

Yo Kobayashi

List of Publications by Year in descending order

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69
papers

4,205
citations

117571

34
h-index

106281

65
g-index

70
all docs

70
docs citations

70
times ranked

4483
citing authors

#	ARTICLE	IF	CITATIONS
1	Room-temperature miscibility gap in Li_xFePO_4 . <i>Nature Materials</i> , 2006, 5, 357-360.	13.3	507
2	Lithium Secondary Batteries Using Modified-Imidazolium Room-Temperature Ionic Liquid. <i>Journal of Physical Chemistry B</i> , 2006, 110, 10228-10230.	1.2	333
3	Chemical and Magnetic Characterization of Spinel Materials in the LiMn_2O_4 - $\text{Li}_2\text{Mn}_4\text{O}_9$ - $\text{Li}_4\text{Mn}_5\text{O}_{12}$ System. <i>Journal of Solid State Chemistry</i> , 1996, 123, 255-266.	1.4	259
4	Gas generation mechanism due to electrolyte decomposition in commercial lithium-ion cell. <i>Journal of Power Sources</i> , 1999, 81-82, 715-719.	4.0	240
5	Imidazolium-Based Room-Temperature Ionic Liquid for Lithium Secondary Batteries. <i>Journal of the Electrochemical Society</i> , 2007, 154, A173.	1.3	195
6	Highly reversible lithium metal secondary battery using a room temperature ionic liquid/lithium salt mixture and a surface-coated cathode active material. <i>Chemical Communications</i> , 2006, , 544-545.	2.2	133
7	Reversibility of Lithium Secondary Batteries Using a Room-Temperature Ionic Liquid Mixture and Lithium Metal. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, A577.	2.2	129
8	Fabrication of High-Voltage, High-Capacity All-Solid-State Lithium Polymer Secondary Batteries by Application of the Polymer Electrolyte/Inorganic Electrolyte Composite Concept. <i>Chemistry of Materials</i> , 2005, 17, 2041-2045.	3.2	127
9	Effects of cation and anion on physical properties of room-temperature ionic liquids. <i>Journal of Molecular Liquids</i> , 2010, 152, 9-13.	2.3	118
10	Compatibility of <i>N</i> -Methyl- <i>N</i> -propylpyrrolidinium Cation Room-Temperature Ionic Liquid Electrolytes and Graphite Electrodes. <i>Journal of Physical Chemistry C</i> , 2008, 112, 16708-16713.	1.5	115
11	Shift of redox potential and kinetics in $\text{Li}_x(\text{Mn}_y\text{Fe}_{1-y})\text{PO}_4$. <i>Journal of Power Sources</i> , 2009, 189, 397-401.	4.0	98
12	Densification of $\text{LiTi}_2(\text{PO}_4)_3$ -based solid electrolytes by spark-plasma-sintering. <i>Journal of Power Sources</i> , 1999, 81-82, 853-858.	4.0	96
13	Quaternary Ammonium Room-Temperature Ionic Liquid/Lithium Salt Binary Electrolytes: Electrochemical Study. <i>Journal of the Electrochemical Society</i> , 2008, 155, A421.	1.3	96
14	5 V Class All-Solid-State Composite Lithium Battery with Li_3PO_4 Coated $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$. <i>Journal of the Electrochemical Society</i> , 2003, 150, A1577.	1.3	88
15	Fabrication of All-Solid-State Lithium Polymer Secondary Batteries Using Al_2O_3 -Coated LiCoO_2 . <i>Chemistry of Materials</i> , 2005, 17, 5603-5605.	3.2	85
16	Quaternary Ammonium Room-Temperature Ionic Liquid Including an Oxygen Atom in Side Chain/Lithium Salt Binary Electrolytes: Ionic Conductivity and ^1H , ^7Li , and ^{19}F NMR Studies on Diffusion Coefficients and Local Motions. <i>Journal of Physical Chemistry B</i> , 2008, 112, 1189-1197.	1.2	84
17	Improvement of Degradation at Elevated Temperature and at High State-of-Charge Storage by ZrO_2 Coating on LiCoO_2 . <i>Journal of the Electrochemical Society</i> , 2006, 153, A348.	1.3	80
18	Relationships between center atom species (N, P) and ionic conductivity, viscosity, density, self-diffusion coefficient of quaternary cation room-temperature ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 3509.	1.3	80

