

Hongyang Liu

List of Publications by Year in descending order

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80
papers

4,613
citations

117571

34
h-index

102432

66
g-index

83
all docs

83
docs citations

83
times ranked

5468
citing authors

#	ARTICLE	IF	CITATIONS
1	Interface-Confined Ferrous Centers for Catalytic Oxidation. <i>Science</i> , 2010, 328, 1141-1144.	6.0	866
2	Atomically Dispersed Pd on Nanodiamond/Graphene Hybrid for Selective Hydrogenation of Acetylene. <i>Journal of the American Chemical Society</i> , 2018, 140, 13142-13146.	6.6	342
3	Anchoring Cu ¹ species over nanodiamond-graphene for semi-hydrogenation of acetylene. <i>Nature Communications</i> , 2019, 10, 4431.	5.8	224
4	Fully Exposed Cluster Catalyst (FECC): Toward Rich Surface Sites and Full Atom Utilization Efficiency. <i>ACS Central Science</i> , 2021, 7, 262-273.	5.3	163
5	Efficient band structure tuning, charge separation, and visible-light response in ZrS ₂ -based van der Waals heterostructures. <i>Energy and Environmental Science</i> , 2016, 9, 841-849.	15.6	161
6	Tin-Assisted Fully Exposed Platinum Clusters Stabilized on Defect-Rich Graphene for Dehydrogenation Reaction. <i>ACS Catalysis</i> , 2019, 9, 5998-6005.	5.5	150
7	Size-controlled nitrogen-containing mesoporous carbon nanospheres by one-step aqueous self-assembly strategy. <i>Journal of Materials Chemistry A</i> , 2015, 3, 2305-2313.	5.2	149
8	Fully exposed palladium cluster catalysts enable hydrogen production from nitrogen heterocycles. <i>Nature Catalysis</i> , 2022, 5, 485-493.	16.1	118
9	Unconventional Route to Encapsulated Ultrasmall Gold Nanoparticles for High-Temperature Catalysis. <i>ACS Nano</i> , 2014, 8, 7297-7304.	7.3	113
10	Regulating coordination number in atomically dispersed Pt species on defect-rich graphene for n-butane dehydrogenation reaction. <i>Nature Communications</i> , 2021, 12, 2664.	5.8	111
11	Origin of the Robust Catalytic Performance of Nanodiamond@Graphene-Supported Pt Nanoparticles Used in the Propane Dehydrogenation Reaction. <i>ACS Catalysis</i> , 2017, 7, 3349-3355.	5.5	85
12	A nanodiamond/CNT@SiC monolith as a novel metal free catalyst for ethylbenzene direct dehydrogenation to styrene. <i>Chemical Communications</i> , 2014, 50, 7810-7812.	2.2	82
13	Ti ₃ C ₂ T _x MXene Catalyzed Ethylbenzene Dehydrogenation: Active Sites and Mechanism Exploration from both Experimental and Theoretical Aspects. <i>ACS Catalysis</i> , 2018, 8, 10051-10057.	5.5	79
14	The Development of Yolk@Shell Structured Pd&ZnO@Carbon Submicroreactors with High Selectivity and Stability. <i>Advanced Functional Materials</i> , 2018, 28, 1801737.	7.8	78
15	Defect-rich activated carbons as active and stable metal-free catalyst for acetylene hydrochlorination. <i>Carbon</i> , 2019, 146, 406-412.	5.4	78
16	Palladium Nanoparticles Embedded in the Inner Surfaces of Carbon Nanotubes: Synthesis, Catalytic Activity, and Sinter Resistance. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 12634-12638.	7.2	76
17	Stabilization of Palladium Nanoparticles on Nanodiamond@Graphene Core@Shell Supports for CO Oxidation. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15823-15826.	7.2	74
18	Low Temperature Oxidation of Ethane to Oxygenates by Oxygen over Iridium-Cluster Catalysts. <i>Journal of the American Chemical Society</i> , 2019, 141, 18921-18925.	6.6	72

