Koichi Matsuzawa

List of Publications by Year
in descending order

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69 papers	1,121 citations	471509 17 h-index	414414 32 g-index
69 all docs	69 docs citations	69 times ranked	1136 citing authors

#	Article	IF	Citations
1	Progress in non-precious metal oxide-based cathode for polymer electrolyte fuel cells. Electrochimica Acta, 2010, 55, 8005-8012.	5.2	148
2	Controlled growth and shape formation of platinum nanoparticles and their electrochemical properties. Electrochimica Acta, 2006, 52, 1632-1638.	5.2	103
3	Tantalum oxide-based compounds as new non-noble cathodes for polymer electrolyte fuel cell. Electrochimica Acta, 2010, 55, 7581-7589.	5.2	74
4	Emergence of Oxygen Reduction Activity in Partially Oxidized Tantalum Carbonitrides: Roles of Deposited Carbon for Oxygen-Reduction-Reaction-Site Creation and Surface Electron Conduction. Journal of Physical Chemistry C, 2013, 117, 18837-18844.	3.1	59
5	Improvement of MCFC cathode stability by additives. Electrochimica Acta, 2002, 47, 3823-3830.	5.2	55
6	Development of group 4 and 5 metal oxide-based cathodes for polymer electrolyte fuel cell. Journal of Power Sources, 2011, 196, 5256-5263.	7.8	54
7	Oxygen reduction reaction on tantalum oxide-based catalysts prepared from TaC and TaN. Electrochimica Acta, 2012, 68, 192-197.	5.2	52
8	Impacts of air bleeding on membrane degradation in polymer electrolyte fuel cells. Journal of Power Sources, 2008, 178, 699-705.	7.8	50
9	Zirconium Oxynitride-Catalyzed Oxygen Reduction Reaction at Polymer Electrolyte Fuel Cell Cathodes. ACS Omega, 2017, 2, 678-684.	3.5	49
10	The effect of La oxide additive on the solubility of NiO in molten carbonates. Journal of Power Sources, 2005, 140, 258-263.	7.8	39
11	Factors for Improvements of Catalytic Activity of Zirconium Oxide-Based Oxygen-Reduction Electrocatalysts. Journal of the Electrochemical Society, 2013, 160, F162-F167.	2.9	36
12	Partially oxidized niobium carbonitride as a non-platinum catalyst for the reduction of oxygen in acidic medium. Electrochimica Acta, 2010, 55, 7290-7297.	5.2	30
13	Effect of rare earth oxides for improvement of MCFC. Journal of Power Sources, 2006, 160, 811-815.	7.8	23
14	Degradation of Pt/C Under Various Potential Cycling Patterns. Electrocatalysis, 2013, 4, 10-16.	3.0	23
15	Emergence of Oxygen Reduction Activity in Zirconium Oxide-Based Compounds in Acidic Media: Creation of Active Sites for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2019, 123, 18150-18159.	3.1	23
16	Partially Oxidized Niobium Carbonitride as Non-Platinum Cathode for PEFC. Electrochemical and Solid-State Letters, 2009, 12, B158.	2.2	21
17	Titanium-Niobium Oxides as Non-Noble Metal Cathodes for Polymer Electrolyte Fuel Cells. Catalysts, 2015, 5, 1289-1303.	3.5	20
18	Effects of Rare-Earth Additives in Liâˆ•Na Eutectic Carbonate for Decreasing the Solubility of NiO. Journal of the Electrochemical Society, 2005, 152, A1116.	2.9	18

