

Tatsuya Shinagawa

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

4,259
citations

218677

26
h-index

276875

41
g-index

45
all docs

45
docs citations

45
times ranked

6613
citing authors

#	ARTICLE	IF	CITATIONS
1	Insight on Tafel slopes from a microkinetic analysis of aqueous electrocatalysis for energy conversion. <i>Scientific Reports</i> , 2015, 5, 13801.	3.3	2,017
2	Electrocatalytic Reduction of Nitrogen: From Haber-Bosch to Ammonia Artificial Leaf. <i>CheM</i> , 2019, 5, 263-283.	11.7	339
3	Sulfur-Modified Copper Catalysts for the Electrochemical Reduction of Carbon Dioxide to Formate. <i>ACS Catalysis</i> , 2018, 8, 837-844.	11.2	209
4	Towards Versatile and Sustainable Hydrogen Production through Electrocatalytic Water Splitting: Electrolyte Engineering. <i>ChemSusChem</i> , 2017, 10, 1318-1336.	6.8	154
5	Temperature Dependence of Electrocatalytic and Photocatalytic Oxygen Evolution Reaction Rates Using NiFe Oxide. <i>ACS Catalysis</i> , 2016, 6, 1713-1722.	11.2	145
6	Volcano Trend in Electrocatalytic CO ₂ Reduction Activity over Atomically Dispersed Metal Sites on Nitrogen-Doped Carbon. <i>ACS Catalysis</i> , 2019, 9, 10426-10439.	11.2	142
7	Low temperature catalytic reverse water gas shift reaction assisted by an electric field. <i>Catalysis Today</i> , 2014, 232, 27-32.	4.4	117
8	An Oxygen-insensitive Hydrogen Evolution Catalyst Coated by a Molybdenum-Based Layer for Overall Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5780-5784.	13.8	106
9	Recent advances in understanding oxygen evolution reaction mechanisms over iridium oxide. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 2900-2917.	6.0	75
10	Electrocatalytic Hydrogen Evolution under Densely Buffered Neutral pH Conditions. <i>Journal of Physical Chemistry C</i> , 2015, 119, 20453-20458.	3.1	66
11	Boosting the Performance of the Nickel Anode in the Oxygen Evolution Reaction by Simple Electrochemical Activation. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5061-5065.	13.8	63
12	Microfabricated electrodes unravel the role of interfaces in multicomponent copper-based CO ₂ reduction catalysts. <i>Nature Communications</i> , 2018, 9, 1477.	12.8	60
13	Origin of the Selective Electroreduction of Carbon Dioxide to Formate by Chalcogen Modified Copper. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 7153-7159.	4.6	57
14	Low temperature hydrogen production by catalytic steam reforming of methane in an electric field. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 3003-3011.	7.1	53
15	Microkinetic assessment of electrocatalytic oxygen evolution reaction over iridium oxide in unbuffered conditions. <i>Journal of Catalysis</i> , 2020, 391, 435-445.	6.2	52
16	Electrolyte Engineering towards Efficient Water Splitting at Mild pH. <i>ChemSusChem</i> , 2017, 10, 4155-4162.	6.8	51
17	Enhanced Kinetics of Hole Transfer and Electrocatalysis during Photocatalytic Oxygen Evolution by Cocatalyst Tuning. <i>ACS Catalysis</i> , 2016, 6, 4117-4126.	11.2	48
18	Mechanistic Switching by Hydronium Ion Activity for Hydrogen Evolution and Oxidation over Polycrystalline Platinum Disk and Platinum/Carbon Electrodes. <i>ChemElectroChem</i> , 2014, 1, 1497-1507.	3.4	46

