

Doron Aurbach

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330
papers

36,361
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83
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187
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346
ext. papers

41,662
ext. citations

9.4
avg, IF

7.93
L-index

#	Paper	IF	Citations
330	Challenges in the development of advanced Li-ion batteries: a review. <i>Energy and Environmental Science</i> , 2011 , 4, 3243	35.4	4665
329	Promise and reality of post-lithium-ion batteries with high energy densities. <i>Nature Reviews Materials</i> , 2016 , 1,	73.3	2575
328	Review of selected electrode/electrolyte interactions which determine the performance of Li and Li ion batteries. <i>Journal of Power Sources</i> , 2000 , 89, 206-218	8.9	1596
327	A short review of failure mechanisms of lithium metal and lithiated graphite anodes in liquid electrolyte solutions. <i>Solid State Ionics</i> , 2002 , 148, 405-416	3.3	1259
326	Mg rechargeable batteries: an on-going challenge. <i>Energy and Environmental Science</i> , 2013 , 6, 2265	35.4	973
325	Carbon-based composite materials for supercapacitor electrodes: a review. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 12653-12672	13	842
324	Advances in understanding mechanisms underpinning lithium-air batteries. <i>Nature Energy</i> , 2016 , 1,	62.3	834
323	A review of advanced and practical lithium battery materials. <i>Journal of Materials Chemistry</i> , 2011 , 21, 9938		830
322	Sulfur-impregnated activated carbon fiber cloth as a binder-free cathode for rechargeable Li-S batteries. <i>Advanced Materials</i> , 2011 , 23, 5641-4	24	783
321	Effect of fluoroethylene carbonate (FEC) on the performance and surface chemistry of Si-nanowire Li-ion battery anodes. <i>Langmuir</i> , 2012 , 28, 965-76	4	567
320	Review on electrode/electrolyte solution interactions, related to cathode materials for Li-ion batteries. <i>Journal of Power Sources</i> , 2007 , 165, 491-499	8.9	544
319	Review on Li-Sulfur Battery Systems: an Integral Perspective. <i>Advanced Energy Materials</i> , 2015 , 5, 1500212.8	12.8	531
318	Recent Advances and Remaining Challenges for Lithium Ion Battery Cathodes. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A6220-A6228	3.9	442
317	The Correlation Between the Surface Chemistry and the Performance of Li-Carbon Intercalation Anodes for Rechargeable Rocking-Chair Type Batteries. <i>Journal of the Electrochemical Society</i> , 1994 , 141, 603-611	3.9	372
316	Failure and Stabilization Mechanisms of Graphite Electrodes. <i>Journal of Physical Chemistry B</i> , 1997 , 101, 2195-2206	3.4	360
315	The Study of Electrolyte Solutions Based on Ethylene and Diethyl Carbonates for Rechargeable Li Batteries: II. Graphite Electrodes. <i>Journal of the Electrochemical Society</i> , 1995 , 142, 2882-2890	3.9	346
314	Review on Challenges and Recent Advances in the Electrochemical Performance of High Capacity Li- and Mn-Rich Cathode Materials for Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1702397	21.8	340

