Hirokazu Munakata

List of Publications by Year
in descending order

85	2,478	172457 29	206112 48
papers	citations	h-index	g-index

86	86	86	3354
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compatibility of Li[sub 7]La[sub 3]Zr[sub 2]O[sub 12] Solid Electrolyte to All-Solid-State Battery Using Li Metal Anode. Journal of the Electrochemical Society, 2010, 157, A1076.	2.9	319
2	Concerted Migration Mechanism in the Li Ion Dynamics of Garnet-Type Li₇La₃Zr₂O₁₂. Chemistry of Materials, 2013, 25, 425-430.	6.7	206
3	Fabrication of Three-Dimensional Battery Using Ceramic Electrolyte with Honeycomb Structure by Solâ€“Gel Process. Journal of the Electrochemical Society, 2010, 157, A493.	2.9	91
4	Effect of sol composition on solid electrode/solid electrolyte interface for all-solid-state lithium ion battery. Electrochimica Acta, 2011, 56, 1023-1029.	5.2	71
5	Evaluation of real performance of LiFePO4 by using single particle technique. Journal of Power Sources, 2012, 217, 444-448.	7.8	71
6	Effect of Gold Layer on Interface Resistance between Lithium Metal Anode and Li_{6.25}Al_{0.25}La₃Zr₂O₁₂Solid Electrolyte. Journal of the Electrochemical Society, 2017, 164, A1022-A1025.	2.9	68
7	First-principles density functional calculation of electrochemical stability of fast Li ion conducting garnet-type oxides. Physical Chemistry Chemical Physics, 2012, 14, 10008.	2.8	66
8	Preparation and electrochemical properties of Zr-site substituted Li7La3(Zr2â^'xMx)O12 (MÂ=ÂTa, Nb) solid electrolytes. Journal of Power Sources, 2014, 261, 206-211.	7.8	61
9	Enhancement on proton conductivity of inorganicâ€“organic composite electrolyte membrane by addition of sulfonic acid group. Solid State Ionics, 2005, 176, 2445-2450.	2.7	59
10	All-solid-state lithium battery with a three-dimensionally ordered Li1.5Al0.5Ti1.5(PO4)3 electrode. Electrochimica Acta, 2010, 55, 6892-6896.	5.2	55
11	Fabrication of micro lithium-ion battery with 3D anode and 3D cathode by using polymer wall. Journal of Power Sources, 2012, 208, 404-408.	7.8	55
12	Synthesis of nanostructured Ni3S2 with different morphologies asÂnegative electrode materials for lithium ion batteries. Journal of Power Sources, 2015, 293, 706-711.	7.8	51
13	Improvement of rate capability by graphite foam anode for Li secondary batteries. Journal of Power Sources, 2017, 355, 164-170.	7.8	51
14	Three-dimensionally ordered macroporous polyimide composite membrane with controlled pore size for direct methanol fuel cells. Journal of Power Sources, 2008, 178, 596-602.	7.8	50
15	Compatibility of LiCoO2 and LiMn2O4 cathode materials for Li0.55La0.35TiO3 electrolyte to fabricate all-solid-state lithium battery. Journal of Power Sources, 2010, 195, 5784-5788.	7.8	49
16	In-situ Fourier transform infrared spectroscopic analysis on dynamic behavior ofÂelectrolyte solution on LiFePO4 cathode. Journal of Power Sources, 2013, 239, 175-180.	7.8	48
17	Effects of Ï‰-Functional Groups on pH-Dependent Reductive Desorption of Alkanethiol Self-Assembled Monolayers. Langmuir, 2004, 20, 10123-10128.	3.5	47
18	Effect of organic additives on characteristics of carbon-coated LiCoPO4 synthesized by hydrothermal method. Journal of Power Sources, 2017, 337, 92-99.	7.8	47

