

# Eiji Higuchi

## List of Publications by Year in descending order

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44  
papers

925  
citations

623734

14  
h-index

454955

30  
g-index

44  
all docs

44  
docs citations

44  
times ranked

1327  
citing authors

#	ARTICLE	IF	CITATIONS
1	Communicationâ€”Porous Current Collector with Randomly Distributed Pores for Li Metal Negative Electrode in All-Solid-State Batteries. <i>Journal of the Electrochemical Society</i> , 2022, 169, 040521.	2.9	3
2	Intermetallic PdZn nanoparticles loaded on deficient TiO <sub>2</sub> nanosheets as a support: a bifunctional electrocatalyst for oxygen reduction in PEMFCs and the glycerol oxidation reactions. <i>Journal of Materials Chemistry A</i> , 2022, 10, 13987-13997.	10.3	14
3	Coreâ€”Shell Nanoparticles as Cathode Catalysts for Polymer Electrolyte Fuel Cells. <i>Nanostructure Science and Technology</i> , 2021, , 275-288.	0.1	0
4	Electrochemical Toluene Hydrogenation Using Binary Platinum-Based Alloy Nanoparticle-Loaded Carbon Catalysts. <i>Catalysts</i> , 2021, 11, 318.	3.5	5
5	Effect of Rh Coverage on CO-Adsorption and -Stripping Behaviors of Rhodium-Adlayer-Modified Platinum Electrodes. <i>Journal of Physical Chemistry C</i> , 2021, 125, 14616-14626.	3.1	4
6	Defect-Rich Black Titanium Dioxide Nanosheet-Supported Palladium Nanoparticle Electrocatalyst for Oxygen Reduction and Glycerol Oxidation Reactions in Alkaline Medium. <i>ACS Applied Energy Materials</i> , 2021, 4, 12391-12402.	5.1	16
7	High-Rate Lithium Metal Plating and Stripping on Solid Electrolytes Using a Porous Current Collector with a High Aperture Ratio. <i>ACS Applied Energy Materials</i> , 2021, 4, 12613-12622.	5.1	4
8	Effect of Rhodium Modification on Activity of Platinum Nanoparticle-Loaded Carbon Catalysts for Electrochemical Toluene Hydrogenation. <i>ACS Catalysis</i> , 2020, 10, 13718-13728.	11.2	14
9	Microband-Array Electrode Technique for the Detection of Reaction Distributions in the Depth Direction of Composite Electrodes for the All-Solid-State Lithium-Ion Batteries. <i>ACS Omega</i> , 2020, 5, 16739-16743.	3.5	1
10	Control of Dendritic Growth of the Lithium Metal in All-Solid-State Lithium Metal Batteries: Effect of the Current Collector with Microsized Pores. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 22798-22803.	8.0	18
11	Pt nanoparticle-decorated two-dimensional oxygen-deficient TiO <sub>2</sub> nanosheets as an efficient and stable electrocatalyst for the hydrogen evolution reaction. <i>Nanoscale</i> , 2020, 12, 11055-11062.	5.6	41
12	Metal-Free Hybrid Capacitor Using Intercalation of 1-Butyl-3-Methylimidazolium Cations. <i>Electrochemistry</i> , 2020, 88, 60-62.	1.4	0
13	Copper chloride as a conversion-type positive electrode for rechargeable aluminum batteries. <i>RSC Advances</i> , 2019, 9, 41475-41480.	3.6	7
14	Electrochemical Hydrogenation Reaction of Toluene with PtRu Alloy Catalyst-Loaded Gas Diffusion Electrodes. <i>Electrocatalysis</i> , 2018, 9, 226-235.	3.0	9
15	Mechanism of glycerol oxidation reaction on silver-modified palladium electrode in alkaline medium. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18664-18671.	7.1	20
16	Synthesis and Electrochemical Characterization of Palladium Crystals Enclosed by (100) Facets by Seed-Mediated Fabrication. <i>International Journal of Electrochemistry</i> , 2018, 2018, 1-6.	2.4	5
17	Communicationâ€”Appropriate Arrangement of Rh for Selective CO <sub>2</sub> Formation in Ethanol Oxidation Reaction with Pt/Rh/SnO <sub>2</sub> Catalyst. <i>Journal of the Electrochemical Society</i> , 2017, 164, F1011-F1013.	2.9	5
18	Preparation and Characterization of New Pt/Rh/SnO <sub>2</sub> Nanoparticle Catalysts for Ethanol Oxidation Reaction to CO <sub>2</sub> . <i>ECS Transactions</i> , 2017, 77, 1937-1945.	0.5	2

