

Margret Wohlfahrt-Mehrens

List of Publications by Year in descending order

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48
papers

4,654
citations

201674

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214800

47
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49
docs citations

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times ranked

3609
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Experimental Confirmation of C-Rate Dependent Minima Shifts in Arrhenius Plots of Li-Ion Battery Aging. <i>Journal of the Electrochemical Society</i> , 2022, 169, 030509. | 2.9 | 11 |
| 2 | Enabling Fast-Charging Lithium-Ion Battery Anodes: Influence of Spheroidization on Natural Graphite. <i>Batteries and Supercaps</i> , 2022, 5, . | 4.7 | 13 |
| 3 | Cross-Sectional In Situ Optical Microscopy with Simultaneous Electrochemical Measurements for Lithium-Ion Full Cells. <i>Journal of the Electrochemical Society</i> , 2022, 169, 050519. | 2.9 | 12 |
| 4 | Detection of Li Deposition on Si/Graphite Anodes from Commercial Li-Ion Cells: A Post-Mortem GD-OES Depth Profiling Study. <i>Journal of the Electrochemical Society</i> , 2022, 169, 050533. | 2.9 | 9 |
| 5 | Insights Into Thermal Runaway of Li-Ion Cells by Accelerating Rate Calorimetry Coupled with External Sensors and Online Gas Analysis. <i>Batteries and Supercaps</i> , 2021, 4, 1135-1144. | 4.7 | 20 |
| 6 | 3D-Printed Testing Plate for the Optimization of High C-Rates Cycling Performance of Lithium-Ion Cells. <i>Journal of the Electrochemical Society</i> , 2021, 168, 050508. | 2.9 | 3 |
| 7 | Fast Charging of Lithium-Ion Batteries: A Review of Materials Aspects. <i>Advanced Energy Materials</i> , 2021, 11, 2101126. | 19.5 | 407 |
| 8 | Identification of Degradation Mechanisms by Post-Mortem Analysis for High Power and High Energy Commercial Li-Ion Cells after Electric Vehicle Aging. <i>Batteries</i> , 2021, 7, 48. | 4.5 | 18 |
| 9 | Aqueous Processing of LiNi _{0.83} Co _{0.12} Mn _{0.05} O ₂ Positive Electrodes Using Established Water-Based Binders. <i>ECS Meeting Abstracts</i> , 2021, MA2021-02, 1908-1908. | 0.0 | 0 |
| 10 | Manufacturing Process for Improved Ultra-Thick Cathodes in High-Energy Lithium-Ion Batteries. <i>Energy Technology</i> , 2020, 8, 1900167. | 3.8 | 89 |
| 11 | Low-Temperature Charging and Aging Mechanisms of Si/C Composite Anodes in Li-Ion Batteries: An Operando Neutron Scattering Study. <i>ChemSusChem</i> , 2020, 13, 529-538. | 6.8 | 31 |
| 12 | Lithium-ion batteries – Current state of the art and anticipated developments. <i>Journal of Power Sources</i> , 2020, 479, 228708. | 7.8 | 401 |
| 13 | Evaluation of Scalable Porous Si-Rich Si/C Composites with Low Volume Expansion in Coin Cells to Prismatic Cell Formats. <i>Energy Technology</i> , 2020, 8, 2000217. | 3.8 | 16 |
| 14 | Influence of Conductive Additives and Binder on the Impedance of Lithium-Ion Battery Electrodes: Effect of Morphology. <i>Journal of the Electrochemical Society</i> , 2020, 167, 013546. | 2.9 | 105 |
| 15 | Influence of the Electrolyte Salt Concentration on the Rate Capability of Ultra-Thick NCM 622 Electrodes. <i>Batteries and Supercaps</i> , 2020, 3, 1172-1182. | 4.7 | 25 |
| 16 | Mechanical behavior of Silicon-Graphite pouch cells under external compressive load: Implications and opportunities for battery pack design. <i>Journal of Power Sources</i> , 2020, 451, 227774. | 7.8 | 31 |
| 17 | Communication – Edge Quality Contribution on the Electrical Impedance of Lithium-Ion Batteries Electrodes. <i>Journal of the Electrochemical Society</i> , 2020, 167, 080504. | 2.9 | 5 |
| 18 | Bringing forward the development of battery cells for automotive applications: Perspective of R&D activities in China, Japan, the EU and the USA. <i>Journal of Power Sources</i> , 2020, 459, 228073. | 7.8 | 109 |

