Hengcong Tao

List of Publications by Year
in descending order

107	14,033	44069 48	27406 106
papers	citations	h-index	g-index

107	107	107	18536
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-yield production of graphene by liquid-phase exfoliation of graphite. Nature Nanotechnology, 2008, 3, 563-568.	31.5	5,431
2	Fundamentals and Challenges of Electrochemical CO2 Reduction Using Two-Dimensional Materials. CheM, 2017, 3, 560-587.	11.7	815
3	Nitrogen Fixation by Ru Single-Atom Electrocatalytic Reduction. CheM, 2019, 5, 204-214.	11.7	739
4	Mn_{<i>x</i>}O_{<i>y</i>}/NC and Co_{<i>x</i>}O_{<i>y</i>}/NC Nanoparticles Embedded in a Nitrogenâ€Doped Carbon Matrix for Highâ€Performance Bifunctional Oxygen Electrodes. Angewandte Chemie - International Edition, 2014, 53, 8508-8512.	13.8	482
5	Catalysis of Carbon Dioxide Photoreduction on Nanosheets: Fundamentals and Challenges. Angewandte Chemie - International Edition, 2018, 57, 7610-7627.	13.8	361
6	Scalable exfoliation and dispersion of two-dimensional materials â€“ an update. Physical Chemistry Chemical Physics, 2017, 19, 921-960.	2.8	261
7	Electrochemical ammonia synthesis: Mechanistic understanding and catalyst design. CheM, 2021, 7, 1708-1754.	11.7	253
8	Two-dimensional nanosheets for electrocatalysis in energy generation and conversion. Journal of Materials Chemistry A, 2017, 5, 7257-7284.	10.3	220
9	Activated TiO2 with tuned vacancy for efficient electrochemical nitrogen reduction. Applied Catalysis B: Environmental, 2019, 257, 117896.	20.2	220
10	Activation of Ni Particles into Single Niâ€“N Atoms for Efficient Electrochemical Reduction of CO₂. Advanced Energy Materials, 2020, 10, 1903068.	19.5	210
11	Electrochemical CO2 reduction to C2+ species: Heterogeneous electrocatalysts, reaction pathways, and optimization strategies. Materials Today Energy, 2018, 10, 280-301.	4.7	188
12	Synthesis of Fe2O3 loaded porous g-C3N4 photocatalyst for photocatalytic reduction of dinitrogen to ammonia. Chemical Engineering Journal, 2019, 373, 572-579.	12.7	181
13	Carbon-supported Ni nanoparticles for efficient CO₂ electroreduction. Chemical Science, 2018, 9, 8775-8780.	7.4	179
14	Photocatalytic Reduction of CO₂ by Metalâ€Freeâ€Based Materials: Recent Advances and Future Perspective. Solar Rrl, 2020, 4, 1900546.	5.8	177
15	Oxygen vacancy enables electrochemical N2 fixation over WO3 with tailored structure. Nano Energy, 2019, 62, 869-875.	16.0	150
16	Photocatalytic Fixation of Nitrogen to Ammonia by Single Ru Atom Decorated TiO₂ Nanosheets. ACS Sustainable Chemistry and Engineering, 2019, 7, 6813-6820.	6.7	142
17	In Situ Controllable Loading of Ultrafine Noble Metal Particles on Titania. Journal of the American Chemical Society, 2009, 131, 6648-6649.	13.7	135
18	Two-dimensional materials for energy conversion and storage. Progress in Materials Science, 2020, 111, 100637.	32.8	134

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19	Trace metal residues promote the activity of supposedly metal-free nitrogen-modified carbon catalysts for the oxygen reduction reaction. Electrochemistry Communications, 2013, 34, 113-116.	4.7	124
20	N-Doping of graphene oxide at low temperature for the oxygen reduction reaction. Chemical Communications, 2017, 53, 873-876.	4.1	121
21	Highly stable two-dimensional bismuth metal-organic frameworks for efficient electrochemical reduction of CO2. Applied Catalysis B: Environmental, 2020, 277, 119241.	20.2	109
