Hironori Kobayashi

List of Publications by Year
in descending order

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112	3,756	94433	149698
papers	citations	37 h-index	56 g-index

114	114	114	3731
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structural characterization of the orthorhombic perovskites: [ARuO3 (A = Ca, Sr, La, Pr)]. Materials Research Bulletin, 1994, 29, 1271-1280.	5.2	154
2	All-Solid-State Battery Electrode Sheets Prepared by a Slurry Coating Process. Journal of the Electrochemical Society, 2017, 164, A2474-A2478.	2.9	125
3	Structure and Electrochemical Properties of LiFe[sub x]Mn[sub 2â^'x]O[sub 4] (0â‰xâ‰0.5) Spinel as 5 V Electrode Material for Lithium Batteries. Journal of the Electrochemical Society, 2001, 148, A730.	2.9	116
4	Electrode morphology in all-solid-state lithium secondary batteries consisting of LiNi1/3Co1/3Mn1/3O2 and Li2S-P2S5 solid electrolytes. Solid State Ionics, 2016, 285, 112-117.	2.7	114
5	Changes in the structure and physical properties of the solid solution LiNi1â€“xMnxO2 with variation in its composition. Journal of Materials Chemistry, 2003, 13, 590-595.	6.7	102
6	Preparation of LiFeO2 with Alphaâ€•NaFeO2â€Type Structure Using a Mixedâ€Alkaline Hydrothermal Method. Journal of the Electrochemical Society, 1997, 144, L177-L180.	2.9	101
7	Synthesis, Cation Distribution, and Electrochemical Properties of Fe-Substituted Li[sub 2]MnO[sub 3] as a Novel 4 V Positive Electrode Material. Journal of the Electrochemical Society, 2002, 149, A509.	2.9	92
8	Structure and lithium deintercalation of Li2â^'xRuO3. Solid State Ionics, 1995, 82, 25-31.	2.7	91
9	Magnetic Properties of Metastable Lithium Iron Oxides Obtained by Solvothermal/Hydrothermal Reaction. Journal of Solid State Chemistry, 1998, 141, 554-561.	2.9	90
10	Amorphous Metal Polysulfides: Electrode Materials with Unique Insertion/Extraction Reactions. Journal of the American Chemical Society, 2017, 139, 8796-8799.	13.7	84
11	High-Pressure Synthesis, Crystal Structure, and Metalâ€“Semiconductor Transitions in the Tl2Ru2O7â^'Î´Pyrochlore. Journal of Solid State Chemistry, 1998, 140, 182-193.	2.9	79
12	Electrochemical Properties of Hydrothermally Obtained LiCo[sub 1â^'x]Fe[sub x]O[sub 2] as a Positive Electrode Material for Rechargeable Lithium Batteries. Journal of the Electrochemical Society, 2000, 147, 960.	2.9	77
13	Preparation of LiCoO2 and LiCo1â^'xFexO2 using hydrothermal reactions. Journal of Materials Chemistry, 1999, 9, 199-204.	6.7	75
14	Fine Li(4 ? x)/3Ti(2 ? 2x)/3FexO2 (0.18 ? x ? 0.67) powder with cubic rock-salt structure as a positive electrode material for rechargeable lithium batteries. Journal of Materials Chemistry, 2003, 13, 1747.	6.7	74
15	Rock-salt-type lithium metal sulphides as novel positive-electrode materials. Scientific Reports, 2014, 4, 4883.	3.3	74
16	Investigation of positive electrodes after cycle testing of high-power Li-ion battery cells. Journal of Power Sources, 2007, 174, 380-386.	7.8	73
17	Structure, and magnetic and electrochemical properties of layered oxides, Li2IrO3. Journal of Materials Chemistry, 2003, 13, 957-962.	6.7	72
18	Investigation of positive electrodes after cycle testing of high-power Li-ion battery cells II. Journal of Power Sources, 2007, 174, 795-799.	7.8	65

