Yi Yu

List of Publications by Year
in descending order

99 papers	12,557 citations	38742 50 h-index	38395 95 g-index
104 all docs	104 docs citations	104 times ranked	17804 citing authors

#	Article	IF	Citations
1	Atomically thin two-dimensional organic-inorganic hybrid perovskites. Science, 2015, 349, 1518-1521.	12.6	1,159
2	Synergistic geometric and electronic effects for electrochemical reduction of carbon dioxide using goldâ€“copper bimetallic nanoparticles. Nature Communications, 2014, 5, 4948.	12.8	1,062
3	Atomic structure of sensitive battery materials and interfaces revealed by cryoâ€“electron microscopy. Science, 2017, 358, 506-510.	12.6	1,039
4	Solution-Phase Synthesis of Cesium Lead Halide Perovskite Nanowires. Journal of the American Chemical Society, 2015, 137, 9230-9233.	13.7	861
5	Electrochemical Activation of CO₂ through Atomic Ordering Transformations of AuCu Nanoparticles. Journal of the American Chemical Society, 2017, 139, 8329-8336.	13.7	529
6	MXene (Ti₃C₂) Vacancy-Confined Single-Atom Catalyst for Efficient Functionalization of CO₂. Journal of the American Chemical Society, 2019, 141, 4086-4093.	13.7	479
7	Synthesis of Composition Tunable and Highly Luminescent Cesium Lead Halide Nanowires through Anion-Exchange Reactions. Journal of the American Chemical Society, 2016, 138, 7236-7239.	13.7	397
8	Bacteria photosensitized by intracellular gold nanoclusters for solar fuel production. Nature Nanotechnology, 2018, 13, 900-905.	31.5	362
9	Growth and Anion Exchange Conversion of CH₃NH₃PbX₃ Nanorod Arrays for Light-Emitting Diodes. Nano Letters, 2015, 15, 5519-5524.	9.1	342
10	A Molecular Surface Functionalization Approach to Tuning Nanoparticle Electrocatalysts for Carbon Dioxide Reduction. Journal of the American Chemical Society, 2016, 138, 8120-8125.	13.7	340
11	Molecular engineering of organicâ€“inorganic hybrid perovskites quantum wells. Nature Chemistry, 2019, 11, 1151-1157.	13.6	302
12	Two-dimensional halide perovskite lateral epitaxial heterostructures. Nature, 2020, 580, 614-620.	27.8	284
13	Ultralow thermal conductivity in all-inorganic halide perovskites. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8693-8697.	7.1	246
14	Anisotropic phase segregation and migration of Pt in nanocrystals en route to nanoframe catalysts. Nature Materials, 2016, 15, 1188-1194.	27.5	244
15	Hybrid bioinorganic approach to solar-to-chemical conversion. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11461-11466.	7.1	234
16	Ultrathin Colloidal Cesium Lead Halide Perovskite Nanowires. Journal of the American Chemical Society, 2016, 138, 13155-13158.	13.7	234
17	Stabilization of 4H hexagonal phase in gold nanoribbons. Nature Communications, 2015, 6, 7684.	12.8	215
18	Tandem Catalysis for CO₂ Hydrogenation to C₂â€“C₄ Hydrocarbons. Nano Letters, 2017, 17, 3798-3802.	9.1	183