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19	Ethanol Oxidation Reaction on Tandem Pt/Rh/SnO <sub>x</sub> Catalyst. <i>Catalysts</i> , 2017, 7, 246.	3.5	8
20	Simple Preparation of Pd Core Nanoparticles for Pd Core/Pt Shell Catalyst and Evaluation of Activity and Durability for Oxygen Reduction Reaction. <i>Catalysts</i> , 2015, 5, 1375-1387.	3.5	8
21	Electrocatalytic Activity for Oxygen Reduction Reaction of Au Core/Pt Shell Nanoparticle-Loaded Carbon Black Catalyst with Different Core Sizes. <i>Electrochimica Acta</i> , 2015, 179, 100-107.	5.2	25
22	Amorphous Vanadium Oxide/Carbon Composite Positive Electrode for Rechargeable Aluminum Battery. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 24385-24389.	8.0	206
23	Preparation of PdAg and PdAu nanoparticle-loaded carbon black catalysts and their electrocatalytic activity for the glycerol oxidation reaction in alkaline medium. <i>Journal of Power Sources</i> , 2015, 297, 149-157.	7.8	42
24	Preparation of ternary Pt/Rh/SnO <sub>2</sub> anode catalysts for use in direct ethanol fuel cells and their electrocatalytic activity for ethanol oxidation reaction. <i>Journal of Power Sources</i> , 2014, 263, 280-287.	7.8	41
25	Effect of pretreatment on the surface structure of a Co(OH) <sub>2</sub> electrode. <i>Journal of Power Sources</i> , 2014, 248, 762-768.	7.8	12
26	Preparation of MgH <sub>2</sub> @Ni, MgH <sub>2</sub> @Ni@Si and MgH <sub>2</sub> @Ni@Ni <sub>2</sub> Si composites by mechanochemical method and their hydrogen absorption and desorption properties. <i>Journal of Materials Science</i> , 2013, 48, 7312-7319.	3.7	3
27	A Simple Cobalt Modifying Method for Accelerating the Rate Capability of NiO Electrode for Hybrid Capacitors. <i>Electrochemistry</i> , 2013, 81, 792-794.	1.4	2
28	Characterization of Pretreated Co(OH) <sub>2</sub> -Coated Ni(OH) <sub>2</sub> Positive Electrode for Ni-MH Batteries. <i>ECS Transactions</i> , 2012, 41, 7-12.	0.5	8
29	Microelectrode Studies on Kinetics of Charge Transfer at an Interface of Li Metal and Li <sub>2</sub> S-P <sub>2</sub> S <sub>5</sub> Solid Electrolytes. <i>Electrochemistry</i> , 2012, 80, 740-742.	1.4	21
30	Simple Preparation of Au Nanoparticles and Their Application to Au Core/Pt Shell Catalysts for Oxygen Reduction Reaction. <i>Electrocatalysis</i> , 2012, 3, 274-283.	3.0	13
31	Gold nanoparticle-loaded PEGylated dendrimers for theragnosis. <i>Research on Chemical Intermediates</i> , 2012, 38, 1279-1289.	2.7	18
32	Stacked polypyrrole-coated non-woven fabric sheets for absorbing electromagnetic waves with extremely high frequencies. <i>Journal of Materials Science</i> , 2012, 47, 382-390.	3.7	28
33	Electrocatalytic activity for oxygen reduction reaction of Pt nanoparticle catalysts with narrow size distribution prepared from (n=3@8) complexes. <i>Journal of Electroanalytical Chemistry</i> , 2011, 663, 84-89.	3.8	18
34	Preparation of Pt-Nanoparticles-Loaded Carbon Black Catalysts by Using Pt-Carbonyl Cluster Complexes and Their Activity for Oxygen Reduction Reaction. <i>Electrochemistry</i> , 2011, 79, 353-356.	1.4	4
35	Ethanol oxidation reaction activity of highly dispersed Pt/SnO <sub>2</sub> double nanoparticles on carbon black. <i>Journal of Power Sources</i> , 2011, 196, 1730-1737.	7.8	64
36	Activity and Durability of Pd Core/Pt Shell-Loaded Carbon Black as the Cathode Catalyst in PEFC. <i>ECS Transactions</i> , 2011, 41, 2211-2218.	0.5	1

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37	Electrocatalytic Ethanol Oxidation Reaction at Rh and SnO <sub>2</sub> Monolayer-Modified Pt Electrodes. ECS Transactions, 2011, 41, 2277-2282.	0.5	1
38	Preparation and Characterization of Organic-Inorganic Hybrid Hydrogel Electrolyte Using Alkaline Solution. Polymers, 2011, 3, 1600-1606.	4.5	5
39	Effect of Pretreatment on Electrochemical Properties of Positive Electrodes for Use in Ni-MH Batteries. Electrochemistry, 2010, 78, 420-422.	1.4	6
40	Preparation of Nanoparticles of Pt and SnO <sub>2</sub> Highly Dispersed on Carbon Black Support and Their Activity for Ethanol Oxidation Reaction. Electrochemistry, 2010, 78, 526-528.	1.4	1
41	Effect of Predischarging on Electrochemical Properties of Positive Electrodes for Ni-MH Batteries. ECS Transactions, 2009, 25, 113-119.	0.5	2
42	Oxygen reduction reaction activity of monodispersed Pt nanoparticles-loaded carbon black catalyst prepared with a Pt carbonyl cluster anion. Research on Chemical Intermediates, 2009, 35, 985-995.	2.7	13
43	Distribution profile of water and suppression of methanol crossover in sulfonated polyimide electrolyte membrane for direct methanol fuel cells. Electrochimica Acta, 2007, 52, 5272-5280.	5.2	14
44	Effect of loading level in platinum-dispersed carbon black electrocatalysts on oxygen reduction activity evaluated by rotating disk electrode. Journal of Electroanalytical Chemistry, 2005, 583, 69-76.	3.8	193