Takanori Tamaki

List of Publications by Year
in descending order

70	1,486	257101 24	329751 37
papers	citations	h-index	g-index

70	70	70	1974
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical Modeling and Experiment of a Thin-Film Enzyme Electrode with an Enzyme Adsorption Experiment to Design High-Current-Density Biofuel Cells. Industrial & Engineering Chemistry Research, 2022, 61, 4504-4513.	1.8	0
2	Alkaline Formate Oxidation with Colloidal Palladiumâ€“Tin Alloy Nanocrystals. ACS Applied Energy Materials, 2022, 5, 266-277.	2.5	8
3	Issues of using inorganic proton conductor in the electrodes of polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2022, 47, 15056-15064.	3.8	1
4	An enhanced electrochemical CO₂ reduction reaction on the SnO_xâ€“PdO surface of SnPd nanoparticles decorated on N-doped carbon fibers. Catalysis Science and Technology, 2021, 11, 143-151.	2.1	16
5	Suitable acid groups and density in electrolytes to facilitate proton conduction. Physical Chemistry Chemical Physics, 2021, 23, 23778-23786.	1.3	4
6	Retention of activity and secondary structure of hyperthermophilic laccase adsorbed on carbon black. JPhys Energy, 2021, 3, 034002.	2.3	2
7	Numerical Modeling for Sensitive and Rapid Molecular Detection by Membrane-Based Immunosensors. Analytical Chemistry, 2021, 93, 7210-7219.	3.2	2
8	Tuning Palladium Nickel Phosphide toward Efficient Oxygen Evolution Performance. ACS Applied Energy Materials, 2020, 3, 879-888.	2.5	21
9	Connected iridium nanoparticle catalysts coated onto silica with high density for oxygen evolution in polymer electrolyte water electrolysis. Nanoscale Advances, 2020, 2, 171-175.	2.2	22
10	Carbon-Free Platinumâ€“Iron Nanonetworks with Chemically Ordered Structures as Durable Oxygen Reduction Electrocatalysts for Polymer Electrolyte Fuel Cells. ACS Applied Nano Materials, 2020, 3, 9912-9923.	2.4	11
11	Binary Pdâ€“Ni Nanoalloy Particles over Carbon Support with Superior Alkaline Formate Fuel Electrooxidation Performance. ChemCatChem, 2019, 11, 4731-4737.	1.8	29
12	Proton diffusion facilitated by indirect interactions between proton donors through several hydrogen bonds. Chemical Physics Letters, 2019, 731, 136627.	1.2	10
13	Electro-oxidation competency of palladium nanocatalysts over ceriaâ€“carbon composite supports during alkaline ethylene glycol oxidation. Catalysis Science and Technology, 2019, 9, 493-501.	2.1	28
14	Evaluation of performance and durability of platinumâ€“ironâ€“copper with L10 ordered face-centered tetragonal structure as cathode catalysts in polymer electrolyte fuel cells. Journal of Applied Electrochemistry, 2018, 48, 773-782.	1.5	13
15	Refined Structural Analysis of Connected Platinumâ€“Iron Nanoparticle Catalysts with Enhanced Oxygen Reduction Activity. ACS Applied Energy Materials, 2018, 1, 324-330.	2.5	15
16	Correlation between the carbon structures and their tolerance to carbon corrosion as catalyst supports for polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2018, 43, 6406-6412.	3.8	26
17	Cobalt-Modified Palladium Bimetallic Catalyst: A Multifunctional Electrocatalyst with Enhanced Efficiency and Stability toward the Oxidation of Ethanol and Formate in Alkaline Medium. ACS Applied Energy Materials, 2018, 1, 4140-4149.	2.5	67
18	Highly-Durable Membrane Electrode Assembly for Direct Formate Solid Alkaline Fuel Cells. ECS Meeting Abstracts, 2018, , .	0.0	1