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19	Synthesis of Ultrathin Copper Nanowires Using Tris(trimethylsilyl)silane for High-Performance and Low-Haze Transparent Conductors. Nano Letters, 2015, 15, 7610-7615.	9.1	179
20	Control of Architecture in Rhombic Dodecahedral Ptâ€“Ni Nanoframe Electrocatalysts. Journal of the American Chemical Society, 2017, 139, 11678-11681.	13.7	166
21	Solution-Processed Copper/Reduced-Graphene-Oxide Core/Shell Nanowire Transparent Conductors. ACS Nano, 2016, 10, 2600-2606.	14.6	155
22	MOFâ€Confined Subâ€2 nm Atomically Ordered Intermetallic PdZn Nanoparticles as Highâ€Performance Catalysts for Selective Hydrogenation of Acetylene. Advanced Materials, 2018, 30, e1801878.	21.0	133
23	Structural, optical, and electrical properties of phase-controlled cesium lead iodide nanowires. Nano Research, 2017, 10, 1107-1114.	10.4	128
24	Strongly Quantum Confined Colloidal Cesium Tin Iodide Perovskite Nanoplates: Lessons for Reducing Defect Density and Improving Stability. Nano Letters, 2018, 18, 2060-2066.	9.1	128
25	Directed Assembly of Nanoparticle Catalysts on Nanowire Photoelectrodes for Photoelectrochemical CO₂ Reduction. Nano Letters, 2016, 16, 5675-5680.	9.1	125
26	Atomic Resolution Imaging of Halide Perovskites. Nano Letters, 2016, 16, 7530-7535.	9.1	125
27	Ultrathin Epitaxial Cu@Au Coreâ€“Shell Nanowires for Stable Transparent Conductors. Journal of the American Chemical Society, 2017, 139, 7348-7354.	13.7	125
28	Coreâ€“Shell CdSâ€“Cu₂S Nanorod Array Solar Cells. Nano Letters, 2015, 15, 4096-4101.	9.1	114
29	Covalent Triazine Framework Confined Copper Catalysts for Selective Electrochemical CO₂ Reduction: Operando Diagnosis of Active Sites. ACS Catalysis, 2020, 10, 4534-4542.	11.2	112
30	General Way To Construct Micro- and Mesoporous Metalâ€“Organic Framework-Based Porous Liquids. Journal of the American Chemical Society, 2019, 141, 19708-19714.	13.7	111
31	Atomic Tuning of Single-Atom Feâ€“Nâ€“C Catalysts with Phosphorus for Robust Electrochemical CO₂ Reduction. Nano Letters, 2022, 22, 1557-1565.	9.1	111
32	Allâ€Solidâ€State Batteries with a Limited Lithium Metal Anode at Room Temperature using a Garnetâ€Based Electrolyte. Advanced Materials, 2021, 33, e2002325.	21.0	99
33	Engineering Lattice Disorder on a Photocatalyst: Photochromic BiOBr Nanosheets Enhance Activation of Aromatic Câ€“H Bonds via Water Oxidation. Journal of the American Chemical Society, 2022, 144, 3386-3397.	13.7	96
34	Highâ€Performance, Lowâ€Cost, and Denseâ€Structure Electrodes with High Mass Loading for Lithiumâ€Ion Batteries. Advanced Functional Materials, 2019, 29, 1903961.	14.9	93
35	Ruddlesdenâ€“Popper Phase in Two-Dimensional Inorganic Halide Perovskites: A Plausible Model and the Supporting Observations. Nano Letters, 2017, 17, 5489-5494.	9.1	90
36	Layer-by-layer anionic diffusion in two-dimensional halide perovskite vertical heterostructures. Nature Nanotechnology, 2021, 16, 584-591.	31.5	88

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37	Living materials fabricated via gradient mineralization of light-inducible biofilms. Nature Chemical Biology, 2021, 17, 351-359.	8.0	85
38	Atomic Structure of Ultrathin Gold Nanowires. Nano Letters, 2016, 16, 3078-3084.	9.1	82
39	Insights into the Mechanism of Tandem Alkene Hydroformylation over a Nanostructured Catalyst with Multiple Interfaces. Journal of the American Chemical Society, 2016, 138, 11568-11574.	13.7	82
40	Extrinsic and Dynamic Edge States of Two-Dimensional Lead Halide Perovskites. ACS Nano, 2019, 13, 1635-1644.	14.6	79
41	Stabilized lithium metal anode by an efficient coating for high-performance Liâ€“S batteries. Energy Storage Materials, 2020, 24, 329-335.	18.0	79
42	Phase-Selective Cation-Exchange Chemistry in Sulfide Nanowire Systems. Journal of the American Chemical Society, 2014, 136, 17430-17433.	13.7	78
43	A generalizable method for the construction of MOF@polymer functional composites through surface-initiated atom transfer radical polymerization. Chemical Science, 2019, 10, 1816-1822.	7.4	75
44	Thermal Transport in Silicon Nanowires at High Temperature up to 700 K. Nano Letters, 2016, 16, 4133-4140.	9.1	74
45	Growth and Photoelectrochemical Energy Conversion of Wurtzite Indium Phosphide Nanowire Arrays. ACS Nano, 2016, 10, 5525-5535.	14.6	70
46	Electrocatalytic NiCo₂O₄ Nanofiber Arrays on Carbon Cloth for Flexible and High-Loading Lithiumâ€“Sulfur Batteries. Nano Letters, 2021, 21, 5285-5292.	9.1	64
47	Kinetics-Controlled Super-Assembly of Asymmetric Porous and Hollow Carbon Nanoparticles as Light-Sensitive Smart Nanovehicles. Journal of the American Chemical Society, 2022, 144, 1634-1646.	13.7	64
48	Semiconducting amorphous carbon thin films for transparent conducting electrodes. Carbon, 2014, 76, 64-70.	10.3	62
49	Genetic and biochemical investigations of the role of MamP in redox control of iron biomineralization in Magnetospirillum magneticum. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3904-3909.	7.1	62
50	Spontaneous Delithiation under Operando Condition Triggers Formation of an Amorphous Active Layer in Spinel Cobalt Oxides Electrocatalyst toward Oxygen Evolution. ACS Catalysis, 2019, 9, 7389-7397.	11.2	52
51	Electrical and Optical Tunability in All-Inorganic Halide Perovskite Alloy Nanowires. Nano Letters, 2018, 18, 3538-3542.	9.1	51
52	Pyroelectric nanoplates for reduction of CO2 toÂmethanol driven by temperature-variation. Nature Communications, 2021, 12, 318.	12.8	51
53	Phase-transitionâ€“induced p-n junction in single halide perovskite nanowire. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8889-8894.	7.1	48
54	Solution Phase Synthesis of Indium Gallium Phosphide Alloy Nanowires. ACS Nano, 2015, 9, 3951-3960.	14.6	44