313	The High Performance of Crystal Water Containing Manganese Birnessite Cathodes for Magnesium Batteries. <i>Nano Letters</i> , 2015 , 15, 4071-9	11.5	339
312	Electrolyte Solutions with a Wide Electrochemical Window for Rechargeable Magnesium Batteries. <i>Journal of the Electrochemical Society</i> , 2008 , 155, A103	3.9	330
311	Novel, electrolyte solutions comprising fully inorganic salts with high anodic stability for rechargeable magnesium batteries. <i>Chemical Communications</i> , 2014 , 50, 243-5	5.8	317
310	Sonochemical Synthesis of SnO ₂ Nanoparticles and Their Preliminary Study as Li Insertion Electrodes. <i>Chemistry of Materials</i> , 2000 , 12, 2557-2566	9.6	310
309	Current status and future directions of multivalent metal-ion batteries. <i>Nature Energy</i> , 2020 , 5, 646-656	62.3	307
308	From Surface ZrO ₂ Coating to Bulk Zr Doping by High Temperature Annealing of Nickel-Rich Lithiated Oxides and Their Enhanced Electrochemical Performance in Lithium Ion Batteries. <i>Advanced Energy Materials</i> , 2018 , 8, 1701682	21.8	304
307	Electrochemical and spectroscopic analysis of Mg ²⁺ intercalation into thin film electrodes of layered oxides: V ₂ O ₅ and MoO ₃ . <i>Langmuir</i> , 2013 , 29, 10964-72	4	293
306	The behaviour of lithium electrodes in propylene and ethylene carbonate: The major factors that influence Li cycling efficiency. <i>Journal of Electroanalytical Chemistry</i> , 1992 , 339, 451-471	4.1	288
305	Very Stable Lithium Metal Stripping/Plating at a High Rate and High Areal Capacity in Fluoroethylene Carbonate-Based Organic Electrolyte Solution. <i>ACS Energy Letters</i> , 2017 , 2, 1321-1326	20.1	283
304	Lithium-Oxygen Batteries and Related Systems: Potential, Status, and Future. <i>Chemical Reviews</i> , 2020 , 120, 6626-6683	68.1	279
303	Al Doping for Mitigating the Capacity Fading and Voltage Decay of Layered Li and Mn-Rich Cathodes for Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2016 , 6, 1502398	21.8	271
302	Ion Sieving Effects in the Electrical Double Layer of Porous Carbon Electrodes: Estimating Effective Ion Size in Electrolytic Solutions. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 6880-6887	3.4	270
301	Fluoroethylene Carbonate as an Important Component for the Formation of an Effective Solid Electrolyte Interphase on Anodes and Cathodes for Advanced Li-Ion Batteries. <i>ACS Energy Letters</i> , 2017 , 2, 1337-1345	20.1	263
300	Micromorphological Studies of Lithium Electrodes in Alkyl Carbonate Solutions Using in Situ Atomic Force Microscopy. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 12282-12291	3.4	262
299	Nonaqueous magnesium electrochemistry and its application in secondary batteries. <i>Chemical Record</i> , 2003 , 3, 61-73	6.6	255
298	Nanoparticles of SnO Produced by Sonochemistry as Anode Materials for Rechargeable Lithium Batteries. <i>Chemistry of Materials</i> , 2002 , 14, 4155-4163	9.6	249
297	NaCrO ₂ cathode for high-rate sodium-ion batteries. <i>Energy and Environmental Science</i> , 2015 , 8, 2019-2026	25.4	239
296	The challenge of developing rechargeable magnesium batteries. <i>MRS Bulletin</i> , 2014 , 39, 453-460	3.2	232

295	Solving the Capacitive Paradox of 2D MXene using Electrochemical Quartz-Crystal Admittance and In Situ Electronic Conductance Measurements. <i>Advanced Energy Materials</i> , 2015 , 5, 1400815	21.8	225
294	Evaluation of (CF ₃ SO ₂) ₂ N(TFSI) Based Electrolyte Solutions for Mg Batteries. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A7118-A7128	3.9	224
293	Structural analysis of electrolyte solutions for rechargeable Mg batteries by stereoscopic means and DFT calculations. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6270-8	16.4	217
292	Stabilizing nickel-rich layered cathode materials by a high-charge cation doping strategy: zirconium-doped LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ . <i>Journal of Materials Chemistry A</i> , 2016 , 4, 16073-16084	13	215
291	Application of a quartz-crystal microbalance to measure ionic fluxes in microporous carbons for energy storage. <i>Nature Materials</i> , 2009 , 8, 872-5	27	209
290	Redox Mediators for Li-O Batteries: Status and Perspectives. <i>Advanced Materials</i> , 2018 , 30, 1704162	24	206
289	Oxidation of Dimethyl Sulfoxide Solutions by Electrochemical Reduction of Oxygen. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 3115-3119	6.4	205
288	X-ray Photoelectron Spectroscopy Studies of Lithium Surfaces Prepared in Several Important Electrolyte Solutions. A Comparison with Previous Studies by Fourier Transform Infrared Spectroscopy. <i>Langmuir</i> , 1996 , 12, 3991-4007	4	201
287	Electrolyte Solutions for Rechargeable Magnesium Batteries Based on Organomagnesium Chloroaluminate Complexes. <i>Journal of the Electrochemical Society</i> , 2002 , 149, A115	3.9	195
286	New Horizons for Conventional Lithium Ion Battery Technology. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 3313-24	6.4	192
285	LiD ₂ cells with LiBr as an electrolyte and a redox mediator. <i>Energy and Environmental Science</i> , 2016 , 9, 2334-2345	35.4	190
284	Structural and Electrochemical Aspects of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ Cathode Materials Doped by Various Cations. <i>ACS Energy Letters</i> , 2019 , 4, 508-516	20.1	189
283	Studies of cycling behavior, ageing, and interfacial reactions of LiNi _{0.5} Mn _{1.5} O ₄ and carbon electrodes for lithium-ion 5-V cells. <i>Journal of Power Sources</i> , 2006 , 162, 780-789	8.9	187
282	The dependence of the performance of Li-C intercalation anodes for Li-ion secondary batteries on the electrolyte solution composition. <i>Electrochimica Acta</i> , 1994 , 39, 2559-2569	6.7	186
281	The Use of Redox Mediators for Enhancing Utilization of Li ₂ S Cathodes for Advanced Li-S Battery Systems. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 915-8	6.4	176
280	Integrated Materials xLi ₂ MnO ₃ ·(1-x)LiMn _{1/3} Ni _{1/3} Co _{1/3} O ₂ (x=0.3, 0.5, 0.7) Synthesized. <i>Journal of the Electrochemical Society</i> , 2010 , 157, A1121	3.9	173
279	Long term stability of capacitive de-ionization processes for water desalination: The challenge of positive electrodes corrosion. <i>Electrochimica Acta</i> , 2013 , 106, 91-100	6.7	171
278	Understanding the behavior of Li ₂ O ₂ cells containing LiI. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8855-8864	13	169

