

Masaki Matsui

List of Publications by Year in descending order

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Version: 2024-02-01

88
papers

4,959
citations

117625

34
h-index

91884

69
g-index

90
all docs

90
docs citations

90
times ranked

4811
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrolyte roadblocks to a magnesium rechargeable battery. <i>Energy and Environmental Science</i> , 2012, 5, 5941.	30.8	601
2	Study on electrochemically deposited Mg metal. <i>Journal of Power Sources</i> , 2011, 196, 7048-7055.	7.8	426
3	Magnesium Borohydride: From Hydrogen Storage to Magnesium Battery. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 9780-9783.	13.8	381
4	A high energy-density tin anode for rechargeable magnesium-ion batteries. <i>Chemical Communications</i> , 2013, 49, 149-151.	4.1	305
5	Li-MnO_2 as a cathode material for rechargeable Mg batteries. <i>Electrochemistry Communications</i> , 2012, 23, 110-113.	4.7	292
6	Study of the electrochemical deposition of Mg in the atomic level: Why it prefers the non-dendritic morphology. <i>Electrochimica Acta</i> , 2012, 76, 270-274.	5.2	262
7	Interface behavior between garnet-type lithium-conducting solid electrolyte and lithium metal. <i>Solid State Ionics</i> , 2014, 262, 151-154.	2.7	243
8	Electrodeposited Bi, Sb and $\text{Bi}_{1-x}\text{Sb}_x$ alloys as anodes for Mg-ion batteries. <i>Electrochemistry Communications</i> , 2012, 16, 103-106.	4.7	224
9	Stability of Nb-Doped Cubic $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ with Lithium Metal. <i>Journal of the Electrochemical Society</i> , 2013, 160, A1690-A1693.	2.9	175
10	A reversible dendrite-free high-area-capacity lithium metal electrode. <i>Nature Communications</i> , 2017, 8, 15106.	12.8	156
11	Ta-Doped $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$ for Water-Stable Lithium Electrode of Lithium-Air Batteries. <i>Journal of the Electrochemical Society</i> , 2014, 161, A668-A674.	2.9	135
12	Effect of Electrolytic Properties of a Magnesium Organohaloaluminate Electrolyte on Magnesium Deposition. <i>Journal of Physical Chemistry C</i> , 2013, 117, 26881-26888.	3.1	93
13	Phase stability of a garnet-type lithium ion conductor $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$. <i>Dalton Transactions</i> , 2014, 43, 1019-1024.	3.3	86
14	Dynamic behavior of surface film on LiCoO_2 thin film electrode. <i>Journal of Power Sources</i> , 2008, 177, 184-193.	7.8	72
15	First-principles study of the magnesiation of olivines: redox reaction mechanism, electrochemical and thermodynamic properties. <i>Journal of Materials Chemistry</i> , 2012, 22, 13517.	6.7	72
16	Mg deposition observed by in situ electrochemical Mg K-edge X-ray absorption spectroscopy. <i>Electrochemistry Communications</i> , 2012, 24, 43-46.	4.7	64
17	Stability of garnet-type solid electrolyte $\text{Li}_x\text{La}_3\text{A}_2\text{ByO}_{12}$ (A=Nb or Ta, B=Sc or Zr). <i>Solid State Ionics</i> , 2015, 282, 7-12.	2.7	64
18	Phase formation of a garnet-type lithium-ion conductor $\text{Li}_{7-3x}\text{Al}_x\text{La}_3\text{Zr}_2\text{O}_{12}$. <i>Solid State Ionics</i> , 2015, 277, 23-29.	2.7	62

