Xin-Hao Li

List of Publications by Year
in descending order

110 papers	9,130 citations	57631 44 h-index	39575 94 g-index
121 all docs	121 docs citations	121 times ranked	11649 citing authors

#	Article	IF	Citations
1	Metal nanoparticles at mesoporous N-doped carbons and carbon nitrides: functional Mottâ€“Schottky heterojunctions for catalysis. Chemical Society Reviews, 2013, 42, 6593.	18.7	713
2	Metal-Free Activation of Dioxygen by Graphene/g-C₃N₄Nanocomposites: Functional Dyads for Selective Oxidation of Saturated Hydrocarbons. Journal of the American Chemical Society, 2011, 133, 8074-8077.	6.6	567
3	Janus Co/CoP Nanoparticles as Efficient Mottâ€“Schottky Electrocatalysts for Overall Water Splitting in Wide pH Range. Advanced Energy Materials, 2017, 7, 1602355.	10.2	482
4	Surface and Interface Engineering of Electrode Materials for Lithiumâ€Ion Batteries. Advanced Materials, 2015, 27, 527-545.	11.1	426
5	Condensed Graphitic Carbon Nitride Nanorods by Nanoconfinement: Promotion of Crystallinity on Photocatalytic Conversion. Chemistry of Materials, 2011, 23, 4344-4348.	3.2	393
6	Mesoporous g-C3N4 nanorods as multifunctional supports of ultrafine metal nanoparticles: hydrogen generation from water and reduction of nitrophenol with tandem catalysis in one step. Chemical Science, 2012, 3, 2170.	3.7	391
7	Synthesis of Monolayerâ€Patched Graphene from Glucose. Angewandte Chemie - International Edition, 2012, 51, 9689-9692.	7.2	377
8	Activating Cobalt Nanoparticles via the Mottâ€“Schottky Effect in Nitrogen-Rich Carbon Shells for Base-Free Aerobic Oxidation of Alcohols to Esters. Journal of the American Chemical Society, 2017, 139, 811-818.	6.6	351
9	Utilizing the Spaceâ€Charge Region of the FeNiâ€LDH/CoP pâ€n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. Angewandte Chemie - International Edition, 2019, 58, 11903-11909.	7.2	329
10	Electrochemical Reduction of N₂ into NH₃ by Donorâ€“Acceptor Couples of Ni and Au Nanoparticles with a 67.8% Faradaic Efficiency. Journal of the American Chemical Society, 2019, 141, 14976-14980.	6.6	290
11	Solvent-Free and Metal-Free Oxidation of Toluene Using O₂ and g-C₃N₄ with Nanopores: Nanostructure Boosts the Catalytic Selectivity. ACS Catalysis, 2012, 2, 2082-2086.	5.5	227
12	2D/2D Heterojunctions for Catalysis. Advanced Science, 2019, 6, 1801702.	5.6	224
13	Polycondensation of Boronâ€and Nitrogenâ€Codoped Holey Graphene Monoliths from Molecules: Carbocatalysts for Selective Oxidation. Angewandte Chemie - International Edition, 2013, 52, 4572-4576.	7.2	215
14	Highly Efficient Dehydrogenation of Formic Acid over a Palladiumâ€Nanoparticleâ€Based Mottâ€“Schottky Photocatalyst. Angewandte Chemie - International Edition, 2013, 52, 11822-11825.	7.2	210
15	Boosting selective nitrogen reduction to ammonia on electron-deficient copper nanoparticles. Nature Communications, 2019, 10, 4380.	5.8	203
16	Encapsulating Palladium Nanoparticles Inside Mesoporous MFI Zeolite Nanocrystals for Shapeâ€Selective Catalysis. Angewandte Chemie - International Edition, 2016, 55, 9178-9182.	7.2	174
17	Facilitating room-temperature Suzuki coupling reaction with light: Mott-Schottky photocatalyst for C-C-coupling. Scientific Reports, 2013, 3, .	1.6	165
18	Strongly Veined Carbon Nanoleaves as a Highly Efficient Metalâ€Free Electrocatalyst. Angewandte Chemie - International Edition, 2014, 53, 6905-6909.	7.2	156

