Masaki Matsui

List of Publications by Year
in descending order

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	The Effect of the Solvation Ability Towards Mg²⁺-ion on the Kinetic Behavior of Mg₃Bi₂ Electrode. Journal of the Electrochemical Society, 2022, 169, 030517.	2.9	6
2	Ca-substituted P3-type NaxNi1/3Mn1/3Co1/3O2 as a potential high voltage cathode active material for sodium-ion batteries. Journal of Power Sources, 2021, 485, 229346.	7.8	24
3	Magnesium Metal and Intermetallic Anodes. , 2021, , 525-547.		0
4	Covalent immobilization of gold nanoparticles on a plastic substrate and subsequent immobilization of biomolecules. RSC Advances, 2021, 11, 23409-23417.	3.6	4
5	Corrosion Inhibition for Steel Surface Using a Polyacrylic Gel Sheet Containing Niâ€“Al Layered Double Hydroxide Prepared by Liquid-Phase Deposition. Electrochemistry, 2021, 89, 111-117.	1.4	5
6	Electrical Conductivity of Ceria-Based Oxides/Alkali Carbonate Eutectic Nanocomposites. Journal of the Electrochemical Society, 2021, 168, 046516.	2.9	5
7	Revisiting Delithiated Li_{1.2}Mn_{0.54}Ni_{0.13}Co_{0.13}O<sub>2 Structural Analysis and Cathode Properties in Magnesium Rechargeable Battery Applications. Electrochemistry, 2021, 89, 329-333.	1.4	6
8	Stabilized Phase Transition Process of Layered NaxCoO2 via Ca-Substitution. Journal of the Electrochemical Society, 2021, 168, 010509.	2.9	3
9	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
10	Determining Factor on the Polarization Behavior of Magnesium Deposition for Magnesium Battery Anode. ACS Applied Materials & Interfaces, 2020, 12, 25775-25785.	8.0	31
11	An experimental and first-principle investigation of the Ca-substitution effect on P3-type layered Na_xCoO₂. Chemical Communications, 2020, 56, 8107-8110.	4.1	4
12	(Invited) Electrical Conductivity of Ceria-Based Oxide/Alkali Carbonate Eutectics Nanocomposites. ECS Transactions, 2020, 98, 63-71.	0.5	1
13	Variation of Ionic Conductivity of LiClO₄ Solution Coexisting with SiO₂ Nanoparticles in Binary Solvents Induced By Disproportionation. ECS Meeting Abstracts, 2020, MA2020-02, 3520-3520.	0.0	0
14	(Invited) Electrical Conductivity of Ceria-Based Oxide/Alkali Carbonate Eutectics Nanocomposites. ECS Meeting Abstracts, 2020, MA2020-02, 2951-2951.	0.0	0
15	Effect of Anion Species in Early Stage of SEI Formation Process. Journal of the Electrochemical Society, 2019, 166, A3593-A3598.	2.9	38
16	Destabilized Passivation Layer on Magnesium-Based Intermetallics as Potential Anode Active Materials for Magnesium Ion Batteries. Frontiers in Chemistry, 2019, 7, 7.	3.6	39
17	Conductivity of LiClO₄/PC-DME Solution Impregnated in LiCoO₂ Powder. Electrochemistry, 2019, 87, 294-296.	1.4	4
18	Interfacial Behavior of Magnesium Ions at Electrode/Electrolyte Interface during Magnesium Deposition Reaction. ECS Meeting Abstracts, 2019, , .	0.0	0

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19	Improvement of electrochemical properties and oxidation/reduction behavior of cobalt in positive electrode of Niâ€“metal hydride battery. Journal of Power Sources, 2018, 388, 45-51.	7.8	12
20	Electric Conductivity of Li/Na Binary Molten Carbonate Coexisting with Nanoparticles of CeO2:Sm3+. ECS Transactions, 2018, 86, 101-112.	0.5	0