277	Charge-transfer materials for electrochemical water desalination, ion separation and the recovery of elements. <i>Nature Reviews Materials</i> , 2020 , 5, 517-538	73.3	168
276	In Situ Conductivity, Impedance Spectroscopy, and Ex Situ Raman Spectra of Amorphous Silicon during the Insertion/Extraction of Lithium. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 11437-11444	3.8	162
275	X-ray Photoelectron Spectroscopy Study of Surface Films Formed on Li Electrodes Freshly Prepared in Alkyl Carbonate Solutions. <i>Langmuir</i> , 1999 , 15, 3334-3342	4	160
274	Anode-Electrolyte Interfaces in Secondary Magnesium Batteries. <i>Joule</i> , 2019 , 3, 27-52	27.8	153
273	On the Stability of LiFePO ₄ Olivine Cathodes under Various Conditions (Electrolyte Solutions, Temperatures). <i>Electrochemical and Solid-State Letters</i> , 2007 , 10, A40		149
272	Critical Role of Crystal Water for a Layered Cathode Material in Sodium Ion Batteries. <i>Chemistry of Materials</i> , 2015 , 27, 3721-3725	9.6	142
271	Fluoroethylene carbonate as an important component in electrolyte solutions for high-voltage lithium batteries: role of surface chemistry on the cathode. <i>Langmuir</i> , 2014 , 30, 7414-24	4	142
270	Betal Effect on Surfaces Based on Lycopodium: High-Stick Surfaces Demonstrating High Apparent Contact Angles. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 5568-5572	3.8	136
269	Impedance Spectroscopy of Li Electrodes. 4. A General Simple Model of the Li ⁺ Solution Interphase in Polar Aprotic Systems. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 3089-3101		136
268	On the Challenge of Electrolyte Solutions for Li-Air Batteries: Monitoring Oxygen Reduction and Related Reactions in Polyether Solutions by Spectroscopy and EQCM. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 127-31	6.4	133
267	The electrochemistry of activated carbonaceous materials: past, present, and future. <i>Journal of Solid State Electrochemistry</i> , 2011 , 15, 1563-1578	2.6	132
266	Lithium Polyacrylate (LiPAA) as an Advanced Binder and a Passivating Agent for High-Voltage Li-Ion Batteries. <i>Advanced Energy Materials</i> , 2015 , 5, 1501008	21.8	130
265	Recent Advances and Remaining Challenges for Lithium Ion Battery Cathodes. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A6341-A6348	3.9	128
264	A comparative study of electrodes comprising nanometric and submicron particles of LiNi _{0.50} Mn _{0.50} O ₂ , LiNi _{0.33} Mn _{0.33} Co _{0.33} O ₂ , and LiNi _{0.40} Mn _{0.40} Co _{0.20} O ₂ layered compounds. <i>Journal of Power Sources</i> , 2009 , 189, 248-255	8.9	125
263	Origin of Structural Degradation During Cycling and Low Thermal Stability of Ni-Rich Layered Transition Metal-Based Electrode Materials. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 22628-22636	3.8	123
262	Development of Advanced Rechargeable Batteries: A Continuous Challenge in the Choice of Suitable Electrolyte Solutions. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A2424-A2438	3.9	114
261	Catalytic Behavior of Lithium Nitrate in Li-O ₂ Cells. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 16590-16600	9.5	111
260	Study of the Lithium-Rich Integrated Compound xLi ₂ MnO ₃ [(1-x)LiMO ₂ (x around 0.5; M = Mn, Ni, Co; 2:2:1) and Its Electrochemical Activity as Positive Electrode in Lithium Cells. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A324-A337	3.9	109

