Liuxuan Luo

List of Publications by Year
in descending order

36 papers	789 citations	471509 17 h-index	526287 27 g-index
36 all docs	36 docs citations	36 times ranked	763 citing authors

#	Article	IF	Citations
1	Composition-Graded Cuâ€“Pd Nanospheres with Ir-Doped Surfaces on N-Doped Porous Graphene for Highly Efficient Ethanol Electro-Oxidation in Alkaline Media. ACS Catalysis, 2020, 10, 1171-1184.	11.2	98
2	Composition-Graded Pd_xNi_{1â€“x} Nanospheres with Pt Monolayer Shells as High-Performance Electrocatalysts for Oxygen Reduction Reaction. ACS Catalysis, 2017, 7, 5420-5430.	11.2	82
3	Lithium-mediated electrochemical nitrogen reduction: Mechanistic insights to enhance performance. IScience, 2021, 24, 103105.	4.1	50
4	Enhanced durability of Pt electrocatalyst with tantalum doped titania as catalyst support. International Journal of Hydrogen Energy, 2017, 42, 30750-30759.	7.1	46
5	Comparative Investigation on the Activity Degradation Mechanism of Pt/C and PtCo/C Electrocatalysts in PEMFCs during the Accelerate Degradation Process Characterized by an in Situ X-ray Absorption Fine Structure. ACS Catalysis, 2020, 10, 604-612.	11.2	40
6	Improving the High-Current-Density Performance of PEMFC through Much Enhanced Utilization of Platinum Electrocatalysts on Carbon. ACS Applied Materials & Interfaces, 2020, 12, 26076-26083.	8.0	38
7	Comprehensive Analysis on the Highly Active and Stable PdAu/C Electrocatalyst for Ethanol Oxidation Reaction in Alkaline Media. Journal of Physical Chemistry C, 2018, 122, 1604-1611.	3.1	33
8	Icosahedral Ptâ€“Ni Nanocrystalline Electrocatalyst: Growth Mechanism and Oxygen Reduction Activity. ChemSusChem, 2018, 11, 1015-1019.	6.8	27
9	Hydrogen-assisted scalable preparation of ultrathin Pt shells onto surfactant-free and uniform Pd nanoparticles for highly efficient oxygen reduction reaction in practical fuel cells. Nano Research, 2022, 15, 1892-1900.	10.4	27
10	Promoting Effects of Au Submonolayer Shells on Structure-Designed Cuâ€“Pd/Ir Nanospheres: Greatly Enhanced Activity and Durability for Alkaline Ethanol Electro-Oxidation. ACS Applied Materials & Interfaces, 2020, 12, 25961-25971.	8.0	26
11	Recent advances in hybrid support material for Ptâ€based electrocatalysts of proton exchange membrane fuel cells. International Journal of Energy Research, 2019, 43, 2694-2721.	4.5	25
12	Perspectives on Challenges and Achievements in Local Oxygen Transport of Low Pt Proton Exchange Membrane Fuel Cells. Advanced Materials Technologies, 2022, 7, .	5.8	25
13	Degradation of core-shell Pt3Co catalysts in proton exchange membrane fuel cells (PEMFCs) studied by mathematical modeling. Electrochimica Acta, 2019, 323, 134751.	5.2	22
14	Probing structure-designed Cuâ€“Pd nanospheres and their Pt-monolayer-shell derivatives as high-performance electrocatalysts for alkaline and acidic oxygen reduction reactions. Journal of Materials Chemistry A, 2020, 8, 22389-22400.	10.3	22
15	Potential-Dependent Mechanistic Study of Ethanol Electro-oxidation on Palladium. ACS Applied Materials & Interfaces, 2021, 13, 16602-16610.	8.0	20
16	First-principles study of catalytic activity of W-doped cobalt phosphide toward the hydrogen evolution reaction. Chinese Journal of Catalysis, 2020, 41, 1698-1705.	14.0	18
17	The Asymmetric Effects of Cu²⁺ Contamination in a Proton Exchange Membrane Fuel Cell (PEMFC). Fuel Cells, 2020, 20, 196-202.	2.4	18
18	MoS2-rGO hybrid architecture as durable support for cathode catalyst in proton exchange membrane fuel cells. Chinese Journal of Catalysis, 2019, 40, 1160-1167.	14.0	15