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19	Surface Layer and Morphology of Lithium Metal Electrodes. <i>Electrochemistry</i> , 2016, 84, 854-860.	1.4	60
20	Passivation Layer Formation of Magnesium Metal Negative Electrodes for Rechargeable Magnesium Batteries. <i>Journal of the Electrochemical Society</i> , 2017, 164, A3229-A3236.	2.9	60
21	High lithium ion conductivity solid electrolyte of chromium and aluminum co-doped NASICON-type $\text{LiTi}_2(\text{PO}_4)_3$. <i>Solid State Ionics</i> , 2015, 272, 101-106.	2.7	59
22	Local-structure analysis around dopant atoms using multiple energy x-ray holography. <i>Physical Review B</i> , 2001, 63, .	3.2	58
23	Surface Layer Formation and Stripping Process on LiMn_2O_4 and $\text{LiNi}_{1-x}\text{Mn}_x\text{O}_4$ Thin Film Electrodes. <i>Journal of the Electrochemical Society</i> , 2010, 157, A121.	2.9	58
24	A Composite Polymer Electrolyte Protect Layer between Lithium and Water Stable Ceramics for Aqueous Lithium-Air Batteries. <i>Journal of the Electrochemical Society</i> , 2013, 160, A728-A733.	2.9	44
25	Water-stable lithium ion conducting solid electrolyte of the $\text{Li}_{1.4}\text{Al}_{0.4}\text{Ti}_{1.6-x}\text{Ge}_x(\text{PO}_4)_3$ system ($x=0\text{--}1.0$) with NASICON-type structure. <i>Solid State Ionics</i> , 2013, 253, 175-180.	2.7	42
26	Lithium ion diffusion measurements on a garnet-type solid conductor $\text{Li}_6\text{La}_3\text{Zr}_{1.6}\text{Ta}_{0.4}\text{O}_{12}$ by using a pulsed-gradient spin-echo NMR method. <i>Solid State Nuclear Magnetic Resonance</i> , 2015, 70, 21-27.	2.3	42
27	Water-stable lithium ion conducting solid electrolyte of iron and aluminum doped NASICON-type $\text{LiTi}_2(\text{PO}_4)_3$. <i>Solid State Ionics</i> , 2014, 263, 27-32.	2.7	41
28	Destabilized Passivation Layer on Magnesium-Based Intermetallics as Potential Anode Active Materials for Magnesium Ion Batteries. <i>Frontiers in Chemistry</i> , 2019, 7, 7.	3.6	39
29	Phase transformation of the garnet structured lithium ion conductor: $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12}$. <i>Solid State Ionics</i> , 2014, 262, 155-159.	2.7	38
30	Tape-Cast Water-Stable NASICON-Type High Lithium Ion Conducting Solid Electrolyte Films for Aqueous Lithium-Air Batteries. <i>Journal of the Electrochemical Society</i> , 2015, 162, A1265-A1271.	2.9	38
31	Effect of Anion Species in Early Stage of SEI Formation Process. <i>Journal of the Electrochemical Society</i> , 2019, 166, A3593-A3598.	2.9	38
32	Interface Properties between Lithium Metal and a Composite Polymer Electrolyte of $\text{PEO}_{18}\text{Li}(\text{CF}_3\text{SO}_2)_2\text{N}$ -Tetraethylene Glycol Dimethyl Ether. <i>Membranes</i> , 2013, 3, 298-310.	3.0	36
33	Rechargeable aqueous lithium-air batteries with an auxiliary electrode for the oxygen evolution. <i>Journal of Power Sources</i> , 2014, 262, 338-343.	7.8	36
34	Phase relation, structure and ionic conductivity of $\text{Li}_7\text{La}_3\text{Zr}_2\text{O}_{12-x}\text{Al}_y\text{La}_3\text{Zr}_2\text{Ta}_x\text{O}_{12}$. <i>RSC Advances</i> , 2016, 6, 78210-78218.	3.6	36
35	Carbon paper substrate for silicon-carbon composite anodes in lithium-ion batteries. <i>Journal of Power Sources</i> , 2013, 241, 744-750.	7.8	33
36	Improved cycling performance of P2-type layered sodium cobalt oxide by calcium substitution. <i>Journal of Power Sources</i> , 2015, 280, 205-209.	7.8	33

