

Toshiyuki Momma

List of Publications by Year in descending order

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97
papers

4,759
citations

76322
40
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102480
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99
all docs

99
docs citations

99
times ranked

4971
citing authors

#	ARTICLE	IF	CITATIONS
1	A pre-lithiation method for sulfur cathode used for future lithium metal free full battery. Journal of Power Sources, 2017, 342, 537-545.	7.8	29
2	The Potential for the Creation of a High Areal Capacity Lithium-Sulfur Battery Using a Metal Foam Current Collector. Journal of the Electrochemical Society, 2017, 164, A5026-A5030.	2.9	34
3	New approach for enhancing electrical conductivity of electrodeposited Si-based anode material for Li secondary batteries: Self-incorporation of nano Cu metal in Si ⁰ -O ² -C composite. Nano Energy, 2016, 28, 51-62.	16.0	38
4	Electrophoretically deposited carbon nanotube anchor layer to improve areal capacity of Si-O-C composite anode for lithium secondary batteries. Journal of Power Sources, 2016, 336, 203-211.	7.8	15
5	Impedance Analysis with Transmission Line Model for Reaction Distribution in a Pouch Type Lithium-Ion Battery by Using Micro Reference Electrode. Journal of the Electrochemical Society, 2016, 163, A434-A441.	2.9	55
6	Enhanced cycling performance of a Li metal anode in a dimethylsulfoxide-based electrolyte using highly concentrated lithium salt for a lithium ⁺ -oxygen battery. Journal of Power Sources, 2016, 307, 98-104.	7.8	73
7	One-Step Hydrothermal Synthesis of SnS ₂ /SnO ₂ /C Hierarchical Heterostructures for Li-ion Batteries Anode with Superior Rate Capabilities. Electrochimica Acta, 2015, 183, 78-84.	5.2	33
8	Liquid Chromatography-Quadrupole Time of Flight Mass Spectrometry Analysis of Products in Degraded Lithium-Ion Batteries. Journal of the Electrochemical Society, 2015, 162, A2008-A2015.	2.9	33
9	Role of the solid electrolyte interphase on a Li metal anode in a dimethylsulfoxide-based electrolyte for a lithium ⁺ -oxygen battery. Journal of Power Sources, 2015, 294, 588-592.	7.8	33
10	One-minute deposition of micrometre-thick porous Si ⁰ -Cu anodes with compositional gradients on Cu current collectors for lithium secondary batteries. Journal of Power Sources, 2015, 286, 540-550.	7.8	11
11	Micro-scale Li ₂ S ⁰ -C composite preparation from Li ₂ SO ₄ for cathode of lithium ion battery. Electrochimica Acta, 2015, 183, 70-77.	5.2	24
12	Application of Electrochemical Impedance Spectroscopy to Ferri/Ferrocyanide Redox Couple and Lithium Ion Battery Systems Using a Square Wave as Signal Input. Electrochimica Acta, 2015, 180, 922-928.	5.2	39
13	Suppression of polysulfide dissolution by polypyrrole modification of sulfur-based cathodes in lithium secondary batteries. Journal of Power Sources, 2015, 274, 1263-1266.	7.8	49
14	Li ₂ S cathode modified with polyvinylpyrrolidone and mechanical milling with carbon. Journal of Power Sources, 2015, 273, 1136-1141.	7.8	50
15	Effect of electrolyte on cycle performances of the electrodeposited Sn ⁰ -O ² -C composite anode of lithium secondary batteries. Journal of Power Sources, 2015, 275, 525-530.	7.8	8
16	Enhancement effect of trace H ₂ O on the charge ⁺ -discharge cycling performance of a Li metal anode. Journal of Power Sources, 2014, 261, 23-27.	7.8	37
17	New Si ⁰ -O ² -C composite film anode materials for LIB by electrodeposition. Journal of Materials Chemistry A, 2014, 2, 883-896.	10.3	34
18	Analysis of an Electrodeposition Mechanism of Sn-O-C Composite from an Organic Electrolyte. Journal of the Electrochemical Society, 2014, 161, D3025-D3031.	2.9	9