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19	Exclusive Hydrogen Generation by Electrocatalysts Coated with an Amorphous Chromium-Based Layer Achieving Efficient Overall Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 8079-8088.	6.7	44
20	New Insight into the Hydrogen Evolution Reaction under Buffered Near-Neutral pH Conditions: Enthalpy and Entropy of Activation. <i>Journal of Physical Chemistry C</i> , 2016, 120, 24187-24196.	3.1	41
21	Methane Conversion Assisted by Plasma or Electric Field. <i>Journal of the Japan Petroleum Institute</i> , 2013, 56, 11-21.	0.6	38
22	Electrolyte Engineering toward Efficient Hydrogen Production Electrocatalysis with Oxygen-Crossover Regulation under Densely Buffered Near-Neutral pH Conditions. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1785-1794.	3.1	31
23	Identification of intrinsic catalytic activity for electrochemical reduction of water molecules to generate hydrogen. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 15111-15114.	2.8	30
24	Water Electrolysis in Saturated Phosphate Buffer at Neutral pH. <i>ChemSusChem</i> , 2020, 13, 5921-5933.	6.8	29
25	Operando Elucidation on the Working State of Immobilized Fluorinated Iron Porphyrin for Selective Aqueous Electroreduction of CO ₂ to CO. <i>ACS Catalysis</i> , 2021, 11, 6499-6509.	11.2	27
26	Impact of solute concentration on the electrocatalytic conversion of dissolved gases in buffered solutions. <i>Journal of Power Sources</i> , 2015, 287, 465-471.	7.8	26
27	A miniature solar device for overall water splitting consisting of series-connected spherical silicon solar cells. <i>Scientific Reports</i> , 2016, 6, 24633.	3.3	25
28	Photophysics and electrochemistry relevant to photocatalytic water splitting involved at solid-liquid electrolyte interfaces. <i>Journal of Energy Chemistry</i> , 2017, 26, 259-269.	12.9	20
29	Delivering the Full Potential of Oxygen Evolving Electrocatalyst by Conditioning Electrolytes at Near-Neutral pH. <i>ChemSusChem</i> , 2021, 14, 1554-1564.	6.8	20
30	Boosting the Performance of the Nickel Anode in the Oxygen Evolution Reaction by Simple Electrochemical Activation. <i>Angewandte Chemie</i> , 2017, 129, 5143-5147.	2.0	19
31	Contribution of electrolyte in nanoscale electrolysis of pure and buffered water by particulate photocatalysis. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2044-2052.	4.9	18
32	An Oxygen-insensitive Hydrogen Evolution Catalyst Coated by a Molybdenum-Based Layer for Overall Water Splitting. <i>Angewandte Chemie</i> , 2017, 129, 5874-5878.	2.0	13
33	Gas Crossover Regulation by Porosity-Controlled Glass Sheet Achieves Pure Hydrogen Production by Buffered Water Electrolysis at Neutral pH. <i>ChemSusChem</i> , 2022, 15, e202102294.	6.8	13
34	Generation of Transparent Oxygen Evolution Electrode Consisting of Regularly Ordered Nanoparticles from Self-Assembly Cobalt Phthalocyanine as a Template. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 32376-32384.	8.0	12
35	High current density microkinetic and electronic structure analysis of CO ₂ reduction using Co and Fe complexes on gas diffusion electrode. <i>Chem Catalysis</i> , 2022, 2, 1143-1162.	6.1	11
36	Switching of Kinetically Relevant Reactants for the Aqueous Cathodic Process Determined by Mass-transport Coupled with Protolysis. <i>ChemCatChem</i> , 2019, 11, 5961-5968.	3.7	10

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37	Oxidative-Coupling-Assisted Methane Aromatization: A Simulation Study. Industrial & Engineering Chemistry Research, 2019, 58, 22884-22892.	3.7	8
38	Determination and perturbation of the electronic potentials of solid catalysts for innovative catalysis. Chemical Science, 2021, 12, 540-545.	7.4	7
39	Electrolyte Engineering towards Efficient Water Splitting at Mild pH. ChemSusChem, 2017, 10, 4122-4122.	6.8	4
40	(Digital Presentation) Nickel-Iron Electrocatalysts Modified with Group 11 Metals Achieving 1 A cm ² of Oxygen Evolution in Buffered Near-Neutral pH Electrolyte. ECS Meeting Abstracts, 2022, MA2022-01, 1557-1557.	0.0	0