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19	Synthesis, structure, and phase relationship in lithium manganese oxide spinelElectronic supplementary information (ESI) available: neutron and X-ray Rietveld refinement results of LiMn2O4. See http://www.rsc.org/suppdata/jm/b3/b314810f/. Journal of Materials Chemistry, 2004, 14, 1948.	6.7	64
20	Li de-intercalation mechanism in LiNiMnO cathode material for Li-ion batteries. Solid State Ionics, 2005, 176, 895-903.	2.7	62
21	Synthesis, Crystal Structure, and Electrical Properties of the Pyrochlores Pb2-xLnxRu2O7-y(Ln = Nd,) Tj ETQq1 1 0.784314 rgBT /Overlock	2.9	61
22	Structural Change of Li1â^'xNi0.5Mn0.5O2Cathode Materials for Lithium-ion Batteries by Synchrotron Radiation. Chemistry Letters, 2003, 32, 60-61.	1.3	61
23	Investigation on lithium de-intercalation mechanism for Li1â^'yNi1/3Mn1/3Co1/3O2. Journal of Power Sources, 2005, 146, 640-644.	7.8	61
24	Amorphous TiS4 positive electrode for lithiumâ€“sulfur secondary batteries. Electrochemistry Communications, 2013, 31, 71-75.	4.7	61
25	Preparation of lithium manganese oxides containing iron. Journal of Power Sources, 2001, 97-98, 415-419.	7.8	53
26	All-solid-state lithium-ion battery using Li2.2C0.8B0.2O3 electrolyte. Solid State Ionics, 2016, 288, 248-252.	2.7	49
27	Physicochemical characterization of CuFeO2 and lithium intercalation. Solid State Ionics, 2000, 128, 33-41.	2.7	46
28	Lithium Extraction and Insertion Behavior of Nanocrystalline Li[sub 2]TiO[sub 3]-LiFeO[sub 2] Solid Solution with Cubic Rock Salt Structure. Journal of the Electrochemical Society, 2003, 150, A638.	2.9	46
29	Bulk and surface structure investigation for the positive electrodes of degraded lithium-ion cell after storage test using X-ray absorption near-edge structure measurement. Journal of Power Sources, 2009, 189, 676-680.	7.8	46
30	Improvement of Cycle Capability of FeS₂Positive Electrode by Forming Composites with Li₂S for Ambient Temperature Lithium Batteries. Journal of the Electrochemical Society, 2011, 159, A75-A84.	2.9	46
31	Amorphous Niobium Sulfides as Novel Positive-Electrode Materials. ECS Electrochemistry Letters, 2014, 3, A79-A81.	1.9	46
32	Heat generation behavior during charging and discharging of lithium-ion batteries after long-time storage. Journal of Power Sources, 2013, 244, 294-299.	7.8	45
33	Structural and electrochemical properties of Li(Fe, Co)xMn2 â€“ xO4 solid solution as 5 V positive electrode materials for Li secondary batteries. Journal of Materials Chemistry, 2002, 12, 1882-1891.	6.7	43
34	LISICON-Based Amorphous Oxide for Bulk-Type All-Solid-State Lithium-Ion Battery. ACS Applied Energy Materials, 2020, 3, 3220-3229.	5.1	43
35	Phase Transition Mechanisms in Li_xCoO₂ (0.25 â‰ x â‰ 1) Based on Groupâ€“Subgroup Transformations. Chemistry of Materials, 2013, 25, 3687-3701.	6.7	41
36	Application of graphiteâ€“solid electrolyte composite anode in all-solid-state lithium secondary battery with Li2S positive electrode. Solid State Ionics, 2014, 262, 138-142.	2.7	40

