Hiroyuki Muto

List of Publications by Year
in descending order

58	818	516710 16	580821 25
papers	citations	h-index	g-index

59	59	59	937
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Inorganicâ€“organic composite electrolytes consisting of polybenzimidazole and Cs-substituted heteropoly acids and their application for medium temperature fuel cells. Journal of Materials Chemistry, 2010, 20, 6359.	6.7	77
2	Chemical synthesis of Li3PS4 precursor suspension by liquid-phase shaking. Solid State Ionics, 2016, 285, 2-5.	2.7	69
3	Catalytically active Pt nanoparticles immobilized inside the pores of metal organic framework using supercritical CO2 solutions. Microporous and Mesoporous Materials, 2016, 225, 26-32.	4.4	39
4	Antibacterial and antifungal properties of Ag nanoparticle-loaded cellulose nanofiber aerogels prepared by supercritical CO2 drying. Journal of Supercritical Fluids, 2019, 143, 1-7.	3.2	39
5	Nanomaterial Fabrication through the Modification of Solâ€“Gel Derived Coatings. Nanomaterials, 2021, 11, 181.	4.1	36
6	Ag nanoparticle-deposited TiO2 nanotube arrays for electrodes of Dye-sensitized solar cells. Nanoscale Research Letters, 2015, 10, 219.	5.7	33
7	Ag nanoparticle-filled TiO₂ nanotube arrays prepared by anodization and electrophoretic deposition for dye-sensitized solar cells. Nanotechnology, 2017, 28, 135207.	2.6	25
8	Micro- and Nano-assembly of Composite Particles by Electrostatic Adsorption. Nanoscale Research Letters, 2019, 14, 297.	5.7	25
9	Supercritical fluid-assisted immobilization of Pd nanoparticles in the mesopores of hierarchical porous SiO2 for catalytic applications. Journal of Supercritical Fluids, 2017, 130, 140-146.	3.2	21
10	Fabrication of an all-solid-state Zn-air battery using electroplated Zn on carbon paper and KOH-ZrO2 solid electrolyte. Applied Surface Science, 2019, 487, 343-348.	6.1	21
11	PMMA-ITO Composite Formation via Electrostatic Assembly Method for Infra-Red Filtering. Nanomaterials, 2019, 9, 886.	4.1	20
12	Mechanochemically synthesized cesium-ion-substituted phosphotungstic acid using several types of cesium-containing salts. Solid State Ionics, 2008, 179, 1174-1177.	2.7	19
13	Nanotube array-based barium titanateâ€“cobalt ferrite composite film for affordable magnetoelectric multiferroics. Journal of Materials Chemistry C, 2019, 7, 10066-10072.	5.5	19
14	Anhydrous proton conductivity of KHSO4â€“H3PW12O40 composites and the correlation with hydrogen bonding distance under ambient pressure. Electrochimica Acta, 2011, 56, 9364-9369.	5.2	18
15	Fe3O4-embedded rGO composites as anode for rechargeable FeOx-air batteries. Materials Today Communications, 2020, 25, 101540.	1.9	18
16	Facile formation of Fe3O4-particles decorated carbon paper and its application for all-solid-state rechargeable Fe-air battery. Applied Surface Science, 2019, 486, 257-264.	6.1	17
17	Preparation of hydroxide ion conductive KOHâ€“layered double hydroxide electrolytes for an all-solid-state ironâ€“air secondary battery. Journal of Asian Ceramic Societies, 2014, 2, 165-168.	2.3	16
18	Incorporation of titanium pyrophosphate in polybenzimidazole membrane for medium temperature dry PEFC application. Solid State Ionics, 2020, 344, 115140.	2.7	16

