

# Ben Liu

## List of Publications by Year in descending order

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94  
papers

4,218  
citations

94433

37  
h-index

128289

60  
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98  
all docs

98  
docs citations

98  
times ranked

4505  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Single-Crystalline Mesoporous Palladium and Palladium-Copper Nanocubes for Highly Efficient Electrochemical CO <sub>2</sub> Reduction. <i>CCS Chemistry</i> , 2022, 4, 1376-1385.  | 7.8  | 39        |
| 2  | Precise Synthesis of Hollow Mesoporous Palladium-Sulfur Alloy Nanoparticles for Selective Catalytic Hydrogenation. <i>CCS Chemistry</i> , 2022, 4, 2854-2863.  | 7.8  | 23        |
| 3  | Mesoporosity-Enabled Selectivity of Mesoporous Palladium-Based Nanocrystals Catalysts in Semihydrogenation of Alkynes. <i>Angewandte Chemie</i> , 2022, 134, .   | 2.0  | 6         |
| 4  | Mesoporosity-Enabled Selectivity of Mesoporous Palladium-Based Nanocrystals Catalysts in Semihydrogenation of Alkynes. <i>Angewandte Chemie - International Edition</i> , 2022, 61, e202114539.                                      | 13.8 | 33        |
| 5  | A General Concurrent Template Strategy for Ordered Mesoporous Intermetallic Nanoparticles with Controllable Catalytic Performance. <i>Angewandte Chemie</i> , 2022, 134, .   | 2.0  | 3         |
| 6  | A General Concurrent Template Strategy for Ordered Mesoporous Intermetallic Nanoparticles with Controllable Catalytic Performance. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .                                    | 13.8 | 35        |
| 7  | Porous Metal Nanocrystal Catalysts: Can Crystalline Porosity Enable Catalytic Selectivity?. <i>CCS Chemistry</i> , 2022, 4, 1829-1842.   | 7.8  | 29        |
| 8  | Mesoporous Gold Nanostructures: Synthesis and Beyond. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 4410-4418.  | 4.6  | 5         |
| 9  | Highly Curved, Quasi-Single-Crystalline Mesoporous Metal Nanoplates Promote C-C Bond Cleavage in Ethanol Oxidation Electrocatalysis. <i>Advanced Materials</i> , 2022, 34, .   | 21.0 | 39        |
| 10 | Ordered Mesoporous Intermetallic Trimetals for Efficient and pH-Universal Hydrogen Evolution Electrocatalysis. <i>Advanced Energy Materials</i> , 2022, 12, .  | 19.5 | 36        |
| 11 | Noble-Metal-Based Hollow Mesoporous Nanoparticles: Synthesis Strategies and Applications. <i>Advanced Materials</i> , 2022, 34, .  | 21.0 | 44        |
| 12 | A sequential template strategy toward hierarchical hetero-metal phosphide hollow nanoboxes for electrocatalytic oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 3482-3491.                                      | 10.3 | 26        |
| 13 | Engineering porous architectures in multicomponent PdCuBP mesoporous nanospheres for electrocatalytic ethanol oxidation. <i>Nano Research</i> , 2021, 14, 3274-3281.   | 10.4 | 19        |
| 14 | Mesoporous Palladium-Boron-Sulfur Alloy Nanospheres for Efficient Hydrogen Evolution. <i>Inorganic Chemistry</i> , 2021, 60, 4380-4384.  | 4.0  | 15        |
| 15 | Ultrathin and Wavy PdB Alloy Nanowires with Controlled Surface Defects for Enhanced Ethanol Oxidation Electrocatalysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 17599-17607.                                       | 8.0  | 21        |
| 16 | A Tunable Multivariate Metal-Organic Framework as a Platform for Designing Photocatalysts. <i>Journal of the American Chemical Society</i> , 2021, 143, 6333-6338.   | 13.7 | 69        |
| 17 | Ultrafine RhNi Nanocatalysts Confined in Hollow Mesoporous Carbons for a Highly Efficient Hydrogen Production from Ammonia Borane. <i>Inorganic Chemistry</i> , 2021, 60, 6820-6828.   | 4.0  | 31        |
| 18 | Synergistic Catalysis of Binary RuP Nanoclusters on Nitrogen-Functionalized Hollow Mesoporous Carbon in Hydrogen Production from the Hydrolysis of Ammonia Borane. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 696-703. | 4.6  | 40        |