21	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
22	Degradation Factors and Durability of Large Scale Ni-metal Hydride Batteries. Electrochemistry, 2018, 86, 349-354.	1.4	0
23	Improved Cycling Performance of Intermetallic Anode by Minimized SEI Layer Formation. Journal of the Electrochemical Society, 2018, 165, A1486-A1491.	2.9	13
24	Electric Conductivity of Li/Na Binary Molten Carbonate Coexisting with Nanoparttcles of CeO2:Sm3+. ECS Meeting Abstracts, 2018, , .	0.0	0
25	Improved Cycling Performance of Intermetallic Anode By Minimized SEI Layer Formation. ECS Meeting Abstracts, 2018, , .	0.0	0
26	A reversible dendrite-free high-areal-capacity lithium metal electrode. Nature Communications, 2017, 8, 15106.	12.8	156
27	Passivation Layer Formation of Magnesium Metal Negative Electrodes for Rechargeable Magnesium Batteries. Journal of the Electrochemical Society, 2017, 164, A3229-A3236.	2.9	60
28	Properties of Concentrated Aqueous Electrolyte Solution in a Vicinal Region of Coexisting Solid Surface. ECS Transactions, 2017, 80, 1459-1470.	0.5	1
29	Dependence of Double Layer Capacitance on Pore Diameter of Carbon Coated Porous Si. ECS Transactions, 2017, 80, 1399-1405.	0.5	0
30	Relationship between Ionic Interaction and NMR Relaxation Behavior in LiClO₄-PC Solution Coexisting with Fumed Metal Oxide. ECS Transactions, 2017, 80, 1381-1389.	0.5	3
31	Passivation Layer of Magnesium-Based Negative Electrodes. ECS Meeting Abstracts, 2017, , .	0.0	0
32	Relationship between Ionic Interation and NMR Relaxation Behavior in LiClO4-PC Solution Coexisting with Fumed Metal Oxide. ECS Meeting Abstracts, 2017, , .	0.0	0
33	Properties of Concentrated Aqueous Electrolyte Solution in a Vicinal Region of Coexisting Solid Surface. ECS Meeting Abstracts, 2017, , .	0.0	0
34	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
35	High Lithium-Ion-Conducting NASICON-Type Li1+xAlxGeyTi2â^'xâ^'y(PO4)3 Solid Electrolyte. Frontiers in Energy Research, 2016, 4, .	2.3	16
36	Phase relation, structure and ionic conductivity of Li_{7â^'xâ^'3y}Al_yLa₃Zr_{2â^'x}Ta_xO₁₂. RSC Advances, 2016, 6, 78210-78218.	3.6	36

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37	Surface Layer and Morphology of Lithium Metal Electrodes. Electrochemistry, 2016, 84, 854-860.	1.4	60
38	Structrual Stabilization of Layered NaxMO2. ECS Meeting Abstracts, 2016, , .	0.0	0
39	Surface Analysis of Magnesium Metal Anode for Rechargeable Magnesium Batteries. ECS Meeting Abstracts, 2016, , .	0.0	1
40	A Reversible Dendrite-Free High-Areal-Capacity Metallic Lithium Electrode. ECS Meeting Abstracts, 2016, , .	0.0	0
41	Surface Analysis of Magnesium Metal Anode. ECS Meeting Abstracts, 2016, , .	0.0	0
42	Synthesis, Structure and Electrochemical Properties of Garnet-like Lithium Conductor Li7-X-3yAl y La3Zr2-X Ta x O12. ECS Meeting Abstracts, 2016, , .	0.0	0
43	Surface Analysis of Magnesium-Based Intermetallic Compounds. ECS Meeting Abstracts, 2016, MA2016-02, 686-686.	0.0	1
44	A Novel Lithium-Oxygen Battery Based on Oxygen-Peroxide Redox Couple. ECS Meeting Abstracts, 2016, , .	0.0	0
45	Analytical Study of SEI Formation Process on Lithium Metal. ECS Meeting Abstracts, 2016, , .	0.0	0