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19	Dielectric properties of spark-plasma-sintered BaTiO ₃ . Journal of Materials Science, 1999, 34, 917-924.	1.7	70
20	Degradation mechanism analysis of all-solid-state lithium polymer secondary batteries by using the impedance measurement. Journal of Power Sources, 2005, 146, 741-744.	4.0	67
21	Electrochemical study on Mn ²⁺ -substitution in LiFePO ₄ olivine compound. Journal of Power Sources, 2007, 174, 435-441.	4.0	67
22	Quaternary Ammonium Room-Temperature Ionic Liquid Including an Oxygen Atom in Side Chain/Lithium Salt Binary Electrolytes: Ab Initio Molecular Orbital Calculations of Interactions between Ions. Journal of Physical Chemistry B, 2008, 112, 9914-9920.	1.2	62
23	Development of high-voltage and high-capacity all-solid-state lithium secondary batteries. Journal of Power Sources, 2005, 146, 719-722.	4.0	61
24	Effects of Alkyl Chain in Imidazolium-Type Room-Temperature Ionic Liquids as Lithium Secondary Battery Electrolytes. Electrochemical and Solid-State Letters, 2007, 10, A237.	2.2	54
25	All-solid-state lithium polymer secondary battery with LiNi _{0.5} Mn _{1.5} O ₄ by mixing of Li ₃ PO ₄ . Electrochemistry Communications, 2005, 7, 1083-1086.	2.3	43
26	Ionic conductivity enhancement in LiTi ₂ (PO ₄) ₃ -based composite electrolyte by the addition of lithium nitrate. Journal of Power Sources, 1997, 68, 407-411.	4.0	41
27	Decrease in Capacity in Mn-Based/Graphite Commercial Lithium-Ion Batteries. Journal of the Electrochemical Society, 2013, 160, A1181-A1186.	1.3	40
28	Comparative Study of Lithium Secondary Batteries Using Nonvolatile Safety Electrolytes. Journal of the Electrochemical Society, 2007, 154, A677.	1.3	39
29	The effects of preparation condition and dopant on the electrochemical property for Fe-substituted Li ₂ MnO ₃ . Journal of Power Sources, 2005, 146, 287-293.	4.0	38
30	Electrolyte properties of 1-alkyl-2,3,5-trimethylpyrazolium cation-based room-temperature ionic liquids for lithium secondary batteries. Journal of Power Sources, 2010, 195, 6207-6211.	4.0	37
31	Electrochemical and calorimetric approach to spinel lithium manganese oxide. Journal of Power Sources, 1999, 81-82, 463-466.	4.0	36
32	Open-circuit voltage study on LiFePO ₄ olivine cathode. Journal of Power Sources, 2010, 195, 6879-6883.	4.0	36
33	Differential voltage curve analysis of a lithium-ion battery during discharge. Journal of Power Sources, 2018, 398, 49-54.	4.0	36
34	Characterization of Li _{1-x} Mn _{2-x} O ₄ defect spinel materials by their phase transition, magnetic and electrochemical properties. Journal of Power Sources, 1997, 68, 623-628.	4.0	35
35	High-Performance Genuine Lithium Polymer Battery Obtained by Fine-Ceramic-Electrolyte Coating of LiCoO ₂ . Journal of the Electrochemical Society, 2005, 152, A1985.	1.3	35
36	An X-ray photoelectron spectroscopy study on the surface film on carbon black anode in lithium secondary cells. Journal of Power Sources, 1995, 54, 171-174.	4.0	34