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|----|--|------|-----------|
| 19 | A universal strategy for fast, scalable, and aqueous synthesis of multicomponent palladium alloy ultrathin nanowires. <i>Science China Chemistry</i> , 2021, 64, 245-252.  | 8.2  | 16        |
| 20 | Atomically ordered Rh <sub>2</sub> P catalysts anchored within hollow mesoporous carbon for efficient hydrogen production. <i>Chemical Communications</i> , 2021, 57, 12345-12348.   | 4.1  | 11        |
| 21 | Mesoporous Noble Metal–Metalloid/Nonmetal Alloy Nanomaterials: Designing Highly Efficient Catalysts. <i>ACS Nano</i> , 2021, 15, 18661-18670.  | 14.6 | 28        |
| 22 | Polymer-guided assembly of inorganic nanoparticles. <i>Chemical Society Reviews</i> , 2020, 49, 465-508.   | 38.1 | 196       |
| 23 | Asymmetric PdPtCu mesoporous hemispheres on nitrogen-functionalized graphene for methanol oxidation electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 15706-15714.  | 10.3 | 22        |
| 24 | Polymer-Assisted Co-Assembly towards Synthesis of Mesoporous Titania Encapsulated Monodisperse PdAu for Highly Selective Hydrogenation of Phenylacetylene. <i>ChemCatChem</i> , 2020, 12, 1476-1482.   | 3.7  | 8         |
| 25 | Self-limiting growth of ligand-free ultrasmall bimetallic nanoparticles on carbon through under temperature reduction for highly efficient methanol electrooxidation and selective hydrogenation. <i>Applied Catalysis B: Environmental</i> , 2020, 264, 118553. | 20.2 | 20        |
| 26 | Highly Crystalline Mesoporous Titania Loaded with Monodispersed Gold Nanoparticles: Controllable Metal–Support Interaction in Porous Materials. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 9617-9627.   | 8.0  | 24        |
| 27 | Supported Pt Nanoparticles on Mesoporous Titania for Selective Hydrogenation of Phenylacetylene. <i>Frontiers in Chemistry</i> , 2020, 8, 581512.  | 3.6  | 11        |
| 28 | Synthesis and Crystal-Phase Engineering of Mesoporous Palladium–Boron Alloy Nanoparticles. <i>ACS Central Science</i> , 2020, 6, 2347-2353.  | 11.3 | 36        |
| 29 | Hierarchically Hollow and Porous NiO/NiCo <sub>2</sub> O <sub>4</sub> Nanoprisms Encapsulated in Graphene Oxide for Lithium Storage. <i>Langmuir</i> , 2020, 36, 9668-9674.  | 3.5  | 27        |
| 30 | Unveiling Synergistic Effects of Interstitial Boron in Palladium-Based Nanocatalysts for Ethanol Oxidation Electrocatalysis. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 6632-6639.   | 4.6  | 41        |
| 31 | Highly branched and defect-rich PdP nanosheets for ethanol oxidation electrocatalysis. <i>Chemical Communications</i> , 2020, 56, 15667-15670.   | 4.1  | 25        |
| 32 | Ternary metal-metalloid-nonmetal alloy nanowires: a novel electrocatalyst for highly efficient ethanol oxidation electrocatalysis. <i>Science Bulletin</i> , 2020, 65, 1823-1831.  | 9.0  | 50        |
| 33 | An Electrochemical Non-Enzymatic Glucose Sensor Based on Ultrathin PdAg Single-Crystalline Nanowires. <i>ChemPlusChem</i> , 2020, 85, 970-976.   | 2.8  | 7         |
| 34 | Template-free Synthesis of Mesoporous and Crystalline Transition Metal Oxide Nanoplates with Abundant Surface Defects. <i>Matter</i> , 2020, 2, 1244-1259.   | 10.0 | 38        |
| 35 | Surfactant Design Strategy for One-Pot Seedless Synthesis of Hollow Mesoporous AuAg Alloy Nanospheres. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5777-5784.   | 4.6  | 28        |
| 36 | Plasmonic mesoporous AuAg nanospheres with controllable nanostructures. <i>Chemical Communications</i> , 2020, 56, 9679-9682.  | 4.1  | 14        |