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19	Synthesis of Amphiphilic Superparamagnetic Ferrite/Block Copolymer Hollow Submicrospheres. Journal of the American Chemical Society, 2006, 128, 8382-8383.	6.6	141
20	Multifunctional Auâ€“Co@CN Nanocatalyst for Highly Efficient Hydrolysis of Ammonia Borane. ACS Catalysis, 2015, 5, 388-392.	5.5	135
21	Palladium/Graphitic Carbon Nitride (gâ€C₃N₄) Stabilized Emulsion Microreactor as a Store for Hydrogen from Ammonia Borane for Use in Alkene Hydrogenation. Angewandte Chemie - International Edition, 2018, 57, 14857-14861.	7.2	135
22	Schottky Barrier Induced Coupled Interface of Electron-Rich N-Doped Carbon and Electron-Deficient Cu: In-Built Lewis Acidâ€“Base Pairs for Highly Efficient CO₂ Fixation. Journal of the American Chemical Society, 2019, 141, 38-41.	6.6	123
23	Anchoring Cobalt Nanocrystals through the Plane of Graphene: Highly Integrated Electrocatalyst for Oxygen Reduction Reaction. Chemistry of Materials, 2015, 27, 544-549.	3.2	95
24	Nitrogen-doped graphene microtubes with opened inner voids: Highly efficient metal-free electrocatalysts for alkaline hydrogen evolution reaction. Nano Research, 2016, 9, 2606-2615.	5.8	92
25	Tuning the Adsorption Energy of Methanol Molecules Along Niâ€Nâ€Doped Carbon Phase Boundaries by the Mottâ€“Schottky Effect for Gasâ€Phase Methanol Dehydrogenation. Angewandte Chemie - International Edition, 2018, 57, 2697-2701.	7.2	91
26	Poly(tetrabutylphosphonium 4-styrenesulfonate): a poly(ionic liquid) stabilizer for graphene being multi-responsive. Polymer Chemistry, 2012, 3, 871.	1.9	90
27	Oxygen Vacancy Engineering of Co₃O₄ Nanocrystals through Coupling with Metal Support for Water Oxidation. ChemSusChem, 2017, 10, 2875-2879.	3.6	88
28	Hierarchical carbon nanopapers coupled with ultrathin MoS2 nanosheets: Highly efficient large-area electrodes for hydrogen evolution. Nano Energy, 2015, 15, 335-342.	8.2	81
29	Room-temperature transfer hydrogenation and fast separation of unsaturated compounds over heterogeneous catalysts in an aqueous solution of formic acid. Green Chemistry, 2014, 16, 3746-3751.	4.6	79
30	Controlled Synthesis, Growth Mechanism, and Properties of Monodisperse CdS Colloidal Spheres. Chemistry - A European Journal, 2007, 13, 8754-8761.	1.7	71
31	Enriching Co nanoparticles inside carbon nanofibers via nanoscale assembly of metalâ€“organic complexes for highly efficient hydrogen evolution. Nano Energy, 2016, 22, 79-86.	8.2	68
32	Schottky Barrierâ€Induced Surface Electric Field Boosts Universal Reduction of NO_x^{â˜} in Water to Ammonia. Angewandte Chemie - International Edition, 2021, 60, 20711-20716.	7.2	68
33	A COOH-terminated nitrogen-doped carbon aerogel as a bulk electrode for completely selective two-electron oxygen reduction to H₂O₂. Chemical Communications, 2019, 55, 6173-6176.	2.2	66
34	Polarized few-layer g-C3N4 as metal-free electrocatalyst for highly efficient reduction of CO2. Nano Research, 2018, 11, 2450-2459.	5.8	65
35	In situ catalytic growth of large-area multilayered graphene/MoS2 heterostructures. Scientific Reports, 2014, 4, 4673.	1.6	58
36	Constructing holey graphene monoliths via supramolecular assembly: Enriching nitrogen heteroatoms up to the theoretical limit for hydrogen evolution reaction. Nano Energy, 2015, 15, 567-575.	8.2	57