#	Article	IF	Citations
19	Mass transportation in diethylmethylammonium trifluoromethanesulfonate for fuel cell applications. Electrochimica Acta, 2010, 55, 6639-6644.	5.2	17
20	Tantalum-based Compounds Prepared by Reactive Sputtering as a New Non-platinum Cathode for PEFC. Chemistry Letters, 2009, 38, 1184-1185.	1.3	15
21	Pt-Ir-SnO2/C Electrocatalysts for Ethanol Oxidation in Acidic Media. Chinese Journal of Catalysis, 2011, 32, 1856-1863.	14.0	14
22	Factors affecting oxygen reduction activity of Nb2O5-doped TiO2 using carbon nanotubes as support in acidic solution. Electrochimica Acta, 2018, 283, 1779-1788.	5.2	14
23	Stability of Pt-Ru/C Catalysts: Effects of Ru Content. ECS Transactions, 2007, 11, 325-334.	0.5	12
24	Partially Oxidized Tantalum Carbonitride as New Cathodes Without Platinum Group Metals for Polymer Electrolyte Fuel Cell. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	12
25	Shape-Controlled Platinum Nanoparticles of Different Sizes and Their Electrochemical Properties. Electrocatalysis, 2010, 1, 169-177.	3.0	11
26	Hydrogen Peroxide Formation as a Degradation Factor of Polymer Electrolyte Fuel Cells. ECS Transactions, 2006, 1, 315-322.	0.5	10
27	A Simulation Study of Pt Particle Degradation During Potential Cycling Using a Dissolution/Deposition Model. Electrocatalysis, 2015, 6, 102-108.	3.0	10
28	Temperature dependence of oxygen reduction mechanism on a titanium oxideâ€“based catalyst made from oxyâ€“titanium tetraâ€“pyrazinoâ€“porphyrazine using carbon nano-tubes as support in acidic solution. Electrochimica Acta, 2016, 209, 1-6.	5.2	10
29	Hydrogen Energy System and Environmental Impact Factor. Electrochemistry, 2010, 78, 970-975.	1.4	9
30	Zirconium Oxide-Based Compounds as Non-Pt Cathode for Polymer Electrolyte Fuel Cell. Electrochemistry, 2011, 79, 340-342.	1.4	8
31	Enhancement of Oxygen Reduction Activity of Zirconium Oxide-Based Cathode for PEFC. ECS Transactions, 2013, 58, 1489-1494.	0.5	7
32	Preparation of Highly Active Zr Oxide-Based Oxygen Reduction Electrocatalysts as PEFC Cathode. ECS Transactions, 2013, 50, 1785-1790.	0.5	7
33	Niobium-added titanium oxides powders as non-noble metal cathodes for polymer electrolyte fuel cells â€“ Electrochemical evaluation and effect of added amount of niobium. International Journal of Hydrogen Energy, 2020, 45, 5438-5448.	7.1	7
34	Control of surface area and conductivity of niobium-added titanium oxides as durable supports for cathode of polymer electrolyte fuel cells. Materials and Design, 2021, 203, 109623.	7.0	7
35	Solubilities of NiO and LaNiO3 in Li/Na eutectic carbonate with rare-earth oxide. Journal of Power Sources, 2011, 196, 5007-5011.	7.8	6
36	Templated Synthesis of Carbon-Free Mesoporous MagnÃ©li-Phase Titanium Suboxide. Electrocatalysis, 2019, 10, 459-465.	3.0	6

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37	Zirconium Oxide-based Cathode without Platinum Group Metals for PEFC. ECS Transactions, 2009, 25, 129-139.	0.5	5
38	A Mesothermal Fuel Cell using Diethylmethylammonium Trifluoromethanesulfonate Absorbed Membrane with H3PO4 Addition and Various Amount of Electrolyte Loading in Catalyst Layer. Electrochemistry, 2011, 79, 377-380.	1.4	5
39	Highly Active Titanium Oxide-based Catalyst for Oxygen Reduction Reaction for PEFC. ECS Transactions, 2013, 50, 1777-1783.	0.5	5
40	Catalytic Activity of Partially Oxidized Tantalum Carbonitride for Oxygen Reduction Reaction. ECS Transactions, 2009, 16, 125-132.	0.5	4
41	Catalytic Activity of Zirconium Based Cathode without Platinum for Oxygen Reduction Reaction. ECS Transactions, 2010, 33, 609-624.	0.5	4
42	Immersed effects of Ta and Zr compounds on activity of oxygen reduction reaction in sulfuric acid. Journal of Power Sources, 2013, 226, 16-19.	7.8	4
43	Evaluation of Solubility of Ru in Acidic Solution. Electrocatalysis, 2010, 1, 83-86.	3.0	3
44	Electrocatalytic Activity of Ta Compound Thin Film for Oxygen Reduction Reaction. ECS Transactions, 2010, 28, 3-10.	0.5	3
45	Ionic Conductivity of [dema][TfO]/Solid Acid-Base Composite Membrane. ECS Transactions, 2013, 50, 1089-1095.	0.5	3
46	ORR Activity of Nb Oxide Based Catalyst Prepared from Nb Compound Including C and N. ECS Transactions, 2013, 50, 1769-1775.	0.5	3
47	Improving ORR Activity of Group 4 and 5 Metal Oxide-Based Cathodes for PEFCs. ECS Transactions, 2013, 58, 1495-1500.	0.5	3
48	Preparation of Cubic Platinum Nanoparticles of Different Sizes and Their Electrochemical Propeties. ECS Transactions, 2007, 11, 181-189.	0.5	2
49	Efficiency of CO2 Generation during the Electrooxidation of Ethanol on Platinum with Various Roughness Factors. ECS Transactions, 2009, 16, 1253-1261.	0.5	2
50	Group 4 and 5 Oxide-based Compounds as New Cathodes without Platinum Group Metals for PEFC. ECS Transactions, 2008, 16, 449-457.	0.5	2
51	Factors for Improvements of Catalytic Activity for Zirconium Oxide-Based Oxygen-Reduction Electrocatalysts. ECS Transactions, 2011, 41, 1225-1247.	0.5	2
52	Catalytic Activity for Oxygen Reduction Reaction on Tantalum Oxide-Based Compounds (1) Effect of Preparation Conditions of Thin Film Model Catalysts Using Reactive Sputtering Method on Oxygen Reduction Activity. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2011, 75, 545-551.	0.4	2
53	Catalytic activity of zirconia on zirconium for the oxygen evolution reaction in potassium hydroxide. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 267, 115112.	3.5	2
54	Non-Precious Metal Electrocatalyst for Oxygen Evolution in Polymer Electrolyte Water Electrolysis. ECS Transactions, 2010, 25, 119-124.	0.5	1

