Kristian Nikolowski

List of Publications by Year
in descending order

45 papers	2,287 citations	218381 26 h-index	233125 45 g-index
47 all docs	47 docs citations	47 times ranked	2827 citing authors

#	Article	IF	Citations
1	Phase Transitions Occurring upon Lithium Insertionâˆ’Extraction of LiCoPO4. Chemistry of Materials, 2007, 19, 908-915.	3.2	235
2	Understanding structural changes in NMC Li-ion cells by in situ neutron diffraction. Journal of Power Sources, 2014, 255, 197-203.	4.0	210
3	Changes in the crystal and electronic structure of LiCoO2 and LiNiO2 upon Li intercalation and de-intercalation. Physical Chemistry Chemical Physics, 2009, 11, 3278.	1.3	164
4	â€œIn-operandoâ€•neutron scattering studies on Li-ion batteries. Journal of Power Sources, 2012, 203, 126-129.	4.0	126
5	Lithium Intercalation into Graphitic Carbons Revisited: Experimental Evidence for Twisted Bilayer Behavior. Journal of the Electrochemical Society, 2013, 160, A3198-A3205.	1.3	114
6	The stability of the SEI layer, surface composition and the oxidation state of transition metals at the electrolyteâ€“cathode interface impacted by the electrochemical cycling: X-ray photoelectron spectroscopy investigation. Physical Chemistry Chemical Physics, 2012, 14, 12321.	1.3	109
7	Fatigue of LiNi0.8Co0.15Al0.05O2 in commercial Li ion batteries. Journal of Power Sources, 2015, 273, 70-82.	4.0	102
8	From Lithiumâ€Metal toward Anodeâ€Free Solidâ€State Batteries: Current Developments, Issues, and Challenges. Advanced Functional Materials, 2021, 31, 2106608.	7.8	98
9	Thermal Stability of LiCoPO[sub 4] Cathodes. Electrochemical and Solid-State Letters, 2008, 11, A89.	2.2	86
10	Binding Energy Referencing for XPS in Alkali Metal-Based Battery Materials Research (II): Application to Complex Composite Electrodes. Batteries, 2018, 4, 36.	2.1	75
11	Synthesis and sintering of Li1.3Al0.3Ti1.7(PO4)3 (LATP) electrolyte for ceramics with improved Li+ conductivity. Journal of Alloys and Compounds, 2020, 818, 153237.	2.8	68
12	Fatigue Process in Li-Ion Cells: An In Situ Combined Neutron Diffraction and Electrochemical Study. Journal of the Electrochemical Society, 2012, 159, A2082-A2088.	1.3	65
13	Advances in<i>in situ</i>powder diffraction of battery materials: a case study of the new beamline P02.1 at DESY, Hamburg. Journal of Applied Crystallography, 2013, 46, 1117-1127.	1.9	57
14	Improving the rate capability of high voltage lithium-ion battery cathode material LiNi0.5Mn1.5O4 by ruthenium doping. Journal of Power Sources, 2014, 267, 533-541.	4.0	55
15	Recent Insights into Rate Performance Limitations of Liâ€ion Batteries. Batteries and Supercaps, 2021, 4, 268-285.	2.4	55
16	Electrochemical properties of Cr doped V2O5 between 3.8ÂV and 2.0ÂV. Solid State Ionics, 2009, 180, 1198-1203.	1.3	51
17	Synchrotron Diffraction Study of Lithium Extraction from LiMn[sub 0.6]Fe[sub 0.4]PO[sub 4]. Electrochemical and Solid-State Letters, 2005, 8, A379.	2.2	49
18	Electrochemical kinetics and cycling performance of nano Li[Li0.23Co0.3Mn0.47]O2 cathode material for lithium ion batteries. Electrochemistry Communications, 2009, 11, 2008-2011.	2.3	46