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19	Ceramic-Based Flexible Sheet Electrolyte for Li Batteries. ACS Applied Materials & Interfaces, 2020, 12, 10382-10388.	8.0	47
20	Good Low-Temperature Properties of Nitrogen-Enriched Porous Carbon as Sulfur Hosts for High-Performance Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2016, 8, 17253-17259.	8.0	46
21	A key concept of utilization of both non-Grignard magnesium chloride and imide salts for rechargeable Mg battery electrolytes. Journal of Materials Chemistry A, 2017, 5, 3152-3156.	10.3	46
22	Highly patterned cylindrical Niâ€“Sn alloys with 3-dimensionally ordered macroporous structure as anodes for lithium batteries. Electrochimica Acta, 2010, 55, 8030-8035.	5.2	45
23	Preparation of Composite Membrane between a Uniform Porous Silica Matrix and Injected Proton Conductive Gel Polymer. Chemistry of Materials, 2005, 17, 4845-4851.	6.7	44
24	Development of high capacity lithium-ion battery applying three-dimensionally patterned electrode. Electrochimica Acta, 2012, 79, 218-222.	5.2	41
25	Effect of carbon source on electrochemical performance of carbon coated LiMnPO4 cathode. Journal of the Ceramic Society of Japan, 2009, 117, 1225-1228.	1.1	37
26	Enhanced cycle stability of LiCoPO 4 by using three-dimensionally ordered macroporous polyimide separator. Journal of Power Sources, 2017, 350, 103-108.	7.8	37
27	In-situ observation of one silicon particle during the first charging. Journal of Power Sources, 2013, 243, 630-634.	7.8	36
28	Thermal Stability of Various Cathode Materials against Li_{6.25}Al_{0.25}La₃Zr₂O<sub>12</su Electrolyte. Electrochemistry, 2017, 85, 77-81.	1.4	36
29	Surface layer formation of LiCoO2 thin film electrodes in non-aqueous electrolyte containing lithium bis(oxalate)borate. Journal of Power Sources, 2012, 210, 60-66.	7.8	30
30	The influence of the pyrolysis temperature on the electrochemical behavior of carbon-rich SiCN polymer-derived ceramics as anode materials in lithium-ion batteries. Journal of Power Sources, 2015, 282, 409-415.	7.8	29
31	High-capacity thick cathode with a porous aluminum current collector for lithium secondary batteries. Journal of Power Sources, 2016, 334, 78-85.	7.8	28
32	Properties of composite proton-conducting membranes prepared from three-dimensionally ordered macroporous polyimide matrix and polyelectrolyte. Chemical Communications, 2005, , 3986.	4.1	26
33	Reduced Polysulfide Shuttle Effect by Using Polyimide Separators with Ionic Liquid-based Electrolytes in Lithium-Sulfur Battery. Electrochimica Acta, 2017, 255, 109-117.	5.2	26
34	Electrochemical Evaluation of Active Materials for Lithium Ion Batteries by One (Single) Particle Measurement. Electrochemistry, 2016, 84, 759-765.	1.4	25
35	Effect of Anatase TiO2 on Electrochemical Properties of Elongated Bending TiO2-Bronze nanowires for Lithium Ion Batteries. Electrochimica Acta, 2016, 191, 661-668.	5.2	24
36	Electrophoretic Deposition for Nanostructural Design of Catalyst Layers on Nafion Membrane. Journal of the Electrochemical Society, 2007, 154, B1368.	2.9	23