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19	Three-dimensional hydrogen-bonding networks and proton conductivities under non-humidified conditions of CsHSO4â€“WPA composites. Solid State Ionics, 2010, 181, 180-182.	2.7	15
20	Electrostatic Assembly Technique for Novel Composites Fabrication. Journal of Composites Science, 2020, 4, 155.	3.0	15
21	Mechanochemically synthesized CsH₂PO₄â€“H₃PW₁₂O₄₀composites as proton-conducting electrolytes for fuel cell systems in a dry atmosphere. Science and Technology of Advanced Materials, 2011, 12, 034402.	6.1	14
22	Blue-emitting photoluminescence of rod-like and needle-like ZnO nanostructures formed by hot-water treatment of solâ€“gel derived coatings. Journal of Luminescence, 2015, 158, 44-49.	3.1	14
23	Electrochemical Performance of Sintered Porous Negative Electrodes Fabricated with Atomized Powders for Iron-Based Alkaline Rechargeable Batteries. Journal of the Electrochemical Society, 2017, 164, A2049-A2055.	2.9	14
24	Investigation of the anchor layer formation on different substrates and its feasibility for optical properties control by aerosol deposition. Applied Surface Science, 2019, 483, 212-218.	6.1	13
25	Nanoporous anodic Nb2O5 with pore-in-pore structure formation and its application for the photoreduction of Cr(VI). Chemosphere, 2021, 283, 131231.	8.2	13
26	Solid-state mechanochemical synthesis of CsHSO4 and 1,2,4-triazole inorganicâ€“organic composite electrolytes for dry fuel cells. Electrochimica Acta, 2011, 56, 2364-2371.	5.2	12
27	Enhanced dye-sensitized solar cells performance of ZnO nanorod arrays grown by low-temperature hydrothermal reaction. International Journal of Energy Research, 2013, 37, n/a-n/a.	4.5	12
28	Controlled microstructure and mechanical properties of Al2O3-based nanocarbon composites fabricated by electrostatic assembly method. Nanoscale Research Letters, 2019, 14, 245.	5.7	12
29	Design of Heat-Conductive hBNâ€“PMMA Composites by Electrostatic Nano-Assembly. Nanomaterials, 2020, 10, 134.	4.1	12
30	Cell performance enhancement with titania-doped polybenzimidazole based composite membrane in intermediate temperature fuel cell under anhydrous condition. Journal of the Ceramic Society of Japan, 2018, 126, 789-793.	1.1	11
31	Preparation of hydroxide ion conductive KOH-ZrO2 electrolyte for all-solid state iron/air secondary battery. Solid State Ionics, 2014, 262, 188-191.	2.7	9
32	Preparation of LiNi_{1/3}Mn_{1/3}Co_{1/3}O₂/Li<sub>3< cathode composite particles using a new liquid-phase process and application to all-solid-state lithium batteries. Journal of the Ceramic Society of Japan, 2018, 126, 826-831.	1.1	8
33	Preparation of catalytically active Au nanoparticles by sputter deposition and their encapsulation in metal-organic framework of Cu3(BTC)2. Materials Letters, 2020, 261, 127124.	2.6	8
34	Electrostatically assembled SiCâ€“Al2O3 composite particles for direct selective laser sintering. Advanced Powder Technology, 2021, 32, 2074-2084.	4.1	8
35	Transparent conductive polymer composites obtained via electrostatically assembled carbon nanotubesâ€“poly (methyl methacrylate) composite particles. Advanced Powder Technology, 2022, 33, 103528.	4.1	8
36	Sol-gel template synthesis of BaTiO3 films with nano-periodic structures. Materials Letters, 2018, 227, 120-123.	2.6	7

