Hongxian Han

List of Publications by Year
in descending order

76 papers	12,151 citations	66343 42 h-index	69250 77 g-index
81 all docs	81 docs citations	81 times ranked	13407 citing authors

#	Article	IF	Citations
1	Building Pathways to a Sustainable Planet. ACS Sustainable Chemistry and Engineering, 2022, 10, 1-2.	6.7	1
2	Enhancing the stability of cobalt spinel oxide towards sustainable oxygen evolution in acid. Nature Catalysis, 2022, 5, 109-118.	34.4	236
3	Unique Properties of RhCrO_{<i>x</i>} Cocatalyst Regulating Reactive Oxygen Species Formation in Photocatalytic Overall Water Splitting. ACS Sustainable Chemistry and Engineering, 2022, 10, 4059-4064.	6.7	8
4	Intrinsic photocatalytic water oxidation activity of Mn-doped ferroelectric BiFeO3. Chinese Journal of Catalysis, 2021, 42, 945-952.	14.0	21
5	Sustainability of Battery Technologies: Today and Tomorrow. ACS Sustainable Chemistry and Engineering, 2021, 9, 6507-6509.	6.7	16
6	Stable Dyeâ€Sensitized Solar Cells Based on Copper(II/I) Redox Mediators Bearing a Pentadentate Ligand. Angewandte Chemie, 2021, 133, 16292-16299.	2.0	6
7	Stable Dyeâ€Sensitized Solar Cells Based on Copper(II/I) Redox Mediators Bearing a Pentadentate Ligand. Angewandte Chemie - International Edition, 2021, 60, 16156-16163.	13.8	24
8	A Yin-Yang hybrid co-catalyst (CoOx-Mo2N) for photocatalytic overall water splitting. Applied Catalysis B: Environmental, 2021, 298, 120491.	20.2	22
9	Photons at Play: Photocatalysis in Sustainable Chemistry. A Joint Virtual Special Issue by ACS Catalysis and ACS Sustainable Chemistry & Engineering. ACS Sustainable Chemistry and Engineering, 2021, 9, 13125-13127.	6.7	1
10	Expectations for Perspectives in ACS Sustainable Chemistry & Engineering. ACS Sustainable Chemistry and Engineering, 2021, 9, 16528-16530.	6.7	1
11	The Evolution of ACS Sustainable Chemistry & Engineering. ACS Sustainable Chemistry and Engineering, 2020, 8, 1-1.	6.7	6
12	A Novel Double Perovskite Oxide Semiconductor Sr₂CoWO₆ as Bifunctional Photocatalyst for Photocatalytic Oxygen and Hydrogen Evolution Reactions from Water under Visible Light Irradiation. Solar Rrl, 2020, 4, 1900456.	5.8	36
13	Regulation of Ferroelectric Polarization to Achieve Efficient Charge Separation and Transfer in Particulate RuO₂/BiFeO₃ for High Photocatalytic Water Oxidation Activity. Small, 2020, 16, e2003361.	10.0	51
14	Expectations for Manuscripts in ACS Sustainable Chemistry & Engineering: Scope Summary and Call for Creativity. ACS Sustainable Chemistry and Engineering, 2020, 8, 16046-16047.	6.7	2
15	Expectations for Manuscripts on Biomass Feedstocks and Processing in <i>ACS Sustainable Chemistry & Engineering</i>. ACS Sustainable Chemistry and Engineering, 2020, 8, 11031-11032.	6.7	2
16	Remembering Professor, Academician, and Editor Lina Zhang. ACS Sustainable Chemistry and Engineering, 2020, 8, 16385-16385.	6.7	0
17	Sr₂CoTaO₆ Double Perovskite Oxide as a Novel Visible-Light-Absorbing Bifunctional Photocatalyst for Photocatalytic Oxygen and Hydrogen Evolution Reactions. ACS Sustainable Chemistry and Engineering, 2020, 8, 14190-14197.	6.7	37
18	Gradient tantalum-doped hematite homojunction photoanode improves both photocurrents and turn-on voltage for solar water splitting. Nature Communications, 2020, 11, 4622.	12.8	133

