Thomas Waldmann

List of Publications by Year
in descending order

41 papers	3,556 citations	331670 21 h-index	289244 40 g-index
42 all docs	42 docs citations	42 times ranked	2774 citing authors

#	Article	IF	Citations
1	Experimental Confirmation of C-Rate Dependent Minima Shifts in Arrhenius Plots of Li-Ion Battery Aging. Journal of the Electrochemical Society, 2022, 169, 030509.	2.9	11
2	Cross-Sectional In Situ Optical Microscopy with Simultaneous Electrochemical Measurements for Lithium-Ion Full Cells. Journal of the Electrochemical Society, 2022, 169, 050519.	2.9	12
3	Detection of Li Deposition on Si/Graphite Anodes from Commercial Li-Ion Cells: A Post-Mortem GD-OES Depth Profiling Study. Journal of the Electrochemical Society, 2022, 169, 050533.	2.9	9
4	Cu Dissolution during Over-Discharge of Li-Ion Cells to 0 V: A Post-Mortem Study. Journal of the Electrochemical Society, 2021, 168, 020506.	2.9	9
5	Insights Into Thermal Runaway of Liâ€“Ion Cells by Accelerating Rate Calorimetry Coupled with External Sensors and Online Gas Analysis. Batteries and Supercaps, 2021, 4, 1135-1144.	4.7	20
6	Investigation of Li Metal Plating and Dissolution on Graphite Electrodes. ECS Meeting Abstracts, 2021, MA2021-01, 294-294.	0.0	0
7	3D-Printed Testing Plate for the Optimization of High C-Rates Cycling Performance of Lithium-Ion Cells. Journal of the Electrochemical Society, 2021, 168, 050508.	2.9	3
8	Fast Charging of Lithiumâ€Ion Batteries: A Review of Materials Aspects. Advanced Energy Materials, 2021, 11, 2101126.	19.5	407
9	Identification of Degradation Mechanisms by Post-Mortem Analysis for High Power and High Energy Commercial Li-Ion Cells after Electric Vehicle Aging. Batteries, 2021, 7, 48.	4.5	18
10	A Direct Comparison of Pilot-Scale Li-Ion Cells in the Formats PHEV1, Pouch, and 21700. Journal of the Electrochemical Society, 2021, 168, 090519.	2.9	16
11	Increase of Cycling Stability in Pilot-Scale 21700 Format Li-Ion Cells by Foil Tab Design. Processes, 2021, 9, 1908.	2.8	6
12	Lowâ€Temperature Charging and Aging Mechanisms of Si/C Composite Anodes in Liâ€Ion Batteries: An Operando Neutron Scattering Study. ChemSusChem, 2020, 13, 529-538.	6.8	31
13	18650 vs. 21700 Li-ion cells â€“ A direct comparison of electrochemical, thermal, and geometrical properties. Journal of Power Sources, 2020, 472, 228614.	7.8	66
14	Detection of Copper Deposition on Anodes of Overâ€Discharged Lithium Ion Cells by GDâ€OES Depth Profiling. ChemPhysChem, 2020, 21, 2047-2050.	2.1	6
15	4-Electrode Full Cells for Operando Li⁺ Activity Measurements and Prevention of Li Deposition in Li-Ion Cells. Journal of the Electrochemical Society, 2020, 167, 090525.	2.9	15
16	Mechanistic Details of the Spontaneous Intercalation of Li Metal into Graphite Electrodes. Journal of the Electrochemical Society, 2020, 167, 140546.	2.9	12
17	Surface Film Formation and Dissolution in Si/C Anodes of Li-Ion Batteries: A Glow Discharge Optical Emission Spectroscopy Depth Profiling Study. Journal of Physical Chemistry C, 2019, 123, 18795-18803.	3.1	21
18	Effects of Mechanical Compression on the Aging and the Expansion Behavior of Si/C-Composite|NMC811 in Different Lithium-Ion Battery Cell Formats. Journal of the Electrochemical Society, 2019, 166, A3796-A3805.	2.9	68

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19	Li plating as unwanted side reaction in commercial Li-ion cells â€“ A review. Journal of Power Sources, 2018, 384, 107-124.	7.8	521
20	Communicationâ€”Detection of Si Distribution in Si/C Composite Anodes by Glow Discharge Optical Emission Spectroscopy. Journal of the Electrochemical Society, 2018, 165, A3602-A3604.	2.9	6
21	Energy Density of Cylindrical Li-Ion Cells: A Comparison of Commercial 18650 to the 21700 Cells. Journal of the Electrochemical Society, 2018, 165, A3284-A3291.	2.9	125
22	Effects of rest time after Li plating on safety behaviorâ€”ARC tests with commercial high-energy 18650 Li-ion cells. Electrochimica Acta, 2017, 230, 454-460.	5.2	93
23	Effects of Biphenyl Polymerization on Lithium Deposition in Commercial Graphite/NMC Lithium-Ion Pouch-Cells during Calendar Aging at High Temperature. Journal of the Electrochemical Society, 2017, 164, A1089-A1097.	2.9	63
24	Post-Mortem Analysis of Calendar-Aged 16 Ah NMC/Graphite Pouch Cells for EV Application. Journal of Physical Chemistry C, 2017, 121, 21865-21876.	3.1	43
25	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
26	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
27	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
28	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
29	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
30	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
31	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
32	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
33	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
34	Temperature dependent ageing mechanisms in Lithium-ion batteries â€“ A Post-Mortem study. Journal of Power Sources, 2014, 262, 129-135.	7.8	772
35	Stabilization of Large Adsorbates by Rotational Entropy: A Timeâ€Resolved Variableâ€Temperature STM Study. ChemPhysChem, 2013, 14, 162-169.	2.1	11
36	Oxidation of an Organic Adlayer: A Birdâ€™s Eye View. Journal of the American Chemical Society, 2012, 134, 8817-8822.	13.7	12

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37	The role of surface defects in large organic molecule adsorption: substrate configuration effects. Physical Chemistry Chemical Physics, 2012, 14, 10726.	2.8	19
38	Growth of an oligopyridine adlayer on Ag(100) â€“ A scanning tunnelling microscopy study. Physical Chemistry Chemical Physics, 2011, 13, 20724.	2.8	6
39	Imaging an Ionic Liquid Adlayer by Scanning Tunneling Microscopy at the Solid|Vacuum Interface. ChemPhysChem, 2011, 12, 2565-2567.	2.1	69
40	Substrate Registry in Disordered Layers of Large Molecules. ChemPhysChem, 2010, 11, 1513-1517.	2.1	8
41	Structure Formation in Bis(terpyridine) Derivative Adlayers:â€‰ Moleculeâ^'Substrate versus Moleculeâ^'Molecule Interactions. Langmuir, 2007, 23, 11570-11579.	3.5	38