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|----|--|------|-----------|
| 37 | Hierarchically porous Cu/Zn bimetallic catalysts for highly selective CO <sub>2</sub> electroreduction to liquid C <sub>2</sub> products. <i>Applied Catalysis B: Environmental</i> , 2020, 269, 118800.                     | 20.2 | 108       |
| 38 | Fluorochromic polymer films containing ultrasmall silver nanoclusters. <i>Nanotechnology</i> , 2020, 31, 245703.   | 2.6  | 3         |
| 39 | Highly efficient hydrogen production from hydrolysis of ammonia borane over nanostructured Cu@CuCoO <sub>x</sub> supported on graphene oxide. <i>Journal of Hazardous Materials</i> , 2020, 391, 122199.                     | 12.4 | 63        |
| 40 | Template-Assisted Self-Sulfuration Formation of MoS <sub>2</sub> Nanosheets Embedded in Ordered Mesoporous Carbon for Lithium Storage. <i>ACS Applied Energy Materials</i> , 2019, 2, 6158-6162.                             | 5.1  | 12        |
| 41 | Oxidative nucleation and growth of Janus-type MnO <sub>x</sub> –Ag and MnO <sub>x</sub> –AgI nanoparticles. <i>Nanoscale</i> , 2019, 11, 15147-15155.  | 5.6  | 10        |
| 42 | “Dual-Template” Directed Synthesis of Bowl-Shaped Mesoporous Platinum Nanostructures. <i>Inorganic Chemistry</i> , 2019, 58, 11195-11201.  | 4.0  | 11        |
| 43 | A Polymer Solution To Prevent Nanoclustering and Improve the Selectivity of Metal Nanoparticles for Electrocatalytic CO <sub>2</sub> Reduction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 15834-15840.    | 13.8 | 87        |
| 44 | A Polymer Solution To Prevent Nanoclustering and Improve the Selectivity of Metal Nanoparticles for Electrocatalytic CO <sub>2</sub> Reduction. <i>Angewandte Chemie</i> , 2019, 131, 15981-15987.                           | 2.0  | 29        |
| 45 | Frontispiece: A Polymer Solution To Prevent Nanoclustering and Improve the Selectivity of Metal Nanoparticles for Electrocatalytic CO <sub>2</sub> Reduction. <i>Angewandte Chemie - International Edition</i> , 2019, 58, . | 13.8 | 1         |
| 46 | Insights into Compositional and Structural Effects of Bimetallic Hollow Mesoporous Nanospheres toward Ethanol Oxidation Electrocatalysis. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5490-5498.                | 4.6  | 38        |
| 47 | Ternary Palladium–Boron–Phosphorus Alloy Mesoporous Nanospheres for Highly Efficient Electrocatalysis. <i>ACS Nano</i> , 2019, 13, 12052-12061.  | 14.6 | 108       |
| 48 | Size-dependent synthesis and catalytic activities of trimetallic PdAgCu mesoporous nanospheres in ethanol electrooxidation. <i>Chemical Science</i> , 2019, 10, 1986-1993.   | 7.4  | 79        |
| 49 | Crystalline Facet-Directed Generation Engineering of Ultrathin Platinum Nanodendrites. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 663-671.   | 4.6  | 49        |
| 50 | Templated Growth of Crystalline Mesoporous Materials: From Soft/Hard Templates to Colloidal Templates. <i>Frontiers in Chemistry</i> , 2019, 7, 22.  | 3.6  | 82        |
| 51 | Mesoporous gold nanospheres <i>via</i> thiolate–Au( <i>scp</i> ) intermediates. <i>Chemical Science</i> , 2019, 10, 6423-6430.   | 7.4  | 45        |
| 52 | When ternary PdCuP alloys meet ultrathin nanowires: Synergic boosting of catalytic performance in ethanol electrooxidation. <i>Applied Catalysis B: Environmental</i> , 2019, 253, 271-277.                                  | 20.2 | 70        |
| 53 | One-pot aqueous synthesis of ultrathin trimetallic PdPtCu nanosheets for the electrooxidation of alcohols. <i>Green Chemistry</i> , 2019, 21, 2367-2374.   | 9.0  | 68        |
| 54 | Ultrathin PdAg single-crystalline nanowires enhance ethanol oxidation electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2019, 249, 116-125.  | 20.2 | 135       |