259	Mechanistic Role of Li ⁺ Dissociation Level in Aprotic Li-O ₂ Battery. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 5300-7	9.5	106
258	Comparing the Behavior of Nano- and Microsized Particles of LiMn _{1.5} Ni _{0.5} O ₄ Spinel as Cathode Materials for Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2007 , 154, A682	3.9	105
257	High-Temperature Treatment of Li-Rich Cathode Materials with Ammonia: Improved Capacity and Mean Voltage Stability during Cycling. <i>Advanced Energy Materials</i> , 2017 , 7, 1700708	21.8	102
256	Studies of Aluminum-Doped LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ : Electrochemical Behavior, Aging, Structural Transformations, and Thermal Characteristics. <i>Journal of the Electrochemical Society</i> , 2015 , 162, A1014-A1027	3.0	99
255	Comparison between Na-Ion and Li-Ion Cells: Understanding the Critical Role of the Cathodes Stability and the Anodes Pretreatment on the Cells Behavior. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1867-75	9.5	99
254	Enhanced Charge Efficiency in Capacitive Deionization Achieved by Surface-Treated Electrodes and by Means of a Third Electrode. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 19856-19863	3.8	98
253	A brief review: Past, present and future of lithium ion batteries. <i>Russian Journal of Electrochemistry</i> , 2016 , 52, 1095-1121	1.2	97
252	Li ⁺ -Ion Extraction/Insertion of Ni-Rich Li _{1+x} (Ni _y Co _z Mn _z) _w O ₂ (0.005). <i>ChemElectroChem</i> , 2015 , 2, 1479-1486	1.8	94
251	Exceptionally Active and Stable Spinel Nickel Manganese Oxide Electrocatalysts for Urea Oxidation Reaction. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 12176-85	9.5	90
250	On the Oxidation State of Manganese Ions in Li-Ion Battery Electrolyte Solutions. <i>Journal of the American Chemical Society</i> , 2017 , 139, 1738-1741	16.4	88
249	Leaching Chemistry and the Performance of the Mo ₆ S ₈ Cathodes in Rechargeable Mg Batteries. <i>Chemistry of Materials</i> , 2004 , 16, 2832-2838	9.6	85
248	Thermodynamic and kinetic studies of LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ as a positive electrode material for Li-ion batteries using first principles. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 6799-812	3.6	84
247	Unraveling the Effects of Al Doping on the Electrochemical Properties of LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ Using First Principles. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A6359-A6365	3.9	80
246	Electrochemical and structural characterization of carbon coated Li _{1.2} Mn _{0.56} Ni _{0.16} Co _{0.08} O ₂ and Li _{1.2} Mn _{0.6} Ni _{0.2} O ₂ as cathode materials for Li-ion batteries. <i>Electrochimica Acta</i> , 2014 , 137, 546-556	6.7	80
245	Electrochemical Properties of Sulfurized-Polyacrylonitrile Cathode for Lithium-Sulfur Batteries: Effect of Polyacrylic Acid Binder and Fluoroethylene Carbonate Additive. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 5331-5337	6.4	79
244	Studies of Li and Mn-Rich Li _x [MnNiCo] ₂ O ₂ Electrodes: Electrochemical Performance, Structure, and the Effect of the Aluminum Fluoride Coating. <i>Journal of the Electrochemical Society</i> , 2013 , 160, A2220-A2233	3.9	78
243	Assessing the Solvation Numbers of Electrolytic Ions Confined in Carbon Nanopores under Dynamic Charging Conditions. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 120-4	6.4	77
242	Layered Cathode Materials for Lithium-Ion Batteries: Review of Computational Studies on LiNi _{1-x-y} CoxMnyO ₂ and LiNi _{1-x-y} CoxAl _y O ₂ . <i>Chemistry of Materials</i> , 2020 , 32, 915-952	9.6	76