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19	Influence of the diffusion-layer thickness during electrodeposition on the synthesis of nano core/shell Snâ€“Oâ€“C composite as an anode of lithium secondary batteries. RSC Advances, 2014, 4, 26872-26880.	3.6	19
20	Zincâ€“Air Battery: Understanding the Structure and Morphology Changes of Graphene-Supported CoMn₂O₄ Bifunctional Catalysts Under Practical Rechargeable Conditions. ACS Applied Materials & Interfaces, 2014, 6, 16545-16555.	8.0	132
21	Distinction of impedance responses of Li-ion batteries for individual electrodes using symmetric cells. Electrochimica Acta, 2014, 131, 195-201.	5.2	60
22	Electrochemical impedance analysis of electrodeposited Siâ€“Oâ€“C composite thick film on Cu microcones-arrayed current collector for lithium ion battery anode. Journal of Power Sources, 2014, 256, 226-232.	7.8	34
23	A Lithium-Ion Sulfur Battery Based on a Carbon-Coated Lithium-Sulfide Cathode and an Electrodeposited Silicon-Based Anode. ACS Applied Materials & Interfaces, 2014, 6, 10924-10928.	8.0	124
24	Enhanced Oxygen Reduction Activities of Pt Supported on Nitrogen-Doped Carbon Nanocapsules. Electrochimica Acta, 2014, 137, 41-48.	5.2	20
25	Carbon-coated Li ₂ S Synthesized by Poly(vinylpyrrolidone) and Acetylene Black for Lithium Ion Battery Cathodes. Chemistry Letters, 2014, 43, 901-903.	1.3	18
26	Snâ€“Oâ€“C composite anode for Li secondary battery synthesized by an electrodeposition technique using organic carbonate electrolyte. Journal of Power Sources, 2013, 242, 527-532.	7.8	12
27	Silicon composite thick film electrodeposited on a nickel micro-nanocones hierarchical structured current collector for lithium batteries. Journal of Power Sources, 2013, 222, 503-509.	7.8	39
28	Electrochemical impedance spectroscopy analysis for lithium-ion battery using Li ₄ Ti ₅ O ₁₂ anode. Journal of Power Sources, 2013, 222, 442-447.	7.8	92
29	Structural analysis of highly durable SiOC composite anode prepared by electrodeposition for lithium secondary batteries. Electrochimica Acta, 2013, 110, 402.	5.2	0
30	Impedance analysis of the effect of flooding in the cathode catalyst layer of the polymer electrolyte fuel cell. Electrochimica Acta, 2013, 113, 720-729.	5.2	33
31	Electrochemical Impedance Analysis on Degradation of Commercially Available Lithium Ion Battery during Chargeâ€“Discharge Cycling. Chemistry Letters, 2012, 41, 444-446.	1.3	44
32	Ac impedance analysis of lithium ion battery under temperature control. Journal of Power Sources, 2012, 216, 304-307.	7.8	191
33	Highly durable SiOC composite anode prepared by electrodeposition for lithium secondary batteries. Energy and Environmental Science, 2012, 5, 6500.	30.8	103
34	Proposal of novel equivalent circuit for electrochemical impedance analysis of commercially available lithium ion battery. Journal of Power Sources, 2012, 205, 483-486.	7.8	148
35	Impedance Analysis Counting Reaction Distribution on Degradation of Cathode Catalyst Layer in PEFCs. Journal of the Electrochemical Society, 2011, 158, B1184.	2.9	35
36	Electrodeposited novel highly durable SiOC composite anode for Li battery above several thousands of cycles. Electrochemistry Communications, 2011, 13, 969-972.	4.7	55

