Hong-Gang Liao

List of Publications by Year
in descending order

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		94381	82499
74	5,671	37	72
papers	citations	h-index	g-index

76	76	76	7646
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Real-Time Imaging of Pt ₃ Fe Nanorod Growth in Solution. Science, 2012, 336, 1011-1014.	6.0	649
2	Facet development during platinum nanocube growth. Science, 2014, 345, 916-919.	6.0	429
3	Graphene Decorated with PtAu Alloy Nanoparticles: Facile Synthesis and Promising Application for Formic Acid Oxidation. Chemistry of Materials, 2011, 23, 1079-1081.	3.2	366
4	Shapeâ€Controlled Synthesis of Gold Nanoparticles in Deep Eutectic Solvents for Studies of Structureâ€“Functionality Relationships in Electrocatalysis. Angewandte Chemie - International Edition, 2008, 47, 9100-9103.	7.2	352
5	Visualization of Electrodeâ€“Electrolyte Interfaces in LiPF₆/EC/DEC Electrolyte for Lithium Ion Batteries via in Situ TEM. Nano Letters, 2014, 14, 1745-1750.	4.5	304
6	Polyelectrolyte-Induced Reduction of Exfoliated Graphite Oxide: A Facile Route to Synthesis of Soluble Graphene Nanosheets. ACS Nano, 2011, 5, 1785-1791.	7.3	293
7	Durable Carbon-Coated Li₂S Coreâ€“Shell Spheres for High Performance Lithium/Sulfur Cells. Journal of the American Chemical Society, 2014, 136, 4659-4663.	6.6	248
8	A Gigantic Molecular Wheel of {Gd₁₄₀}: A New Member of the Molecular Wheel Family. Journal of the American Chemical Society, 2017, 139, 18178-18181.	6.6	229
9	Observation of growth of metal nanoparticles. Chemical Communications, 2013, 49, 11720.	2.2	128
10	Liquid Cell Transmission Electron Microscopy. Annual Review of Physical Chemistry, 2016, 67, 719-747.	4.8	120
11	Graphitized porous carbon materials with high sulfur loading for lithium-sulfur batteries. Nano Energy, 2017, 32, 503-510.	8.2	118
12	Carbon nanofiberâ€“sulfur composite cathode materials with different binders for secondary Li/S cells. Electrochimica Acta, 2012, 65, 228-233.	2.6	117
13	Liquid Cell Transmission Electron Microscopy Study of Platinum Iron Nanocrystal Growth and Shape Evolution. Journal of the American Chemical Society, 2013, 135, 5038-5043.	6.6	117
14	Screw-like PdPt nanowires as highly efficient electrocatalysts for methanol and ethylene glycol oxidation. Journal of Materials Chemistry A, 2018, 6, 2327-2336.	5.2	117
15	Boosting the potassium-ion storage performance enabled by engineering of hierarchical MoSSe nanosheets modified with carbon on porous carbon sphere. Science Bulletin, 2022, 67, 933-945.	4.3	96
16	Electrochemically shape-controlled synthesis of trapezohedral platinum nanocrystals with high electrocatalytic activity. Chemical Communications, 2012, 48, 9531.	2.2	95
17	Tuning Pt-skin to Ni-rich surface of Pt3Ni catalysts supported on porous carbon for enhanced oxygen reduction reaction and formic electro-oxidation. Nano Energy, 2016, 19, 198-209.	8.2	94
18	A novel strategy for synthesizing Fe, N, and S tridoped graphene-supported Pt nanodendrites toward highly efficient methanol oxidation. Journal of Catalysis, 2020, 381, 275-284.	3.1	92

