Nicolas DuprÃ©

List of Publications by Year
in descending order

34 papers	1,954 citations	394421 19 h-index	377865 34 g-index
34 all docs	34 docs citations	34 times ranked	2856 citing authors

#	Article	IF	Citations
1	From the Direct Observation of a PAAâ€Based Binder Using STEMâ€VEELS to the Ageing Mechanism of Silicon/Graphite Anode with High Areal Capacity Cycled in an FECâ€Rich and ECâ€Free Electrolyte. Advanced Energy Materials, 2022, 12, 2103348.	19.5	11
2	Further Improving Coulombic Efficiency and Discharge Capacity in LiNiO₂ Material by Activating Sluggish â^¼3.5 V Discharge Reaction. ACS Applied Materials & Interfaces, 2021, 13, 23760-23770.	8.0	8
3	Tuning the Formation and Structure of the Silicon Electrode/Ionic Liquid Electrolyte Interphase in Superconcentrated Ionic Liquids. ACS Applied Materials & Interfaces, 2021, 13, 28281-28294.	8.0	21
4	Influence of the Polyacrylic Acid Binder Neutralization Degree on the Initial Electrochemical Behavior of a Silicon/Graphite Electrode. ACS Applied Materials & Interfaces, 2021, 13, 28304-28323.	8.0	21
5	Sequential focused ion beam scanning electron microscopy analyses for monitoring cycled-induced morphological evolution in battery composite electrodes. Silicon-graphite electrode as exemplary case. Journal of Power Sources, 2021, 498, 229904.	7.8	12
6	Superior Rate Capability and Cycling Stability in Partially Cation-Disordered Co-Free Li-Rich Layered Materials Enabled by an Initial Activation Process. Chemistry of Materials, 2021, 33, 5115-5126.	6.7	5
7	Editorsâ€™ Choiceâ€"Understanding the Superior Cycling Performance of Si Anode in Highly Concentrated Phosphonium-Based Ionic Liquid Electrolyte. Journal of the Electrochemical Society, 2020, 167, 120520.	2.9	23
8	Study of Immersion of LiNi_{0.5}Mn_{0.3}Co_{0.2}O₂ Material in Water for Aqueous Processing of Positive Electrode for Li-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 18331-18341.	8.0	71
9	Spectroscopic Characterization of the SEI Layer Formed on Lithium Metal Electrodes in Phosphonium Bis(fluorosulfonyl)imide Ionic Liquid Electrolytes. ACS Applied Materials & Interfaces, 2018, 10, 6719-6729.	8.0	77
10	Versatile Si/P System as Efficient Anode for Lithium and Sodium Batteries: Understanding of an Original Electrochemical Mechanism by a Full XRD-NMR Study. ACS Applied Energy Materials, 2018, 1, 3778-3789.	5.1	19
11	Carbonate and Ionic Liquid Mixes as Electrolytes To Modify Interphases and Improve Cell Safety in Silicon-Based Li-Ion Batteries. Chemistry of Materials, 2017, 29, 8132-8146.	6.7	15
12	High-Capacity Retention of Si Anodes Using a Mixed Lithium/Phosphonium Bis(fluorosulfonyl)imide Ionic Liquid Electrolyte. ACS Energy Letters, 2017, 2, 1804-1809.	17.4	38
13	Effects of Relaxation on Conversion Negative Electrode Materials for Li-Ion Batteries: A Study of TiSnSb Using ¹¹⁹Sn MÃ¶ssbauer and ⁷Li MAS NMR Spectroscopies. Chemistry of Materials, 2016, 28, 4032-4041.	6.7	12
14	Mechanism of Silicon Electrode Aging upon Cycling in Full Lithiumâ€Ion Batteries. ChemSusChem, 2016, 9, 841-848.	6.8	67
15	NMR quantitative analysis of solid electrolyte interphase on aged Li-ion battery electrodes. Electrochimica Acta, 2015, 155, 391-395.	5.2	14
16	Contribution of the oxygen extracted from overlithiated layered oxides at high potential to the formation of the interphase. Journal of Power Sources, 2015, 299, 231-240.	7.8	15
17	Control of LiFePO4 air-aging through the use of electrolyte additive. Electrochemistry Communications, 2014, 38, 138-141.	4.7	7
18	Interphase Evolution at Two Promising Electrode Materials for Liâ€Ion Batteries: LiFePO₄ and LiNi_{1/2}Mn_{1/2}O₂. ChemPhysChem, 2014, 15, 1922-1938.	2.1	16

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19	Degradation diagnosis of aged Li4Ti5O12/LiFePO4 batteries. Journal of Power Sources, 2014, 267, 744-752.	7.8	21
20	Evolution of the LiFePO4 positive electrode interface along cycling monitored by MAS NMR. Journal of Power Sources, 2013, 224, 50-58.	7.8	28
21	A structural approach of the flux effect on blue phosphor BAM:Eu (BaMgAl10O17:Eu2+). Materials Research Bulletin, 2013, 48, 2960-2968.	5.2	12
22	Effect of glutaric anhydride additive on the LiNi0.4Mn1.6O4 electrode/electrolyte interface evolution: A MAS NMR and TEM/EELS study. Journal of Power Sources, 2012, 215, 170-178.	7.8	39
23	Elucidating the LiFePO4 air aging mechanism to predict its electrochemical performance. Journal of Materials Chemistry, 2011, 21, 18575.	6.7	21
24	Relationship between surface chemistry and electrochemical behavior of LiNi1/2Mn1/2O2 positive electrode in a lithium-ion battery. Journal of Power Sources, 2011, 196, 4791-4800.	7.8	42
25	More on the reactivity of olivine LiFePO4 nano-particles with atmosphere at moderate temperature. Journal of Power Sources, 2011, 196, 2155-2163.	7.8	39
26	Aging of the LiFePO4 positive electrode interface in electrolyte. Journal of Power Sources, 2010, 195, 7415-7425.	7.8	58
27	Moisture driven aging mechanism of LiFePO4 subjected to air exposure. Electrochemistry Communications, 2010, 12, 238-241.	4.7	50
28	Characterization of interphases appearing on LiNi0.5Mn0.5O2 using 7Li MAS NMR. Journal of Power Sources, 2009, 189, 557-560.	7.8	26
29	Characterization of the surface of positive electrodes for Li-ion batteries using 7Li MAS NMR. Ionics, 2008, 14, 203-207.	2.4	20
30	Unique control of bulk reactivity by surface phenomena in a positive electrode of lithium battery. Electrochemistry Communications, 2008, 10, 1897-1900.	4.7	12
31	Detection of surface layers using 7Li MAS NMR. Journal of Materials Chemistry, 2008, 18, 4266.	6.7	45
32	High-resolution X-ray diffraction, DIFFaX, NMR and first principles study of disorder in the Li2MnO3â€“Li[Ni1/2Mn1/2]O2 solid solution. Journal of Solid State Chemistry, 2005, 178, 2575-2585.	2.9	323
33	Short- and Long-Range Order in the Positive Electrode Material, Li(NiMn)0.5O2:Â A Joint X-ray and Neutron Diffraction, Pair Distribution Function Analysis and NMR Study. Journal of the American Chemical Society, 2005, 127, 7529-7537.	13.7	185
34	NMR Studies of Cathode Materials for Lithium-Ion Rechargeable Batteries. Chemical Reviews, 2004, 104, 4493-4512.	47.7	581