#	Article	IF	Citations
19	Interaction of Ammonia with Nafion and Electrolyte in Electrocatalytic Nitrogen Reduction Study. Journal of Physical Chemistry Letters, 2021, 12, 6861-6866.	4.6	15
20	Theoretical Exploration of the Thermodynamic Process Competition between NRR and HER on Transition-Metal-Doped CoP (101) Facets. Journal of Physical Chemistry C, 2021, 125, 17051-17057.	3.1	15
21	Breaking the scaling relationship of ORR on carbon-based single-atom catalysts through building a local collaborative structure. Catalysis Science and Technology, 2021, 11, 7764-7772.	4.1	14
22	An Inâ€Depth Theoretical Exploration of Influences of Nonâ€Metalâ€Elements Doping on the ORR Performance of Coâ^'gN₄. ChemCatChem, 2021, 13, 2303-2310.	3.7	12
23	Evaluation of Electrocatalytic Activity of Noble Metal Catalysts Toward Nitrogen Reduction Reaction in Aqueous Solutions under Ambient Conditions. ChemSusChem, 2022, 15, .	6.8	12
24	Electrodeposited PtNi nanoparticles towards oxygen reduction reaction: A study on nucleation and growth mechanism. Chinese Journal of Catalysis, 2021, 42, 2068-2077.	14.0	11
25	Rapid flame synthesis of carbon doped defective ZnO for electrocatalytic CO2 reduction to syngas. Electrochimica Acta, 2022, 411, 140098.	5.2	11
26	DMF-Coordination Assisted Electrodeposition of Highly Active PtCo Alloy Catalysts for the Oxygen Reduction Reaction. Journal of the Electrochemical Society, 2018, 165, D43-D49.	2.9	9
27	Insight into the potential strategies for mitigating Pt degradation in proton exchange membrane fuel cells (PEMFCs): From the perspective of Pt ion transport. Journal of Power Sources, 2022, 522, 230999.	7.8	9
28	Microstructures and Proton Networks of Ionomer Film on the Surface of Platinum Single Atom Catalyst in Polymer Electrolyte Membrane Fuel Cells. Journal of Physical Chemistry C, 2021, 125, 24240-24248.	3.1	8
29	Electronic and Potential Synergistic Effects of Surface-Doped Pâ€“O Species on Uniform Pd Nanospheres: Breaking the Linear Scaling Relationship toward Electrochemical Oxygen Reduction. ACS Applied Materials & Interfaces, 2022, 14, 14146-14156.	8.0	8
30	An exploration of the use of Au submonolayer decorated Pd₇Ir nanoparticles as a highly active electrocatalyst for the ethanol oxidation reaction in alkaline media. Catalysis Science and Technology, 2018, 8, 3465-3468.	4.1	7
31	A perspective on the promoting effect of Ir and Au on Pd toward the ethanol oxidation reaction in alkaline media. Frontiers in Energy, 2018, 12, 501-508.	2.3	5
32	A derivative of mesoporous oxygen reduction reaction electrocatalysts from citric acid and dicyandiamide. International Journal of Hydrogen Energy, 2020, 45, 6563-6572.	7.1	5
33	Formic Acid Oxidation by Pd Monolayers on Pt₃Ni Nanocubes. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2016, 32, 337-342.	4.9	4
34	Lithium-ion modified cellulose as a water-soluble binder for Li-O2 battery. Frontiers in Energy, 2022, 16, 502-508.	2.3	4
35	Electrochemical CO2 separation by a shorted membrane. Joule, 2022, 6, 720-722.	24.0	4
36	Platinum-Based Nanocomposite Pt@BSA as an Efficient Electrochemical Biosensing Interface for Rapid and Ultrasensitive Determination of Folate Receptor-Positive Tumor Cells. ACS Applied Bio Materials, 2022, 5, 3038-3048.	4.6	4