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55	Niobium Tungsten Oxides for Electrochromic Devices with Long-Term Stability. ACS Nano, 2022, 16, 2621-2628.	14.6	44
56	Synthesis of PtCo3 polyhedral nanoparticles and evolution to Pt3Co nanoframes. Surface Science, 2016, 648, 328-332.	1.9	42
57	Benzoin Radicals as Reducing Agent for Synthesizing Ultrathin Copper Nanowires. Journal of the American Chemical Society, 2017, 139, 3027-3032.	13.7	40
58	Electric-field control of phase separation and memory effect in Pr0.6Ca0.4MnO3/Pb(Mg1/3Nb2/3)0.7Ti0.3O3 heterostructures. Applied Physics Letters, 2011, 98, .	3.3	38
59	Cation/Anion Codoped and Cobalt-Free Li-Rich Layered Cathode for High-Performance Li-Ion Batteries. Nano Letters, 2021, 21, 8370-8377.	9.1	35
60	High-performance overall water splitting based on amorphous iron doped cobalt tungstate via facile co-precipitation. Journal of Materials Chemistry A, 2021, 9, 9753-9760.	10.3	34
61	Strain-Mediated Coexistence of Volatile and Nonvolatile Converse Magnetoelectric Effects in Fe/Pb(Mg_{1/3}Nb_{2/3})_{0.7}Ti_{0.3}O₃ Heterostructure. ACS Applied Materials & Interfaces, 2017, 9, 20637-20647.	8.0	32
62	Unravelling the room-temperature atomic structure and growth kinetics of lithium metal. Nature Communications, 2020, 11, 5367.	12.8	29
63	Room-Temperature Dynamics of Vanishing Copper Nanoparticles Supported on Silica. Nano Letters, 2017, 17, 2732-2737.	9.1	27
64	Direct aerobic oxidation of monoalcohol and diols to acetals using tandem Ru@MOF catalysts. Nano Research, 2021, 14, 479-485.	10.4	27
65	Highâ€Performance Threeâ€Dimensional Li Anode Scaffold Enabled by Homogeneous Zn Nanoclusters. Small, 2020, 16, e2001257.	10.0	25
66	Superconductivity in Vacuum Annealed Bi₆O₈S₅. Journal of the Physical Society of Japan, 2013, 82, 034718.	1.6	22
67	Morphology-controlled transformation of Cu@Au core-shell nanowires into thermally stable Cu3Au intermetallic nanowires. Nano Research, 2020, 13, 2564-2569.	10.4	22
68	Engineering plasticization resistant gas separation membranes using metalâ€“organic nanocapsules. Chemical Science, 2020, 11, 4687-4694.	7.4	22
69	Manganese vacancy-confined single-atom Ag in cryptomelane nanorods for efficient Wacker oxidation of styrene derivatives. Chemical Science, 2021, 12, 6099-6106.	7.4	22
70	Self-assembled Ptâ€“CoFe layered double hydroxides for efficient alkaline water/seawater splitting by spontaneous redox synthesis. Journal of Power Sources, 2022, 532, 231353.	7.8	20
71	Atomic-scale study of topological vortex-like domain pattern in multiferroic hexagonal manganites. Applied Physics Letters, 2013, 103, 032901.	3.3	19
72	In Situ Growth of Strained Matrix on CsPbI₃ Perovskite Quantum Dots for Balanced Conductivity and Stability. ACS Nano, 2022, 16, 10534-10544.	14.6	16