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37	Electrochemical Characterization of Phosphorous-doped Soft Carbon using Single Particle for Lithium Battery Anode. Electrochimica Acta, 2014, 130, 60-65.	5.2	23
38	Effect of conductive carbon additives on electrochemical performance of LiCoPO 4. Journal of Power Sources, 2018, 376, 18-25.	7.8	22
39	Rapid charge and discharge property of high capacity lithium ion battery applying three-dimensionally patterned electrode. Journal of Power Sources, 2014, 256, 244-249.	7.8	19
40	Synthesis and Characterization of Composite Membrane with Three-Dimensionally Ordered Macroporous Polyimide Matrix for DMFC. Journal of the Electrochemical Society, 2008, 155, B303.	2.9	18
41	Scanning electrochemical cell microscopy for visualization and local electrochemical activities of lithiumâ€ion (de) intercalation process in lithiumâ€ion batteries electrodes. Surface and Interface Analysis, 2019, 51, 27-30.	1.8	18
42	Solubility and Diffusion Coefficient of Oxygen in Protic Ionic Liquids with Different Fluoroalkyl Chain Lengths. Electrochimica Acta, 2014, 132, 208-213.	5.2	17
43	Preparation of micro-dot electrodes of LiCoO2 and Li4Ti5O12 for lithium micro-batteries. Electrochimica Acta, 2005, 51, 966-971.	5.2	16
44	3D electrochemical model for a Single Secondary Particle and its application for operando analysis. Nano Energy, 2019, 62, 810-817.	16.0	16
45	Synthesis and Evaluation of Microspherical Li1.2Mn0.54Co0.13Ni0.13O2 through Carbon Dioxides-assisted Co-precipitation Method for Lithium-ion Battery. Electrochimica Acta, 2016, 212, 16-24.	5.2	15
46	FABRICATION OF 3D MICROELECTRODES FOR LITHIUM ION BATTERIES BY ELECTROPHORETIC DEPOSITION. Functional Materials Letters, 2009, 02, 9-12.	1.2	14
47	Fabrication of all-solid-state rechargeable lithium-ion battery using mille-feuille structure of Li0.35La0.55TiO3. Journal of Power Sources, 2011, 196, 6947-6950.	7.8	14
48	Hybrid Effect of Micropatterned Lithium Metal and Three Dimensionally Ordered Macroporous Polyimide Separator on the Cycle Performance of Lithium Metal Batteries. ACS Applied Energy Materials, 2020, 3, 3721-3727.	5.1	14
49	ELECTROCHEMICAL PROPERIES OF HYDROTHERMALLY SYNTHESIZED LiCoPO₄ AS A HIGH VOLTAGE CATHODE MATERIAL FOR LITHIUM SECONDARY BATTERY. Phosphorus Research Bulletin, 2010, 24, 12-15.	0.6	12
50	Magnesium Storage Performance and Mechanism of 2Dâ€Ultrathin Nanosheetâ€Assembled Spinel MgIn₂S₄ Cathode for Highâ€Temperature Mg Batteries. Small, 2019, 15, e1902236.	10.0	11
51	Hydrothermal synthesis of Fe-substituted manganese dioxide and its electrochemical characterization for lithium rechargeable batteries. Electrochimica Acta, 2014, 134, 92-99.	5.2	10
52	Li4B4M3O12Cl (M = Al, Ga): An Electrochemically Stable, Lithium-Ion-Conducting Cubic Boracite with Substituted Boron Sites. Bulletin of the Chemical Society of Japan, 2017, 90, 1279-1286.	3.2	10
53	Improved Performance of Hydrothermally Synthesized LiMnPO4 by Mg Doping. Electrochemistry, 2011, 79, 467-469.	1.4	9
54	Hydrothermal Synthesis of Manganese Dioxide Nanoparticles as Cathode Material for Rechargeable Batteries. Electrochemistry, 2013, 81, 2-6.	1.4	9

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55	Pore Size Effect on Improvement of Surface Proton Conductivity for Three-Dimensionally Ordered Macroporous Silica Composite Membrane. Journal of the Electrochemical Society, 2007, 154, B871.	2.9	8
56	Development of Low-platinum Catalyst for Fuel Cells by Mechano-chemical Method. Journal of the Society of Powder Technology, Japan, 2011, 48, 364-369.	0.1	8
57	High-Temperature Conductivity Measurements of Magnesium-Ion-Conducting Solid Oxide Mg_{0.5â^'}_x(Zr_{1â^'}_xNb_x)_{2x}(PO<sub>4	2.2	8
58	Effect of Li ions doping into p-type semiconductor NiO as a hole injection/transfer medium in the CO2 reduction sensitized/catalyzed by Zn-porphyrin/Re-complex upon visible light irradiation. Research on Chemical Intermediates, 2021, 47, 269-285.	2.7	8
59	Untuned broadband spiral micro-coils achieve sensitive multi-nuclear NMR TX/RX from microfluidic samples. Scientific Reports, 2021, 11, 7798.	3.3	8
60	Fabrication of Three-Dimensional Battery Using Ceramic Electrolyte with Honeycomb Structure by Sol-gel Process. ECS Transactions, 2009, 16, 37-43.	0.5	7
61	Understanding the relationship of electrochemical properties and structure of microstructure-controlled core shell gradient type Ni-rich cathode material by single particle measurement. Electrochimica Acta, 2021, 390, 138813.	5.2	7
62	Highly Durable Non-Platinum Catalyst for Protic Ionic Liquid Based Intermediate Temperature PEFCs. Electrochemistry, 2019, 87, 35-46.	1.4	6
63	Lithium Diffusion in Cation-Mixing-Free LiMn1-xFexPO4Synthesized by Hydrothermal Process. Journal of the Electrochemical Society, 2015, 162, A2827-A2833.	2.9	5
64	Improvement of sintering of Li 6.25 Al 0.25 La 3 Zr 2 O 12 by using pre-heat treatment. Solid State Ionics, 2017, 309, 9-14.	2.7	5
65	Investigation of Carbon-coating Effect on the Electrochemical Performance of LiCoPO₄ Single Particle. Electrochemistry, 2018, 86, 145-151.	1.4	5
66	Multi-dentate phenoxyimine magnesium chloride complex for magnesium battery electrolyte. Materials Today Energy, 2018, 9, 279-284.	4.7	5
67	Phosphoric Acid Diethylmethylammonium Trifluoromethanesulfonate-Based Electrolytes for Nonhumidified Intermediate Temperature Fuel Cells. ACS Applied Materials & Interfaces, 2019, 11, 13761-13767.	8.0	5
68	Micro-patterning of LiMn2O4Electrode Using Solâ€“Gel Process for Lithium Micro-batteries. Chemistry Letters, 2005, 34, 984-985.	1.3	4
69	3-dimensionally Ordered Macroporous Ni-YSZ for Low Temperature SOFC. ECS Transactions, 2009, 25, 1855-1860.	0.5	4
70	Fabrication of Lithium-ion Microarray Battery by Electrophoresis. Electrochemistry, 2010, 78, 273-275.	1.4	4
71	Mechanical Milling Synthesis and Electrochemical Evaluation of Silicon-transition Metal Alloy Anode Materials for Lithium-ion Batteries. Electrochemistry, 2015, 83, 445-451.	1.4	4
72	Electrochemical Property of Honeycomb Type All-Solid-State Li Battery at High Temperature. Electrochemistry, 2011, 79, 464-466.	1.4	3