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37	Atomicâ€Scale Mottâ€“Schottky Heterojunctions of Boron Nitride Monolayer and Graphene as Metalâ€Free Photocatalysts for Artificial Photosynthesis. Advanced Science, 2018, 5, 1800062.	5.6	54
38	A Green Chemistry of Graphene: Photochemical Reduction towards Monolayer Graphene Sheets and the Role of Water Adlayers. ChemSusChem, 2012, 5, 642-646.	3.6	52
39	Heterojunctionâ€Based Electron Donators to Stabilize and Activate Ultrafine Pt Nanoparticles for Efficient Hydrogen Atom Dissociation and Gas Evolution. Angewandte Chemie - International Edition, 2021, 60, 25766-25770.	7.2	52
40	Heterometal Alkoxides as Precursors for the Preparation of Porous Feâ€“ and Mnâ€“TiO₂ Photocatalysts with High Efficiencies. Chemistry - A European Journal, 2008, 14, 11123-11131.	1.7	50
41	Wrinkled Graphene Monoliths as Superabsorbing Building Blocks for Superhydrophobic and Superhydrophilic Surfaces. Angewandte Chemie - International Edition, 2015, 54, 15165-15169.	7.2	45
42	Grouping Effect of Single Nickelâ^'N₄ Sites in Nitrogenâ€Doped Carbon Boosts Hydrogen Transfer Coupling of Alcohols and Amines. Angewandte Chemie - International Edition, 2018, 57, 15194-15198.	7.2	43
43	Photochemically Engineering the Metalâ€“Semiconductor Interface for Roomâ€Temperature Transfer Hydrogenation of Nitroarenes with Formic Acid. Chemistry - A European Journal, 2014, 20, 16732-16737.	1.7	42
44	Constructing Ohmic contact in cobalt selenide/Ti dyadic electrode: The third aspect to promote the oxygen evolution reaction. Nano Energy, 2017, 39, 321-327.	8.2	39
45	General transfer hydrogenation by activating ammonia-borane over cobalt nanoparticles. RSC Advances, 2015, 5, 102736-102740.	1.7	38
46	A Polyimide Nanolayer as a Metalâ€Free and Durable Organic Electrode Toward Highly Efficient Oxygen Evolution. Angewandte Chemie - International Edition, 2018, 57, 12563-12566.	7.2	36
47	Co₃O₄-based binder-free cathodes for lithiumâ€“oxygen batteries with improved cycling stability. Dalton Transactions, 2015, 44, 8678-8684.	1.6	35
48	Activating Oxygen Molecules over Carbonylâ€Modified Graphitic Carbon Nitride: Merging Supramolecular Oxidation with Photocatalysis in a Metalâ€Free Catalyst for Oxidative Coupling of Amines into Imines. ChemCatChem, 2016, 8, 3441-3445.	1.8	35
49	Converting waste paper to multifunctional graphene-decorated carbon paper: from trash to treasure. Journal of Materials Chemistry A, 2015, 3, 13926-13932.	5.2	34
50	Nanoscale Kirkendall growth of silicalite-1 zeolite mesocrystals with controlled mesoporosity and size. Chemical Communications, 2015, 51, 12563-12566.	2.2	30
51	Ultra-durable two-electrode Znâ€“air secondary batteries based on bifunctional titania nanocatalysts: a Co²⁺ dopant boosts the electrochemical activity. Journal of Materials Chemistry A, 2016, 4, 7841-7847.	5.2	30
52	Mild and selective hydrogenation of CO2 into formic acid over electron-rich MoC nanocatalysts. Science Bulletin, 2020, 65, 651-657.	4.3	30
53	The crystallinity effect of mesocrystalline BaZrO₃ hollow nanospheres on charge separation for photocatalysis. Chemical Communications, 2014, 50, 3021-3023.	2.2	29
54	Enhanced oxygen electroreduction over nitrogen-free carbon nanotube-supported CuFeO₂ nanoparticles. Journal of Materials Chemistry A, 2018, 6, 4331-4336.	5.2	27

