

# Guoping Gao

## List of Publications by Year in descending order

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53  
papers

10,065  
citations

101543

36  
h-index

168389

53  
g-index

53  
all docs

53  
docs citations

53  
times ranked

13039  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ti <sub>3</sub> C <sub>2</sub> MXene co-catalyst on metal sulfide photo-absorbers for enhanced visible-light photocatalytic hydrogen production. <i>Nature Communications</i> , 2017, 8, 13907.	12.8	1,496
2	Porous P-doped graphitic carbon nitride nanosheets for synergistically enhanced visible-light photocatalytic H <sub>2</sub> production. <i>Energy and Environmental Science</i> , 2015, 8, 3708-3717.	30.8	1,146
3	Single Atom (Pd/Pt) Supported on Graphitic Carbon Nitride as an Efficient Photocatalyst for Visible-Light Reduction of Carbon Dioxide. <i>Journal of the American Chemical Society</i> , 2016, 138, 6292-6297.	13.7	985
4	Defect Graphene as a Trifunctional Catalyst for Electrochemical Reactions. <i>Advanced Materials</i> , 2016, 28, 9532-9538.	21.0	961
5	A Heterostructure Coupling of Exfoliated Ni-Fe Hydroxide Nanosheet and Defective Graphene as a Bifunctional Electrocatalyst for Overall Water Splitting. <i>Advanced Materials</i> , 2017, 29, 1700017.	21.0	845
6	2D MXenes: A New Family of Promising Catalysts for the Hydrogen Evolution Reaction. <i>ACS Catalysis</i> , 2017, 7, 494-500.	11.2	825
7	Graphene Defects Trap Atomic Ni Species for Hydrogen and Oxygen Evolution Reactions. <i>CheM</i> , 2018, 4, 285-297.	11.7	624
8	Charge Mediated Semiconducting-to-Metallic Phase Transition in Molybdenum Disulfide Monolayer and Hydrogen Evolution Reaction in New 1T' Phase. <i>Journal of Physical Chemistry C</i> , 2015, 119, 13124-13128.	3.1	295
9	Synergistic crystal facet engineering and structural control of WO <sub>3</sub> films exhibiting unprecedented photoelectrochemical performance. <i>Nano Energy</i> , 2016, 24, 94-102.	16.0	243
10	Graphene-like Two-Dimensional Ionic Boron with Double Dirac Cones at Ambient Condition. <i>Nano Letters</i> , 2016, 16, 3022-3028.	9.1	222
11	Designing a Quinone-Based Redox Mediator to Facilitate Li <sub>2</sub> S Oxidation in Li-S Batteries. <i>Joule</i> , 2019, 3, 872-884.	24.0	188
12	Activating Catalytic Inert Basal Plane of Molybdenum Disulfide to Optimize Hydrogen Evolution Activity via Defect Doping and Strain Engineering. <i>Journal of Physical Chemistry C</i> , 2016, 120, 16761-16766.	3.1	138
13	Computational screening of two-dimensional coordination polymers as efficient catalysts for oxygen evolution and reduction reaction. <i>Journal of Catalysis</i> , 2017, 352, 579-585.	6.2	130
14	Metal-free graphitic carbon nitride as mechano-catalyst for hydrogen evolution reaction. <i>Journal of Catalysis</i> , 2015, 332, 149-155.	6.2	127
15	Transition metal-embedded two-dimensional C <sub>3</sub> N as a highly active electrocatalyst for oxygen evolution and reduction reactions. <i>Journal of Materials Chemistry A</i> , 2019, 7, 12050-12059.	10.3	123
16	Transition-metal single atoms in nitrogen-doped graphenes as efficient active centers for water splitting: a theoretical study. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 3024-3032.	2.8	122
17	Carbon nanodot decorated graphitic carbon nitride: new insights into the enhanced photocatalytic water splitting from ab initio studies. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 31140-31144.	2.8	105
18	Predicting Single-Layer Technetium Dichalcogenides (TcX <sub>2</sub> , X = S, Se) with Promising Applications in Photovoltaics and Photocatalysis. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 5385-5392.	8.0	100

