Hyeyoung Shin

List of Publications by Year
in descending order

22 papers	2,623 citations	331538 21 h-index	610775 24 g-index
24 all docs	24 docs citations	24 times ranked	4024 citing authors

#	Article	IF	Citations
1	Synergy between Fe and Ni in the optimal performance of (Ni,Fe)OOH catalysts for the oxygen evolution reaction. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5872-5877.	3.3	380
2	Highly Efficient, Selective, and Stable CO₂ Electroreduction on a Hexagonal Zn Catalyst. Angewandte Chemie - International Edition, 2016, 55, 9297-9300.	7.2	304
3	In Silico Discovery of New Dopants for Fe-Doped Ni Oxyhydroxide (Ni_{1â€"<i>x</i>}Fe_{<i>x</i>}OOH) Catalysts for Oxygen Evolution Reaction. Journal of the American Chemical Society, 2018, 140, 6745-6748.	6.6	274
4	Redirecting dynamic surface restructuring of a layered transition metal oxide catalyst for superior water oxidation. Nature Catalysis, 2021, 4, 212-222.	16.1	266
5	Embedding Covalency into Metal Catalysts for Efficient Electrochemical Conversion of CO₂. Journal of the American Chemical Society, 2014, 136, 11355-11361.	6.6	192
6	Oxygen evolution reaction over catalytic single-site Co in a well-defined brookite TiO2 nanorod surface. Nature Catalysis, 2021, 4, 36-45.	16.1	189
7	Nitrite Reduction Mechanism on a Pd Surface. Environmental Science & Technology, 2014, 48, 12768-12774.	4.6	188
8	Maximizing the catalytic function of hydrogen spillover in platinum-encapsulated aluminosilicates with controlled nanostructures. Nature Communications, 2014, 5, 3370.	5.8	181
9	Gaâ€"Doped Ptâ€"Ni Octahedral Nanoparticles as a Highly Active and Durable Electrocatalyst for Oxygen Reduction Reaction. Nano Letters, 2018, 18, 2450-2458.	4.5	125
10	Laser-induced phase separation of silicon carbide. Nature Communications, 2016, 7, 13562.	5.8	75
11	Doubleâ€Exchangeâ€Induced in situ Conductivity in Nickelâ€Based Oxyhydroxides: An Effective Descriptor for Electrocatalytic Oxygen Evolution. Angewandte Chemie - International Edition, 2021, 60, 16448-16456.	7.2	63
12	Highly Efficient, Selective, and Stable CO₂ Electroreduction on a Hexagonal Zn Catalyst. Angewandte Chemie, 2016, 128, 9443-9446.	1.6	61
13	2D Covalent Metals: A New Materials Domain of Electrochemical CO₂ Conversion with Broken Scaling Relationship. Journal of Physical Chemistry Letters, 2016, 7, 4124-4129.	2.1	54
14	Lattice Engineering to Simultaneously Control the Defect/Stacking Structures of Layered Double Hydroxide Nanosheets to Optimize Their Energy Functionalities. ACS Nano, 2021, 15, 8306-8318.	7.3	49
15	A hydro/oxo-phobic top hole-selective layer for efficient and stable colloidal quantum dot solar cells. Energy and Environmental Science, 2018, 11, 2078-2084.	15.6	41
16	A mechanistic model for hydrogen activation, spillover, and its chemical reaction in a zeolite-encapsulated Pt catalyst. Physical Chemistry Chemical Physics, 2016, 18, 7035-7041.	1.3	38
17	Photochemically deposited Ir-doped NiCo oxyhydroxide nanosheets provide highly efficient and stable electrocatalysts for the oxygen evolution reaction. Nano Energy, 2020, 75, 104885.	8.2	30
18	Catalytic Interplay of Ga, Pt, and Ce on the Alumina Surface Enabling High Activity, Selectivity, and Stability in Propane Dehydrogenation. ACS Catalysis, 2021, 11, 10767-10777.	5.5	28

#	Article	IF	Citations
19	First-Principles Design of Hydrogen Dissociation Catalysts Based on Isoelectronic Metal Solid Solutions. Journal of Physical Chemistry Letters, 2014, 5, 1819-1824.	2.1	26
20	Peroxymonosulfate activation by black TiO2 nanotube arrays under solar light: Switching the activation mechanism and enhancing catalytic activity and stability. Journal of Hazardous Materials, 2022, 433, 128796.	6.5	24
21	Selective Dissociation of Dihydrogen over Dioxygen on a Hindered Platinum Surface for the Direct Synthesis of Hydrogen Peroxide. ChemCatChem, 2014, 6, 2836-2842.	1.8	23
22	Doubleâ€Exchangeâ€Induced in situ Conductivity in Nickelâ€Based Oxyhydroxides: An Effective Descriptor for Electrocatalytic Oxygen Evolution. Angewandte Chemie, 2021, 133, 16584-16592.	1.6	3