

Javier Bareño

List of Publications by Year in descending order

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3,929
citations

172457

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all docs

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docs citations

57
times ranked

5536
citing authors

#	ARTICLE	IF	CITATIONS
1	Approaching the capacity limit of lithium cobalt oxide in lithium ion batteries via lanthanum and aluminium doping. <i>Nature Energy</i> , 2018, 3, 936-943.	39.5	531
2	Observation of Microstructural Evolution in Li Battery Cathode Oxide Particles by In Situ Electron Microscopy. <i>Advanced Energy Materials</i> , 2013, 3, 1098-1103.	19.5	336
3	Growth of Semiconducting Graphene on Palladium. <i>Nano Letters</i> , 2009, 9, 3985-3990.	9.1	307
4	Long-Range and Local Structure in the Layered Oxide $\text{Li}_{1.2}\text{Co}_{0.4}\text{Mn}_{0.4}\text{O}_2$. <i>Chemistry of Materials</i> , 2011, 23, 2039-2050.	6.7	171
5	Role of Polysulfides in Self-Healing Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2013, 3, 833-838.	19.5	170
6	Local Structure of Layered Oxide Electrode Materials for Lithium-Ion Batteries. <i>Advanced Materials</i> , 2010, 22, 1122-1127.	21.0	152
7	Cycling Behavior of NCM523/Graphite Lithium-Ion Cells in the 4.4 V Range: Diagnostic Studies of Full Cells and Harvested Electrodes. <i>Journal of the Electrochemical Society</i> , 2017, 164, A6054-A6065.	2.9	145
8	Interface structure in superhard TiN-SiN nanolaminates and nanocomposites: Film growth experiments and ab initio calculations. <i>Physical Review B</i> , 2007, 75, .	3.2	142
9	Local structure and composition studies of $\text{Li}_{1.2}\text{Ni}_{0.2}\text{Mn}_{0.6}\text{O}_2$ by analytical electron microscopy. <i>Journal of Power Sources</i> , 2008, 178, 422-433.	7.8	141
10	Chemical Weathering of Layered Ni-Rich Oxide Electrode Materials: Evidence for Cation Exchange. <i>Journal of the Electrochemical Society</i> , 2017, 164, A1489-A1498.	2.9	133
11	Wurtzite structure $\text{Sc}_{1-x}\text{Al}_x\text{N}$ solid solution films grown by reactive magnetron sputter epitaxy: Structural characterization and first-principles calculations. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	122
12	Surface Structure, Morphology, and Stability of $\text{Li}(\text{Ni}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3})\text{O}_2$ Cathode Material. <i>Journal of Physical Chemistry C</i> , 2017, 121, 8290-8299.	3.1	101
13	Structural Evolution of Reversible Mg Insertion into a Bilayer Structure of $\text{V}_2\text{O}_5\text{-}i\text{-}n\text{-}H_2\text{O}$ Xerogel Material. <i>Chemistry of Materials</i> , 2016, 28, 2962-2969.	6.7	97
14	Enabling High-Energy, High-Voltage Lithium-Ion Cells: Standardization of Coin-Cell Assembly, Electrochemical Testing, and Evaluation of Full Cells. <i>Journal of the Electrochemical Society</i> , 2016, 163, A2999-A3009.	2.9	95
15	Effect of electrolyte composition on rock salt surface degradation in NMC cathodes during high-voltage potentiostatic holds. <i>Nano Energy</i> , 2019, 55, 216-225.	16.0	88
16	The effect of charging rate on the graphite electrode of commercial lithium-ion cells: A post-mortem study. <i>Journal of Power Sources</i> , 2016, 335, 189-196.	7.8	82
17	Compatibility of lithium salts with solvent of the non-aqueous electrolyte in Li-O_2 batteries. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 5572.	2.8	76
18	Analytical electron microscopy of $\text{Li}_{1.2}\text{Co}_{0.4}\text{Mn}_{0.4}\text{O}_2$ for lithium-ion batteries. <i>Solid State Ionics</i> , 2011, 182, 98-107.	2.7	65

