoxometalate Modified Separator for Performance Enhancement of Magnesium-Sulfur Batteries (Adv. Funct. Mater. 26/2021). <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2170189	15.6	1
6	Rapid determination of erosion rates with electron beam SNMS. <i>Fresenius Journal of Analytical Chemistry</i> , <b>1995</b> , 353, 598-602		0
5	Tungsten Oxytetrachloride as a Positive Electrode for Chloride-Ion Batteries. <i>Energy Technology</i> , <b>2020</b> , 193, 5	3.5	0
4	Understanding Structure Changes during Cycling of MoS <sub>2</sub> -based Mg Batteries. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 2042-2043	0.5	
3	Effects of Ce-Based Dopants on the Hydrogen Storage Material of NaAlH <sub>4</sub> . <i>Materials Research Society Symposia Proceedings</i> , <b>2012</b> , 1441, 11		
2	Scientific Scope. <i>Green Energy and Technology</i> , <b>2008</b> , 625-635	0.6	
1	Biowaste eggshells as efficient electrodes for energy storage <b>2021</b> , 475-495		