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37	Fabrication of Carbon-decorated Al₂O₃ Composite Powders using Cellulose Nanofiber for Selective Laser Sintering. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2019, 66, 168-173.	0.2	7
38	Formation of porous Al₂O₃â€“SiO₂ composite ceramics by electrostatic assembly. Journal of the Ceramic Society of Japan, 2020, 128, 605-610.	1.1	7
39	Mechanical properties of alumina matrix composite reinforced with carbon nanofibers affected by small interfacial sliding shear stress. Ceramics International, 2022, 48, 8466-8472.	4.8	7
40	Characterization of mechanochemically synthesized MHSO4â€“H4SiW12O40 composites (M=K, NH4, Cs). Materials Research Bulletin, 2012, 47, 2931-2935.	5.2	6
41	Development of Iron-Based Rechargeable Batteries with Sintered Porous Iron Electrodes. ECS Transactions, 2017, 75, 111-116.	0.5	5
42	Multiferroic nanocomposite fabrication via liquid phase using anodic alumina template. Science and Technology of Advanced Materials, 2018, 19, 535-542.	6.1	5
43	Current progress in the development of Fe-air batteries and their prospects for next-generation batteries. , 2021, , 59-83.		5
44	Effect of mixed alkali metal ions in highly proton conductive K/Cs-hydrogen sulfate-phosphotungstic acid composites prepared by mechanical milling. Solid State Ionics, 2019, 340, 115022.	2.7	4
45	Effects of cesium-substituted silicotungstic acid doped with polybenzimidazole membrane for the application of medium temperature polymer electrolyte fuel cells. E3S Web of Conferences, 2019, 83, 01008.	0.5	4
46	Formation of Feâ€embedded graphitic carbon network composites as anode materials for rechargeable Feâ€air batteries. Energy Storage, 2020, 2, e196.	4.3	4
47	Improved green body strength using PMMAâ€“Al₂O₃ composite particles fabricated via electrostatic assembly. Nano Express, 2020, 1, 030001.	2.4	4
48	Electrical and Thermal Properties of PMMA/h-BN Composite Material Produced by Electrostatic Adsorption Method. IEEJ Transactions on Fundamentals and Materials, 2019, 139, 60-65.	0.2	4
49	Preparation of Exoergic Insulating Composite Material using Electrostatic Adsorption Method. IEEJ Transactions on Fundamentals and Materials, 2015, 135, 217-222.	0.2	4
50	Ionic Conduction and Electric Modulus in Li₂Sâ€“CaS and Ca<i>X</i>₂ (<i>X</i> = F, Cl, Br, and I) Nanocomposites. Electrochemistry, 2022, 90, 067005-067005.	1.4	4
51	Controlled formation of carbon nanotubes incorporated ceramic composite granules by electrostatic integrated nano-assembly. Nanoscale, 2022, 14, 9669-9674.	5.6	4
52	Anhydrous proton conductive xCHS-(1-x)WSiA composites prepared via liquid-phase shaking. Solid State Ionics, 2019, 337, 1-6.	2.7	3
53	Development of liquid-phase fabrication of nanotube array-based multiferroic nanocomposite film. Journal of Alloys and Compounds, 2021, 869, 159219.	5.5	2
54	Production of Thermal Conductive PMMA/BN Electric Insulating Composite Material using Electrostatic Adsorption Method. IEEJ Transactions on Fundamentals and Materials, 2016, 136, 186-192.	0.2	2

#	Article	IF	Citations
55	Nano/Microcomposite Particles: Preparation Processes and Applications. , 2018, , 781-785.		1
56	Catalytically active PdRu and CuRu bimetallic nanoparticle formation in the mesoporous SiO2 by supercritical CO2-assisted immobilization. Journal of Supercritical Fluids, 2020, 160, 104818.	3.2	1
57	Influence of Orientation of Flaky Boron Nitride on Electrical and Thermal Properties of Polymethylmethacrylate / Boron Nitride Electrical Insulating Composite Material Produced by Electrostatic Adsorption Method. IEEJ Transactions on Fundamentals and Materials, 2017, 137, 202-207.	0.2	1
58	Ordered arrays of electrostatically assembled SiO2â€“SiO2 composite particles by electrophoresis-induced stimulation. Journal of Sol-Gel Science and Technology, 2022, 104, 548-557.	2.4	1