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19	Few-Atom Pt Ensembles Enable Efficient Catalytic Cyclohexane Dehydrogenation for Hydrogen Production. <i>Journal of the American Chemical Society</i> , 2022, 144, 3535-3542.	6.6	72
20	Synthesis of nitrogen-containing ordered mesoporous carbon as a metal-free catalyst for selective oxidation of ethylbenzene. <i>Chemical Communications</i> , 2014, 50, 9182-9184.	2.2	70
21	Facile Synthesis of Au Nanoparticles Embedded in an Ultrathin Hollow Graphene Nanoshell with Robust Catalytic Performance. <i>Small</i> , 2015, 11, 5059-5064.	5.2	69
22	Boron doped g-C ₃ N ₄ as an effective metal-free solid base catalyst in Knoevenagel condensation. <i>Catalysis Today</i> , 2018, 316, 199-205.	2.2	68
23	Construction of Pd-M (M = Ni, Ag, Cu) alloy surfaces for catalytic applications. <i>Nano Research</i> , 2018, 11, 780-790.	5.8	61
24	Porous graphene-based material as an efficient metal free catalyst for the oxidative dehydrogenation of ethylbenzene to styrene. <i>Chemical Communications</i> , 2015, 51, 3423-3425.	2.2	51
25	Cooperative Sites in Fully Exposed Pd Clusters for Low-Temperature Direct Dehydrogenation Reaction. <i>ACS Catalysis</i> , 2021, 11, 11469-11477.	5.5	51
26	Ultrafine platinum/iron oxide nanoconjugates confined in silica nanoshells for highly durable catalytic oxidation. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1366-1372.	5.2	51
27	Tuning the selectivity of catalytic nitriles hydrogenation by structure regulation in atomically dispersed Pd catalysts. <i>Nature Communications</i> , 2021, 12, 6194.	5.8	51
28	Defect-rich graphene stabilized atomically dispersed Cu ₃ clusters with enhanced oxidase-like activity for antibacterial applications. <i>Applied Catalysis B: Environmental</i> , 2022, 301, 120826.	10.8	51
29	Facile construction of Ag nanoparticles encapsulated into carbon nanotubes with robust antibacterial activity. <i>Carbon</i> , 2018, 130, 775-781.	5.4	50
30	N-doped graphene confined Pt nanoparticles for efficient semi-hydrogenation of phenylacetylene. <i>Carbon</i> , 2019, 145, 47-52.	5.4	44
31	A Magnetically Separable Pd Single-Atom Catalyst for Efficient Selective Hydrogenation of Phenylacetylene. <i>Advanced Materials</i> , 2022, 34, e2110455.	11.1	44
32	Selective and Stable Ethylbenzene Dehydrogenation to Styrene over Nanodiamonds under Oxygen-Clean Conditions. <i>ChemSusChem</i> , 2016, 9, 662-666.	3.6	43
33	Defective graphene@diamond hybrid nanocarbon material as an effective and stable metal-free catalyst for acetylene hydrochlorination. <i>Chemical Communications</i> , 2019, 55, 1430-1433.	2.2	41
34	Wide-band microwave absorption by <i>in situ</i> tailoring morphology and optimized N-doping in nano-SiC. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	35
35	Preparation of Palladium Catalysts Supported on Carbon Nanotubes by an Electrostatic Adsorption Method. <i>ChemCatChem</i> , 2014, 6, 2600-2606.	1.8	33
36	Highly dispersed nanodiamonds supported on few-layer graphene as robust metal-free catalysts for ethylbenzene dehydrogenation reaction. <i>Catalysis Science and Technology</i> , 2015, 5, 4950-4953.	2.1	31

