

Jai Prakash

List of Publications by Year in descending order

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35
papers

4,295
citations

218677

26
h-index

395702

33
g-index

35
all docs

35
docs citations

35
times ranked

4860
citing authors

#	ARTICLE	IF	CITATIONS
1	High-energy cathode material for long-life and safe lithium batteries. <i>Nature Materials</i> , 2009, 8, 320-324.	27.5	1,323
2	Synthesis and Characterization of $\text{Li}[(\text{Ni}_{0.8}\text{Co}_{0.1}\text{Mn}_{0.1})_{0.8}(\text{Ni}_{0.5}\text{Mn}_{0.5})_{0.2}]\text{O}_2$ with the Microscale Core-Shell Structure as the Positive Electrode Material for Lithium Batteries. <i>Journal of the American Chemical Society</i> , 2005, 127, 13411-13418.	13.7	417
3	A Novel Cathode Material with a Concentration Gradient for High-Energy and Safe Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , 2010, 20, 485-491.	14.9	252
4	Analysis of the Galvanostatic Intermittent Titration Technique (GITT) as applied to a lithium-ion porous electrode. <i>Journal of Power Sources</i> , 2009, 189, 263-268.	7.8	232
5	Investigations of the Exothermic Reactions of Natural Graphite Anode for Li-Ion Batteries during Thermal Runaway. <i>Journal of the Electrochemical Society</i> , 2005, 152, A73.	2.9	204
6	Improvement of Electrochemical Performances of $\text{Li}[\text{Ni}_{0.8}\text{Co}_{0.1}\text{Mn}_{0.1}]\text{O}_2$ Cathode Materials by Fluorine Substitution. <i>Journal of the Electrochemical Society</i> , 2007, 154, A649.	2.9	141
7	Alternating Current Impedance Electrochemical Modeling of Lithium-Ion Positive Electrodes. <i>Journal of the Electrochemical Society</i> , 2005, 152, A1409.	2.9	129
8	Electrochemical and Thermal Studies of Carbon-Coated LiFePO_4 Cathode. <i>Journal of the Electrochemical Society</i> , 2009, 156, A401.	2.9	113
9	Mesoporous Anatase TiO_2 with High Surface Area and Controllable Pore Size by F^- -Ion Doping: Applications for High-Power Li-Ion Battery Anode. <i>Journal of Physical Chemistry C</i> , 2009, 113, 21258-21263.	3.1	113
10	The Effect of ZnO Coating on Electrochemical Cycling Behavior of Spinel LiMn_2O_4 Cathode Materials at Elevated Temperature. <i>Journal of the Electrochemical Society</i> , 2003, 150, A970.	2.9	112
11	Kinetics and mechanism for the oxygen reduction reaction on polycrystalline cobalt-palladium electrocatalysts in acid media. <i>Journal of Power Sources</i> , 2007, 170, 28-37.	7.8	109
12	Preparation and characterization of partially substituted $\text{LiM}_x\text{Mn}_{2-x}\text{O}_4$ (M=Ni, Co, Fe) spinel cathodes for Li-ion batteries. <i>Electrochimica Acta</i> , 2002, 48, 443-451.	5.2	104
13	Contribution of the Structural Changes of $\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$ Cathodes on the Exothermic Reactions in Li-Ion Cells. <i>Journal of the Electrochemical Society</i> , 2006, 153, A731.	2.9	102
14	Electrochemical Modeling of Lithium-Ion Positive Electrodes during Hybrid Pulse Power Characterization Tests. <i>Journal of the Electrochemical Society</i> , 2008, 155, A603.	2.9	98
15	Synthesis and Electrochemical Properties of $\text{Li}[\text{Ni}_{1/3}\text{Co}_{1/3}\text{Mn}_{(1/3-x)}\text{Mg}_x]\text{O}_2$ via Coprecipitation. <i>Electrochemical and Solid-State Letters</i> , 2004, 7, A477.	2.2	93
16	Investigations of carbon-supported CoPd_3 catalysts as oxygen cathodes in PEM fuel cells. <i>Electrochemistry Communications</i> , 2006, 8, 406-410.	4.7	78
17	Evaluation of Electrochemical Interface Area and Lithium Diffusion Coefficient for a Composite Graphite Anode. <i>Journal of the Electrochemical Society</i> , 2004, 151, A1247.	2.9	75
18	Effect of sulfur and nickel doping on morphology and electrochemical performance of $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$ spinel material in 3-V region. <i>Journal of Power Sources</i> , 2006, 161, 19-26.	7.8	75