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19	On the Localized Nature of the Structural Transformations of $\text{Li}_{2}\text{MnO}_{3}$ Following Electrochemical Cycling. <i>Advanced Energy Materials</i> , 2015, 5, 1501252.	19.5	63
20	Tris(trimethylsilyl) Phosphite (TMSPi) and Triethyl Phosphite (TEPi) as Electrolyte Additives for Lithium Ion Batteries: Mechanistic Insights into Differences during $\text{Li}_{0.5}\text{Mn}_{0.3}\text{Co}_{0.2}\text{O}_{2}$ -Graphite Full Cell Cycling. <i>Journal of the Electrochemical Society</i> , 2017, 164, A1579-A1586.	2.9	59
21	Capacity Fade and Its Mitigation in Li-Ion Cells with Silicon-Graphite Electrodes. <i>Journal of Physical Chemistry C</i> , 2017, 121, 20640-20649.	3.1	59
22	Cubic $\text{Sc}_{1-x}\text{Al}_x\text{N}$ solid solution thin films deposited by reactive magnetron sputter epitaxy onto $\text{ScN}(111)$. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	58
23	On Disrupting the Na^{+} -Ion/Vacancy Ordering in P2-Type Sodium Manganese Nickel Oxide Cathodes for Na^{+} -Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2018, 122, 23251-23260.	3.1	55
24	Probing Thermally Induced Decomposition of Delithiated $\text{Li}_{1.2}\text{Ni}_{0.15}\text{Mn}_{0.55}\text{Co}_{0.1}\text{O}_{2}$ by in Situ High-Energy X-ray Diffraction. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 12692-12697.	8.0	47
25	Hard BC_xN_y thin films grown by dual ion beam sputtering. <i>Thin Solid Films</i> , 2006, 515, 207-211.	1.8	45
26	Evaluating electrolyte additives for lithium-ion cells: A new Figure of Merit approach. <i>Journal of Power Sources</i> , 2017, 365, 201-209.	7.8	40
27	Investigations of Si Thin Films as Anode of Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 3487-3494.	8.0	40
28	The Effect of Pre-Analysis Washing on the Surface Film of Graphite Electrodes. <i>Electrochimica Acta</i> , 2016, 206, 70-76.	5.2	34
29	Low-energy electron microscopy studies of interlayer mass transport kinetics on $\text{TiN}(111)$. <i>Surface Science</i> , 2004, 560, 53-62.	1.9	32
30	Effect of overcharge on $\text{Li}(\text{Ni}_{0.5}\text{Mn}_{0.3}\text{Co}_{0.2})\text{O}_2/\text{graphite}$ lithium ion cells with poly(vinylidene fluoride) electrolyte. <i>Journal of Power Sources</i> , 2010, 20, 148-155.	7.8	29
31	Exploring Electrochemistry and Interface Characteristics of Lithium-Ion Cells with $\text{Li}_{1.2}\text{Ni}_{0.15}\text{Mn}_{0.55}\text{Co}_{0.1}\text{O}_{2}$ Positive and $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Negative Electrodes. <i>Journal of the Electrochemical Society</i> , 2015, 162, A7049-A7059.	2.9	28
32	Physical Theory of Voltage Fade in Lithium- and Manganese-Rich Transition Metal Oxides. <i>Journal of the Electrochemical Society</i> , 2015, 162, A897-A904.	2.9	27
33	Experimental and theoretical investigations of functionalized boron nitride as electrode materials for Li-ion batteries. <i>RSC Advances</i> , 2016, 6, 27901-27914.	3.6	27
34	Effect of overcharge on $\text{Li}(\text{Ni}_{0.5}\text{Mn}_{0.3}\text{Co}_{0.2})\text{O}_2/\text{Graphite}$ lithium ion cells with poly(vinylidene fluoride) electrolyte. <i>Journal of Power Sources</i> , 2010, 20, 148-155.	7.8	26
35	Differentiating allotropic $\text{LiCoO}_2/\text{Li}_2\text{Co}_2\text{O}_4$: A structural and electrochemical study. <i>Journal of Power Sources</i> , 2014, 271, 97-103.	7.8	24
36	Methodology for understanding interactions between electrolyte additives and cathodes: a case of the tris(2,2,2-trifluoroethyl)phosphite additive. <i>Journal of Materials Chemistry A</i> , 2018, 6, 198-211.	10.3	24