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37	Effect of the atmosphere on chemical composition and electrochemical properties of solid electrolyte interface on electrodeposited Li metal. Journal of Power Sources, 2011, 196, 6483-6487.	7.8	19
38	Sulfated zirconia as a proton conductor for fuel cells: Stability to hydrolysis and influence on catalysts. Journal of Power Sources, 2010, 195, 4065-4071.	7.8	23
39	Nanoindentation and nanowear study of Sn and Ni–Sn coatings. Tribology International, 2009, 42, 779-791.	5.9	26
40	Cell performance of Pd–Sn catalyst in passive direct methanol alkaline fuel cell using anion exchange membrane. Journal of Power Sources, 2009, 189, 999-1002.	7.8	95
41	Synthesis of carbon-supported Pd-Sn catalyst by ultrasonic irradiation for oxygen reduction reaction. Journal of Power Sources, 2009, 189, 909-915.	7.8	39
42	Ionic conductivity improvement in primary pores of fuel cell catalyst layers: Electropolymerization of m-aminobenzenesulfonic acid and its effect on the performance. Journal of Power Sources, 2009, 192, 316-323.	7.8	14
43	Sulfated zirconia nanoparticles as a proton conductor for fuel cell electrodes. Journal of Power Sources, 2008, 185, 656-663.	7.8	26
44	Electrodeposited Pd-Co catalyst for direct methanol fuel cell electrodes: Preparation and characterization. Electrochimica Acta, 2008, 53, 4679-4686.	5.2	74
45	Mechanical analysis and <i>in situ</i> structural and morphological evaluation of Ni–Sn alloy anodes for Li ion batteries. Journal Physics D: Applied Physics, 2008, 41, 025302.	2.8	19
46	Perpendicular mesoporous Pt thin films: electrodeposition from titania nanopillars and their electrochemical properties. Chemical Communications, 2008, , 2888.	4.1	32
47	Organic derivatives of the layered perovskite $\text{HLaNb}_2\text{O}_7 \cdot x\text{H}_2\text{O}$ with polyether chains on the interlayer surface: characterization, intercalation of LiClO_4 , and ionic conductivity. Journal of Materials Chemistry, 2008, 18, 3581.	6.7	26
48	On-Chip Fuel Cell: Micro Direct Methanol Fuel Cell of an Air-Breathing, Membraneless, and Monolithic Design. Journal of the American Chemical Society, 2008, 130, 10456-10457.	13.7	111
49	Cycle and Rate Properties of Mesoporous Tin Anode for Lithium Ion Secondary Batteries. Chemistry Letters, 2008, 37, 142-143.	1.3	40
50	An Electrodeposited Pd-Co Cathode Catalyst for a Microfabricated Direct Methanol Fuel Cell. ECS Transactions, 2007, 11, 1369-1377.	0.5	10
51	An Impedance Analysis on Properties of DMFC Catalyst Layers Based on Primary and Secondary Pores. Journal of the Electrochemical Society, 2007, 154, B902.	2.9	19
52	In Situ Stress Transition Observations of Electrodeposited Sn-Based Anode Materials for Lithium-Ion Secondary Batteries. Electrochemical and Solid-State Letters, 2007, 10, A70.	2.2	34
53	Synthesis of Pd-Sn Nanoparticles by Using Ultrasonic Irradiation and their Electrocatalytic Activity for Oxygen Reduction. ECS Transactions, 2007, 11, 51-60.	0.5	5
54	Spectroelectrochemical phenomena on surface plasmon resonance of Au nanoparticles immobilized on transparent electrode. Electrochimica Acta, 2007, 52, 5914-5923.	5.2	43