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19	Kinetic Investigations of Oxygen Reduction and Evolution Reactions on Lead Ruthenate Catalysts. Journal of the Electrochemical Society, 1999, 146, 4145-4151.	2.9	73
20	Improvement of Electrochemical Performance of Li[Ni _{0.8} Co _{0.15} Al _{0.05}]O ₂ Cathode Materials by AlF ₃ coating at Various Temperatures. Industrial & Engineering Chemistry Research, 2008, 47, 3876-3882.	3.7	61
21	Determination of the Reversible and Irreversible Heats of a LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ /Natural Graphite Cell Using Electrochemical-Calorimetric Technique. Journal of the Electrochemical Society, 2004, 151, A1222.	2.9	59
22	Investigations on high energy lithium-ion batteries with aqueous binder. Electrochimica Acta, 2013, 114, 1-6.	5.2	49
23	Ab initio investigation of the oxygen reduction reaction activity on noble metal (Pt, Au, Pd), Pt ₃ M (M=Fe, Co, Ni, Cu) and Pd ₃ M (M=Fe, Co, Ni, Cu) alloy surfaces, for Li O ₂ cells. Journal of Power Sources, 2016, 319, 202-209.	7.8	41
24	Improved electrochemical performances of LiM _{0.05} Co _{0.95} O _{1.95} F _{0.05} (M=Mg, Al, Zr) at high voltage. Electrochimica Acta, 2012, 68, 153-157.	5.2	39
25	Electrochemical and Thermal Studies of LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ under Fluorinated Electrolytes. Electrochimica Acta, 2014, 123, 7-13.	5.2	37
26	Elucidating the Oxygen Reduction Reaction Kinetics and the Origins of the Anomalous Tafel Behavior at the Lithium-Oxygen Cell Cathode. Journal of Physical Chemistry C, 2017, 121, 4789-4798.	3.1	29
27	Effects of Metal Ions on the Structural and Thermal Stabilities of Li[Ni _{1-x} Co _x Mn _y]O ₂ (x+y=0.5) Studied by In Situ High Temperature XRD. Journal of the Electrochemical Society, 2008, 155, A952.	2.9	26
28	Effect of Manganese Content on the Electrochemical and Thermal Stabilities of Li[Ni _{0.58} Co _{0.28} Mn _{0.14+x}]O ₂ Cathode Materials for Lithium-Ion Batteries. Journal of the Electrochemical Society, 2010, 157, A1335.	2.9	23
29	A Porous Electrode Model for the Magnesium and Demagnesiumation of a Bismuth Electrode in Rechargeable Magnesium-Ion Cells. Journal of the Electrochemical Society, 2016, 163, A477-A487.	2.9	23
30	Optimization of Inactive Material Content in Lithium Iron Phosphate Electrodes for High Power Applications. Electrochimica Acta, 2016, 191, 173-182.	5.2	16
31	Effect of sodium iodide additive on the electrochemical performance of sodium/nickel chloride cells. Journal of Applied Electrochemistry, 2000, 30, 1229-1233.	2.9	15
32	Thermal characterization of Li/sulfur, Li/S ⁺ LiFePO ₄ and Li/S ⁺ LiV ₃ O ₈ cells using Isothermal Micro-Calorimetry and Accelerating Rate Calorimetry. Journal of Power Sources, 2015, 289, 1-7.	7.8	14
33	Rotating Ring-Disc Electrode Investigation of the Aprotic Superoxide Radical Electrochemistry on Multi-Crystalline Surfaces and Correlation with Density Functional Theory Modeling: Implications for Lithium-Air Cells. Journal of the Electrochemical Society, 2016, 163, A2377-A2384.	2.9	12
34	Lithium-Ion Cell Components and Their Effect on High-Power Battery Safety. , 2014, , 437-460.		8
35	Fundamental Studies of Nickel Electrode in a Basic Na[AlCl ₄] Melt at 300°C. ECS Proceedings Volumes, 2002, 2002-19, 102-111.	0.1	0