22	New Solvents for Nanotubes: Approaching the Dispersibility of Surfactants. Journal of Physical Chemistry C, 2010, 114, 231-237.	3.1	108
23	Liquid-phase exfoliation of graphite for mass production of pristine few-layer graphene. Current Opinion in Colloid and Interface Science, 2015, 20, 311-321.	7.4	101
24	Stabilization of Cu⁺by tuning a CuOâ€"CeO₂interface for selective electrochemical CO₂reduction to ethylene. Green Chemistry, 2020, 22, 6540-6546.	9.0	98
25	Synthesis of ZrO2âˆ'Carbon Nanotube Composites and Their Application as Chemiluminescent Sensor Material for Ethanol. Journal of Physical Chemistry B, 2006, 110, 13410-13414.	2.6	97
26	High-yield production of few-layer boron nanosheets for efficient electrocatalytic N₂ reduction. Chemical Communications, 2019, 55, 4246-4249.	4.1	96
27	Enhanced durability of nitric oxide removal on TiO2 (P25) under visible light: Enabled by the direct Z-scheme mechanism and enhanced structure defects through coupling with C3N5. Applied Catalysis B: Environmental, 2021, 296, 120372.	20.2	96
28	Doping palladium with tellurium for the highly selective electrocatalytic reduction of aqueous CO₂ to CO. Chemical Science, 2018, 9, 483-487.	7.4	93
29	Nonlinear Absorption Induced Transparency and Optical Limiting of Black Phosphorus Nanosheets. ACS Photonics, 2017, 4, 3063-3070.	6.6	92
30	Heterogeneous electrochemical CO₂ reduction using nonmetallic carbon-based catalysts: current status and future challenges. Nanotechnology, 2017, 28, 472001.	2.6	87
31	Graphene-based materials for electrochemical CO2 reduction. Journal of CO2 Utilization, 2019, 30, 168-182.	6.8	87
32	Ptâˆ'Ru/CeO₂/Carbon Nanotube Nanocomposites: An Efficient Electrocatalyst for Direct Methanol Fuel Cells. Langmuir, 2010, 26, 12383-12389.	3.5	86
33	Highly Concentrated Aqueous Dispersions of Graphene Exfoliated by Sodium Taurodeoxycholate: Dispersion Behavior and Potential Application as a Catalyst Support for the Oxygenâ€Reduction Reaction. Chemistry - A European Journal, 2012, 18, 6972-6978.	3.3	76
34	New solvent-stabilized few-layer black phosphorus for antibacterial applications. Nanoscale, 2018, 10, 12543-12553.	5.6	74
35	High-yield exfoliation of graphite in acrylate polymers: A stable few-layer graphene nanofluid with enhanced thermal conductivity. Carbon, 2013, 64, 288-294.	10.3	71
36	Photocatalytic nitrogen reduction to ammonia: Insights into the role of defect engineering in photocatalysts. Nano Research, 2022, 15, 2773-2809.	10.4	69

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37	Decoration carbon nanotubes with Pd and Ru nanocrystals via an inorganic reaction route in supercritical carbon dioxideâ€“methanol solution. Journal of Colloid and Interface Science, 2006, 304, 323-328.	9.4	68
38	ZIF-67-Derived Cobalt/Nitrogen-Doped Carbon Composites for Efficient Electrocatalytic N₂ Reduction. ACS Applied Energy Materials, 2019, 2, 6071-6077.	5.1	67
39	Exfoliation of Stable 2D Black Phosphorus for Device Fabrication. Chemistry of Materials, 2017, 29, 6445-6456.	6.7	66
40	Supercritical Fluidâ€Facilitated Exfoliation and Processing of 2D Materials. Advanced Science, 2019, 6, 1901084.	11.2	65
41	Single Sb sites for efficient electrochemical CO₂ reduction. Chemical Communications, 2019, 55, 12024-12027.	4.1	65
42	Single-atom catalysis for electrochemical CO2 reduction. Current Opinion in Green and Sustainable Chemistry, 2019, 16, 1-6.	5.9	65
43	Reduced graphene oxides with engineered defects enable efficient electrochemical reduction of dinitrogen to ammonia in wide pH range. Nano Energy, 2020, 68, 104323.	16.0	64