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55	Direct deposition of nanostructured Pt particles onto a Ni foam from lyotropic liquid crystalline phase by displacement plating. <i>Electrochimica Acta</i> , 2007, 53, 604-609.	5.2	21
56	Synthesis and characterization of mesoporous Pt–Ni (HI–Pt/Ni) alloy particles prepared from lyotropic liquid crystalline media. <i>Journal of Materials Chemistry</i> , 2006, 16, 2229-2234.	6.7	34
57	New Proposal of Evaluation Method for DMFC Catalyst Layers by Means of Electrochemical Impedance Spectroscopy. <i>Chemistry Letters</i> , 2006, 35, 10-11.	1.3	9
58	Development of microfabrication process of mesoporous Pt via Solvent-Evaporation-Mediated Direct Physical Casting. Selective deposition into sloped microchannels. <i>Science and Technology of Advanced Materials</i> , 2006, 7, 438-445.	6.1	23
59	Practical nano-chemistry. <i>Science and Technology of Advanced Materials</i> , 2006, 7, 395-396.	6.1	0
60	Changes of electro-deposited Sn–Ni alloy thin film for lithium ion battery anodes during charge discharge cycling. <i>Journal of Power Sources</i> , 2005, 146, 457-463.	7.8	107
61	Fabrication of mesoporous Pt inside micrometer channels via solvent-evaporation-mediated direct physical casting. <i>Electrochemistry Communications</i> , 2005, 7, 1364-1370.	4.7	28
62	Direct Physical Casting of the Mesostructure in Lyotropic Liquid Crystalline Media by Electroless Deposition. <i>Electrochemical and Solid-State Letters</i> , 2005, 8, C141.	2.2	17
63	Unique Microstructure of Mesoporous Pt (HI-Pt) Prepared via Direct Physical Casting in Lyotropic Liquid Crystalline Media. <i>Chemistry of Materials</i> , 2005, 17, 6342-6348.	6.7	62
64	Structural and Morphological Modifications of a Nanosized 62 Atom Percent Sn-Ni Thin Film Anode during Reaction with Lithium. <i>Journal of the Electrochemical Society</i> , 2005, 152, A560.	2.9	69
65	Highly ordered mesostructured Ni particles prepared from lyotropic liquid crystals by electroless deposition: the effect of reducing agents on the ordering of mesostructure. <i>Journal of Materials Chemistry</i> , 2005, 15, 1987.	6.7	73
66	Gelified Co-continuous Polymer Blend System as Polymer Electrolyte for Li Batteries. <i>Journal of the Electrochemical Society</i> , 2004, 151, A578.	2.9	7
67	MEMS-based design and fabrication of a new concept micro direct methanol fuel cell (1/4-DMFC). <i>Electrochemistry Communications</i> , 2004, 6, 562-565.	4.7	169
68	Design and fabrication of pumpless small direct methanol fuel cells for portable applications. <i>Journal of Power Sources</i> , 2004, 137, 277-283.	7.8	176
69	Fabrication of magnetic mesostructured nickel–cobalt alloys from lyotropic liquid crystalline media by electroless deposition. <i>Journal of Materials Chemistry</i> , 2004, 14, 2935-2940.	6.7	65
70	Platinum Thin Film with a Highly Ordered Mesostructure by Contact Plating. <i>Chemistry Letters</i> , 2004, 33, 1576-1577.	1.3	24
71	Highly Ordered Mesoporous Ni Particles Prepared by Electroless Deposition from Lyotropic Liquid Crystals. <i>Chemistry Letters</i> , 2004, 33, 542-543.	1.3	52
72	Particle size and performance of SnS ₂ anodes for rechargeable lithium batteries. <i>Journal of Power Sources</i> , 2003, 119-121, 60-63.	7.8	109