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55	Isoelectric Si Heteroatoms as Electron Traps for N₂ Fixation and Activation. Advanced Functional Materials, 2020, 30, 2005779.	7.8	26
56	Effect of Surface Cations on Photoelectric Conversion Property of Nanosized Zirconia. Journal of Physical Chemistry C, 2009, 113, 9114-9120.	1.5	24
57	Activating Pd nanoparticles on solâ€“gel prepared porous g-C₃N₄/SiO₂via enlarging the Schottky barrier for efficient dehydrogenation of formic acid. Inorganic Chemistry Frontiers, 2016, 3, 1124-1129.	3.0	24
58	Mesoporous H-ZSM-5 nanocrystals with programmable number of acid sites as â€œsolid ligandsâ€•to activate Pd nanoparticles for Câ€“C coupling reactions. Nano Research, 2018, 11, 874-881.	5.8	24
59	Engineering the Interfaces of Superadsorbing Grapheneâ€Based Electrodes with Gas and Electrolyte to Boost Gas Evolution and Activation Reactions. ChemSusChem, 2018, 11, 2306-2309.	3.6	24
60	Electrochemical activation of Câ€“H by electron-deficient W2C nanocrystals for simultaneous alkoxylation and hydrogen evolution. Nature Communications, 2021, 12, 3882.	5.8	24
61	Programmable synthesis of mesoporous ZSM-5 nanocrystals as selective and stable catalysts for the methanol-to-propylene process. Catalysis Science and Technology, 2016, 6, 5262-5266.	2.1	23
62	Synergy of Fe-N4 and non-coordinated boron atoms for highly selective oxidation of amine into nitrile. Nano Research, 2020, 13, 2079-2084.	5.8	23
63	Boosting Mass Exchange between Pd/NC and MoC/NC Dual Junctions via Electron Exchange for Cascade CO₂ Fixation. Journal of the American Chemical Society, 2022, 144, 5418-5423.	6.6	21
64	Photocatalytic Stille Cross-coupling on Gold/g-C3N4 Nano-heterojunction. Chemical Research in Chinese Universities, 2020, 36, 1013-1016.	1.3	20
65	Chemical fixation of CO₂ on nanocarbons and hybrids. Journal of Materials Chemistry A, 2021, 9, 20857-20873.	5.2	20
66	Spontaneous superlattice formation of ZnO nanocrystals capped with ionic liquid molecules. Chemical Communications, 2007, , 4131.	2.2	19
67	Accelerated room-temperature crystallization of ultrahigh-surface-area porous anatase titania by storing photogenerated electrons. Chemical Communications, 2017, 53, 1619-1621.	2.2	19
68	The solution-phase process of a g-C₃N₄/BiVO₄ dyad to a large-area photoanode: interfacial synergy for highly efficient water oxidation. Chemical Communications, 2017, 53, 10544-10547.	2.2	19
69	Tuning the Adsorption Energy of Methanol Molecules Along Niâ€Nâ€Doped Carbon Phase Boundaries by the Mottâ€“Schottky Effect for Gasâ€Phase Methanol Dehydrogenation. Angewandte Chemie, 2018, 130, 2727-2731.	1.6	19
70	Oriented arrays of Co3O4 nanoneedles for highly efficient electrocatalytic water oxidation. Chemical Communications, 2019, 55, 3971-3974.	2.2	19
71	General Synthesis of Uniform Metal Sulfide Colloidal Particles via Autocatalytic Surface Growth: A Self-Correcting System. Inorganic Chemistry, 2009, 48, 3132-3138.	1.9	18
72	Bio-inspired noble metal-free reduction of nitroarenes using NiS_{2+x}/g-C₃N₄. RSC Advances, 2014, 4, 60873-60877.	1.7	18

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73	Palladium/Graphitic Carbon Nitride (gâ€C₃N₄) Stabilized Emulsion Microreactor as a Store for Hydrogen from Ammonia Borane for Use in Alkene Hydrogenation. Angewandte Chemie, 2018, 130, 15073-15077.	1.6	18