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|----|--|-----|-----------|
| 19 | 4-Electrode Full Cells for Operando Li ⁺ Activity Measurements and Prevention of Li Deposition in Li-Ion Cells. <i>Journal of the Electrochemical Society</i> , 2020, 167, 090525. | 2.9 | 15 |
| 20 | Mechanistic Details of the Spontaneous Intercalation of Li Metal into Graphite Electrodes. <i>Journal of the Electrochemical Society</i> , 2020, 167, 140546. | 2.9 | 12 |
| 21 | Study of the Binder Influence on Expansion/Contraction Behavior of Silicon Alloy Negative Electrodes for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2020, 167, 160537. | 2.9 | 17 |
| 22 | Surface Film Formation and Dissolution in Si/C Anodes of Li-Ion Batteries: A Glow Discharge Optical Emission Spectroscopy Depth Profiling Study. <i>Journal of Physical Chemistry C</i> , 2019, 123, 18795-18803. | 3.1 | 21 |
| 23 | Study of the influence of mechanical pressure on the performance and aging of Lithium-ion battery cells. <i>Journal of Power Sources</i> , 2019, 440, 227148. | 7.8 | 95 |
| 24 | Biphenyl-Bridged Organosilica as a Precursor for Mesoporous Silicon Oxycarbide and Its Application in Lithium and Sodium Ion Batteries. <i>Nanomaterials</i> , 2019, 9, 754. | 4.1 | 12 |
| 25 | Analysis of the effect of applying external mechanical pressure on next generation silicon alloy lithium-ion cells. <i>Electrochimica Acta</i> , 2019, 306, 387-395. | 5.2 | 52 |
| 26 | Effects of Mechanical Compression on the Aging and the Expansion Behavior of Si/C-Composite NMC811 in Different Lithium-Ion Battery Cell Formats. <i>Journal of the Electrochemical Society</i> , 2019, 166, A3796-A3805. | 2.9 | 68 |
| 27 | Li plating as unwanted side reaction in commercial Li-ion cells – A review. <i>Journal of Power Sources</i> , 2018, 384, 107-124. | 7.8 | 521 |
| 28 | Template-Derived Submicrometric Carbon Spheres for Lithium-Sulfur and Sodium-Ion Battery Electrodes. <i>Energy Technology</i> , 2018, 6, 1797-1804. | 3.8 | 13 |
| 29 | Communication – Detection of Si Distribution in Si/C Composite Anodes by Glow Discharge Optical Emission Spectroscopy. <i>Journal of the Electrochemical Society</i> , 2018, 165, A3602-A3604. | 2.9 | 6 |
| 30 | Comprehensive Aging Analysis of Volumetric Constrained Lithium-Ion Pouch Cells with High Concentration Silicon-Alloy Anodes. <i>Energies</i> , 2018, 11, 2948. | 3.1 | 39 |
| 31 | Energy Density of Cylindrical Li-Ion Cells: A Comparison of Commercial 18650 to the 21700 Cells. <i>Journal of the Electrochemical Society</i> , 2018, 165, A3284-A3291. | 2.9 | 125 |
| 32 | Communication – Quantitative Analysis of Consumption of Fluoroethylene Carbonate Additives on Silicon Alloy Anodes. <i>Journal of the Electrochemical Society</i> , 2018, 165, A2467-A2469. | 2.9 | 18 |
| 33 | Effects of rest time after Li plating on safety behavior – ARC tests with commercial high-energy 18650 Li-ion cells. <i>Electrochimica Acta</i> , 2017, 230, 454-460. | 5.2 | 93 |
| 34 | High performance 1.2Ah Si-alloy/Graphite LiNi 0.5 Mn 0.3 Co 0.2 O 2 prototype Li-ion battery. <i>Journal of Power Sources</i> , 2017, 357, 188-197. | 7.8 | 44 |
| 35 | Effects of Biphenyl Polymerization on Lithium Deposition in Commercial Graphite/NMC Lithium-Ion Pouch-Cells during Calendar Aging at High Temperature. <i>Journal of the Electrochemical Society</i> , 2017, 164, A1089-A1097. | 2.9 | 63 |
| 36 | Post-Mortem Analysis of Calendar-Aged 16 Ah NMC/Graphite Pouch Cells for EV Application. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21865-21876. | 3.1 | 43 |