44	Nitrogen-doped and nanostructured carbons with high surface area for enhanced oxygen reduction reaction. Carbon, 2018, 126, 111-118.	10.3	63
45	Efficient bifunctional Co/N dual-doped carbon electrocatalysts for oxygen reduction and evolution reaction. Carbon, 2019, 153, 575-584.	10.3	59
46	Effective Visible Light-Driven Photocatalytic Degradation of Ciprofloxacin over Flower-like Fe₃O₄/Bi₂WO₆ Composites. ACS Omega, 2021, 6, 1647-1656.	3.5	57
47	Rapid and Surfactant-Free Synthesis of Bimetallic Ptâ€“Cu Nanoparticles Simply via Ultrasound-Assisted Redox Replacement. ACS Catalysis, 2012, 2, 1647-1653.	11.2	54
48	High-quality functionalized few-layer graphene: facile fabrication and doping with nitrogen as a metal-free catalyst for the oxygen reduction reaction. Journal of Materials Chemistry A, 2015, 3, 15444-15450.	10.3	53
49	Hydrazineâ€Assisted Liquid Exfoliation of MoS₂ for Catalytic Hydrodeoxygenation of 4â€Methylphenol. Chemistry - A European Journal, 2016, 22, 2910-2914.	3.3	52
50	Supercritical CO2-facilitating large-scale synthesis of CeO2 nanowires and their application for solvent-free selective hydrogenation of nitroarenes. Journal of Materials Chemistry, 2010, 20, 1947.	6.7	49
51	Ultrasound-Assisted Nitrogen and Boron Codoping of Graphene Oxide for Efficient Oxygen Reduction Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 3434-3442.	6.7	49
52	Efficient visible-light driven N₂ fixation over two-dimensional Sb/TiO₂ composites. Chemical Communications, 2019, 55, 7171-7174.	4.1	46
53	A carbon-coated TiO2(B) nanosheet composite for lithium ion batteries. Chemical Communications, 2014, 50, 5506.	4.1	45
54	Improving the performance of metal-organic frameworks for thermo-catalytic CO2 conversion: Strategies and perspectives. Chinese Journal of Catalysis, 2021, 42, 1903-1920.	14.0	45

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55	Highâ€Concentration Graphene Dispersions with Minimal Stabilizer: A Scaffold for Enzyme Immobilization for Glucose Oxidation. Chemistry - A European Journal, 2014, 20, 5752-5761.	3.3	43
56	Heterogeneous Catalysis of CO₂ Hydrogenation to C₂₊ Products. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2018, 34, 858-872.	4.9	41
57	Efficient Electrochemical Reduction of CO₂ by Niâ€“N Catalysts with Tunable Performance. ACS Sustainable Chemistry and Engineering, 2019, 7, 15030-15035.	6.7	40
58	Ag-stabilized few-layer graphene dispersions in low boiling point solvents for versatile nonlinear optical applications. Carbon, 2013, 62, 182-192.	10.3	39
59	Metal-Tuned W₁₈O₄₉ for Efficient Electrocatalytic N₂ Reduction. ACS Sustainable Chemistry and Engineering, 2020, 8, 2957-2963.	6.7	39
60	Enhanced electrochemical CO2 reduction to ethylene over CuO by synergistically tuning oxygen vacancies and metal doping. Cell Reports Physical Science, 2021, 2, 100356.	5.6	39
61	Integration of ultrafine CuO nanoparticles with two-dimensional MOFs for enhanced electrochemical CO2 reduction to ethylene. Chinese Journal of Catalysis, 2022, 43, 1049-1057.	14.0	39
62	Hollow and Yolkâ€Shell Iron Oxide Nanostructures on Fewâ€Layer Graphene in Liâ€Ion Batteries. Chemistry - A European Journal, 2014, 20, 2022-2030.	3.3	37
63	Lignosulfonate biomass derived N and S co-doped porous carbon for efficient oxygen reduction reaction. Sustainable Energy and Fuels, 2018, 2, 1820-1827.	4.9	37
64	Surface-engineered oxidized two-dimensional Sb for efficient visible light-driven N2 fixation. Nano Energy, 2020, 78, 105368.	16.0	37