74	Crystal Structure of the Ergothioneine Sulfoxide Synthase from Candidatus Chloracidobacterium thermophilum and Structure-Guided Engineering To Modulate Its Substrate Selectivity. ACS Catalysis, 2019, 9, 6955-6961.	5.5	18
75	Utilizing the Spaceâ€Charge Region of the FeNiâ€LDH/CoP pâ€n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. Angewandte Chemie, 2019, 131, 12029-12035.	1.6	17
76	Single-Step Replacement of an Unreactive Câ€“H Bond by a Câ€“S Bond Using Polysulfide as the Direct Sulfur Source in the Anaerobic Ergothioneine Biosynthesis. ACS Catalysis, 2020, 10, 8981-8994.	5.5	15
77	Synergistic effect of BrÃ¸nsted acid and platinum on purification of automobile exhaust gases. Scientific Reports, 2013, 3, 2349.	1.6	14
78	Monoâ€Atomic Fe Centers in Nitrogen/Carbon Monolayers for Liquidâ€Phase Selective Oxidation Reaction. ChemCatChem, 2018, 10, 3539-3545.	1.8	14
79	Facilitating Hot Electron Injection from Graphene to Semiconductor by Rectifying Contact for Visâ€“NIRâ€Driven H₂O₂ Production. Small, 2022, 18, e2200885.	5.2	14
80	Chemical â€œtop-downâ€•synthesis of amphiphilic superparamagnetic Fe₃O₄nanobelts from exfoliated FeOCl layers. Dalton Transactions, 2014, 43, 16173-16177.	1.6	13
81	Atomically Dispersed Ni-Based Anti-Coking Catalysts for Methanol Dehydrogenation in a Fixed-Bed Reactor. ACS Catalysis, 2020, 10, 12569-12574.	5.5	13
82	Schottky Barrierâ€Induced Surface Electric Field Boosts Universal Reduction of NO x â¯ in Water to Ammonia. Angewandte Chemie, 2021, 133, 20879-20884.	1.6	12
83	A Facile Route to Mesoporous Carbon Catalyst Support Modified with Magnetic Nanoparticles. Chemistry Letters, 2007, 36, 422-423.	0.7	11
84	Autoxidation of polythiophene tethered to carbon cloth boosts its electrocatalytic activity towards durable water oxidation. Journal of Materials Chemistry A, 2020, 8, 19793-19798.	5.2	11
85	Nitrogen-thermal modification of the bifunctional interfaces of transition metal/carbon dyads for the reversible hydrogenation and dehydrogenation of heteroarenes. Chemical Communications, 2019, 55, 11394-11397.	2.2	10
86	A Polyimide Nanolayer as a Metalâ€Free and Durable Organic Electrode Toward Highly Efficient Oxygen Evolution. Angewandte Chemie, 2018, 130, 12743-12746.	1.6	9
87	Photogenerated singlet oxygen over zeolite-confined carbon dots for shape selective catalysis. Science China Chemistry, 2019, 62, 434-439.	4.2	9
88	Biomimetic Design of a 3â€‰D Transition Metal/Carbon Dyad for the Oneâ€Step Hydrodeoxygenation of Vanillin. ChemSusChem, 2020, 13, 1900-1905.	3.6	9
89	Trapping oxygen in hierarchically porous carbon nano-nets: graphitic nitrogen dopants boost the electrocatalytic activity. RSC Advances, 2016, 6, 56765-56771.	1.7	8
90	Mesoporous <scp>TS</scp>â€1 Nanocrystals as Low Cost and High Performance Catalysts for Epoxidation of Styrene. Chinese Journal of Chemistry, 2017, 35, 577-580.	2.6	8

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91	Designed electron-deficient gold nanoparticles for a room-temperature Csp3â€“Csp3 coupling reaction. Chemical Communications, 2021, 57, 741-744.	2.2	8
92	Grouping Effect of Single Nickelâ^'N 4 Sites in Nitrogenâ€Doped Carbon Boosts Hydrogen Transfer Coupling of Alcohols and Amines. Angewandte Chemie, 2018, 130, 15414-15418.	1.6	7