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|----|--|-----|-----------|
| 37 | Electrochemical, Post-Mortem, and ARC Analysis of Li-Ion Cell Safety in Second-Life Applications. Journal of the Electrochemical Society, 2017, 164, A3154-A3162. | 2.9 | 83 |
| 38 | Reviewâ€”Post-Mortem Analysis of Aged Lithium-Ion Batteries: Disassembly Methodology and Physico-Chemical Analysis Techniques. Journal of the Electrochemical Society, 2016, 163, A2149-A2164. | 2.9 | 203 |
| 39 | Inhomogeneous Degradation of Graphite Anodes in Li-Ion Cells: A Postmortem Study Using Glow Discharge Optical Emission Spectroscopy (GD-OES). Journal of Physical Chemistry C, 2016, 120, 22225-22234. | 3.1 | 62 |
| 40 | Origin of the Synergetic Effects of $\text{LiFe}_{0.3}\text{Mn}_{0.7}\text{PO}_4$ â€” Spinel Blends via Dynamic In Situ X-ray Diffraction Measurements. Journal of the Electrochemical Society, 2016, 163, A1936-A1940. | 2.9 | 18 |
| 41 | Interplay of Operational Parameters on Lithium Deposition in Lithium-Ion Cells: Systematic Measurements with Reconstructed 3-Electrode Pouch Full Cells. Journal of the Electrochemical Society, 2016, 163, A1232-A1238. | 2.9 | 136 |
| 42 | Influence of current collecting tab design on thermal and electrochemical performance of cylindrical Lithium-ion cells during high current discharge. Journal of Energy Storage, 2016, 5, 163-168. | 8.1 | 23 |
| 43 | Correlations between Electrochemical Data and Results from Post-Mortem Analysis of Aged Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A1500-A1505. | 2.9 | 37 |
| 44 | Flammability of Li-Ion Battery Electrolytes: Flash Point and Self-Extinguishing Time Measurements. Journal of the Electrochemical Society, 2015, 162, A3084-A3097. | 2.9 | 262 |
| 45 | Influence of Cell Design on Temperatures and Temperature Gradients in Lithium-Ion Cells: An In Operando Study. Journal of the Electrochemical Society, 2015, 162, A921-A927. | 2.9 | 97 |
| 46 | Optimization of Charging Strategy by Prevention of Lithium Deposition on Anodes in high-energy Lithium-ion Batteries â€” Electrochemical Experiments. Electrochimica Acta, 2015, 178, 525-532. | 5.2 | 158 |
| 47 | Interaction of cyclic ageing at high-rate and low temperatures and safety in lithium-ion batteries. Journal of Power Sources, 2015, 274, 432-439. | 7.8 | 241 |
| 48 | Temperature dependent ageing mechanisms in Lithium-ion batteries â€” A Post-Mortem study. Journal of Power Sources, 2014, 262, 129-135. | 7.8 | 772 |