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19	Proton Conductivity of Organicâ€“Inorganic Electrolyte for Polymer Electrolyte Fuel Cell. Chemistry Letters, 2017, 46, 204-206.	0.7	6
20	Direct synthesis of a carbon nanotube interpenetrated doped porous carbon alloy as a durable Pt-free electrocatalyst for the oxygen reduction reaction in an alkaline medium. Sustainable Energy and Fuels, 2017, 1, 1524-1532.	2.5	16
21	Communicationâ€”Acid-Treated Nickel-Rich Platinumâ€“Nickel Alloys for Oxygen Reduction and Methanol Oxidation Reactions in Alkaline Media. Journal of the Electrochemical Society, 2017, 164, F858-F860.	1.3	8
22	Nanostructured Materials for Enzymatic Biofuel Cells. , 2017, , 595-616.		0
23	Correlation between Activity and Molecular Structure around the Active Center of Cytochrome P450cam Conjugates. Journal of Chemical Engineering of Japan, 2016, 49, 475-480.	0.3	0
24	Platinumâ€“Ironâ€“Nickel Trimetallic Catalyst with Superlattice Structure for Enhanced Oxygen Reduction Activity and Durability. Industrial & Engineering Chemistry Research, 2016, 55, 11458-11466.	1.8	33
25	Nanostructural Control and Performance Analysis of Carbon-Free Catalyst Layers Using Nanoparticle-Connected Hollow Capsules for PEFCs. Journal of the Electrochemical Society, 2016, 163, F927-F932.	1.3	13
26	Development of an aptamer-functionalized molecular recognition gating membrane targeting a specific protein on the basis of the aggregation phenomena of DNAâ€“PNIPAM. Polymer, 2015, 62, 86-93.	1.8	12
27	Layered Double Hydroxide as a Potential Electrolyte Material in Solid-State Alkaline Fuel Cell Catalyst Layer. ECS Electrochemistry Letters, 2015, 4, F47-F49.	1.9	1
28	Beneficial Role of Copper in the Enhancement of Durability of Ordered Intermetallic PtFeCu Catalyst for Electrocatalytic Oxygen Reduction. ACS Applied Materials & Interfaces, 2015, 7, 16311-16321.	4.0	66
29	Connected nanoparticle catalysts possessing a porous, hollow capsule structure as carbon-free electrocatalysts for oxygen reduction in polymer electrolyte fuel cells. Energy and Environmental Science, 2015, 8, 3545-3549.	15.6	67
30	Reducing Physical Adsorption of Enzymes by Surface Modification of Carbon Black for High-Current-Density Biofuel Cells. Journal of the Electrochemical Society, 2014, 161, H3095-H3099.	1.3	7
31	The proton conduction mechanism in a material consisting of packed acids. Chemical Science, 2014, 5, 4878-4887.	3.7	72
32	Synthesis of 3D graphite oxide-exfoliated carbon nanotube carbon composite and its application as catalyst support for fuel cells. Journal of Power Sources, 2014, 260, 338-348.	4.0	46
33	DNA molecular recognition of intercalators affects aggregation of a thermoresponsive polymer. Polymer Chemistry, 2014, 5, 4612-4616.	1.9	8
34	Enhanced activity and durability for the electroreduction of oxygen at a chemically ordered intermetallic PtFeCo catalyst. RSC Advances, 2014, 4, 27510.	1.7	52
35	Highly active and durable chemically ordered Ptâ€“Feâ€“Co intermetallics as cathode catalysts of membraneâ€“electrode assemblies in polymer electrolyte fuel cells. Journal of Power Sources, 2014, 271, 346-353.	4.0	37
36	Differentiating Grotthuss Proton Conduction Mechanisms by Nuclear Magnetic Resonance Spectroscopic Analysis of Frozen Samples. Analytical Chemistry, 2014, 86, 9362-9366.	3.2	59

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37	Development of Redox Polymer Grafted onto Carbon Black Using 2,2â€²-Azinobis(3-ethylbenzothiazoline-6-sulfonic Acid) as a Biocathode. Journal of Chemical Engineering of Japan, 2014, 47, 704-710.	0.3	1
38	Molecular recognition moiety and its target biomolecule interact in switching enzyme activity. Journal of Bioscience and Bioengineering, 2013, 115, 639-644.	1.1	3
39	Mathematical modeling of molecular recognition by an ion-gating membrane oscillator. Journal of Membrane Science, 2013, 448, 231-239.	4.1	3
40	Control of the poly(N-isopropylacrylamide) phase transition via a single strandâ€“double strand transformation of conjugated DNA. Soft Matter, 2013, 9, 3331.	1.2	21
41	Non-humidified proton conduction between a Lewis acidâ€“base pair. Physical Chemistry Chemical Physics, 2013, 15, 13814.	1.3	14
42	Effect of length of molecular recognition moiety on enzymatic activity switching. Journal of Bioscience and Bioengineering, 2013, 116, 433-437.	1.1	3
43	Enhanced oxygen reduction reaction by bimetallic CoPt and PdPt nanocrystals. RSC Advances, 2013, 3, 10487.	1.7	37
44	Water Movement in a Solid-State Alkaline Fuel Cell Affected by the Anion-Exchange Pore-Filling Membrane Properties. Journal of Physical Chemistry C, 2013, 117, 16791-16801.	1.5	27
45	Introduction of Size-Controlled Nafion/ZrO2Nanocomposite Electrolyte into Primary Pores for High Pt Utilization in PEFCs. Journal of the Electrochemical Society, 2013, 160, F129-F134.	1.3	6
46	Switchable Aggregation Phenomena of DNA-conjugated Poly(N-isopropylacrylamide) Driven by Transformation between ssDNA and dsDNA with Control of DNA Charges and Flexibility. Chemistry Letters, 2013, 42, 1568-1570.	0.7	4
47	Improvement in Thermal Stability of Anion-exchange Membranes for Fuel Cell Applications by Controlling Water State. Chemistry Letters, 2013, 42, 14-16.	0.7	8
48	Fabrication of Precursor Membrane with Reactive Groups via Plasma-Induced Graft Polymerization. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2012, 25, 555-557.	0.1	1
49	The effect of particle size and surface area on the ion conductivity of layered double hydroxide. Electrochemistry Communications, 2012, 25, 50-53.	2.3	37
50	Conversion of a molecular signal into a visual color based on the permeation of nanoparticles through a biomolecule-recognition gating membrane. Analytical Methods, 2012, 4, 2635.	1.3	7
51	Systematic Evaluation of Polymer Electrolyte Fuel Cell Electrodes with Hydrocarbon Polyelectrolytes by Considering the Polymer Properties. Journal of Physical Chemistry C, 2012, 116, 1422-1428.	1.5	7
52	Direction and Management of Water Movement in Solid-State Alkaline Fuel Cells. Journal of Physical Chemistry C, 2012, 116, 7650-7657.	1.5	22
53	Influence of Spacer Length between Actuator and Sensor on Their Mutual Communications in Poly(N-Isopropylacrylamide-co-Î²-Cyclodextrin), an Autonomous Coordinative Shrinking/Swelling Polymer. Macromolecules, 2012, 45, 9742-9750.	2.2	20
54	Enzymatic Biofuel Cells Based on Three-Dimensional Conducting Electrode Matrices. Topics in Catalysis, 2012, 55, 1162-1180.	1.3	26