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37	Determining Factor on the Polarization Behavior of Magnesium Deposition for Magnesium Battery Anode. ACS Applied Materials & Interfaces, 2020, 12, 25775-25785.	8.0	31
38	Photoassisted Electrodeposition of CdTe Layer from Ammoniacal Basic Aqueous Solutions. Journal of the Electrochemical Society, 2003, 150, C44.	2.9	30
39	Surface layer formation of LiCoO ₂ thin film electrodes in non-aqueous electrolyte containing lithium bis(oxalate)borate. Journal of Power Sources, 2012, 210, 60-66.	7.8	30
40	Role of Coordination Structure of Magnesium Ions on Charge and Discharge Behavior of Magnesium Alloy Electrode. Journal of Physical Chemistry C, 2018, 122, 25204-25210.	3.1	30
41	Stability of carbon electrodes for aqueous lithium-air secondary batteries. Journal of Power Sources, 2014, 245, 947-952.	7.8	29
42	A Solvate Ionic Liquid as the Anolyte for Aqueous Rechargeable Li ⁺ O ₂ Batteries. ChemElectroChem, 2015, 2, 1144-1151.	3.4	28
43	In-operando FTIR Spectroscopy for Composite Electrodes of Lithium-ion Batteries. Electrochemistry, 2015, 83, 874-878.	1.4	26
44	Ca-substituted P3-type Na _x Ni _{1/3} Mn _{1/3} Co _{1/3} O ₂ as a potential high voltage cathode active material for sodium-ion batteries. Journal of Power Sources, 2021, 485, 229346.	7.8	24
45	Relationship between lithium content and ionic conductivity in the Li _{5+2x} La ₃ Nb ₂ xSc _x O ₁₂ system. Solid State Ionics, 2014, 266, 9-12.	2.7	20
46	A novel aqueous lithium-oxygen cell based on the oxygen-peroxide redox couple. Chemical Communications, 2015, 51, 3189-3192.	4.1	20
47	Silicon-carbon composite dispersed in a carbon paper substrate for solid polymer lithium-ion batteries. Journal of Power Sources, 2014, 248, 1275-1280.	7.8	17
48	High Lithium-Ion-Conducting NASICON-Type Li _{1+x} Al _x GeyTi ₂ x ^y (PO ₄) ₃ Solid Electrolyte. Frontiers in Energy Research, 2016, 4, .	2.3	16
49	Lithium Ion Conducting Solid Electrolytes for Aqueous Lithium-air Batteries. Electrochemistry, 2014, 82, 938-945.	1.4	14
50	Improved Cycling Performance of Intermetallic Anode by Minimized SEI Layer Formation. Journal of the Electrochemical Society, 2018, 165, A1486-A1491.	2.9	13
51	Improvement of electrochemical properties and oxidation/reduction behavior of cobalt in positive electrode of Ni-metal hydride battery. Journal of Power Sources, 2018, 388, 45-51.	7.8	12
52	Tuning the performance of a Mg negative electrode through grain boundaries and alloying toward the realization of Mg batteries. Journal of Materials Chemistry A, 2021, 9, 15207-15216.	10.3	10
53	Silicon anode for rechargeable aqueous lithium-air batteries. Journal of Power Sources, 2015, 273, 538-543.	7.8	8
54	Revisiting Delithiated Li _{1.2} Mn _{0.54} Ni _{0.13} Co _{0.13} O ₆ Structural Analysis and Cathode Properties in Magnesium Rechargeable Battery Applications. Electrochemistry, 2021, 89, 329-333.	1.4	6

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55	The Effect of the Solvation Ability Towards Mg ²⁺ -ion on the Kinetic Behavior of Mg ₃ Bi ₂ Electrode. Journal of the Electrochemical Society, 2022, 169, 030517.	2.9	6
56	Corrosion Inhibition for Steel Surface Using a Polyacrylic Gel Sheet Containing Ni-Al Layered Double Hydroxide Prepared by Liquid-Phase Deposition. Electrochemistry, 2021, 89, 111-117.	1.4	5
57	Electrical Conductivity of Ceria-Based Oxides/Alkali Carbonate Eutectic Nanocomposites. Journal of the Electrochemical Society, 2021, 168, 046516.	2.9	5
58	Conductivity of LiClO ₄ /PC-DME Solution Impregnated in LiCoO ₂ Powder. Electrochemistry, 2019, 87, 294-296.	1.4	4
59	An experimental and first-principle investigation of the Ca-substitution effect on P3-type layered Na _x Co ₂ . Chemical Communications, 2020, 56, 8107-8110.	4.1	4
60	Covalent immobilization of gold nanoparticles on a plastic substrate and subsequent immobilization of biomolecules. RSC Advances, 2021, 11, 23409-23417.	3.6	4
61	Relationship between Ionic Interaction and NMR Relaxation Behavior in LiClO ₄ -PC Solution Coexisting with Fumed Metal Oxide. ECS Transactions, 2017, 80, 1381-1389.	0.5	3
62	Stabilized Phase Transition Process of Layered Na _x CoO ₂ via Ca-Substitution. Journal of the Electrochemical Society, 2021, 168, 010509.	2.9	3
63	Study of Degradation Processes of Carbon Negative Electrodes for All-solid Lithium Polymer Batteries. Electrochemistry, 2014, 82, 642-646.	1.4	2
64	Disproportionation Phenomenon at the Silica Interface of Propylene Carbonate-1,2-Dimethoxyethane Binary Solvent Containing Lithium Perchlorate. Journal of Physical Chemistry C, 0, .	3.1	2
65	Low Temperature Synthesis of High Crystalline Spinel Oxides: LiNi _{1/2} Mn _{3/2} O ₄ . Electrochemistry, 2015, 83, 870-873.	1.4	1
66	Properties of Concentrated Aqueous Electrolyte Solution in a Vicinal Region of Coexisting Solid Surface. ECS Transactions, 2017, 80, 1459-1470.	0.5	1
67	(Invited) Electrical Conductivity of Ceria-Based Oxide/Alkali Carbonate Eutectics Nanocomposites. ECS Transactions, 2020, 98, 63-71.	0.5	1
68	Surface Analysis of Magnesium Metal Anode for Rechargeable Magnesium Batteries. ECS Meeting Abstracts, 2016, .	0.0	1
69	Surface Analysis of Magnesium-Based Intermetallic Compounds. ECS Meeting Abstracts, 2016, MA2016-02, 686-686.	0.0	1
70	Dependence of Double Layer Capacitance on Pore Diameter of Carbon Coated Porous Si. ECS Transactions, 2017, 80, 1399-1405.	0.5	0
71	Electric Conductivity of Li/Na Binary Molten Carbonate Coexisting with Nanoparticles of CeO ₂ :Sm ³⁺ . ECS Transactions, 2018, 86, 101-112.	0.5	0
72	Degradation Factors and Durability of Large Scale Ni-metal Hydride Batteries. Electrochemistry, 2018, 86, 349-354.	1.4	0