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37	Structural determination of Li1â^'yNi0.5Mn0.5O2(y = 0.5) using a combination of Rietveld analysis and the maximum entropy method. Journal of Materials Chemistry, 2004, 14, 40-42.	6.7	39
38	The effects of preparation condition and dopant on the electrochemical property for Fe-substituted Li2MnO3. Journal of Power Sources, 2005, 146, 287-293.	7.8	38
39	Correlation of lithium ion distribution and X-ray absorption near-edge structure in O3- and O2-lithium cobalt oxides from first-principle calculation. Journal of Materials Chemistry, 2012, 22, 17340.	6.7	38
40	Effect of bulk and surface structural changes in Li₅FeO₄positive electrodes during first charging on subsequent lithium-ion battery performance. Journal of Materials Chemistry A, 2014, 2, 11847-11856.	10.3	37
41	X-ray absorption near-edge structure study on positive electrodes of degraded lithium-ion battery. Journal of Power Sources, 2011, 196, 6881-6883.	7.8	34
42	Analysis of hard carbon for lithium-ion batteries by hard X-ray photoelectron spectroscopy. Journal of Power Sources, 2013, 242, 844-847.	7.8	34
43	Electrochemical and magnetic properties of lithium manganese oxide spinels prepared by oxidation at low temperature of hydrothermally obtained LiMnO2. Solid State Ionics, 1996, 89, 53-63.	2.7	33
44	Investigation of inorganic compounds on the surface of cathode materials using Li and O K-edge XANES. Journal of Power Sources, 2007, 174, 774-778.	7.8	32
45	Study of the Capacity Fading Mechanism for Fe-Substituted LiCoO[sub 2] Positive Electrode. Journal of the Electrochemical Society, 2004, 151, A672.	2.9	31
46	XRD and XAFS study on structure and cation valence state of layered ruthenium oxide electrodes, Li2RuO3 and Li2Mn0.4Ru0.6O3, upon electrochemical cycling. Solid State Ionics, 2016, 285, 66-74.	2.7	30
47	Controlling of Dispersion State of Particles in Slurry and Electrochemical Properties of Electrodes. Journal of the Electrochemical Society, 2019, 166, A501-A506.	2.9	30
48	Physical properties of the de-lithiated Li2 $minus; xRuO3 with the layered structure. Solid State Ionics, 1996, 86-88, 859-863.	2.7	28
49	Structure and charge/discharge characteristics of new layered oxides: Li1.8Ru0.6Fe0.6O3 and Li2IrO3. Journal of Power Sources, 1997, 68, 686-691.	7.8	28
50	State of charge (SOC) dependence of lithium carbonate on LiNi0.8Co0.15Al0.05O2 electrode for lithium-ion batteries. Journal of Power Sources, 2011, 196, 6889-6892.	7.8	26
51	Synthesis and Characterization of the Crystal and Magnetic Structures and Properties of the Hydroxyfluorides Fe(OH)F and Co(OH)F. Inorganic Chemistry, 2014, 53, 365-374.	4.0	25
52	Preparation of Li₂S-FeS_xComposite Positive Electrode Materials and Their Electrochemical Properties with Pre-Cycling Treatments. Journal of the Electrochemical Society, 2015, 162, A1745-A1750.	2.9	25
53	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.	3.0	24
54	Synthesis and electrochemical properties of lithium molybdenum oxides. Journal of Power Sources, 1999, 81-82, 524-529.	7.8	23

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55	Contribution of oxygen partial density of state on lithium intercalation/de-intercalation process in LixNi0.5Mn1.5O4 spinel oxides. Journal of Power Sources, 2013, 244, 544-547.	7.8	23
56	Rapid Preparation of Li2S-P2S5 Solid Electrolyte and Its Application for Graphite/Li2S All-Solid-State Lithium Secondary Battery. ECS Electrochemistry Letters, 2014, 3, A31-A35.	1.9	23
57	Fabrication and charge-discharge reaction of all solid-state lithium battery using Li4-2Ge1-S O4 electrolyte. Solid State Ionics, 2018, 326, 52-57.	2.7	23
58	Quantification of lithium in LIB electrodes with glow discharge optical emission spectroscopy (GD-OES). Journal of Power Sources, 2013, 244, 252-258.	7.8	22
59	High Reversibility of â€œSoftâ€•Electrode Materials in All-Solid-State Batteries. Frontiers in Energy Research, 2016, 4, .	2.3	22
60	A Reversible Rocksalt to Amorphous Phase Transition Involving Anion Redox. Scientific Reports, 2018, 8, 15086.	3.3	21
61	Structural characterization of an amorphous VS₄ and its lithiation/delithiation behavior studied by solid-state NMR spectroscopy. RSC Advances, 2019, 9, 23979-23985.	3.6	21
62	Composite positive electrode based on amorphous titanium polysulfide for application in all-solid-state lithium secondary batteries. Solid State Ionics, 2014, 262, 143-146.	2.7	20
63	The effects of Al2O3 coating on the performance of layered Li1.20Mn0.55Ni0.16Co0.09O2 materials for lithium-ion rechargeable battery. Solid State Ionics, 2014, 262, 43-48.	2.7	19
64	Analysis of the discharge/charge mechanism in VS4 positive electrode material. Solid State Ionics, 2018, 323, 32-36.	2.7	19
65	Further findings of X-ray absorption near-edge structure in lithium manganese spinel oxide using first-principles calculations. Journal of Materials Chemistry A, 2014, 2, 8017-8025.	10.3	18
66	Single crystal X-ray structure study of the Li2â^'xNaxNi[PO4]F system. Dalton Transactions, 2012, 41, 5838.	3.3	17
67	Enhancement of lithium-ion conductivity for Li_{2.2}C_{0.8}B_{0.2}O₃ by spark plasma sintering. Journal of the Ceramic Society of Japan, 2017, 125, 276-280.	1.1	17
68	Application of LiCoPO4 Positive Electrode Material in All-Solid-State Lithium-Ion Battery. Electrochemistry, 2014, 82, 906-908.	1.4	16
69	Synthesis and characterization of the crystal structure, the magnetic and the electrochemical properties of the new fluorophosphate LiNaFe[PO4]F. Dalton Transactions, 2012, 41, 11692.	3.3	15
70	Synthesis and Characterization of the Crystal Structure and Magnetic Properties of the New Fluorophosphate LiNaCo[PO₄]F. Inorganic Chemistry, 2012, 51, 8729-8738.	4.0	15
71	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.	2.9	15
72	Structural Changes in Li₂CoPO₄F during Lithium-Ion Battery Reactions. Chemistry of Materials, 2015, 27, 2839-2847.	6.7	15

