

Taifeng Liu

List of Publications by Year in descending order

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43
papers

2,556
citations

361045

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h-index

253896

43
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docs citations

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times ranked

3887
citing authors

#	ARTICLE	IF	CITATIONS
1	A highly selective and stable ZnO-ZrO ₂ solid solution catalyst for CO ₂ hydrogenation to methanol. <i>Science Advances</i> , 2017, 3, e1701290.	4.7	683
2	Enhancing charge separation on high symmetry SrTiO ₃ exposed with anisotropic facets for photocatalytic water splitting. <i>Energy and Environmental Science</i> , 2016, 9, 2463-2469.	15.6	372
3	Positioning the Water Oxidation Reaction Sites in Plasmonic Photocatalysts. <i>Journal of the American Chemical Society</i> , 2017, 139, 11771-11778.	6.6	311
4	Crystallographic-Orientation-Dependent Charge Separation of BiVO ₄ for Solar Water Oxidation. <i>ACS Energy Letters</i> , 2019, 4, 825-831.	8.8	126
5	Interfacial Construction of Zero-Dimensional/One-Dimensional g-C ₃ N ₄ Nanoparticles/TiO ₂ Nanotube Arrays with Z-Scheme Heterostructure for Improved Photoelectrochemical Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 2483-2491.	3.2	114
6	The nature of photogenerated charge separation among different crystal facets of BiVO ₄ studied by density functional theory. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 23503-23510.	1.3	112
7	Unraveling a Single-Step Simultaneous Two-Electron Transfer Process from Semiconductor to Molecular Catalyst in a CoPy/CdS Hybrid System for Photocatalytic H ₂ Evolution under Strong Alkaline Conditions. <i>Journal of the American Chemical Society</i> , 2016, 138, 10726-10729.	6.6	79
8	Species, engineering and characterizations of defects in TiO ₂ -based photocatalyst. <i>Chinese Chemical Letters</i> , 2018, 29, 671-680.	4.8	67
9	Charge carrier transport dynamics in W/Mo-doped BiVO ₄ : first principles-based mesoscale characterization. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3054-3065.	5.2	51
10	Sr ₂ NiWO ₆ Double Perovskite Oxide as a Novel Visible-Light-Responsive Water Oxidation Photocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 25938-25948.	4.0	44
11	Role of Oxygen Vacancies on Oxygen Evolution Reaction Activity: $\hat{\Gamma}^2$ -Ga ₂ O ₃ as a Case Study. <i>Chemistry of Materials</i> , 2018, 30, 7714-7726.	3.2	43
12	Synergistic effect of {101} crystal facet and bulk/surface oxygen vacancy ratio on the photocatalytic hydrogen production of TiO ₂ . <i>International Journal of Hydrogen Energy</i> , 2019, 44, 8109-8120.	3.8	39
13	Development of Novel Perovskite-Like Oxide Photocatalyst LiCuTa ₃ O ₉ with Dual Functions of Water Reduction and Oxidation under Visible Light Irradiation. <i>Advanced Energy Materials</i> , 2018, 8, 1801660.	10.2	38
14	Sr ₂ CoTaO ₆ Double Perovskite Oxide as a Novel Visible-Light-Absorbing Bifunctional Photocatalyst for Photocatalytic Oxygen and Hydrogen Evolution Reactions. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 14190-14197.	3.2	37
15	A Novel Double Perovskite Oxide Semiconductor Sr ₂ CoWO ₆ as Bifunctional Photocatalyst for Photocatalytic Oxygen and Hydrogen Evolution Reactions from Water under Visible Light Irradiation. <i>Solar Rrl</i> , 2020, 4, 1900456.	3.1	36
16	Tuning Growth of Low-Dimensional Organic Nanostructures for Efficient Optical Waveguide Applications. <i>Journal of Physical Chemistry C</i> , 2012, 116, 14134-14138.	1.5	32
17	Water Oxidation on TiO ₂ : A Comparative DFT Study of 1e ⁺ , 2e ⁺ , and 4e ⁺ Processes on Rutile, Anatase, and Brookite. <i>Journal of Physical Chemistry C</i> , 2020, 124, 8094-8100.	1.5	30
18	Highly efficient photocatalytic reduction of CO ₂ on surface-modified Ti-MCM-41 zeolite. <i>Catalysis Today</i> , 2019, 335, 221-227.	2.2	28