#	Article	IF	Citations
19	Design and performance of an electrochemical in-situ cell for high resolution full-pattern X-ray powder diffraction. Solid State Ionics, 2005, 176, 1647-1652.	1.3	43
20	Microstructure and mechanical properties of Laves phase-reinforced Feâ€“Zrâ€“Cr alloys. Intermetallics, 2009, 17, 532-539.	1.8	39
21	Semi-empirical master curve concept describing the rate capability of lithium insertion electrodes. Journal of Power Sources, 2018, 380, 83-91.	4.0	37
22	Quasi in situ XPS investigations on intercalation mechanisms in Li-ion battery materials. Analytical and Bioanalytical Chemistry, 2009, 393, 1871-1877.	1.9	36
23	A Swagelok-typein situcell for battery investigations using synchrotron radiation. Journal of Applied Crystallography, 2005, 38, 851-853.	1.9	35
24	3d-Transition metal doped spinels as high-voltage cathode materials for rechargeable lithium-ion batteries. Progress in Solid State Chemistry, 2014, 42, 128-148.	3.9	35
25	Relationships between the crystal/interfacial properties and electrochemical performance of LiNi0.33Co0.33Mn0.33O2 in the voltage window of 2.5â€“4.6V. Electrochimica Acta, 2013, 97, 357-363.	2.6	32
26	Relationships between Structural Changes and Electrochemical Kinetics of Li-Excess Li1.13Ni0.3Mn0.57O2 during the First Charge. Journal of Physical Chemistry C, 2013, 117, 3279-3286.	1.5	30
27	Ultra-low LPS/LLZO interfacial resistance â€“ towards stable hybrid solid-state batteries with Li-metal anodes. Energy Storage Materials, 2021, 40, 259-267.	9.5	24
28	In situ synchrotron diffraction study of high temperature prepared orthorhombic LiMnO2. Solid State Ionics, 2007, 178, 253-257.	1.3	23
29	From Active Materials to Battery Cells: A Straightforward Tool to Determine Performance Metrics and Support Developments at an Applicationâ€Relevant Level. Advanced Energy Materials, 2021, 11, 2102647.	10.2	23
30	Structureâ€“intercalation relationships in LiNiCoO. Solid State Ionics, 2005, 176, 1193-1199.	1.3	20
31	Effect of carbon coating process on the structure and electrochemical performance of LiNi0.5Mn0.5O2 used as cathode in Li-ion batteries. Ionics, 2010, 16, 305-310.	1.2	18
32	XPS investigations of valence changes during cycling of LiCrMnO₄â€based cathodes in Liâ€ion batteries. Surface and Interface Analysis, 2010, 42, 916-921.	0.8	17
33	Structural properties and application in lithium cells of Li(Ni0.5Co0.5)1âˆ'Fe O2 (0Ââ‰ÂyÂâ‰Â0.25) prepared by solâ€“gel route: Doping optimization. Journal of Power Sources, 2016, 320, 168-179.	4.0	15
34	Revisiting the layered LiNi0.4Mn0.4Co0.2O2: a magnetic approach. RSC Advances, 2012, 2, 9986.	1.7	12
35	Chronoamperometry as an electrochemical in situ approach to investigate the electrolyte wetting process of lithium-ion cells. Journal of Applied Electrochemistry, 2020, 50, 295-309.	1.5	12
36	Table sugar as preparation and carbon coating reagent for facile synthesis and coating of rod-shaped MnO2. Journal of Alloys and Compounds, 2010, 497, 300-303.	2.8	11

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37	Influence of surface characteristics on the penetration rate of electrolytes into model cells for lithium ion batteries. Journal of Adhesion Science and Technology, 2020, 34, 849-866.	1.4	11
38	Two-step process and fatigue in Li x CrMnO4 as positive electrode material for lithium ion batteries. Ionics, 2008, 14, 121-124.	1.2	9
39	In Situ Preparation of Crosslinked Polymer Electrolytes for Lithium Ion Batteries: A Comparison of Monomer Systems. Polymers, 2020, 12, 1707.	2.0	9
40	Behaviour of LiNi0.8Co0.2O2-cathodes at high cycle numbers. Journal of Power Sources, 2007, 174, 818-822.	4.0	8
41	Observation of spin glass behavior in monoclinic Li0.33MnO2. Journal of Alloys and Compounds, 2013, 551, 37-39.	2.8	7
42	Comparison of Electrochemical Degradation for Spray Dried and Pulse Gas Dried LiNi0.5Mn1.5O4. Journal of the Electrochemical Society, 2019, 166, A2860-A2869.	1.3	6
43	Conditioning of Li(Ni,Co)O2 Cathode Materials for Rechargeable Batteries During the First Charge-Discharge Cycles. Advanced Engineering Materials, 2005, 7, 932-935.	1.6	5
44	Guidelines to correctly measure the lithium ion conductivity of oxide ceramic electrolytes based on a harmonized testing procedure. Journal of Power Sources, 2022, 531, 231323.	4.0	4
45	Influence of the Anode Graphite Particle Size on the SEI Film Formation in Lithium-Ion Cells. , 2016, , 35-43.		0