

# 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	Elucidating the Oxygen Reduction Reaction Kinetics and the Origins of the Anomalous Tafel Behavior at the Lithium-Oxygen Cell Cathode. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4789-4798.	3.1	29
2	Ab initio investigation of the oxygen reduction reaction activity on noble metal (Pt, Au, Pd), Pt <sub>3</sub> M (M=Fe, Co, Ni, Cu) and Pd <sub>3</sub> M (M=Fe, Co, Ni, Cu) alloy surfaces, for Li O <sub>2</sub> cells. <i>Journal of Power Sources</i> , 2016, 319, 202-209.	7.8	41
3	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. <i>Journal of the Electrochemical Society</i> , 2016, 163, A2377-A2384.	2.9	12
4	Optimization of Inactive Material Content in Lithium Iron Phosphate Electrodes for High Power Applications. <i>Electrochimica Acta</i> , 2016, 191, 173-182.	5.2	16
5	A Porous Electrode Model for the Magnesium and Demagnesiumation of a Bismuth Electrode in Rechargeable Magnesium-Ion Cells. <i>Journal of the Electrochemical Society</i> , 2016, 163, A477-A487.	2.9	23
6	Thermal characterization of Li/sulfur, Li/S <sup>+</sup> LiFePO <sub>4</sub> and Li/S <sup>+</sup> LiV <sub>3</sub> O <sub>8</sub> cells using Isothermal Micro-Calorimetry and Accelerating Rate Calorimetry. <i>Journal of Power Sources</i> , 2015, 289, 1-7.	7.8	14
7	Lithium-Ion Cell Components and Their Effect on High-Power Battery Safety. , 2014, , 437-460.		8
8	Electrochemical and Thermal Studies of LiNi <sub>0.8</sub> Co <sub>0.15</sub> Al <sub>0.015</sub> O <sub>2</sub> under Fluorinated Electrolytes. <i>Electrochimica Acta</i> , 2014, 123, 7-13.	5.2	37
9	Investigations on high energy lithium-ion batteries with aqueous binder. <i>Electrochimica Acta</i> , 2013, 114, 1-6.	5.2	49
10	Improved electrochemical performances of LiM <sub>0.05</sub> Co <sub>0.95</sub> O <sub>1.95</sub> F <sub>0.05</sub> (M=Mg, Al, Zr) at high voltage. <i>Electrochimica Acta</i> , 2012, 68, 153-157.	5.2	39
11	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
12	Effect of Manganese Content on the Electrochemical and Thermal Stabilities of Li[Ni <sub>0.58</sub> Co <sub>0.28-x</sub> Mn <sub>0.14+x</sub> ] <sub>2</sub> O <sub>7</sub> Cathode Materials for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2010, 157, A1335.	2.9	23
13	Electrochemical and Thermal Studies of Carbon-Coated LiFePO <sub>4</sub> Cathode. <i>Journal of the Electrochemical Society</i> , 2009, 156, A401.	2.9	113
14	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
15	High-energy cathode material for long-life and safe lithium batteries. <i>Nature Materials</i> , 2009, 8, 320-324.	27.5	1,323
16	Mesoporous Anatase TiO <sub>2</sub> with High Surface Area and Controllable Pore Size by F <sup>-</sup> -Ion Doping: Applications for High-Power Li-Ion Battery Anode. <i>Journal of Physical Chemistry C</i> , 2009, 113, 21258-21263.	3.1	113
17	Improvement of Electrochemical Performance of Li[Ni <sub>0.8</sub> Co <sub>0.15</sub> Al <sub>0.05</sub> ] <sub>2</sub> O <sub>7</sub> Cathode Materials by AlF <sub>3</sub> coating at Various Temperatures. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 3876-3882.	3.7	61
18	Effects of Metal Ions on the Structural and Thermal Stabilities of Li[Ni <sub>1-x</sub> Co <sub>x</sub> Mn <sub>y</sub> ] <sub>2</sub> O <sub>7</sub> (x+y=0.5) Studied by In Situ High Temperature XRD. <i>Journal of the Electrochemical Society</i> , 2008, 155, A952.	2.9	26

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19	Electrochemical Modeling of Lithium-Ion Positive Electrodes during Hybrid Pulse Power Characterization Tests. Journal of the Electrochemical Society, 2008, 155, A603.	2.9	98
20	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. Journal of the Electrochemical Society, 2007, 154, A649.	2.9	141
21	Kinetics and mechanism for the oxygen reduction reaction on polycrystalline cobalt-palladium electrocatalysts in acid media. Journal of Power Sources, 2007, 170, 28-37.	7.8	109
22	Investigations of carbon-supported $\text{CoPd}_3$ catalysts as oxygen cathodes in PEM fuel cells. Electrochemistry Communications, 2006, 8, 406-410.	4.7	78
23	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. Journal of Power Sources, 2006, 161, 19-26.	7.8	75
24	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. Journal of the Electrochemical Society, 2006, 153, A731.	2.9	102
25	Investigations of the Exothermic Reactions of Natural Graphite Anode for Li-Ion Batteries during Thermal Runaway. Journal of the Electrochemical Society, 2005, 152, A73.	2.9	204
26	Alternating Current Impedance Electrochemical Modeling of Lithium-Ion Positive Electrodes. Journal of the Electrochemical Society, 2005, 152, A1409.	2.9	129
27	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. Journal of the American Chemical Society, 2005, 127, 13411-13418.	13.7	417
28	Determination of the Reversible and Irreversible Heats of a $\text{LiNi}_{0.8}\text{Co}_{0.15}\text{Al}_{0.05}\text{O}_2$ /Natural Graphite Cell Using Electrochemical-Calorimetric Technique. Journal of the Electrochemical Society, 2004, 151, A1222.	2.9	59
29	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. Electrochemical and Solid-State Letters, 2004, 7, A477.	2.2	93
30	Evaluation of Electrochemical Interface Area and Lithium Diffusion Coefficient for a Composite Graphite Anode. Journal of the Electrochemical Society, 2004, 151, A1247.	2.9	75
31	The Effect of ZnO Coating on Electrochemical Cycling Behavior of Spinel $\text{LiMn}_2\text{O}_4$ Cathode Materials at Elevated Temperature. Journal of the Electrochemical Society, 2003, 150, A970.	2.9	112
32	Fundamental Studies of Nickel Electrode in a Basic $\text{Na}[\text{AlCl}_4]$ Melt at $300^\circ\text{C}$ . ECS Proceedings Volumes, 2002, 2002-19, 102-111.	0.1	0
33	Preparation and characterization of partially substituted $\text{LiM}_x\text{Mn}_{2-y}\text{O}_4$ (M=Ni, Co, Fe) spinel cathodes for Li-ion batteries. Electrochimica Acta, 2002, 48, 443-451.	5.2	104
34	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
35	Kinetic Investigations of Oxygen Reduction and Evolution Reactions on Lead Ruthenate Catalysts. Journal of the Electrochemical Society, 1999, 146, 4145-4151.	2.9	73