65	Amine-based solvents for exfoliating graphite to graphene outperform the dispersing capacity of N-methyl-pyrrolidone and surfactants. Chemical Communications, 2014, 50, 10382-10385.	4.1	35
66	Achieving Highly Selective Electrocatalytic CO₂ Reduction by Tuning CuO-Sb₂O₃ Nanocomposites. ACS Sustainable Chemistry and Engineering, 2020, 8, 4948-4954.	6.7	33
67	Ionic liquid-stabilized graphene and its use in immobilizing a metal nanocatalyst. RSC Advances, 2012, 2, 8189.	3.6	32
68	Synergistic catalysis of CuO/In₂O₃ composites for highly selective electrochemical CO₂ reduction to CO. Chemical Communications, 2019, 55, 12380-12383.	4.1	32
69	Earth-abundant coal-derived carbon nanotube/carbon composites as efficient bifunctional oxygen electrocatalysts for rechargeable zinc-air batteries. Journal of Energy Chemistry, 2021, 56, 87-97.	12.9	32
70	Single yttrium sites on carbon-coated TiO₂ for efficient electrocatalytic N₂ reduction. Chemical Communications, 2020, 56, 10910-10913.	4.1	31
71	Nanostructured Few-Layer Graphene with Superior Optical Limiting Properties Fabricated by a Catalytic Steam Etching Process. Journal of Physical Chemistry C, 2013, 117, 11811-11817.	3.1	29
72	Thermal-Stable Carbon Nanotube-Supported Metal Nanocatalysts by Mesoporous Silica Coating. Langmuir, 2011, 27, 6244-6251.	3.5	28

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73	Liquid Exfoliation of Two-Dimensional PbI₂ Nanosheets for Ultrafast Photonics. ACS Photonics, 2019, 6, 1051-1057.	6.6	28
74	Katalyse der Kohlenstoffdioxidâ€Photoreduktion an Nanoschichten: Grundlagen und Herausforderungen. Angewandte Chemie, 2018, 130, 7734-7752.	2.0	27
75	Tuning the Pd-catalyzed electroreduction of CO₂to CO with reduced overpotential. Catalysis Science and Technology, 2018, 8, 3894-3900.	4.1	24
76	Trace metals dramatically boost oxygen electrocatalysis of N-doped coal-derived carbon for zincâ€"air batteries. Nanoscale, 2020, 12, 9628-9639.	5.6	24
77	Interface engineered Sb2O3/W18O49 heterostructure for enhanced visible-light-driven photocatalytic N2 reduction. Chemical Engineering Journal, 2022, 438, 135485.	12.7	21
78	Three-Dimensional Mesoporous Ni-CeO2 Catalysts with Ni Embedded in the Pore Walls for CO2 Methanation. Catalysts, 2020, 10, 523.	3.5	19
79	Single Nb atom modified anatase TiO2(110) for efficient electrocatalytic nitrogen reduction reaction. Chem Catalysis, 2022, 2, 2275-2288.	6.1	18
80	An efficient pH-universal electrocatalyst for oxygen reduction: defect-rich graphitized carbon shell wrapped cobalt within hierarchical porous N-doped carbon aerogel. Materials Today Energy, 2020, 17, 100452.	4.7	17
81	Atomically Dispersed Nickel Sites for Selective Electroreduction of CO₂. ACS Applied Energy Materials, 2019, 2, 8836-8842.	5.1	16
82	Engineering vacancy and hydrophobicity of two-dimensional TaTe2 for efficient and stable electrocatalytic N2 reduction. Innovation(China), 2022, 3, 100190.	9.1	16
83	Few-layer graphene modified with nitrogen-rich metallo-macrocyclic complexes as precursor for bifunctional oxygen electrocatalysts. Electrochimica Acta, 2016, 222, 1191-1199.	5.2	15
84	Encapsulated Ni@La2O3/SiO2 Catalyst with a One-Pot Method for the Dry Reforming of Methane. Catalysts, 2020, 10, 38.	3.5	14
85	Design of Porous Coreâ€"Shell Manganese Oxides to Boost Electrocatalytic Dinitrogen Reduction. ACS Sustainable Chemistry and Engineering, 2022, 10, 1316-1322.	6.7	14
86	Selective Electroreduction of CO₂ and CO to C₂H₄ by Synergistically Tuning Nanocavities and the Surface Charge of Copper Oxide. ACS Sustainable Chemistry and Engineering, 2022, 10, 6466-6475.	6.7	13