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73	Enhancement on Proton Conductivity of Three-Dimensionally Ordered Macroporous Silica Membrane by Surface Sulfonation. Key Engineering Materials, 2006, 301, 143-146.	0.4	2
74	Pore Size Effect on Improvement of Surface Proton Conductivity for Three-Dimensionally Ordered Macroporous Silica Membrane. ECS Transactions, 2006, 1, 161-167.	0.5	2
75	Fabrication of 3D patterned electrodes for micro lithium-ion batteries. IOP Conference Series: Materials Science and Engineering, 2011, 18, 122007.	0.6	2
76	Fabrication of Li0.35La0.55TiO3 solid electrolyte with two-layered structure for all-solid-state Li battery by a colloidal crystal templating method. Journal of the Ceramic Society of Japan, 2011, 119, 189-193.	1.1	2
77	PHOSPHATE MATERIALS FOR RECHARGEABLE BATTERY APPLICATIONS. Phosphorus Research Bulletin, 2013, 28, 30-36.	0.6	2
78	Characterization and Optimization of Silicon Nanoparticle Anodes. Electrochemistry, 2016, 84, 243-253.	1.4	2
79	Study on Prediction Model of Performance and Degradation of LFP/Graphite Lithium-ion Battery. Electrochemistry, 2021, 89, 303-312.	1.4	2
80	Preparation of Nano-Structured Catalyst Layers on NafionÂ® Membrane by Electrophoretic Deposition. ECS Transactions, 2006, 3, 329-335.	0.5	1
81	Electrophoretic MEA Fabrication for High Performance DMFC. Key Engineering Materials, 2009, 412, 249-252.	0.4	1
82	Electrochemical Properties of Three Dimensionally Ordered Composite Electrode Between TiO2 and Li1.5Al0.5Ti1.5(PO4)3. Electrochemistry, 2011, 79, 865-868.	1.4	1
83	Electrophoretic Fabrication of Rechargeable Micro Lithium-Ion Battery with 3D Configuration. Key Engineering Materials, 0, 507, 163-167.	0.4	0
84	Magnesium Batteries: Magnesium Storage Performance and Mechanism of 2Dâ€Ultrathin Nanosheetâ€Assembled Spinel MgIn‹sub›2‹/sub›S‹sub›4‹/sub› Cathode for Highâ€Temperature Mg Batteries (Small 36/2019). Small, 2019, 15, 1970191.	10.0	0
85	Carbon Coating for Improvements of Electrochemical Properties of Li‹sub›1.1‹/sub›V‹sub›0.9‹/sub›O‹sub›2‹/sub› Anode Active Materials for Li Secondary Batteries. Electrochemistry, 2020, 88, 22-27.	1.4	0