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37	Oxidation Reaction of Polyether-Based Material and Its Suppression in Lithium Rechargeable Battery Using 4 V Class Cathode, $\text{LiNi}_{1/3}\text{Mn}_{1/3}\text{Co}_{1/3}\text{O}_2$. ACS Applied Materials & Interfaces, 2013, 5, 12387-12393.	4.0	33
38	A new design of highly reversible LiNiO_2 : Defect formation in transition metal site. Journal of Power Sources, 2017, 364, 156-162.	4.0	33
39	Direct in Situ Observation of Dynamic Transport for Electrolyte Components by NMR Combined with Electrochemical Measurements. Journal of Physical Chemistry B, 2006, 110, 22302-22305.	1.2	29
40	Improvement in High-Voltage Performance of All-Solid-State Lithium Polymer Secondary Batteries by Mixing Inorganic Electrolyte with Cathode Materials. Journal of the Electrochemical Society, 2006, 153, A1073.	1.3	29
41	Apparent Diffusion Constant and Electrochemical Reaction in $\text{LiFe}_{1-x}\text{Mn}_x\text{PO}_4$ Olivine Cathodes. Journal of the Electrochemical Society, 2007, 154, A1118.	1.3	29
42	All-Solid-State Lithium Secondary Battery Using Oxysulfide Glass. Journal of the Electrochemical Society, 2004, 151, A1539.	1.3	27
43	A long life 4V class lithium-ion polymer battery with liquid-free polymer electrolyte. Journal of Power Sources, 2017, 341, 257-263.	4.0	26
44	A method of separating the capacities of layer and spinel compounds in blended cathode. Journal of Power Sources, 2014, 245, 1-6.	4.0	25
45	Particle Size Effects on the Entropy Behavior of a Li_xFePO_4 Electrode. ChemPhysChem, 2014, 15, 2156-2161.	1.0	25
46	Relationship between the Electrochemical Behavior and Li Arrangement in $\text{Li}_x\text{M}_y\text{Mn}_{2-y}\text{O}_4$ (M = Co, Cr) with Spinel Structure. Journal of Physical Chemistry B, 2006, 110, 4998-5004.	1.2	24
47	Depth profiling of graphite electrode in lithium ion battery using glow discharge optical emission spectroscopy with small quantities of hydrogen or oxygen addition to argon. Journal of Analytical Atomic Spectrometry, 2014, 29, 95-104.	1.6	24
48	Relationship between electrochemical behavior and Li/vacancy arrangement in ramsdellite type $\text{Li}_{2+x}\text{Ti}_3\text{O}_7$. Electrochimica Acta, 2009, 54, 1842-1850.	2.6	21
49	Application of Lithium Metal Electrodes to All-Solid-State Lithium Secondary Batteries Using Li_3PO_4 - Li_2S - SiS_2 Glass. Journal of the Electrochemical Society, 2004, 151, A1309.	1.3	19
50	Lithium migration between blended cathodes of a lithium-ion battery. Journal of Materials Chemistry A, 2017, 5, 8653-8661.	5.2	19
51	Proposal of simple and novel method of capacity fading analysis using pseudo-reference electrode in lithium ion cells: Application to solvent-free lithium ion polymer batteries. Journal of Power Sources, 2014, 247, 1026-1032.	4.0	17
52	Configurational Entropy of Lithium Manganese Oxide and Related Materials, $\text{LiCr}_y\text{Mn}_{2-y}\text{O}_4$ ($y=0, 0.3$). Journal of the Electrochemical Society, 2008, 155, A14.	1.3	16
53	Analysis of Solid Electrolyte Interphase in Mn-Based Cathode/Graphite Li-Ion Battery with Glow Discharge Optical Emission Spectroscopy. Journal of the Electrochemical Society, 2014, 161, A1716-A1722.	1.3	15
54	Dynamics of Phase Transition in LiCuSb Anode Material for Rechargeable Lithium Ion Battery. Journal of the Electrochemical Society, 2008, 155, A151.	1.3	14

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55	Unexpected capacity fade and recovery mechanism of LiFePO ₄ /graphite cells for grid operation. Journal of Power Sources, 2020, 449, 227502.	4.0	12
56	Phase transition and conductive acceleration of phosphonium-cation-based room-temperature ionic liquid. Chemical Communications, 2008, , 5541.	2.2	11
57	Investigation on the Arrangement of Lithium Ions in Li _x La _{1/3} NbO ₃ with Perovskite Structure. Journal of Physical Chemistry B, 2005, 109, 14648-14653.	1.2	10
58	Functionalized Room-Temperature Ionic Liquids for Lithium Secondary Battery Electrolyte Materials. Electrochemistry, 2009, 77, 690-692.	0.6	10
59	Decrease in Capacity in Mn-Based/Graphite Commercial Lithium-Ion Batteries. Journal of the Electrochemical Society, 2013, 160, A1415-A1420.	1.3	10
60	Capacity fading of a LiFePO ₄ /graphite cell during shallow cycling due to planar inhomogeneity in LiFePO ₄ . Journal of Power Sources, 2020, 451, 227782.	4.0	7
61	Electrochemical quartz crystal microbalance measurement of a Li ₄ Ti ₅ O ₁₂ composite electrode in a carbonate electrolyte. Journal of Power Sources, 2015, 295, 162-166.	4.0	6
62	Basic Properties of All-Solid-State Lithium Polymer Secondary Batteries Using LiFePO ₄ . Electrochemistry, 2006, 74, 321-325.	0.6	5
63	Deposition and Dissolution of Copper on a Quartz Crystal Resonator in Contact with a Separator. Electrochemistry, 2018, 86, 250-253.	0.6	4
64	Series-connected multi-cell operation of lithium-ion cells by floating method. Journal of Power Sources, 1997, 68, 427-431.	4.0	3
65	Research and Development of All-Solid-State Lithium Polymer Secondary Batteries. Kobunshi Ronbunshu, 2006, 63, 139-148.	0.2	2
66	Intermediate Phases in Li _x FePO ₄ . Materials Research Society Symposia Proceedings, 2006, 972, 1.	0.1	2
67	5 V Class All-Solid-State Composite Lithium Battery with Li ₃ PO ₄ Coated LiNi _{0.5} Mn _{1.5} O ₄ . ChemInform, 2004, 35, no.	0.1	1
68	Evaluations of Super-Hydrophilic Titanium Oxide Compound Fabricated by Plasma Thermal Spray Coating. IEEJ Transactions on Fundamentals and Materials, 2006, 126, 857-862.	0.2	1
69	Open Circuit Voltage of Li _x FePO ₄ Olivine Cathode and Its Electrochemical Reaction. Funtai Oyobi Fumatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2010, 57, 725-728.	0.1	0