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19	Theoretical insight into the roles of cocatalysts in the NiO ₂ -Ga ₂ O ₃ photocatalyst for overall water splitting. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10309-10319.	5.2	26
20	Band Structure Engineering: Insights from Defects, Band Gap, and Electron Mobility, from Study of Magnesium Tantalate. <i>Journal of Physical Chemistry C</i> , 2016, 120, 6930-6937.	1.5	26
21	A wide visible light driven complex perovskite Ba(Mg _{1/3} Ta _{2/3})O _{3-x} N _y photocatalyst for water oxidation and reduction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18870-18877.	5.2	20
22	Bimodal hole transport in bulk BiVO ₄ from computation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3714-3723.	5.2	20
23	Hole Polaron Transport in Bismuth Vanadate BiVO ₄ from Hybrid Density Functional Theory. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23038-23044.	1.5	20
24	Photocatalytic Facet Selectivity in BiVO ₄ Nanoparticles: Polaron Electronic Structure and Thermodynamic Stability Considerations for Photocatalysis. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20142-20151.	1.5	18
25	Water oxidation sites located at the interface of Pt/SrTiO ₃ for photocatalytic overall water splitting. <i>Chinese Journal of Catalysis</i> , 2022, 43, 2223-2230.	6.9	18
26	Synthesis of a Naphthalene-diimide Cyclophane for Tuning Supramolecular Interactions by Metal Ions. <i>European Journal of Organic Chemistry</i> , 2012, 2012, 4287-4292.	1.2	17
27	Electronic logic gates from three-segment nanowires featuring two p-n heterojunctions. <i>NPG Asia Materials</i> , 2013, 5, e59-e59.	3.8	16
28	Oxygen Evolution Reaction (OER) on Clean and Oxygen Deficient Low-Index SrTiO ₃ Surfaces: A Theoretical Systematic Study. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 15346-15353.	3.2	16
29	Theoretical Insight into the Role of Defects and Facets in the Selectivity of Products in Water Oxidation over Bismuth Vanadate (BiVO ₄). <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 1980-1988.	3.2	15
30	Enhancing the photocatalytic activity of defective titania for carbon dioxide photoreduction via surface functionalization. <i>Catalysis Science and Technology</i> , 2022, 12, 509-518.	2.1	15
31	On a high photocatalytic activity of high-noble alloys Au-Ag/TiO ₂ catalysts during oxygen evolution reaction of water oxidation. <i>Scientific Reports</i> , 2022, 12, 2604.	1.6	15
32	Water-stable Mn-based MOF nanosheet as robust visible-light-responsive photocatalyst in aqueous solution. <i>Science China Chemistry</i> , 2020, 63, 1756-1760.	4.2	14
33	Flux-Assisted Synthesis of Prism-like Octahedral Ta ₃ N ₅ Single-Crystals with Controllable Facets for Promoted Photocatalytic H ₂ Evolution. <i>Solar Rrl</i> , 2021, 5, 2000574.	3.1	10
34	Self-assembly of a tripyrenylboron molecule towards solid sensor for fluoride anions. <i>RSC Advances</i> , 2013, 3, 9973.	1.7	9
35	Highly efficient photocatalytic reduction of CO ₂ on amine-functionalized Ti-MCM-41 zeolite. <i>Journal of Nanoparticle Research</i> , 2020, 22, 1.	0.8	9
36	Insight into the Fergusonite-Scheelite Phase Transition of ABO ₄ -Type Oxides by Density Functional Theory: A Case Study of the Subtleties of the Ground State of BiVO ₄ . <i>Chemistry of Materials</i> , 2022, 34, 5334-5343.	3.2	6

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37	A Facile Way for Synthesis of High Performance Electron Receptor MCB: A Promising Replacer of PCBM. Fullerenes Nanotubes and Carbon Nanostructures, 2014, 22, 289-298.	1.0	4
38	Embedding Sulfur Atoms in Decahedron Bismuth Vanadate Crystals with a Soft Chemical Approach for Expanding the Light Absorption Range. ChemCatChem, 2020, 12, 1585-1590.	1.8	4
39	Theoretical insight into the anion vacancy healing process during the oxygen evolution reaction on Ta ₃ N ₅ . Physical Chemistry Chemical Physics, 2022, 24, 13999-14006.	1.3	4
40	The quantum size and spin-orbit coupling effects in BiVO ₄ with several atomic layers studied by density functional theory. Physical Chemistry Chemical Physics, 2022, 24, 10168-10174.	1.3	3
41	Simultaneous two-electron transfer from photoirradiated semiconductor to molecular catalyst. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 355, 332-337.	2.0	2
42	Charge Carrier Transport Mechanism in Ta ₂ O ₅ , TaON, and Ta ₃ N ₅ Studied by Applying Polaron Hopping and Bandlike Models. ChemPhysChem, 2022, 23, e202100859.	1.0	1
43	Prediction the photocatalytic water splitting of bismuth vanadate oxyhalide BiVO ₃ F based on density functional theory. Molecular Catalysis, 2022, 524, 112244.	1.0	0