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19	Sr₂NiWO₆ Double Perovskite Oxide as a Novel Visible-Light-Responsive Water Oxidation Photocatalyst. ACS Applied Materials & Interfaces, 2020, 12, 25938-25948.	8.0	44
20	The Changing Structure of Scientific Communication: Expanding the Nature of Letters Submissions to ACS Sustainable Chemistry & Engineering. ACS Sustainable Chemistry and Engineering, 2020, 8, 8469-8470.	6.7	0
21	Exploration of the intrinsic factors limiting the photocurrent density in ferroelectric BiFeO₃ thin film. Journal of Materials Chemistry A, 2020, 8, 6863-6873.	10.3	30
22	Expectations for Papers on Photochemistry, Photoelectrochemistry, and Electrochemistry for Energy Conversion and Storage in <i>ACS Sustainable Chemistry & Engineering</i>. ACS Sustainable Chemistry and Engineering, 2020, 8, 3038-3039.	6.7	4
23	<i>ACS Sustainable Chemistry & Engineering</i> Virtual Special Issue on Theories, Mechanisms, Materials, and Devices for Solar Energy Conversion. ACS Sustainable Chemistry and Engineering, 2019, 7, 10164-10164.	6.7	1
24	Fine-tuning the coordination atoms of copper redox mediators: an effective strategy for boosting the photovoltage of dye-sensitized solar cells. Journal of Materials Chemistry A, 2019, 7, 12808-12814.	10.3	12
25	Stable Potential Windows for Longâ€Term Electrocatalysis by Manganese Oxides Under Acidic Conditions. Angewandte Chemie, 2019, 131, 5108-5112.	2.0	44
26	Stable Potential Windows for Longâ€Term Electrocatalysis by Manganese Oxides Under Acidic Conditions. Angewandte Chemie - International Edition, 2019, 58, 5054-5058.	13.8	182
27	Why Wasnâ€™t My <i>ACS Sustainable Chemistry & Engineering</i> Manuscript Sent Out for Review?. ACS Sustainable Chemistry and Engineering, 2019, 7, 1-2.	6.7	5
28	La and Cr Co-doped SrTiO3 as an H2 evolution photocatalyst for construction of a Z-scheme overall water splitting system. Chinese Journal of Catalysis, 2018, 39, 421-430.	14.0	26
29	Simultaneous two-electron transfer from photoirradiated semiconductor to molecular catalyst. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 355, 332-337.	3.9	2
30	Earthâ€Abundant Transitionâ€Metalâ€Based Electrocatalysts for Water Electrolysis to Produce Renewable Hydrogen. Chemistry - A European Journal, 2018, 24, 18334-18355.	3.3	203
31	Photoelectrocatalytic Materials for Solar Water Splitting. Advanced Energy Materials, 2018, 8, 1800210.	19.5	364
32	Fabrication and Kinetic Study of a Ferrihydrite-Modified BiVO₄ Photoanode. ACS Catalysis, 2017, 7, 1868-1874.	11.2	151
33	Influence of the Electrostatic Interaction between a Molecular Catalyst and Semiconductor on Photocatalytic Hydrogen Evolution Activity in Cobaloxime/CdS Hybrid Systems. ACS Applied Materials & Interfaces, 2017, 9, 23230-23237.	8.0	31
34	Improvement of Electrochemical Water Oxidation by Fineâ€Tuning the Structure of Tetradentate N₄ Ligands of Molecular Copper Catalysts. ChemSusChem, 2017, 10, 4581-4588.	6.8	38
35	Strategies for Efficient Charge Separation and Transfer in Artificial Photosynthesis of Solar Fuels. ChemSusChem, 2017, 10, 4277-4305.	6.8	75
36	p-Type CaFe2O4 semiconductor nanorods controllably synthesized by molten salt method. Journal of Energy Chemistry, 2016, 25, 381-386.	12.9	26