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|----|--|------|-----------|
| 55 | One-step fabrication of trimetallic core-shell Au@PdAuCu mesoporous nanospheres for ethanol electrooxidation. <i>Green Chemistry</i> , 2019, 21, 2043-2051.  | 9.0  | 46        |
| 56 | Asymmetric Multimetallic Mesoporous Nanospheres. <i>Nano Letters</i> , 2019, 19, 3379-3385.  | 9.1  | 76        |
| 57 | Frontispiz: A Polymer Solution To Prevent Nanoclustering and Improve the Selectivity of Metal Nanoparticles for Electrocatalytic CO <sub>2</sub> Reduction. <i>Angewandte Chemie</i> , 2019, 131, .    | 2.0  | 0         |
| 58 | Promoting Effect of Heterostructured NiO/Ni on Pt Nanocatalysts toward Catalytic Hydrolysis of Ammonia Borane. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 7374-7382.                     | 4.6  | 65        |
| 59 | Mesoporous palladium-boron alloy nanospheres. <i>Journal of Materials Chemistry A</i> , 2019, 7, 24877-24883.  | 10.3 | 52        |
| 60 | Direct growth of ultrasmall bimetallic AuPd nanoparticles supported on nitrated carbon towards ethanol electrooxidation. <i>Electrochimica Acta</i> , 2018, 269, 441-451.                              | 5.2  | 41        |
| 61 | Ultrafine and Ligand-Free Precious Metal (Ru, Ag, Au, Rh and Pd) Nanoclusters Supported on Phosphorus-Doped Carbon. <i>Chemistry - A European Journal</i> , 2018, 24, 2565-2569.                       | 3.3  | 30        |
| 62 | Co-Template Directed Synthesis of Gold Nanoparticles in Mesoporous Titanium Dioxide. <i>Chemistry - A European Journal</i> , 2018, 24, 9651-9657.  | 3.3  | 18        |
| 63 | Ultrathin palladium nanosheets with selectively controlled surface facets. <i>Chemical Science</i> , 2018, 9, 4451-4455.   | 7.4  | 89        |
| 64 | Encapsulation of Metal Nanoparticle Catalysts Within Mesoporous Zeolites and Their Enhanced Catalytic Performances: A Review. <i>Frontiers in Chemistry</i> , 2018, 6, 550.                            | 3.6  | 74        |
| 65 | Multimetallic Hollow Mesoporous Nanospheres with Synergistically Structural and Compositional Effects for Highly Efficient Ethanol Electrooxidation. <i>ACS Central Science</i> , 2018, 4, 1412-1419.  | 11.3 | 109       |
| 66 | Ultrasmall Ru Nanoclusters on Nitrogen-Enriched Hierarchically Porous Carbon Support as Remarkably Active Catalysts for Hydrolysis of Ammonia Borane. <i>ChemCatChem</i> , 2018, 10, 4910-4916.        | 3.7  | 30        |
| 67 | Ultrathin PdPt bimetallic nanowires with enhanced electrocatalytic performance for hydrogen evolution reaction. <i>Applied Catalysis B: Environmental</i> , 2018, 238, 525-532.                        | 20.2 | 111       |
| 68 | Ultrasmall Au nanocatalysts supported on nitrated carbon for electrocatalytic CO <sub>2</sub> reduction: the role of the carbon support in high selectivity. <i>Nanoscale</i> , 2018, 10, 14678-14686. | 5.6  | 57        |
| 69 | Enzymatic-Photoreduction of Carbon Dioxide using Polymeric Metallofoldamers Containing Nickel-Thiolate Cofactors. <i>ChemCatChem</i> , 2017, 9, 1157-1162.   | 3.7  | 22        |
| 70 | Au-Carbon Electronic Interaction Mediated Selective Oxidation of Styrene. <i>ACS Catalysis</i> , 2017, 7, 3483-3488.   | 11.2 | 92        |
| 71 | Nanoengineering of aggregation-free and thermally-stable gold nanoparticles in mesoporous frameworks. <i>Nanoscale</i> , 2017, 9, 6380-6390.   | 5.6  | 24        |
| 72 | Surface Engineering of Spherical Metal Nanoparticles with Polymers toward Selective Asymmetric Synthesis of Nanobowls and Janus-Type Dimers. <i>Small</i> , 2017, 13, 1700091.                         | 10.0 | 31        |