46	Low Temperature Synthesis of High Crystalline Spinel Oxides: LiNi_{1/2}Mn_{3/2}O₄. Electrochemistry, 2015, 83, 870-873.	1.4	1
47	In-operando FTIR Spectroscopy for Composite Electrodes of Lithium-ion Batteries. Electrochemistry, 2015, 83, 874-878.	1.4	26
48	A Solvate Ionic Liquid as the Anolyte for Aqueous Rechargeable Liâ€“O₂ Batteries. ChemElectroChem, 2015, 2, 1144-1151.	3.4	28
49	Phase formation of a garnet-type lithium-ion conductor Li7â˜3Al La3Zr2O12. Solid State Ionics, 2015, 277, 23-29.	2.7	62
50	High lithium ion conductivity solid electrolyte of chromium and aluminum co-doped NASICON-type LiTi2(PO4)3. Solid State Ionics, 2015, 272, 101-106.	2.7	59
51	Improved cycling performance of P2-type layered sodium cobalt oxide by calcium substitution. Journal of Power Sources, 2015, 280, 205-209.	7.8	33
52	A novel aqueous lithiumâ€“oxygen cell based on the oxygen-peroxide redox couple. Chemical Communications, 2015, 51, 3189-3192.	4.1	20
53	Tape-Cast Water-Stable NASICON-Type High Lithium Ion Conducting Solid Electrolyte Films for Aqueous Lithium-Air Batteries. Journal of the Electrochemical Society, 2015, 162, A1265-A1271.	2.9	38
54	Stability of garnet-type solid electrolyte LixLa3A2-yByO12 (A=Nb or Ta, B=Sc or Zr). Solid State Ionics, 2015, 282, 7-12.	2.7	64

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55	Lithium ion diffusion measurements on a garnet-type solid conductor Li6.6La3Zr1.6Ta0.4O12 by using a pulsed-gradient spin-echo NMR method. Solid State Nuclear Magnetic Resonance, 2015, 70, 21-27.	2.3	42
56	Silicon anode for rechargeable aqueous lithiumâ€“air batteries. Journal of Power Sources, 2015, 273, 538-543.	7.8	8
57	Rechargeable aqueous lithiumâ€“air batteries with an auxiliary electrode for the oxygen evolution. Journal of Power Sources, 2014, 262, 338-343.	7.8	36
58	Phase stability of a garnet-type lithium ion conductor Li₇La₃Zr₂O₁₂. Dalton Transactions, 2014, 43, 1019-1024.	3.3	86
59	Ta-Doped Li₇La₃Zr₂O₁₂for Water-Stable Lithium Electrode of Lithium-Air Batteries. Journal of the Electrochemical Society, 2014, 161, A668-A674.	2.9	135
60	Relationship between lithium content and ionic conductivity in the Li5+2xLa3Nb2â^'xScxO12 system. Solid State Ionics, 2014, 266, 9-12.	2.7	20
61	Interface behavior between garnet-type lithium-conducting solid electrolyte and lithium metal. Solid State Ionics, 2014, 262, 151-154.	2.7	243
62	Stability of carbon electrodes for aqueous lithium-air secondary batteries. Journal of Power Sources, 2014, 245, 947-952.	7.8	29
63	Phase transformation of the garnet structured lithium ion conductor: Li7La3Zr2O12. Solid State Ionics, 2014, 262, 155-159.	2.7	38
64	Water-stable lithium ion conducting solid electrolyte of iron and aluminum doped NASICON-type LiTi2(PO4)3. Solid State Ionics, 2014, 263, 27-32.	2.7	41
65	Siliconâ€“carbon composite dispersed in a carbon paper substrate forÂsolid polymer lithium-ion batteries. Journal of Power Sources, 2014, 248, 1275-1280.	7.8	17
66	Lithium Ion Conducting Solid Electrolytes for Aqueous Lithium-air Batteries. Electrochemistry, 2014, 82, 938-945.	1.4	14
67	Study of Degradation Processes of Carbon Negative Electrodes for All-solid Lithium Polymer Batteries. Electrochemistry, 2014, 82, 642-646.	1.4	2