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73	All-Solid-State Batteries with LiCoO₂-Type Electrodes: Realization of an Impurity-Free Interface by Utilizing a Cosinterable Li_{3.5}Ge_{0.5}V_{0.5}O₄ Electrolyte. ACS Applied Energy Materials, 2021, 4, 30-34.	5.1	15
74	A systematic study on structure, ionic conductivity, and air-stability of xLi4SnS4Â·(1â^'x)Li3PS4 solid electrolytes. Ceramics International, 2021, 47, 28377-28383.	4.8	14
75	Elucidation of Capacity Degradation for Graphite in Sulfide-Based All-Solid-State Lithium Batteries: A Void Formation Mechanism. ACS Applied Energy Materials, 2020, 3, 5472-5478.	5.1	13
76	Structure and physical property changes of de-lithiated spinels for Li1.02â^'xMn1.98O4 after high-temperature storage. Solid State Ionics, 2003, 156, 309-318.	2.7	12
77	Study on Li de-intercalation/intercalation mechanism for a high capacity layered Li1.20Ni0.17Co0.10Mn0.53O2 material. Solid State Ionics, 2012, 225, 580-584.	2.7	12
78	Preparation of Novel Electrode Materials Based on Lithium Niobium Sulfides. Electrochemistry, 2014, 82, 880-883.	1.4	12
79	Preparation of Li2Sâ€"FePS3 composite positive electrode materials and their electrochemical properties. Solid State Ionics, 2016, 288, 199-203.	2.7	12
80	New fluorophosphate Li2â^'xNaxFe[PO4]F as cathode material for lithium ion battery. Journal of Power Sources, 2013, 244, 87-93.	7.8	11
81	Development of Li₂TiS₃–Li₃NbS₄ by a mechanochemical process. Journal of the Ceramic Society of Japan, 2017, 125, 268-271.	1.1	11
82	Cubic Rocksalt Li₂SnS₃ and a Solid Solution with Li₃NbS₄ Prepared by Mechanochemical Synthesis. Electrochemistry, 2017, 85, 580-584.	1.4	11
83	Structure analyses of Fe-substituted Li2S-based positive electrode materials for Li-S batteries. Solid State Ionics, 2018, 320, 387-391.	2.7	11
84	Structure, Physical Properties, and Charge-Discharge Characteristics of Fe-doped Li[sub 2]IrO[sub 3]. Journal of the Electrochemical Society, 2003, 150, A1408.	2.9	10
85	Minimizing the Grain Boundary Resistance of Li-Ion-Conducting Oxide Electrolyte by Controlling Liquid-Phase Formation During Sintering. ACS Applied Energy Materials, 2018, 1, 6303-6311.	5.1	10
86	XAFS study of LiCo1-xFexO2cathode for rechargeable lithium battery by laboratory XAFS spectrometer. Journal of Synchrotron Radiation, 2001, 8, 863-865.	2.4	9
87	Synthesis and characterization of the crystal structure and magnetic properties of the hydroxyfluoride MnF2â^'x(OH)x (x â^¼ 0.8). Physical Chemistry Chemical Physics, 2013, 15, 13061.	2.8	9
88	X-ray absorption near-edge structures of LiMn₂O₄ and LiNi_{0.5}Mn_{1.5}O₄ spinel oxides for lithium-ion batteries: the first-principles calculation study. Physical Chemistry Chemical Physics, 2016, 18, 17827-17830.	2.8	9
89	Structural relationships among LiNaMg[PO₄]F and Na₂M[PO₄]F (M = Mnâ€"Ni, and Mg), and the magnetic structure of LiNaNi[PO₄]F. Dalton Transactions, 2014, 43, 2044-2051.	3.3	8
90	Structural, magnetic, and electrochemical properties of the high pressure form of Na₂Co[PO₄]F. Dalton Transactions, 2014, 43, 13630-13636.	3.3	8