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|----|---|------|-----------|
| 73 | Ultrafine Co-based Nanoparticle@Mesoporous Carbon Nanospheres toward High-Performance Supercapacitors. ACS Applied Materials & Interfaces, 2017, 9, 1746-1758.  | 8.0  | 69        |
| 74 | Synthesis of Mesoporous CoS <sub>2</sub> and Ni <sub>2</sub> S <sub>3</sub> with Superior Supercapacitive Performance Using a Facile Solid-Phase Sulfurization. ACS Applied Materials & Interfaces, 2017, 9, 36837-36848. | 8.0  | 64        |
| 75 | Engineering Surface Ligands of Noble Metal Nanocatalysts in Tuning the Product Selectivity. Catalysts, 2017, 7, 44.   | 3.5  | 50        |
| 76 | Unconventional structural and morphological transitions of nanosheets, nanoflakes and nanorods of AuNP@MnO <sub>2</sub> . Journal of Materials Chemistry A, 2016, 4, 6447-6455.   | 10.3 | 39        |
| 77 | Electrocatalytic Oxidation of Alcohols, Tripropylamine, and DNA with Ligand-Free Gold Nanoclusters on Nitrided Carbon. ChemElectroChem, 2016, 3, 2100-2109.   | 3.4  | 12        |
| 78 | Ligand-Free Noble Metal Nanocluster Catalysts on Carbon Supports via "Soft" Nitriding. Journal of the American Chemical Society, 2016, 138, 4718-4721.  | 13.7 | 204       |
| 79 | A facile synthesis of Fe <sub>3</sub> C@mesoporous carbon nitride nanospheres with superior electrocatalytic activity. Nanoscale, 2016, 8, 5441-5445.   | 5.6  | 53        |
| 80 | Formation of hybrid core-shell microgels induced by autonomous unidirectional migration of nanoparticles. Materials Horizons, 2016, 3, 78-82.   | 12.2 | 14        |
| 81 | Ligand-Assisted Co-Assembly Approach toward Mesoporous Hybrid Catalysts of Transition-Metal Oxides and Noble Metals: Photochemical Water Splitting. Angewandte Chemie - International Edition, 2015, 54, 9061-9065.       | 13.8 | 66        |
| 82 | Amphiphilic Hybrid Nano Building Blocks with Surfactant-Mimicking Structures. ACS Macro Letters, 2015, 4, 736-740.  | 4.8  | 24        |
| 83 | Concurrent self-assembly of amphiphiles into nanoarchitectures with increasing complexity. Nano Today, 2015, 10, 278-300.   | 11.9 | 62        |
| 84 | Colloidal Amphiphile-Templated Growth of Highly Crystalline Mesoporous Nonsiliceous Oxides. Chemistry of Materials, 2015, 27, 6173-6176.  | 6.7  | 30        |
| 85 | Silica Biomineralization via the Self-Assembly of Helical Biomolecules. Advanced Materials, 2015, 27, 479-497.  | 21.0 | 82        |
| 86 | Growth of Optically Active Chiral Inorganic Films through DNA Self-Assembly and Silica Mineralisation. Scientific Reports, 2014, 4, 4866.   | 3.3  | 18        |
| 87 | Silica mineralisation of DNA chiral packing: helicity control and formation mechanism of impeller-like DNA-silica helical architectures. Journal of Materials Chemistry B, 2013, 1, 2843.                                 | 5.8  | 17        |
| 88 | Synthesis and characterization of multi-helical DNA-silica fibers. Chemical Communications, 2013, 49, 1097.   | 4.1  | 22        |
| 89 | Template-Assisted Self-Assembly: Alignment, Placement, and Arrangement of Two-Dimensional Mesostructured DNA-Silica Platelets. Angewandte Chemie - International Edition, 2013, 52, 14186-14190.                          | 13.8 | 31        |
| 90 | Water-Dependent Optical Activity Inversion of Chiral DNA-Silica Assemblies. Chemistry - A European Journal, 2013, 19, 16382-16388.  | 3.3  | 6         |

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|----|---|------|-----------|
| 91 | Formation of impeller-like helical DNA-silica complexes by polyamines induced chiral packing. Interface Focus, 2012, 2, 608-616.  | 3.0  | 17        |
| 92 | DNA-Silica Mineralization: The Formation of Exceptional Two Dimensional-Square $4\mu\text{m}$ Symmetry by a Structural Transformation. Chemistry of Materials, 2012, 24, 504-511. | 6.7  | 19        |
| 93 | Synthesis of chiral TiO <sub>2</sub> nanofibre with electron transition-based optical activity. Nature Communications, 2012, 3, 1215.   | 12.8 | 149       |
| 94 | Formation of Enantiomeric Impeller-Like Helical Architectures by DNA Self-Assembly and Silica Mineralization. Angewandte Chemie - International Edition, 2012, 51, 923-927.       | 13.8 | 60        |