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55	Tantalum Oxide-based Cathodes without Precious Metals for PEFC. ECS Transactions, 2009, 25, 175-180.	0.5	1
56	Oxygen Reduction Reaction on LaNiO3 in Li/Na Eutectic Carbonate Melt with La2O3. ECS Transactions, 2010, 33, 449-454.	0.5	1
57	Catalytic Activity for Oxygen Reduction Reaction on Tantalum Oxide-Based Compounds (2) Active Sites of TaON Thin Film Catalysts and Role of Carbon. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2011, 75, 552-556.	0.4	1
58	Oxygen Evolution Reaction of Zr Compounds as New Anode Materials for Water Electrolysis. Transactions of the Materials Research Society of Japan, 2012, 37, 373-376.	0.2	1
59	Catalytic Activity and Stability of Ta Compounds for Oxygen Reduction Reaction. ECS Transactions, 2013, 50, 1823-1829.	0.5	1
60	Activity of Tantalum Oxide-Based Electrocatalysts toward Oxygen Reduction Reaction for PEFC. ECS Transactions, 2013, 58, 1217-1223.	0.5	1
61	Stabilization and Activation of Zirconium Oxide Based Electrocatalysts as PEFC Cathode by Re-Heat Treatment. ECS Transactions, 2013, 58, 1225-1231.	0.5	1
62	Oxygen Reduction Reaction of Partially Oxidized Tantalum Carbonitride as Non-Platinum Cathode for PEFC: Dependence of Degree of Oxidation of Tantalum Carbonitride on Catalytic Activity. ECS Transactions, 2009, 19, 51-57.	0.5	0
63	Evaluation of Ta and Zr Compounds for Oxygen Evolution Reaction in Sulfuric Acid. ECS Transactions, 2010, 33, 247-252.	0.5	0
64	Quantitative Analysis of Electrooxidation Products on Platinum for Direct Ethanol Fuel Cell. Electrochemistry, 2011, 79, 419-423.	1.4	0
65	Ta Compound Film as New Anode Material for Polymer Electrolyte Water Electrolysis. ECS Transactions, 2012, 41, 21-25.	0.5	0
66	Solubilities of La and Ni on LaNiO3 in Li/K Carbonate Eutectic with La2O3. Chemistry Letters, 2012, 41, 817-819.	1.3	0
67	Transition Metal Oxide Based Materials for Cathode of Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2012, , .	0.0	0
68	Improvement of Zr Oxide Based Cathode for Polymer Electrolyte Fuel Cells. ECS Meeting Abstracts, 2013, , .	0.0	0
69	Study of Titanium Oxide-based Materials for Next-generation Polymer Electrolyte Fuel Cells. Denki Kagaku, 2021, 89, 268-272.	0.0	0