241	Preparation and Properties of Metal Organic Framework/Activated Carbon Composite Materials. <i>Langmuir</i> , 2016 , 32, 4935-44	4	76
240	Structural Analysis of Electrolyte Solutions Comprising Magnesium-Aluminate Chloro-Organic Complexes by Raman Spectroscopy. <i>Organometallics</i> , 2007 , 26, 3130-3137	3.8	75
239	Side Reactions in Capacitive Deionization (CDI) Processes: The Role of Oxygen Reduction. <i>Electrochimica Acta</i> , 2016 , 220, 285-295	6.7	74
238	Structural and Electrochemical Evidence of Layered to Spinel Phase Transformation of Li and Mn Rich Layered Cathode Materials of the Formulae $x\text{Li}[\text{Li}_{1/3}\text{Mn}_{2/3}]\text{O}_2 \cdot (1-x)\text{LiMn}_{1/3}\text{Ni}_{1/3}\text{Co}_{1/3}\text{O}_2$ ($x = 0.2, 0.4, 0.6$) upon Cycling. <i>Journal of the Electrochemical Society</i> , 2014 , 161, A1534-A1547	3.9	73
237	On the Surface Chemistry of LiMO_2 Cathode Materials ($\text{M}=[\text{MnNi}]$ and $[\text{MnNiCo}]$): Electrochemical, Spectroscopic, and Calorimetric Studies. <i>Journal of the Electrochemical Society</i> , 2010 , 157, A1099	3.9	73
236	Micropump based on liquid marbles. <i>Applied Physics Letters</i> , 2010 , 97, 091908	3.4	72
235	Horizons for Li-Ion Batteries Relevant to Electro-Mobility: High-Specific-Energy Cathodes and Chemically Active Separators. <i>Advanced Materials</i> , 2018 , 30, e1801348	24	71
234	In Situ AFM Imaging of Surface Phenomena on Composite Graphite Electrodes during Lithium Insertion. <i>Langmuir</i> , 2002 , 18, 9000-9009	4	71
233	Metal-Sulfur Batteries: Overview and Research Methods. <i>ACS Energy Letters</i> , 2019 , 4, 436-446	20.1	71
232	Magnesium Deposition and Dissolution Processes in Ethereal Grignard Salt Solutions Using Simultaneous EQCM-EIS and In Situ FTIR Spectroscopy. <i>Electrochemical and Solid-State Letters</i> , 1999 , 3, 31		69
231	Direct Observation of an Anomalous Spinel-to-Layered Phase Transition Mediated by Crystal Water Intercalation. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 15094-9	16.4	67
230	Direct Assessment of Nanoconfined Water in 2D TiC Electrode Interspaces by a Surface Acoustic Technique. <i>Journal of the American Chemical Society</i> , 2018 , 140, 8910-8917	16.4	66
229	The use of in situ techniques in R&D of Li and Mg rechargeable batteries. <i>Journal of Solid State Electrochemistry</i> , 2011 , 15, 877-890	2.6	66
228	On the Electrochemical Behavior of Aluminum Electrodes in Nonaqueous Electrolyte Solutions of Lithium Salts. <i>Journal of the Electrochemical Society</i> , 2010 , 157, A423	3.9	66
227	In situ hydrodynamic spectroscopy for structure characterization of porous energy storage-electrodes. <i>Nature Materials</i> , 2016 , 15, 570-5	27	65
226	In Situ Electrochemical Quartz Crystal Admittance Methodology for Tracking Compositional and Mechanical Changes in Porous Carbon Electrodes. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 14876-14889	3.8	65
225	Novel Cathode Materials for Na-Ion Batteries Composed of Spoke-Like Nanorods of $\text{Na}[\text{Ni}_{0.61}\text{Co}_{0.12}\text{Mn}_{0.27}]\text{O}_2$ Assembled in Spherical Secondary Particles. <i>Advanced Functional Materials</i> , 2016 , 26, 8083-8093	15.6	65
224	Fast Charging of Lithium-Ion Batteries: A Review of Materials Aspects. <i>Advanced Energy Materials</i> , 2021 , 11, 2101126	21.8	65