93	Electrostatically mediated selectivity of Pd nanocatalyst via rectifying contact with semiconductor: Replace ligands with light. Applied Catalysis B: Environmental, 2018, 238, 404-409.	10.8	7
94	Synergy of B and Al Dopants in Mesoporous MFI Nanocrystals for Highly Selective Alcoholysis of Furfuryl Alcohol into Ethyl Levulinate. Energy Technology, 2019, 7, 1900271.	1.8	7
95	Heterojunctionâ€Based Electron Donators to Stabilize and Activate Ultrafine Pt Nanoparticles for Efficient Hydrogen Atom Dissociation and Gas Evolution. Angewandte Chemie, 2021, 133, 25970-25974.	1.6	7
96	A Polyimide-Based Photocatalyst for Continuous Hydrogen Peroxide Production Using Air and Water under Solar Light. CCS Chemistry, 2022, 4, 3482-3490.	4.6	7
97	Design of Functional Carbon Composite Materials for Energy Conversion and Storage. Chemical Research in Chinese Universities, 2022, 38, 677-687.	1.3	7
98	Supramolecular nano-assemblies with tailorable surfaces: recyclable hard templates for engineering hollow nanocatalysts. Science China Materials, 2014, 57, 7-12.	3.5	6
99	Direct reduction of oxygen gas over dendritic carbons with hierarchical porosity: beyond the diffusion limitation. Inorganic Chemistry Frontiers, 2018, 5, 2023-2030.	3.0	6
100	Use of Nitrogen-Containing Carbon Supports To Control the Acidity of Supported Heteropolyacid Model Catalysts. Industrial & Engineering Chemistry Research, 2018, 57, 13999-14010.	1.8	5
101	Accelerating the Activation of NO _x ^{â^'} on Ru Nanoparticles for Ammonia Production by Tuning Their Electron Deficiency. CCS Chemistry, 2022, 4, 3455-3462.	4.6	5
102	Formation of a built-in field at the porphyrin/ITO interface directly proven by the time-resolved photovoltage technique. Physical Chemistry Chemical Physics, 2015, 17, 5202-5206.	1.3	4
103	A New Route to Cyclohexanone using H₂CO₃ as a Molecular Catalytic Ligand to Boost the Thorough Hydrogenation of Nitroarenes over Pd Nanocatalysts. ChemCatChem, 2019, 11, 2837-2842.	1.8	4
104	A bioinspired microreactor with interfacial regulation for maximizing selectivity in a catalytic reaction. Chemical Communications, 2020, 56, 8059-8062.	2.2	4
105	Rapidly and mildly transferring anatase phase of graphene-activated TiO2 to rutile with elevated Schottky barrier: Facilitating interfacial hot electron injection for Vis-NIR driven photocatalysis. Nano Research, 2022, 15, 10142-10147.	5.8	4
106	Roomâ€Temperature Activation of Molecular Oxygen Over a Metalâ€Free Triazineâ€Decorated sp²â€Carbon Framework for Green Synthesis. ChemCatChem, 2018, 10, 5331-5335.	1.8	3
107	Carbon monoliths with programmable valence bands as de novo anodes for additive-free coupling of alcohols into acetals. FlatChem, 2021, 27, 100248.	2.8	3
108	Semiconductorâ€based nanocomposites for selective organic synthesis. Nano Select, 2021, 2, 1799.	1.9	1

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109	Tunable Surface Electric Field of Electrocatalysts via Constructing Schottky Heterojunctions for Selective Conversion of Trash Ions to Treasures. Chemistry - A European Journal, 2022, 28, .	1.7	1
110	Frontispiece: Tunable Surface Electric Field of Electrocatalysts via Constructing Schottky Heterojunctions for Selective Conversion of Trash Ions to Treasures. Chemistry - A European Journal, 2022, 28, .	1.7	1