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37	Unraveling a Single-Step Simultaneous Two-Electron Transfer Process from Semiconductor to Molecular Catalyst in a CoPy/CdS Hybrid System for Photocatalytic H₂ Evolution under Strong Alkaline Conditions. Journal of the American Chemical Society, 2016, 138, 10726-10729.	13.7	79
38	Evident Enhancement of Photoelectrochemical Hydrogen Production by Electroless Deposition of M-B (M = Ni, Co) Catalysts on Silicon Nanowire Arrays. ACS Applied Materials & Interfaces, 2016, 8, 30143-30151.	8.0	40
39	Understanding the anataseâ€“rutile phase junction in charge separation and transfer in a TiO₂ electrode for photoelectrochemical water splitting. Chemical Science, 2016, 7, 6076-6082.	7.4	138
40	Electroless plated Niâ€“B films as highly active electrocatalysts for hydrogen production from water over a wide pH range. Nano Energy, 2016, 19, 98-107.	16.0	143
41	Effect of Redox Cocatalysts Location on Photocatalytic Overall Water Splitting over Cubic NaTaO₃ Semiconductor Crystals Exposed with Equivalent Facets. ACS Catalysis, 2016, 6, 2182-2191.	11.2	149
42	Photoelectrochemical Water Splitting Promoted with a Disordered Surface Layer Created by Electrochemical Reduction. ACS Applied Materials & Interfaces, 2015, 7, 3791-3796.	8.0	75
43	Photocatalysis in solar fuel production. National Science Review, 2015, 2, 145-147.	9.5	26
44	Achieving overall water splitting using titanium dioxide-based photocatalysts of different phases. Energy and Environmental Science, 2015, 8, 2377-2382.	30.8	313
45	Excellent photo-Fenton catalysts of Feâ€“Co Prussian blue analogues and their reaction mechanism study. Applied Catalysis B: Environmental, 2015, 179, 196-205.	20.2	222
46	Enhancing photoresponsivity of self-powered UV photodetectors based on electrochemically reduced TiO₂ nanorods. RSC Advances, 2015, 5, 95939-95942.	3.6	7
47	Selective conversion of aqueous glucose to value-added sugar aldose on TiO2-based photocatalysts. Journal of Catalysis, 2014, 314, 101-108.	6.2	117
48	Selective photocatalytic conversion of glycerol to hydroxyacetaldehyde in aqueous solution on facet tuned TiO₂-based catalysts. Chemical Communications, 2014, 50, 165-167.	4.1	83
49	Highly efficient photocatalysts constructed by rational assembly of dual-cocatalysts separately on different facets of BiVO₄. Energy and Environmental Science, 2014, 7, 1369-1376.	30.8	491
50	Synergetic effect of dual cocatalysts in photocatalytic H₂production on Pdâ€“IrO_x/TiO₂: a new insight into dual cocatalyst location. Physical Chemistry Chemical Physics, 2014, 16, 17734.	2.8	51
51	Transition metal (Ni, Fe, and Cu) hydroxides enhanced Î±-Fe₂O₃photoanode-based photofuel cell. RSC Advances, 2014, 4, 47383-47388.	3.6	19
52	Titanium Dioxide-Based Nanomaterials for Photocatalytic Fuel Generations. Chemical Reviews, 2014, 114, 9987-10043.	47.7	2,096
53	A Novel Sr2CuInO3S p-type semiconductor photocatalyst for hydrogen production under visible light irradiation. Journal of Energy Chemistry, 2014, 23, 420-426.	12.9	47
54	A Tantalum Nitride Photoanode Modified with a Holeâ€Storage Layer for Highly Stable Solar Water Splitting. Angewandte Chemie - International Edition, 2014, 53, 7295-7299.	13.8	354