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91	High Capacity Sulfurized Alcohol Composite Positive Electrode Materials Applicable for Lithium Sulfur Batteries. Journal of the Electrochemical Society, 2017, 164, A6288-A6293.	2.9	8
92	Improvement of Cycle Capability of Fe-Substituted Li₂S-Based Positive Electrode Materials by Doping with Lithium Iodide. Journal of the Electrochemical Society, 2019, 166, A5231-A5236.	2.9	8
93	Changes in the structure and physical properties of Li1?yNi0.5Mn0.4Ti0.1O2 (y=0 and 0.5). Solid State Ionics, 2004, 175, 221-224.	2.7	7
94	Investigation on lithium de-intercalation mechanism for LiNi0.45Mn0.45Al0.1O2. Solid State Ionics, 2007, 178, 1101-1105.	2.7	7
95	Crystal structures of the new fluorophosphates Li9Mg3[PO4]4F3 and Li2Mg[PO4]F and ionic conductivities of selected compositions. Journal of Materials Chemistry A, 2014, 2, 5858.	10.3	7
96	Relationship between Cyclic Properties and Charge-discharge Condition for Li₂Mn_{0.4}Ru_{0.6}O₃ and Li₂RuO₃. Electrochemistry, 2015, 83, 1071-1076.	1.4	7
97	Electrochemical property of tin oxide thin film by photo-CVD process. Journal of Power Sources, 2001, 97-98, 229-231.	7.8	6
98	Mechanochemical synthesis of air-stable hexagonal Li₄SnS₄-based solid electrolytes containing LiI and Li₃PS₄. RSC Advances, 2021, 11, 38880-38888.	3.6	6
99	Synthesis, crystal structure and electrochemical properties of the manganese-doped LiNaFe[PO4]F materials. Materials Chemistry and Physics, 2013, 141, 52-57.	4.0	5
100	Single crystal growth of the novel Mn2(OH)2SO3, Mn2F(OH)SO3, and Mn5(OH)4(H2O)2[SO3]2[SO4] compounds using a hydrothermal method. Dalton Transactions, 2013, 42, 7158.	3.3	5
101	Structural and dynamic behavior of lithium iron polysulfide Li 8 FeS 5 during chargeâ€“discharge cycling. Journal of Power Sources, 2018, 398, 67-74.	7.8	4
102	Allâ€Solidâ€State Lithiumâ€Sulfur Batteries Using Sulfurized Alcohol Composite Material with Improved Coulomb Efficiency. Energy Technology, 2019, 7, 1900509.	3.8	4
103	Degradation mechanisms of lithium sulfide (Li₂S) composite cathode in carbonate electrolyte and improvement by increasing electrolyte concentration. Sustainable Energy and Fuels, 2021, 5, 1714-1726.	4.9	4
104	Zr- and Ce-doped Li₆Y(BO₃)₃ electrolyte for all-solid-state lithium-ion battery. RSC Advances, 2021, 11, 16530-16536.	3.6	4
105	Changes in the structure and magnetic properties of Li1.08Mn1.92O4 after charge?discharge cycles with a 18650-type cylindrical battery. Solid State Ionics, 2004, 175, 229-232.	2.7	3
106	Preparation of Li2S-FeS2 Composite Electrode Materials and their Electrochemical Properties. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2013, 60, 13-18.	0.2	3
107	Ion Distributions and the Electrochemical Properties of LiNi_{0.5}Mn_{0.5}O₂ Prepared by Ion-Exchange for Positive Electrode. Electrochemistry, 2012, 80, 829-833.	1.4	2
108	Performance of Sn-based Negative Electrode Films Prepared by Electrostatic Spray Deposition in Lithium Batteries. Electrochemistry, 2012, 80, 821-824.	1.4	1

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109	Structure, Physical Properties, and Charge-Discharge Characteristics of Fe-Doped Li2IrO3.. ChemInform, 2004, 35, no.	0.0	0
110	Observation of Valence State Change in Layered Li1â^'yNi1/3Mn1/3Co1/3O2. AIP Conference Proceedings, 2007, , .	0.4	0
111	The new disordered triplite polymorph of Co₂[PO₄]F. Zeitschrift Fur Kristallographie - Crystalline Materials, 2014, 229, 775-781.	0.8	0
112	Investigation on Electrochemical Property of AB/Al2O3- coated Li-excess Mn-based Layered Oxides. Journal of Physics: Conference Series, 2016, 712, 012129.	0.4	0