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19	Stable Copper Nanoparticle Photocatalysts for Selective Epoxidation of Alkenes with Visible Light. ACS Catalysis, 2017, 7, 4975-4985.	11.2	96
20	Supercooled liquid sulfur maintained in three-dimensional current collector for high-performance Li-S batteries. Science Advances, 2020, 6, eaay5098.	10.3	95
21	Understanding the activity and selectivity of single atom catalysts for hydrogen and oxygen evolution via an initial study. Catalysis Science and Technology, 2018, 8, 996-1001.	4.1	94
22	Endohedral metallofullerenes (M@C60) as efficient catalysts for highly active hydrogen evolution reaction. Journal of Catalysis, 2017, 354, 231-235.	6.2	84
23	Ion Irradiation Inducing Oxygen Vacancy-Rich NiO/NiFe <sub>2</sub> O <sub>4</sub> Heterostructure for Enhanced Electrocatalytic Water Splitting. Small, 2021, 17, e2103501.	10.0	76
24	Strong affinity of polysulfide intermediates to multi-functional binder for practical application in lithium-sulfur batteries. Nano Energy, 2016, 26, 722-728.	16.0	72
25	Single Layer Bismuth Iodide: Computational Exploration of Structural, Electrical, Mechanical and Optical Properties. Scientific Reports, 2015, 5, 17558.	3.3	67
26	Theoretical Investigation of 2D Conductive Microporous Coordination Polymers as Li-S Battery Cathode with Ultrahigh Energy Density. Advanced Energy Materials, 2018, 8, 1801823.	19.5	63
27	Versatile Single-Layer Sodium Phosphidostannate(II): Strain-Tunable Electronic Structure, Excellent Mechanical Flexibility, and an Ideal Gap for Photovoltaics. Journal of Physical Chemistry Letters, 2015, 6, 2682-2687.	4.6	60
28	Ultrathin Cobaltic Oxide Nanosheets as an Effective Sulfur Encapsulation Matrix with Strong Affinity Toward Polysulfides. ACS Applied Materials & Interfaces, 2017, 9, 4320-4325.	8.0	59
29	Computational screening of transition-metal single atom doped C <sub>9</sub> N <sub>4</sub> monolayers as efficient electrocatalysts for water splitting. Nanoscale, 2019, 11, 18169-18175.	5.6	56
30	Predicting a new phase (T <sub>d</sub> ) of two-dimensional transition metal di-chalcogenides and strain-controlled topological phase transition. Nanoscale, 2016, 8, 4969-4975.	5.6	50
31	Recent advances in single-atom electrocatalysts supported on two-dimensional materials for the oxygen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 9979-9999.	10.3	50
32	Phase-transition-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
33	Molecule-Induced Conformational Change in Boron Nitride Nanosheets with Enhanced Surface Adsorption. Advanced Functional Materials, 2016, 26, 8202-8210.	14.9	47
34	Substantial potential effects on single-atom catalysts for the oxygen evolution reaction simulated via a fixed-potential method. Journal of Catalysis, 2020, 391, 530-538.	6.2	45
35	Graphene-covered perovskites: an effective strategy to enhance light absorption and resist moisture degradation. RSC Advances, 2015, 5, 82346-82350.	3.6	43
36	Modelling CO <sub>2</sub> adsorption and separation on experimentally-realized B <sub>40</sub> fullerene. Computational Materials Science, 2015, 108, 38-41.	3.0	40

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37	Computational screening of transition metal-doped phthalocyanine monolayers for oxygen evolution and reduction. <i>Nanoscale Advances</i> , 2020, 2, 710-716.	4.6	30
38	Transition-metal single atoms embedded into defective BC <sub>3</sub> as efficient electrocatalysts for oxygen evolution and reduction reactions. <i>Nanoscale</i> , 2021, 13, 1331-1339.	5.6	27
39	Boosting oxygen reduction and hydrogen evolution at the edge sites of a web-like carbon nanotube-graphene hybrid. <i>Carbon</i> , 2016, 107, 739-746.	10.3	25
40	Visible light-driven selective hydrogenation of unsaturated aromatics in an aqueous solution by direct photocatalysis of Au nanoparticles. <i>Catalysis Science and Technology</i> , 2018, 8, 726-734.	4.1	23
41	An inverse vulcanized conductive polymer for Li-S battery cathodes. <i>Journal of Materials Chemistry A</i> , 2020, 8, 21711-21720.	10.3	23
42	Electrotunable liquid sulfur microdroplets. <i>Nature Communications</i> , 2020, 11, 606.	12.8	22
43	Substantial Band-Gap Tuning and a Strain-Controlled Semiconductor to Gapless/Band-Inverted Semimetal Transition in Rutile Lead/Stannic Dioxide. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 25667-25673.	8.0	18
44	A potential and pH inclusive microkinetic model for hydrogen reactions on Pt surface. <i>Chem Catalysis</i> , 2021, 1, 1331-1345.	6.1	16
45	Versatile two-dimensional stanene-based membrane for hydrogen purification. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 5577-5583.	7.1	13
46	Solid 3D Li-S Battery Design via Stacking 2D Conductive Microporous Coordination Polymers and Amorphous Li-S Layers. <i>Chemistry of Materials</i> , 2020, 32, 1974-1982.	6.7	11
47	Influence of charge state on catalytic properties of PtAu(CO) in reduction of SO <sub>2</sub> by CO. <i>Chemical Physics Letters</i> , 2015, 625, 128-131.	2.6	10
48	Calculations of helium separation via uniform pores of stanene-based membranes. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 2470-2476.	2.8	9
49	Revealing the working mechanism of a multi-functional block copolymer binder for lithium-sulfur batteries. <i>Journal of Energy Chemistry</i> , 2021, 59, 1-8.	12.9	8
50	Distribution of alkali cations near the Cu (111) surface in aqueous solution. <i>Journal of Materials Chemistry A</i> , 2020, 8, 24428-24437.	10.3	6
51	Anomalous Shape Evolution of Ag <sub>2</sub> O Nanocrystals Modulated by Surface Adsorbates during Electron Beam Etching. <i>Nano Letters</i> , 2019, 19, 591-597.	9.1	2
52	2D Nanomaterials: Molecule-Induced Conformational Change in Boron Nitride Nanosheets with Enhanced Surface Adsorption (Adv. Funct. Mater. 45/2016). <i>Advanced Functional Materials</i> , 2016, 26, 8356-8356.	14.9	1
53	Thermodynamic Full Landscape Searching Scheme for Identifying the Mechanism of Electrochemical Reaction: A Case Study of Oxygen Evolution on Fe- and Co-Doped Graphene-Nitrogen Sites. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5444-5455.	2.5	1