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37	Ultra-Small Platinum Nanoparticles Encapsulated in Sub-50 nm Hollow Titania Nanospheres for Low-Temperature Water-Gas Shift Reaction. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 36954-36960.	4.0	31
38	Multiple-twinned silver nanoparticles supported on mesoporous graphene with enhanced antibacterial activity. <i>Carbon</i> , 2019, 155, 397-402.	5.4	30
39	Electrophilic oxygen on defect-rich carbon nanotubes for selective oxidation of cyclohexane. <i>Catalysis Science and Technology</i> , 2020, 10, 332-336.	2.1	30
40	Facet Sensitivity of Capping Ligand-Free Ag Crystals in CO ₂ Electrochemical Reduction to CO. <i>ChemCatChem</i> , 2018, 10, 5128-5134.	1.8	29
41	Improving the Alkene Selectivity of Nanocarbon-Catalyzed Oxidative Dehydrogenation of <i>n</i> -Butane by Refinement of Oxygen Species. <i>ACS Catalysis</i> , 2017, 7, 7305-7311.	5.5	28
42	Vapor-Phase Dissociation-Solid Growth of Three-Dimensional Graphite-like Capsules with Delicate Morphology and Atomic-level Thickness Control. <i>Crystal Growth and Design</i> , 2016, 16, 5040-5048.	1.4	27
43	PdZn alloy nanoparticles encapsulated within a few layers of graphene for efficient semi-hydrogenation of acetylene. <i>Chemical Communications</i> , 2019, 55, 14693-14696.	2.2	27
44	Immobilizing Carbon Nanotubes on SiC Foam as a Monolith Catalyst for Oxidative Dehydrogenation Reactions. <i>ChemCatChem</i> , 2013, 5, 1713-1717.	1.8	25
45	Synergetic Effect of B and O Dopants for Aerobic Oxidative Coupling of Amines to Imines. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 17410-17418.	3.2	25
46	Study of the Role of Surface Oxygen Functional Groups on Carbon Nanotubes in the Selective Oxidation of Acrolein. <i>ChemCatChem</i> , 2014, 6, 1553-1557.	1.8	24
47	Multi-Walled Carbon Nanotubes as a Catalyst for Gas-Phase Oxidation of Ethanol to Acetaldehyde. <i>ChemSusChem</i> , 2016, 9, 1820-1826.	3.6	24
48	Phosphor-doped hexagonal boron nitride nanosheets as effective acid-base bifunctional catalysts for one-pot deacetalization-Knoevenagel cascade reactions. <i>Catalysis Science and Technology</i> , 2018, 8, 5900-5905.	2.1	24
49	Boron nitride for enhanced oxidative dehydrogenation of ethylbenzene. <i>Journal of Energy Chemistry</i> , 2021, 57, 477-484.	7.1	23
50	Antisintering Pd ₁ Catalyst for Propane Direct Dehydrogenation with In Situ Active Sites Regeneration Ability. <i>ACS Catalysis</i> , 2022, 12, 2244-2252.	5.5	23
51	Insight into the Activity of Atomically Dispersed Cu Catalysts for Semihydrogenation of Acetylene: Impact of Coordination Environments. <i>ACS Catalysis</i> , 2022, 12, 48-57.	5.5	23
52	Fabrication of MgO-rGO hybrid catalysts with a sandwich structure for enhanced ethylbenzene dehydrogenation performance. <i>Chemical Communications</i> , 2017, 53, 11322-11325.	2.2	21
53	Pt NPs immobilized on a N-doped graphene@Al ₂ O ₃ hybrid support as robust catalysts for low temperature CO oxidation. <i>Chemical Communications</i> , 2018, 54, 11168-11171.	2.2	21
54	Palladium nanoclusters immobilized on defective nanodiamond-graphene core-shell supports for semihydrogenation of phenylacetylene. <i>Journal of Energy Chemistry</i> , 2019, 33, 31-36.	7.1	20

