

Debasish Mohanty

List of Publications by Year in descending order

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Version: 2024-02-01

20
papers

3,037
citations

471509

17
h-index

752698

20
g-index

21
all docs

21
docs citations

21
times ranked

4586
citing authors

#	ARTICLE	IF	CITATIONS
1	The state of understanding of the lithium-ion-battery graphite solid electrolyte interphase (SEI) and its relationship to formation cycling. Carbon, 2016, 105, 52-76.	10.3	1,335
2	Structural transformation of a lithium-rich Li _{1.2} Co _{0.1} Mn _{0.55} Ni _{0.15} O ₂ cathode during high voltage cycling resolved by in situ X-ray diffraction. Journal of Power Sources, 2013, 229, 239-248.	7.8	472
3	Unraveling the Voltage-Fade Mechanism in High-Energy-Density Lithium-Ion Batteries: Origin of the Tetrahedral Cations for Spinel Conversion. Chemistry of Materials, 2014, 26, 6272-6280.	6.7	236
4	Modification of Ni-Rich FCG NMC and NCA Cathodes by Atomic Layer Deposition: Preventing Surface Phase Transitions for High-Voltage Lithium-Ion Batteries. Scientific Reports, 2016, 6, 26532.	3.3	196
5	Investigating phase transformation in the Li _{1.2} Co _{0.1} Mn _{0.55} Ni _{0.15} O ₂ lithium-ion battery cathode during high-voltage hold (4.5 V) via magnetic, X-ray diffraction and electron microscopy studies. Journal of Materials Chemistry A, 2013, 1, 6249.	10.3	125
6	Correlating cation ordering and voltage fade in a lithium-manganese-rich lithium-ion battery cathode oxide: a joint magnetic susceptibility and TEM study. Physical Chemistry Chemical Physics, 2013, 15, 19496.	2.8	108
7	Neutron Diffraction and Magnetic Susceptibility Studies on a High-Voltage Li _{1.2} Mn _{0.55} Ni _{0.15} Co _{0.10} O ₂ Lithium Ion Battery Cathode: Insight into the Crystal Structure. Chemistry of Materials, 2013, 25, 4064-4070.	6.7	89
8	Correlation of Electrolyte Volume and Electrochemical Performance in Lithium-Ion Pouch Cells with Graphite Anodes and NMC532 Cathodes. Journal of the Electrochemical Society, 2017, 164, A1195-A1202.	2.9	64
9	Synthesis and piezoelectric response of cubic and spherical LiNbO ₃ nanocrystals. RSC Advances, 2012, 2, 1913.	3.6	60
10	Cathode materials review. AIP Conference Proceedings, 2014, , .	0.4	60
11	Degradation mechanisms of lithium-rich nickel manganese cobalt oxide cathode thin films. RSC Advances, 2014, 4, 23364.	3.6	45
12	Structural transformation in a Li _{1.2} Co _{0.1} Mn _{0.55} Ni _{0.15} O ₂ lithium-ion battery cathode during high-voltage hold. RSC Advances, 2013, 3, 7479.	3.6	44
13	Understanding the structure and structural degradation mechanisms in high-voltage, lithium-manganese-rich lithium-ion battery cathode oxides: A review of materials diagnostics. MRS Energy & Sustainability, 2015, 2, 1.	3.0	42
14	Non-destructive evaluation of slot-die-coated lithium secondary battery electrodes by in-line laser caliper and IR thermography methods. Analytical Methods, 2014, 6, 674-683.	2.7	41
15	Unveiling the Role of Al ₂ O ₃ in Preventing Surface Reconstruction During High-Voltage Cycling of Lithium-Ion Batteries. ACS Applied Energy Materials, 2019, 2, 1308-1313.	5.1	41
16	Resolving the degradation pathways in high-voltage oxides for high-energy-density lithium-ion batteries; Alternation in chemistry, composition and crystal structures. Nano Energy, 2017, 36, 76-84.	16.0	30
17	Unconventional irreversible structural changes in a high-voltage Li-Mn-rich oxide for lithium-ion battery cathodes. Journal of Power Sources, 2015, 283, 423-428.	7.8	17
18	High-Voltage Performance of Ni-Rich NCA Cathodes: Linking Operating Voltage with Cathode Degradation. ChemElectroChem, 2019, 6, 5571-5580.	3.4	13

#	ARTICLE	IF	CITATIONS
19	Topochemical Synthesis of Alkali-Metal Hydroxide Layers within Double- and Triple-Layered Perovskites. <i>Inorganic Chemistry</i> , 2014, 53, 1773-1778.	4.0	11
20	Room temperature oxidative intercalation with chalcogen hydrides: Two-step method for the formation of alkali-metal chalcogenide arrays within layered perovskites. <i>Materials Research Bulletin</i> , 2012, 47, 1289-1294.	5.2	8