

# Debasish Mohanty

## List of Publications by Year in descending order

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20  
papers

3,037  
citations

535685

17  
h-index

843174

20  
g-index

21  
all docs

21  
docs citations

21  
times ranked

5333  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Voltage Performance of Ni-Rich NCA Cathodes: Linking Operating Voltage with Cathode Degradation. <i>ChemElectroChem</i> , 2019, 6, 5571-5580.	1.7	13
2	Unveiling the Role of Al <sub>2</sub> O <sub>3</sub> in Preventing Surface Reconstruction During High-Voltage Cycling of Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2019, 2, 1308-1313.	2.5	41
3	Correlation of Electrolyte Volume and Electrochemical Performance in Lithium-Ion Pouch Cells with Graphite Anodes and NMC532 Cathodes. <i>Journal of the Electrochemical Society</i> , 2017, 164, A1195-A1202.	1.3	64
4	Resolving the degradation pathways in high-voltage oxides for high-energy-density lithium-ion batteries; Alternation in chemistry, composition and crystal structures. <i>Nano Energy</i> , 2017, 36, 76-84.	8.2	30
5	The state of understanding of the lithium-ion-battery graphite solid electrolyte interphase (SEI) and its relationship to formation cycling. <i>Carbon</i> , 2016, 105, 52-76.	5.4	1,335
6	Modification of Ni-Rich FCG NMC and NCA Cathodes by Atomic Layer Deposition: Preventing Surface Phase Transitions for High-Voltage Lithium-Ion Batteries. <i>Scientific Reports</i> , 2016, 6, 26532.	1.6	196
7	Understanding the structure and structural degradation mechanisms in high-voltage, lithium-manganese-rich lithium-ion battery cathode oxides: A review of materials diagnostics. <i>MRS Energy &amp; Sustainability</i> , 2015, 2, 1.	1.3	42
8	Unconventional irreversible structural changes in a high-voltage Li-Mn-rich oxide for lithium-ion battery cathodes. <i>Journal of Power Sources</i> , 2015, 283, 423-428.	4.0	17
9	Cathode materials review. <i>AIP Conference Proceedings</i> , 2014, , .	0.3	60
10	Non-destructive evaluation of slot-die-coated lithium secondary battery electrodes by in-line laser caliper and IR thermography methods. <i>Analytical Methods</i> , 2014, 6, 674-683.	1.3	41
11	Unraveling the Voltage-Fade Mechanism in High-Energy-Density Lithium-Ion Batteries: Origin of the Tetrahedral Cations for Spinel Conversion. <i>Chemistry of Materials</i> , 2014, 26, 6272-6280.	3.2	236
12	Topochemical Synthesis of Alkali-Metal Hydroxide Layers within Double- and Triple-Layered Perovskites. <i>Inorganic Chemistry</i> , 2014, 53, 1773-1778.	1.9	11
13	Degradation mechanisms of lithium-rich nickel manganese cobalt oxide cathode thin films. <i>RSC Advances</i> , 2014, 4, 23364.	1.7	45
14	Neutron Diffraction and Magnetic Susceptibility Studies on a High-Voltage Li <sub>1.2</sub> Mn <sub>0.55</sub> Ni <sub>0.15</sub> Co <sub>0.10</sub> O <sub>2</sub> Lithium Ion Battery Cathode: Insight into the Crystal Structure. <i>Chemistry of Materials</i> , 2013, 25, 4064-4070.	3.2	89
15	Correlating cation ordering and voltage fade in a lithium-manganese-rich lithium-ion battery cathode oxide: a joint magnetic susceptibility and TEM study. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 19496.	1.3	108
16	Structural transformation of a lithium-rich Li <sub>1.2</sub> Co <sub>0.1</sub> Mn <sub>0.55</sub> Ni <sub>0.15</sub> O <sub>2</sub> cathode during high voltage cycling resolved by in situ X-ray diffraction. <i>Journal of Power Sources</i> , 2013, 229, 239-248.	4.0	472
17	Structural transformation in a Li <sub>1.2</sub> Co <sub>0.1</sub> Mn <sub>0.55</sub> Ni <sub>0.15</sub> O <sub>2</sub> lithium-ion battery cathode during high-voltage hold. <i>RSC Advances</i> , 2013, 3, 7479.	1.7	44
18	Investigating phase transformation in the Li <sub>1.2</sub> Co <sub>0.1</sub> Mn <sub>0.55</sub> Ni <sub>0.15</sub> O <sub>2</sub> lithium-ion battery cathode during high-voltage hold (4.5 V) via magnetic, X-ray diffraction and electron microscopy studies. <i>Journal of Materials Chemistry A</i> , 2013, 1, 6249.	5.2	125

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19	Room temperature oxidative intercalation with chalcogen hydrides: Two-step method for the formation of alkali-metal chalcogenide arrays within layered perovskites. Materials Research Bulletin, 2012, 47, 1289-1294.	2.7	8
20	Synthesis and piezoelectric response of cubic and spherical LiNbO <sub>3</sub> nanocrystals. RSC Advances, 2012, 2, 1913.	1.7	60