223	Alloy Anode Materials for Rechargeable Mg Ion Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 200069721.8	64
222	In Situ Real-Time Mechanical and Morphological Characterization of Electrodes for Electrochemical Energy Storage and Conversion by Electrochemical Quartz Crystal Microbalance with Dissipation Monitoring. <i>Accounts of Chemical Research</i> , 2018 , 51, 69-79	24.3 62
221	Unique Behavior of Dimethoxyethane (DME)/Mg(N(SO ₂ CF ₃) ₂) ₂ Solutions. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 19586-19594	3.8 62
220	Alkyl Group Transmetalation Reactions in Electrolytic Solutions Studied by Multinuclear NMR. <i>Organometallics</i> , 2004 , 23, 3826-3831	3.8 62
219	Composite non-stick droplets and their actuation with electric field. <i>Applied Physics Letters</i> , 2012 , 100, 151601	3.4 61
218	Cu ₂ Mo ₆ S ₈ Chevrel Phase, A Promising Cathode Material for New Rechargeable Mg Batteries: A Mechanically Induced Chemical Reaction. <i>Chemistry of Materials</i> , 2002 , 14, 2767-2773	9.6 61
217	Understanding the Role of Minor Molybdenum Doping in LiNiCoMnO Electrodes: from Structural and Surface Analyses and Theoretical Modeling to Practical Electrochemical Cells. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 29608-29621	9.5 60
216	Developing Ion Electroadsorption Stereoselectivity, by Pore Size Adjustment with Chemical Vapor Deposition onto Active Carbon Fiber Electrodes. Case of Ca ²⁺ /Na ⁺ Separation in Water Capacitive Desalination. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 7385-7389	3.8 60
215	High-Performance Cells Containing Lithium Metal Anodes, LiNiCoMnO (NCM 622) Cathodes, and Fluoroethylene Carbonate-Based Electrolyte Solution with Practical Loading. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 19773-19782	9.5 60
214	Structural Analysis of Magnesium Chloride Complexes in Dimethoxyethane Solutions in the Context of Mg Batteries Research. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 24909-24918	3.8 58
213	Effect of Fe in suppressing the discharge voltage decay of high capacity Li-rich cathodes for Li-ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2015 , 19, 2781-2792	2.6 57
212	The Effect of ZnO and MgO Coatings by a Sono-Chemical Method, on the Stability of LiMn _{1.5} Ni _{0.5} O ₄ as a Cathode Material for 5 V Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2012 , 159, A228-A237	3.9 55
211	The Study of Surface Films Formed on Lithium and Noble Metal Electrodes in Polar Aprotic Systems By the Use of In Situ Fourier Transform Infrared Spectroscopy. <i>Journal of the Electrochemical Society</i> , 1993 , 140, L1-L4	3.9 55
210	Optimized Bicompartement Two Solution Cells for Effective and Stable Operation of LiO ₂ Batteries. <i>Advanced Energy Materials</i> , 2017 , 7, 1701232	21.8 54
209	Study of Cathode Materials for Lithium-Ion Batteries: Recent Progress and New Challenges. <i>Inorganics</i> , 2017 , 5, 32	2.9 54
208	In Situ Porous Structure Characterization of Electrodes for Energy Storage and Conversion by EQCM-D: a Review. <i>Electrochimica Acta</i> , 2017 , 232, 271-284	6.7 52
207	Predicting accurate cathode properties of layered oxide materials using the SCAN meta-GGA density functional. <i>Npj Computational Materials</i> , 2018 , 4,	10.9 52
206	Review A Comparative Evaluation of Redox Mediators for Li-O ₂ Batteries: A Critical Review. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A2274-A2293	3.9 51

205	Hierarchical activated carbon microfiber (ACM) electrodes for rechargeable LiO ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 5021	13	50
204	In situ real-time gravimetric and viscoelastic probing of surface films formation on lithium batteries electrodes. <i>Nature Communications</i> , 2017 , 8, 1389	17.4	50
203	Review Multifunctional Materials for Enhanced Li-Ion Batteries Durability: A Brief Review of Practical Options. <i>Journal of the Electrochemical Society</i> , 2017 , 164, A6315-A6323	3.9	49
202	Towards promising electrochemical technology for load leveling applications: extending cycle life of lead acid batteries by the use of carbon nano-tubes (CNTs). <i>Energy and Environmental Science</i> , 2013 , 6, 587-594	35.4	49
201	Understanding the influence of Mg doping for the stabilization of capacity and higher discharge voltage of Li- and Mn-rich cathodes for Li-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 6142-6152	3.6	48
200	In Situ Monitoring of Gravimetric and Viscoelastic Changes in 2D Intercalation Electrodes. <i>ACS Energy Letters</i> , 2017 , 2, 1407-1415	20.1	48
199	Improving Performance of LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ Cathode Materials for Lithium-Ion Batteries by Doping with Molybdenum-Ions: Theoretical and Experimental Studies. <i>ACS Applied Energy Materials</i> , 2019 , 2, 4521-4534	6.1	48
198	Reactivity of Amide Based Solutions in Lithium-Oxygen Cells. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 15207-15213	3.8	46
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