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73	Enhanced Oxygen Evolution Activity of CoOâ€“La_{0.7}Sr_{0.3}MnO_{3â^Î´} Heterostructured Thin Film. ACS Applied Energy Materials, 2020, 3, 7988-7996.	5.1	15
74	Improved Electrochemical Performance of Li-Rich Layered Oxide Cathodes Enabled by a Two-Step Heat Treatment. ACS Applied Materials & Interfaces, 2021, 13, 13281-13288.	8.0	15
75	Pr-Doped LaCoO₃ toward Stable and Efficient Oxygen Evolution Reaction. ACS Applied Energy Materials, 2021, 4, 9057-9065.	5.1	15
76	Understanding the formation of multiply twinned structure in decahedral intermetallic nanoparticles. IUCrJ, 2019, 6, 447-453.	2.2	13
77	Microstructure of Lithium Dendrites Revealed by Room-Temperature Electron Microscopy. Journal of the American Chemical Society, 2022, 144, 4124-4132.	13.7	12
78	High-resolution transmission electron microscopy of beam-sensitive halide perovskites. CheM, 2022, 8, 327-339.	11.7	9
79	Atomic distribution, local structure and cation size effect in o-R1â^'xCaxMnO3(Râ€‰=â€‰Dy, Y, and Ho). Journal of Physics Condensed Matter, 2013, 25, 475901.	1.8	6
80	Ambipolar two-dimensional bismuth nanostructures in junction with bismuth oxychloride. Nano Research, 2021, 14, 1103-1109.	10.4	6
81	Synthesis of a Spatially Confined, Highly Durable, and Fully Exposed Pd Cluster Catalyst via Sequential Site-Selective Atomic Layer Deposition. ACS Applied Materials & Interfaces, 2022, 14, 14466-14473.	8.0	6
82	The effects of local strain on the cubic Li7La3Zr2O12(001)/Li(001) interface: A first-principles study. Solid State Ionics, 2021, 360, 115546.	2.7	5
83	Structural Damage of Two-Dimensional Organicâ€“Inorganic Halide Perovskites. Inorganics, 2020, 8, 13.	2.7	5
84	Application of Auger electron spectroscopy in lithium-ion conducting oxide solid electrolytes. Nano Research, 0, , .	10.4	5
85	Microstructure and strain relaxation of orthorhombic TmMnO3 epitaxial thin films. Journal of Crystal Growth, 2012, 338, 280-282.	1.5	4
86	Microstructure of epitaxial YBa2Cu3O7â^'Î´ thin films grown on Pb(Mg1/3Nb2/3)0.7Ti0.3O3 substrates. Journal of Crystal Growth, 2012, 354, 98-100.	1.5	4
87	Low-Temperature Solution-Phase Growth of Silicon and Silicon-Containing Alloy Nanowires. Journal of Physical Chemistry C, 2016, 120, 20525-20529.	3.1	4
88	In Situ Probing the Kinetics of Gold Nanoparticle Thermal Sintering in Liquids: Implications for Ink-Jet Printing. ACS Applied Nano Materials, 2021, 4, 2538-2546.	5.0	4
89	Circumferential Li metal deposition at high rates enabled by the synergistic effect of a lithiophilic and ionic conductive network. Journal of Materials Chemistry A, 2022, 10, 5391-5401.	10.3	4
90	Calcium-Assisted In Situ Formation of Perovskite Nanocrystals for Luminescent Green and Blue Emitters. ACS Applied Nano Materials, 2021, 4, 14303-14311.	5.0	3

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91	Towards atomic-scale electron microscopy characterization of single molecular catalysts. Catalysis Today, 2020, 350, 192-196.	4.4	2
92	Probing the Formation of Lithium Metal in an Inert Atmosphere by Big Data-Driven In Situ Electron Microscopy. ACS Applied Energy Materials, 2021, 4, 7226-7232.	5.1	2
93	Atomic-scale study of nanocatalysts by aberration-corrected electron microscopy. Journal of Physics Condensed Matter, 2020, 32, 413004.	1.8	2
94	Pitfalls in Electrochemical Liquid Cell Transmission Electron Microscopy for Dendrite Observation. Advanced Energy and Sustainability Research, 0, , 2100160.	5.8	2
95	Revealing the spatial and temporal distribution of different chemical states of lithium by EELS analysis using non-negative matrix factorization. Micron, 2022, 154, 103213.	2.2	1
96	In Situ Electron Microscopy Study of the Dynamics of Liquid Flow in Confined Cells. ACS Applied Materials & Interfaces, 0, , .	8.0	1
97	Insight into ultrasensitive and high-stability flocculation-enhanced Raman spectroscopy for the in situ noninvasive probing of cupping effect substances. Analyst, The, 0, , .	3.5	1
98	Microstructural Characterization of La- and Ti-Codoped Multiferroic BiFeO$_{3}$ Epitaxial Thin Films. IEEE Transactions on Magnetics, 2011, 47, 3780-3782.	2.1	0
99	Rapid defect characterization: The efficiency of diffraction contrastâ€scanning transmission electron microscopy. Microscopy Research and Technique, 2020, 83, 1604-1609.	2.2	0