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19	Platinumâ€“Cobalt Bimetallic Nanoparticles with Pt Skin for Electro-Oxidation of Ethanol. ACS Catalysis, 2017, 7, 892-895.	5.5	89
20	An Openâ€Structured Matrix as Oxygen Cathode with High Catalytic Activity and Large Li₂O₂ Accommodations for Lithiumâ€“Oxygen Batteries. Advanced Energy Materials, 2018, 8, 1800089.	10.2	88
21	Structural and Morphological Evolution of Lead Dendrites during Electrochemical Migration. Scientific Reports, 2013, 3, 3227.	1.6	83
22	Tracking Nanoparticle Diffusion and Interaction during Self-Assembly in a Liquid Cell. Nano Letters, 2017, 17, 15-20.	4.5	82
23	Highly efficient Co3O4/Co@NCs bifunctional oxygen electrocatalysts for long life rechargeable Zn-air batteries. Nano Energy, 2020, 77, 105200.	8.2	71
24	Synthesis of u-channelled spherical Fe_x(Co_yNi_{1â^'y})_{100â^'x} Janus colloidal particles with excellent electromagnetic wave absorption performance. Nanoscale, 2018, 10, 1930-1938.	2.8	67
25	Engineering of Amorphous PtO_x Interface on Pt/WO₃ Nanosheets for Ethanol Oxidation Electrocatalysis. Advanced Functional Materials, 2021, 31, 2100982.	7.8	63
26	A Carbon Foam with Sodiophilic Surface for Highly Reversible, Ultraâ€Long Cycle Sodium Metal Anode. Advanced Science, 2021, 8, 2003178.	5.6	62
27	Visualization of the Coalescence of Bismuth Nanoparticles. Microscopy and Microanalysis, 2014, 20, 416-424.	0.2	58
28	Ultrasmall Abundant Metal-Based Clusters as Oxygen-Evolving Catalysts. Journal of the American Chemical Society, 2019, 141, 232-239.	6.6	56
29	A â€œBiconcave-Alleviatedâ€•Strategy to Construct Aspergillus niger-Derived Carbon/MoS₂ for Ultrastable Sodium Ion Storage. ACS Nano, 2021, 15, 13814-13825.	7.3	49
30	Seizing gaseous Fe²⁺ to densify O₂-accessible Feâ€“N₄ sites for high-performance proton exchange membrane fuel cells. Energy and Environmental Science, 2022, 15, 3033-3040.	15.6	49
31	Atomically Isolated Rh Sites within Highly Branched Rh₂Sb Nanostructures Enhance Bifunctional Hydrogen Electrocatalysis. Advanced Materials, 2021, 33, e2105049.	11.1	48
32	Reconstruction of Ultrahighâ€Aspectâ€Ratio Crystalline Bismuthâ€“Organic Hybrid Nanobelts for Selective Electrocatalytic CO₂ Reduction to Formate. Advanced Functional Materials, 2022, 32, .	7.8	47
33	High selectivity PtRh/RGO catalysts for ethanol electro-oxidation at low potentials: Enhancing the efficiency of CO2 from alcoholic groups. Electrochimica Acta, 2018, 292, 208-216.	2.6	44
34	Creating Fluorineâ€Doped MoS₂ Edge Electrodes with Enhanced Hydrogen Evolution Activity. Small Methods, 2021, 5, e2100612.	4.6	44
35	Machine-Learning-Guided Morphology Engineering of Nanoscale Metal-Organic Frameworks. Matter, 2020, 2, 1651-1666.	5.0	43
36	Biomimetic micro cell cathode for high performance lithiumâ€“sulfur batteries. Nano Energy, 2020, 72, 104680.	8.2	42

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37	Observation of materials processes in liquids by electron microscopy. MRS Bulletin, 2015, 40, 46-52.	1.7	40
38	Synergistic effects of carbon doping and coating of TiO2 with exceptional photocurrent enhancement for high performance H2 production from water splitting. Journal of Energy Chemistry, 2021, 56, 141-151.	7.1	36
39	Effect of Atomic Ordering Transformation of PtNi Nanoparticles on Alkaline Hydrogen Evolution: Unexpected Superior Activity of the Disordered Phase. Journal of Physical Chemistry C, 2020, 124, 5036-5045.	1.5	32
40	Efficient diffusion of superdense lithium via atomic channels for dendrite-free lithiumâ€“metal batteries. Energy and Environmental Science, 2022, 15, 196-205.	15.6	27
41	A superior electrocatalyst toward the oxygen reduction reaction obtained by atomically dispersing copper on N, F co-doped graphene through atomic interface engineering. Journal of Materials Chemistry A, 2022, 10, 13876-13883.	5.2	27
42	Advanced Electron Energy Loss Spectroscopy for Battery Studies. Advanced Functional Materials, 2022, 32, 2107190.	7.8	26
43	Visualizing light-induced dynamic structural transformations of Au clusters-based photocatalyst via in situ TEM. Nano Research, 2021, 14, 2805-2809.	5.8	24
44	Co/Li-dual-site doping towards LiCoO₂ as a high-voltage, fast-charging, and long-cycling cathode material. Journal of Materials Chemistry A, 2022, 10, 5295-5304.	5.2	21
45	In-situ Multimodal Imaging and Spectroscopy of Mg Electrodeposition at Electrode-Electrolyte Interfaces. Scientific Reports, 2017, 7, 42527.	1.6	20
46	CeO -supported monodispersed MoO3 clusters for high-efficiency electrochemical nitrogen reduction under ambient condition. Journal of Energy Chemistry, 2021, 56, 186-192.	7.1	20
47	Enhancing electrocatalytic nitrogen reduction to ammonia with rare earths (La, Y, and Sc) on high-index faceted platinum alloy concave nanocubes. Journal of Materials Chemistry A, 2021, 9, 26277-26285.	5.2	20
48	TEM study of fivefold twined gold nanocrystal formation mechanism. Materials Letters, 2014, 116, 299-303.	1.3	19
49	Reshaping the Cathodic Catalyst Layer for Anion Exchange Membrane Fuel Cells: From Heterogeneous Catalysis to Homogeneous Catalysis. Angewandte Chemie - International Edition, 2021, 60, 4049-4054.	7.2	19
50	Real time imaging of photocatalytic active site formation during H2 evolution by in-situ TEM. Applied Catalysis B: Environmental, 2021, 284, 119743.	10.8	19
51	In Situ TEM Study of the Degradation of PbSe Nanocrystals in Air. Chemistry of Materials, 2019, 31, 190-199.	3.2	18
52	Direct Electrochemistry and Electrocatalysis of Myoglobin Immobilized on Grapheneâ€CTABâ€Ionic Liquid Nanocomposite Film. Electroanalysis, 2010, 22, 2297-2302.	1.5	16
53	Shape Evolution of Platinum Nanocrystals by Electrochemistry. Electrochimica Acta, 2014, 140, 345-351.	2.6	16
54	Identification of a quasi-liquid phase at solidâ€“liquid interface. Nature Communications, 2022, 13, .	5.8	15