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55	Phosphate modified carbon nanotubes for oxidative dehydrogenation of n-butane. <i>Journal of Energy Chemistry</i> , 2016, 25, 349-353.	7.1	19
56	A Facile and Efficient Method to Fabricate Highly Selective Nanocarbon Catalysts for Oxidative Dehydrogenation. <i>ChemSusChem</i> , 2017, 10, 353-358.	3.6	19
57	Nanodiamond@Core-Reinforced, Graphene@Shell-Immobilized Platinum Nanoparticles as a Highly Active Catalyst for the Low-Temperature Dehydrogenation of <i>n</i> -Butane. <i>ChemCatChem</i> , 2018, 10, 520-524.	1.8	15
58	An Efficient Metal-Free Catalyst for Oxidative Dehydrogenation Reaction: Activated Carbon Decorated with Few-Layer Graphene. <i>ChemSusChem</i> , 2018, 11, 536-541.	3.6	14
59	Graphitized nanocarbon-supported metal catalysts: synthesis, properties, and applications in heterogeneous catalysis. <i>Science China Materials</i> , 2017, 60, 1149-1167.	3.5	13
60	Reconstruction of Rh nanoparticles in methanol oxidation reaction. <i>Catalysis Science and Technology</i> , 2015, 5, 4116-4122.	2.1	9
61	High performance of nitrogen-modified carbon nanotubes for selective oxidation of allyl alcohol. <i>Catalysis Science and Technology</i> , 2017, 7, 1279-1283.	2.1	9
62	Few-layer sp ² carbon supported on Al ₂ O ₃ as hybrid structure for ethylbenzene oxidative dehydrogenation. <i>Catalysis Today</i> , 2018, 301, 32-37.	2.2	9
63	Steam treatment: a facile and effective process for the removal of PVP from shape-controlled palladium nanoparticles. <i>Nanoscale</i> , 2018, 10, 11992-11996.	2.8	9
64	Highly efficient and selective hydrogenation of chloronitrobenzenes to chloroanilines by H ₂ over confined silver nanoparticles. <i>RSC Advances</i> , 2016, 6, 31871-31875.	1.7	8
65	Atomically dispersed metal catalysts on nanodiamond and its derivatives: synthesis and catalytic application. <i>Chemical Communications</i> , 2021, 57, 11591-11603.	2.2	8
66	Bottom-Up Approach Derived Iron and Nitrogen Cofunctionalized Carbon as Efficient Renewable Catalyst for Selective Reduction of Nitroarenes. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5127-5135.	1.5	7
67	Phosphorus-doped h-boron nitride as an efficient metal-free catalyst for direct dehydrogenation of ethylbenzene. <i>Catalysis Science and Technology</i> , 2021, 11, 5590-5597.	2.1	7
68	Facile fabrication of graphene encapsulating 3d transition metal nanoparticles as highly active and anti-poisoning catalysts for selective hydrogenation of nitroaromatics. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 1278-1285.	5.0	7
69	Fully-exposed Pt clusters stabilized on Sn-decorated nanodiamond/graphene hybrid support for efficient ethylbenzene direct dehydrogenation. <i>Nano Research</i> , 2022, 15, 10029-10036.	5.8	7
70	Three-Dimensional Interconnected Porous Nitrogen-Doped Carbon Hybrid Foam for Notably Promoted Direct Dehydrogenation of Ethylbenzene to Styrene. <i>ChemCatChem</i> , 2019, 11, 4830-4840.	1.8	6
71	Towards a library of atomically dispersed catalysts. <i>Materials and Design</i> , 2021, 210, 110080.	3.3	6
72	Crystal phase-selective synthesis of intermetallic palladium borides and phase-regulated (electro)catalytic properties. <i>Catalysis Science and Technology</i> , 0, , .	2.1	6

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73	A facile strategy based on the metal-free design of carbon to deliver an insight into the active sites for liquid phase carbocatalysis. <i>Chemical Communications</i> , 2020, 56, 3789-3792.	2.2	5
74	The durability of carbon nanotubes in the selective reduction of nitrobenzene. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 6524-6527.	1.3	5
75	Pd on Nanodiamond/Graphene in Hydrogenation of Propyne with Parahydrogen. <i>Journal of Physical Chemistry C</i> , 2021, 125, 27221-27229.	1.5	5
76	A comparative study of nitrobenzene reduction using model catalysts. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 1019-1022.	1.3	3
77	3D atomic imaging of low-coordinated active sites in solid-state dealloyed hierarchical nanoporous gold. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25513-25521.	5.2	3
78	Kinetic Evidence of Most Abundant Surface Intermediates Variation over Pt _n and Pt _p : Few-Atom Pt Ensembles Enable Efficient Catalytic Cyclohexane Dehydrogenation for Hydrogen Production-II. <i>ACS Catalysis</i> , 2022, 12, 7248-7261.	5.5	3
79	Submicroreactors: The Development of Yolk-Shell-Structured Pd&ZnO@Carbon Submicroreactors with High Selectivity and Stability (<i>Adv. Funct. Mater.</i> 32/2018). <i>Advanced Functional Materials</i> , 2018, 28, 1870227.	7.8	1
80	Resolving Nanostructured Materials Down to the Single-atom Limit. <i>Microscopy and Microanalysis</i> , 2020, 26, 1756-1758.	0.2	0