87	Oneâ€Pot Synthesis of Carbonâ€Coated Nanostructured Iron Oxide on Fewâ€Layer Graphene for Lithiumâ€Ion Batteries. Chemistry - A European Journal, 2015, 21, 16154-16161.	3.3	12
88	Cadmium-based metalâ^'organic frameworks for high-performance electrochemical CO2 reduction to CO over wide potential range. Chinese Journal of Chemical Engineering, 2022, 43, 143-151.	3.5	12
89	Engineering the CuOâ€"HfO₂ interface toward enhanced CO₂ electroreduction to C₂H₄. Chemical Communications, 2022, 58, 7412-7415.	4.1	12
90	Electrocatalytic coupling of CO2 and N2 for urea synthesis. Current Opinion in Green and Sustainable Chemistry, 2022, 37, 100648.	5.9	11

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91	Mechanical properties of <scp>in situ</scp> modified graphene <scp>nanosheetsâ€reinforced</scp> polypropylene. Polymer Composites, 2022, 43, 4687-4699.	4.6	10
92	Simple synthesis of two-dimensional MoP2 nanosheets for efficient electrocatalytic hydrogen evolution. Electrochemistry Communications, 2018, 97, 27-31.	4.7	9
93	One-Step Synthesis of Highly Dispersed and Stable Ni Nanoparticles Confined by CeO2 on SiO2 for Dry Reforming of Methane. Energies, 2020, 13, 5956.	3.1	9
94	Facile Synthesis of the Amorphous Carbon Coated Fe-N-C Nanocatalyst with Efficient Activity for Oxygen Reduction Reaction in Acidic and Alkaline Media. Materials, 2020, 13, 4551.	2.9	8
95	Facile synthesis of two-dimensional copper terephthalate for efficient electrocatalytic CO₂ reduction to ethylene. Journal of Experimental Nanoscience, 2021, 16, 246-254.	2.4	7
96	Supercritical diethylamine facilitated loading of ultrafine Ru particles on few-layer graphene for solvent-free hydrogenation of levulinic acid to <i>Î³</i>-valerolactone. Nanotechnology, 2018, 29, 075708.	2.6	6
97	The complete mitochondrial genome of <i>ostorhinchus fleurieu</i> (kurtiformes: Apogonidae) and phylogenetic studies of apogoninae. Mitochondrial DNA Part B: Resources, 2019, 4, 3691-3692.	0.4	5
98	Crystal structure dependent cation exchange reactions in Cu_{2âˆ’<i>x</i>}S nanoparticles. Nanoscale, 2022, 14, 3907-3916.	5.6	4
99	Facile Synthesis of Fe@C Loaded on <i>g</i>-C₃N₄ for CO₂ Electrochemical Reduction to CO with Low Overpotential. ACS Omega, 2022, 7, 11158-11165.	3.5	4
100	Effects of Chlorella vulgaris Enhancement on Endogenous Microbial Degradation of Marine Oil Spills and Community Diversity. Microorganisms, 2022, 10, 905.	3.6	4
101	Label-Free ZnIn2S4/UiO-66-NH2 Modified Glassy Carbon Electrode for Electrochemically Assessing Fish Freshness by Monitoring Xanthine and Hypoxanthine. Chemosensors, 2022, 10, 158.	3.6	4
102	Preparation of Fe3O4/MnOOH coreâ€“shell nanoparticles by a high-frequency impinging stream reactor. Chinese Journal of Chemical Engineering, 2015, 23, 727-735.	3.5	3
103	Graphene/Porous Beta TiO2 Nanocomposites Prepared Through a Simple Hydrothermal Method. Current Graphene Science, 2017, 1, .	0.5	3
104	Manipulating Cation Exchange Reactions in Cu_{2â€“<i>x</i>}S Nanoparticles via Crystal Structure Transformation. Inorganic Chemistry, 2022, 61, 9063-9072.	4.0	3
105	Graphene and its Hybrids for Photocatalysis. Current Graphene Science, 2019, 2, 79-96.	0.5	1
106	Recent Advances in Electrode Materials for Electrochemical CO2Reduction. ACS Symposium Series, 2020, , 49-91.	0.5	1
107	Application of two-dimensional materials for electrochemical carbon dioxide reduction. , 2020, , 289-326.		1