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73	Influence of capacity fading on commercial lithium-ion battery impedance. Journal of Power Sources, 2003, 119-121, 929-933.	7.8	78
74	Electrodeposited Sn-Ni Alloy Film as a High Capacity Anode Material for Lithium-Ion Secondary Batteries. Electrochemical and Solid-State Letters, 2003, 6, A218.	2.2	168
75	Studies of the interface between lithium electrodes and polymeric electrolyte systems using in situ FTIR spectroscopy. Journal of Power Sources, 2001, 97-98, 632-636.	7.8	31
76	Lithium metal/polymer battery. Journal of Power Sources, 2001, 97-98, 765-767.	7.8	8
77	SnS ₂ anode for rechargeable lithium battery. Journal of Power Sources, 2001, 97-98, 198-200.	7.8	112
78	Co-continuous Polymer Blend Based Lithium-Ion Conducting Gel-Polymer Electrolytes. Electrochemical and Solid-State Letters, 2001, 4, A124.	2.2	11
79	Performance of a Lithium Metal Anode in Poly(vinylidene fluoride)-Type Gel Electrolyte. Electrochemical and Solid-State Letters, 1999, 2, 215.	2.2	17
80	Influence of Crystalline Structure and Sulfur Inclusion on Corrosion Properties of Electrodeposited CoNiFe Soft Magnetic Films. Journal of the Electrochemical Society, 1999, 146, 2092-2096.	2.9	58
81	An Electrochemical Double Layer Capacitor Using an Activated Carbon Electrode with Gel Electrolyte Binder. Journal of the Electrochemical Society, 1999, 146, 1724-1729.	2.9	125
82	Increasing the resistivity of electrodeposited high B ₂ S ₃ /CoNiFe thin film. IEEE Transactions on Magnetics, 1999, 35, 2499-2501.	2.1	30
83	All-solid-state potassium-selective electrode using double-layer film of polypyrrole/polyanion composite and plasticized poly(vinyl chloride) containing valinomycin. Sensors and Actuators B: Chemical, 1995, 25, 724-728.	7.8	42
84	Ambient-Temperature, Rechargeable, All-Solid Lithium/Polypyrrole Polymer Battery. Journal of the Electrochemical Society, 1995, 142, L1-L2.	2.9	89
85	Electrochemical Redox Properties of Polypyrrole/Nafion Composite Film in a Solid Polymer Electrolyte Battery. Journal of the Electrochemical Society, 1995, 142, 1766-1769.	2.9	75
86	Enhancement of Lithium Anode Cyclability in Propylene Carbonate Electrolyte by CO ₂ Addition and Its Protective Effect Against H ₂ O Impurity. Journal of the Electrochemical Society, 1995, 142, 1057-1060.	2.9	108
87	Enhancement of Electroluminescence from n-Type Porous Silicon and Its Photoelectrochemical Behavior. Journal of the Electrochemical Society, 1995, 142, 1874-1880.	2.9	11
88	Application of Solid Polymer Electrolyte to Lithium/Polypyrrole Secondary Battery System. Journal of the Electrochemical Society, 1994, 141, 1994-1998.	2.9	112
89	Stability of conductance in electroinactive polypyrrole. Thin Solid Films, 1994, 237, 268-271.	1.8	5
90	Electrochemical process of formation of an insulating polypyrrole film. Journal of Electroanalytical Chemistry, 1994, 372, 201-207.	3.8	42

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91	Electrochemical Properties of a Polypyrrole/Polystyrenesulfonate Composite Film and Its Application to Rechargeable Lithium Battery Cathodes. Journal of the Electrochemical Society, 1994, 141, 2326-2331.	2.9	44
92	Impedance analysis of electropolymerized conducting polymers for polymer battery cathodes. Electrochimica Acta, 1993, 38, 2011-2014.	5.2	6
93	Application of electroinactive polypyrrole film to the pH sensor electrode. Sensors and Actuators B: Chemical, 1993, 13, 205-208.	7.8	29
94	In Situ Observation and Evaluation of Electrodeposited Lithium by Means of Optical Microscopy with Alternating Current Impedance Spectroscopy. Journal of the Electrochemical Society, 1993, 140, 2745-2748.	2.9	32
95	Conduction mechanism in indium tin oxide/electroinactive polypyrrole/indium tin oxide sandwich structures. Thin Solid Films, 1992, 215, 200-202.	1.8	14
96	Electroactive Polyaniline Film Deposited from Nonaqueous Media: III . Effect of Mixed Organic Solvent on Polyaniline Deposition and Its Battery Performance. Journal of the Electrochemical Society, 1991, 138, 2853-2858.	2.9	47
97	Metallization on 3-D microstructures using spray coating for high performance micro direct methanol fuel cell (1/4DMFC). , 0, , .		0