68	Effect of Electrolytic Properties of a Magnesium Organohaloaluminate Electrolyte on Magnesium Deposition. Journal of Physical Chemistry C, 2013, 117, 26881-26888.	3.1	93
69	Stability of Nb-Doped Cubic Li₇La₃Zr₂O₁₂with Lithium Metal. Journal of the Electrochemical Society, 2013, 160, A1690-A1693.	2.9	175
70	A Composite Polymer Electrolyte Protect Layer between Lithium and Water Stable Ceramics for Aqueous Lithium-Air Batteries. Journal of the Electrochemical Society, 2013, 160, A728-A733.	2.9	44
71	A high energy-density tin anode for rechargeable magnesium-ion batteries. Chemical Communications, 2013, 49, 149-151.	4.1	305
72	Carbon paper substrate for siliconâ€“carbon composite anodes inÂlithium-ion batteries. Journal of Power Sources, 2013, 241, 744-750.	7.8	33

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73	Water-stable lithium ion conducting solid electrolyte of the Li1.4Al0.4Ti1.6â^'xGex(PO4)3 system (x=0â€“1.0) with NASICON-type structure. Solid State Ionics, 2013, 253, 175-180.	2.7	42
74	Interface Properties between Lithium Metal and a Composite Polymer Electrolyte of PEO18Li(CF3SO2)2N-Tetraethylene Glycol Dimethyl Ether. Membranes, 2013, 3, 298-310.	3.0	36
75	First-principles study of the magnesiation of olivines: redox reaction mechanism, electrochemical and thermodynamic properties. Journal of Materials Chemistry, 2012, 22, 13517.	6.7	72
76	Mg deposition observed by in situ electrochemical Mg K-edge X-ray absorption spectroscopy. Electrochemistry Communications, 2012, 24, 43-46.	4.7	64
77	Magnesium Borohydride: From Hydrogen Storage to Magnesium Battery. Angewandte Chemie - International Edition, 2012, 51, 9780-9783.	13.8	381
78	Î±-MnO2 as a cathode material for rechargeable Mg batteries. Electrochemistry Communications, 2012, 23, 110-113.	4.7	292
79	Electrolyte roadblocks to a magnesium rechargeable battery. Energy and Environmental Science, 2012, 5, 5941.	30.8	601
80	Electrodeposited Bi, Sb and Bi1-xSbx alloys as anodes for Mg-ion batteries. Electrochemistry Communications, 2012, 16, 103-106.	4.7	224
81	Study of the electrochemical deposition of Mg in the atomic level: Why it prefers the non-dendritic morphology. Electrochimica Acta, 2012, 76, 270-274.	5.2	262
82	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
83	Study on electrochemically deposited Mg metal. Journal of Power Sources, 2011, 196, 7048-7055.	7.8	426
84	Surface Layer Formation and Stripping Process on LiMn[sub 2]O[sub 4] and LiNi[sub 1â^•2]Mn[sub 3â^•2]O[sub 4] Thin Film Electrodes. Journal of the Electrochemical Society, 2010, 157, A121.	2.9	58
85	Dynamic behavior of surface film on LiCoO2 thin film electrode. Journal of Power Sources, 2008, 177, 184-193.	7.8	72
86	Photoassisted Electrodeposition of CdTe Layer from Ammoniacal Basic Aqueous Solutions. Journal of the Electrochemical Society, 2003, 150, C44.	2.9	30
87	Local-structure analysis around dopant atoms using multiple energy x-ray holography. Physical Review B, 2001, 63, .	3.2	58
88	Disproportionation Phenomenon at the Silica Interface of Propylene Carbonateâ€“1,2-Dimethoxyethane Binary Solvent Containing Lithium Perchlorate. Journal of Physical Chemistry C, 0, , .	3.1	2