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73	Magnesium Metal and Intermetallic Anodes. , 2021, , 525-547.		0
74	Structrual Stabilization of Layered NaxMO2. ECS Meeting Abstracts, 2016, , .	0.0	0
75	A Reversible Dendrite-Free High-Areal-Capacity Metallic Lithium Electrode. ECS Meeting Abstracts, 2016, , .	0.0	0
76	Surface Analysis of Magnesium Metal Anode. ECS Meeting Abstracts, 2016, , .	0.0	0
77	Synthesis, Structure and Electrochemical Properties of Garnet-like Lithium Conductor Li _{7-x} Al _y La ₃ Zr _{2-x} Ta _x O ₁₂ . ECS Meeting Abstracts, 2016, , .	0.0	0
78	A Novel Lithium-Oxygen Battery Based on Oxygen-Peroxide Redox Couple. ECS Meeting Abstracts, 2016, , .	0.0	0
79	Analytical Study of SEI Formation Process on Lithium Metal. ECS Meeting Abstracts, 2016, , .	0.0	0
80	Passivation Layer of Magnesium-Based Negative Electrodes. ECS Meeting Abstracts, 2017, , .	0.0	0
81	Relationship between Ionic Interaction and NMR Relaxation Behavior in LiClO ₄ -PC Solution Coexisting with Fumed Metal Oxide. ECS Meeting Abstracts, 2017, , .	0.0	0
82	Properties of Concentrated Aqueous Electrolyte Solution in a Vicinal Region of Coexisting Solid Surface. ECS Meeting Abstracts, 2017, , .	0.0	0
83	Ionic Conduction of Non-Aqueous Lithium Electrolyte Solution through Surface Modified Anodized Alumina Membrane Prepared By LPD Process Using Aqueous-Organic Mixed Solvent. ECS Meeting Abstracts, 2017, , .	0.0	0
84	Electric Conductivity of Li/Na Binary Molten Carbonate Coexisting with Nanoparttcles of CeO ₂ :Sm ³⁺ . ECS Meeting Abstracts, 2018, , .	0.0	0
85	Improved Cycling Performance of Intermetallic Anode By Minimized SEI Layer Formation. ECS Meeting Abstracts, 2018, , .	0.0	0
86	Interfacial Behavior of Magnesium Ions at Electrode/Electrolyte Interface during Magnesium Deposition Reaction. ECS Meeting Abstracts, 2019, , .	0.0	0
87	Variation of Ionic Conductivity of LiClO ₄ Solution Coexisting with SiO ₂ Nanoparticles in Binary Solvents Induced By Disproportionation. ECS Meeting Abstracts, 2020, MA2020-02, 3520-3520.	0.0	0
88	(Invited) Electrical Conductivity of Ceria-Based Oxide/Alkali Carbonate Eutectics Nanocomposites. ECS Meeting Abstracts, 2020, MA2020-02, 2951-2951.	0.0	0