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55	Enhancement of visible-light-driven O2 evolution from water oxidation on WO3 treated with hydrogen. Journal of Catalysis, 2013, 307, 148-152.	6.2	118
56	Catalytic Activation of H₂ under Mild Conditions by an [FeFe]-Hydrogenase Model via an Active Î¼-Hydride Species. Journal of the American Chemical Society, 2013, 135, 13688-13691.	13.7	107
57	Effects of surface modification on photocatalytic activity of CdS nanocrystals studied by photoluminescence spectroscopy. Physical Chemistry Chemical Physics, 2013, 15, 553-560.	2.8	81
58	Effects of Zn2+ and Pb2+ dopants on the activity of Ga2O3-based photocatalysts for water splitting. Physical Chemistry Chemical Physics, 2013, 15, 19380.	2.8	97
59	Spatial separation of photogenerated electrons and holes among {010} and {110} crystal facets of BiVO4. Nature Communications, 2013, 4, 1432.	12.8	1,458
60	Roles of Cocatalysts in Photocatalysis and Photoelectrocatalysis. Accounts of Chemical Research, 2013, 46, 1900-1909.	15.6	2,368
61	Nitrogen-doped layered oxide Sr5Ta4O15â˜xNx for water reduction and oxidation under visible light irradiation. Journal of Materials Chemistry A, 2013, 1, 5651.	10.3	89
62	Composite Sr2TiO4/SrTiO3(La,Cr) heterojunction based photocatalyst for hydrogen production under visible light irradiation. Journal of Materials Chemistry A, 2013, 1, 7905.	10.3	114
63	RÃ¼cktitelbild: Photocatalytic Overall Water Splitting Promoted by an Î±-Î²â€…phase Junction on Ga2O3(Angew. Chem. 52/2012). Angewandte Chemie, 2012, 124, 13356-13356.	2.0	0
64	Photocatalytic Overall Water Splitting Promoted by an Î±â€"Î²â€…phase Junction on Ga₂O₃. Angewandte Chemie - International Edition, 2012, 51, 13089-13092.	13.8	574
65	Photocatalytic H2 and O2 evolution over tungsten oxide dispersed on silica. Journal of Catalysis, 2012, 293, 61-66.	6.2	51
66	Ultra-deep desulfurization via reactive adsorption on Ni/ZnO: The effect of ZnO particle size on the adsorption performance. Applied Catalysis B: Environmental, 2012, 119-120, 13-19.	20.2	117
67	Hydrodesulfurization of 4,6-DMDBT on a multi-metallic sulfide catalyst with layered structure. Applied Catalysis A: General, 2011, 394, 18-24.	4.3	31
68	Charge recombination reduction in dye-sensitized solar cells by depositing ultrapure TiO2 nanoparticles on â€œinertâ€• BaTiO3 films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1115-1122.	3.5	42
69	The oxidation of benzothiophene using the Keggin-type lacunary polytungstophosphate as catalysts in emulsion. Journal of Molecular Catalysis A, 2010, 332, 59-64.	4.8	65
70	Enhancement of Photocatalytic Water Oxidation Activity on IrO_{<i>x</i>}â˜ZnO/Zn_{2â˜<i>x</i>}GeO_{4â˜<i>x</i>â˜3<i>y</i>}N_{2<i>y</i>} Catalyst with the Solid Solution Phase Junction. Journal of Physical Chemistry C, 2010, 114, 12818-12822.	3.1	60
71	Charge separation in mesoporous aluminosilicates. Research on Chemical Intermediates, 2008, 34, 551-564.	2.7	2
72	In Situ Spectroscopy of Water Oxidation at Ir Oxide Nanocluster Driven by Visible TiOCr Charge-transfer Chromophore in Mesoporous Silica. Journal of Physical Chemistry C, 2008, 112, 16156-16159.	3.1	63

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73	Controlled Assembly of Hetero-binuclear Sites on Mesoporous Silica: Visible Light Charge-Transfer Units with Selectable Redox Properties. Journal of Physical Chemistry C, 2008, 112, 8391-8399.	3.1	58
74	Visible light absorption of binuclear TiOCoII charge-transfer unit assembled in mesoporous silica. Microporous and Mesoporous Materials, 2007, 103, 265-272.	4.4	39
75	Stable Hydrocarbon Diradical, An Analogue of Trimethylenemethane. Journal of the American Chemical Society, 2005, 127, 9014-9020.	13.7	48
76	CO2Splitting by H2O to CO and O2under UV Light in TiMCM-41 Silicate Sieve. Journal of Physical Chemistry B, 2004, 108, 18269-18273.	2.6	117