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55	Gas permeation through graphdiyne-based nanoporous membranes. Nature Communications, 2022, 13, .	5.8	15
56	Probing surface structure on two-dimensional metal-organic layers to understand suppressed interlayer packing. Nano Research, 2020, 13, 3151-3156.	5.8	12
57	Tracking the atomic pathways of Pt3Ni-Ni(OH)2 core-shell structures at the gas-liquid interface by in-situ liquid cell TEM. Science China Chemistry, 2020, 63, 513-518.	4.2	12
58	The Effect of Pretreatment on the Reactivity of Pd/Al₂O₃ in Room Temperature Formaldehyde Oxidation. ChemCatChem, 2021, 13, 4133-4141.	1.8	11
59	Sulfur Microspheres Encapsulated in Porous Silverâ€Based Shell with Superior Performance for Lithiumâ€Sulfur Batteries. ChemElectroChem, 2018, 5, 1683-1690.	1.7	9
60	Efficient CO2 reduction MOFs derivatives transformation mechanism revealed by in-situ liquid phase TEM. Applied Catalysis B: Environmental, 2022, 307, 121164.	10.8	9
61	Atomic Scale Tracking of Single Layer Oxide Formation: Selfâ€Peeling and Phase Transition in Solution. Small Methods, 2021, 5, e2001234.	4.6	8
62	Revealing Dynamic Processes of Materials in Liquids Using Liquid Cell Transmission Electron Microscopy. Journal of Visualized Experiments, 2012, , .	0.2	7
63	Preparation of carbon-coated magnetic nanocomposites under inert atmosphere and at low temperature. Materials and Design, 2017, 114, 25-30.	3.3	7
64	Microstrain Engineered Ni_xS₂/PtNi Porous Nanowires for Boosting Hydrogen Evolution Activity. Energy & Fuels, 2021, 35, 6928-6934.	2.5	7
65	In-situ liquid cell TEM investigation on assembly and symmetry transformation of Pt superlattice. Science China Materials, 2020, 63, 602-610.	3.5	6
66	Shaping and Edge Engineering of Few-Layered Freestanding Graphene Sheets in a Transmission Electron Microscope. Nano Letters, 2020, 20, 2279-2287.	4.5	5
67	Observations of Dense Liquid Phase-Assisted Nanocrystal Growth and Coalescence. Crystal Growth and Design, 2021, 21, 6025-6030.	1.4	3
68	Imaging of Pt3Fe Nanwire Growth in Liquids by In situ TEM. Microscopy and Microanalysis, 2012, 18, 1092-1093.	0.2	2
69	Reshaping the Cathodic Catalyst Layer for Anion Exchange Membrane Fuel Cells: From Heterogeneous Catalysis to Homogeneous Catalysis. Angewandte Chemie, 2021, 133, 4095-4100.	1.6	2
70	Special IR properties of palladium nanoparticles and their aggregations in CO molecular probe infrared spectroscopy. Science Bulletin, 2004, 49, 1581-1585.	1.7	1
71	Nanostructure Growth, Interactions, and Assembly in the Liquid Phase. , 0, , 191-209.		1
72	Application of <italic>in situ</italic> transmission electron microscopy inelectrochemistry. Scientia Sinica Chimica, 2021, 51, 1489-1500.	0.2	1

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73	Special IR properties of palla-dium nanoparticles and their aggregations in CO molecular probe infrared spectroscopy. Science Bulletin, 2004, 49, 1581.	1.7	0
74	Liquid Cell TEM Study of Nanoparticle Diffusion and Interaction in Liquids. Microscopy and Microanalysis, 2016, 22, 742-743.	0.2	0