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37	Lithium-sulfur battery with partially fluorinated ether electrolytes: Interplay between capacity, coulombic efficiency and Li anode protection. <i>Journal of Power Sources</i> , 2019, 438, 226939.	7.8	23
38	Nanoscale LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ cathode materials for lithium ion batteries via a polymer-assisted chemical solution method. <i>Applied Materials Today</i> , 2019, 16, 342-350.	4.3	23
39	Growth and physical properties of epitaxial metastable Hf _{1-x} Al _x N alloys deposited on MgO(001) by ultrahigh vacuum reactive magnetron sputtering. <i>Surface and Coatings Technology</i> , 2007, 202, 809-814.	4.8	21
40	Unexpected Voltage Fade in LMR-NMC Oxides Cycled below the "Activation" Plateau. <i>Journal of the Electrochemical Society</i> , 2015, 162, A155-A161.	2.9	21
41	Formation of Li ₂ MnO ₃ investigated by in situ synchrotron probes. <i>Journal of Power Sources</i> , 2014, 266, 341-346.	7.8	20
42	Auger Electrons as Probes for Composite Micro- and Nanostructured Materials: Application to Solid Electrolyte Interphases in Graphite and Silicon-Graphite Electrodes. <i>Journal of Physical Chemistry C</i> , 2017, 121, 23333-23346.	3.1	20
43	Phosphorus incorporation during Si(001):P gas-source molecular beam epitaxy: Effects on growth kinetics and surface morphology. <i>Journal of Applied Physics</i> , 2008, 103, 123530.	2.5	19
44	Effect of overcharge on Li(Ni _{0.5} Mn _{0.3} Co _{0.2})O ₂ cathodes: NMP-soluble binder. II " Chemical changes in the anode. <i>Journal of Power Sources</i> , 2018, 385, 156-164.	7.8	18
45	Chemical "Pickling" of Phosphite Additives Mitigates Impedance Rise in Li Ion Batteries. <i>Journal of Physical Chemistry C</i> , 2018, 122, 9811-9824.	3.1	18
46	Effects of cycling temperatures on the voltage fade phenomenon in 0.5Li ₂ MnO ₃ -0.5LiNi _{0.375} Mn _{0.375} Co _{0.25} O ₂ cathodes. <i>Journal of Power Sources</i> , 2015, 280, 155-158.	7.8	17
47	Pristine-state structure of lithium-ion-battery cathode material Li _{1.2} Mn _{0.4} Co _{0.4} O ₂ derived from NMR bond pathway analysis. <i>Journal of Materials Chemistry A</i> , 2015, 3, 11471-11477.	10.3	17
48	Stability of Li- and Mn-Rich Layered-Oxide Cathodes within the First-Charge Voltage Plateau. <i>Journal of the Electrochemical Society</i> , 2016, 163, A1784-A1789.	2.9	11
49	Effect of composition on the voltage fade phenomenon in lithium-, manganese-rich xLiMnO ₃ -yLiNi _a Mn _b Co _c O ₂ : A combinatorial synthesis approach. <i>Journal of Power Sources</i> , 2015, 294, 711-718.	7.8	9
50	Strain-driven surface reconstruction and cation segregation in layered Li(Ni _{1-x} Mn _x Co _y)O ₂ (NMC) cathode materials. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 24490-24497.	2.8	8
51	Orientation-dependent mobilities from analyses of two-dimensional TiN(111) island decay kinetics. <i>Thin Solid Films</i> , 2006, 510, 339-345.	1.8	7
52	Insights from incorporating reference electrodes in symmetric lithium-ion cells with layered oxide or graphite electrodes. <i>Journal of Power Sources</i> , 2019, 438, 227033.	7.8	4
53	Microstructural Evolution in Transition-metal-oxide Cathode Materials for Lithium-Ion Batteries. <i>Microscopy and Microanalysis</i> , 2016, 22, 1300-1301.	0.4	2
54	Lithium And Transition Metal Ordering In Overlithiated Layered Oxides For Lithium-Ion Batteries. <i>Microscopy and Microanalysis</i> , 2012, 18, 1318-1319.	0.4	0

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55	Post-Test Analysis of Battery Materials: Another Part of the Question. ECS Transactions, 2014, 61, 145-154.	0.5	0
56	Meso to Atomic Scale Microstructural Changes During Ageing of NCM Li-ion Battery Materials. Microscopy and Microanalysis, 2019, 25, 764-765.	0.4	0