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55	Highly Active Bimetallic PdPt and CoPt Nanocrystals for Methanol Electro-oxidation. Journal of Physical Chemistry C, 2012, 116, 7464-7470.	1.5	76
56	Biomolecule-Recognition Gating Membrane Using Biomolecular Cross-Linking and Polymer Phase Transition. Analytical Chemistry, 2011, 83, 9226-9229.	3.2	25
57	Physical Re-Examination of Parameters on a Molecular Collisions-Based Diffusion Model for Diffusivity Prediction in Polymers. Journal of Physical Chemistry B, 2011, 115, 15181-15187.	1.2	6
58	Grafting of Polyelectrolyte on Porous Substrate by Plasma-induced Polymerization. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2011, 24, 471-473.	0.1	1
59	The Effect of Methanol Crossover on the Cathode Overpotential of DMFCs. Fuel Cells, 2011, 11, 394-403.	1.5	19
60	Low fuel crossover anion exchange pore-filling membrane for solid-state alkaline fuel cells. Journal of Membrane Science, 2011, 373, 107-111.	4.1	56
61	Fabrication of Protein Renaturation Facilitating Membrane Using Plasma Graft Pore Filling Technique. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2010, 23, 571-573.	0.1	2
62	Reentrant phase transition behavior and sensitivity enhancement of a molecular recognition ion gating membrane in an aqueous ethanol solution. Journal of Membrane Science, 2010, 348, 369-375.	4.1	6
63	Isolation and analysis of a grafted polymer onto a straight cylindrical pore in a thermal-responsive gating membrane and elucidation of its permeation behavior. Journal of Membrane Science, 2010, 352, 22-31.	4.1	40
64	Evaluation of Immobilized Enzyme in a High-Surface-Area Biofuel Cell Electrode Made of Redox-Polymer-Grafted Carbon Black. Industrial & Engineering Chemistry Research, 2010, 49, 6394-6398.	1.8	16
65	Novel mild conversion routes of surface-modified nano zirconium oxide precursor to layered proton conductors. Journal of Materials Chemistry, 2010, 20, 6239.	6.7	12
66	High-Voltage Operation of Polymer Electrolyte Fuel Cells under Low Humidity Condition with Pt-Co Catalyst. Journal of Chemical Engineering of Japan, 2010, 43, 623-626.	0.3	0
67	Modelling of Reaction and Diffusion Processes in a Highâ€surfaceâ€area Biofuel Cell Electrode Made of Redox Polymerâ€grafted Carbon. Fuel Cells, 2009, 9, 37-43.	1.5	29
68	Immobilization of Hydroquinone through a Spacer to Polymer Grafted on Carbon Black for a High-Surface-Area Biofuel Cell Electrode. Journal of Physical Chemistry B, 2007, 111, 10312-10319.	1.2	65
69	High-Surface-Area Three-Dimensional Biofuel Cell Electrode Using Redox-Polymer-Grafted Carbon. Industrial & Engineering Chemistry Research, 2006, 45, 3050-3058.	1.8	59
70	Effect of water vapor on proton conduction of cesium dihydrogen phosphateand application to intermediate temperature fuel cells. Journal of Applied Electrochemistry, 2005, 35, 865-870.	1.5	48