

# Hiroshi Irie

## List of Publications by Year in descending order

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49  
papers

3,841  
citations

361045

20  
h-index

214527

47  
g-index

51  
all docs

51  
docs citations

51  
times ranked

4835  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitrogen-Concentration Dependence on Photocatalytic Activity of TiO <sub>2</sub> -xNx Powders. Journal of Physical Chemistry B, 2003, 107, 5483-5486.	1.2	1,939
2	Visible Light-Sensitive Cu(II)-Grafted TiO <sub>2</sub> Photocatalysts: Activities and X-ray Absorption Fine Structure Analyses. Journal of Physical Chemistry C, 2009, 113, 10761-10766.	1.5	393
3	An Efficient Visible-Light-Sensitive Fe(III)-Grafted TiO <sub>2</sub> Photocatalyst. Journal of Physical Chemistry C, 2010, 114, 16481-16487.	1.5	344
4	Visible Light Sensitive Photocatalyst, Delafossite Structured $\delta$ -AgGaO <sub>2</sub> . Journal of Physical Chemistry B, 2006, 110, 23274-23278.	1.2	152
5	Visible-Light-Sensitive Photocatalysts: Nanocluster-Grafted Titanium Dioxide for Indoor Environmental Remediation. Journal of Physical Chemistry Letters, 2016, 7, 75-84.	2.1	138
6	Ag <sup>+</sup> - and Pb <sup>2+</sup> -Doped SrTiO <sub>3</sub> Photocatalysts. A Correlation Between Band Structure and Photocatalytic Activity. Journal of Physical Chemistry C, 2007, 111, 1847-1852.	1.5	126
7	Hydrogen and Oxygen Evolution Photocatalysts Synthesized from Strontium Titanate by Controlled Doping and Their Performance in Two-Step Overall Water Splitting under Visible Light. Journal of Physical Chemistry C, 2012, 116, 17458-17463.	1.5	81
8	Silver-Inserted Heterojunction Photocatalysts for Z-Scheme Overall Pure-Water Splitting under Visible-Light Irradiation. Journal of Physical Chemistry C, 2014, 118, 22450-22456.	1.5	63
9	A visible-light-induced overall water-splitting photocatalyst: conduction-band-controlled silver tantalate. Chemical Communications, 2013, 49, 10094.	2.2	56
10	Detection of Intermediate Species in Oxygen Evolution on Hematite Electrodes Using Spectroelectrochemical Measurements. Journal of Physical Chemistry C, 2016, 120, 24827-24834.	1.5	48
11	A heterojunction photocatalyst composed of zinc rhodium oxide, single crystal-derived bismuth vanadium oxide, and silver for overall pure-water splitting under visible light up to 740 nm. Physical Chemistry Chemical Physics, 2016, 18, 27754-27760.	1.3	41
12	A silver-inserted zinc rhodium oxide and bismuth vanadium oxide heterojunction photocatalyst for overall pure-water splitting under red light. Journal of Materials Chemistry A, 2016, 4, 3061-3067.	5.2	33
13	Visible-light-sensitive two-step overall water-splitting based on band structure control of titanium dioxide. Applied Catalysis B: Environmental, 2016, 180, 1-5.	10.8	32
14	Band structure controls of SrTiO <sub>3</sub> towards two-step overall water splitting. Applied Catalysis B: Environmental, 2012, 115-116, 330-335.	10.8	29
15	Induction of Concerted Proton-Coupled Electron Transfer during Oxygen Evolution on Hematite Using Lanthanum Oxide as a Solid Proton Acceptor. ACS Catalysis, 2019, 9, 9212-9215.	5.5	27
16	In situ UV-vis Absorption Spectra of Intermediate Species for Oxygen-Evolution Reaction on the Surface of MnO <sub>2</sub> in Neutral and Alkaline Media. Electrochemistry, 2014, 82, 325-327.	0.6	25
17	Visible-light sensitive hydrogen evolution photocatalyst ZnRh <sub>2</sub> O <sub>4</sub> . International Journal of Hydrogen Energy, 2012, 37, 134-138.	3.8	24
18	Photocatalytic hydrogen evolution over $\delta$ -iron silicide under infrared-light irradiation. Chemical Communications, 2015, 51, 2818-2820.	2.2	23

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19	Visible Light-Sensitive InTaO <sub>4</sub> -Based Photocatalysts for Organic Decomposition. <i>Journal of the American Ceramic Society</i> , 2005, 88, 3137-3142.	1.9	22
20	Efficient oxygen evolution on hematite at neutral pH enabled by proton-coupled electron transfer. <i>Chemical Communications</i> , 2016, 52, 14015-14018.	2.2	21
21	Silver-inserted heterojunction photocatalyst consisting of zinc rhodium oxide and silver antimony oxide for overall pure-water splitting under visible light. <i>Applied Catalysis B: Environmental</i> , 2017, 209, 663-668.	10.8	18
22	Facile synthesis of a red light-inducible overall water-splitting photocatalyst using gold as a solid-state electron mediator. <i>Chemical Communications</i> , 2018, 54, 7999-8002.	2.2	18
23	Facet-dependent activity of hematite nanocrystals toward the oxygen evolution reaction. <i>Catalysis Science and Technology</i> , 2020, 10, 3748-3754.	2.1	16
24	Electrochemical Reduction of Carbon Dioxide to Formate on Palladium-Copper Alloy Nanoparticulate Electrode. <i>Electrochemistry</i> , 2019, 87, 134-138.	0.6	15
25	Silver cocatalyst-concentration dependence of overall water splitting performance over silver-inserted solid-state heterojunction photocatalyst composed of zinc rhodium oxide and bismuth vanadium oxide. <i>Applied Catalysis B: Environmental</i> , 2021, 284, 119744.	10.8	14
26	Magnetic and photocatalytic properties of n- and p-type ZnFe <sub>2</sub> O <sub>4</sub> particles synthesized using ultrasonic spray pyrolysis. <i>Journal of the Ceramic Society of Japan</i> , 2013, 121, 26-30.	0.5	13
27	Visible-light-induced water splitting on a hierarchically constructed Z-scheme photocatalyst composed of zinc rhodium oxide and bismuth vanadate. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10372-10378.	5.2	13
28	Noble Metal Modification of CdS-Covered CuInS <sub>2</sub> Electrodes for Improved Photoelectrochemical Activity and Stability. <i>Catalysts</i> , 2020, 10, 949.	1.6	13
29	Photocatalytic and Electrochemical Characterizations of Cu(II)-Grafted TiO <sub>2</sub> . <i>Electrochemistry</i> , 2011, 79, 793-796.	0.6	11
30	Selective loading of platinum or silver cocatalyst onto a hydrogen-evolution photocatalyst in a silver-mediated all solid-state Z-scheme system for enhanced overall water splitting. <i>RSC Advances</i> , 2019, 9, 41913-41917.	1.7	11
31	Photo-controllable thermoelectric properties with reversibility and photo-thermoelectric effects of tungsten trioxide accompanied by its photochromic phenomenon. <i>Journal of Applied Physics</i> , 2014, 116, .	1.1	10
32	Synthesis and thermoelectric properties of the novel A-site deficient Zn <sub>0.5</sub> Rh <sub>2</sub> O <sub>4</sub> compound. <i>Journal of Solid State Chemistry</i> , 2012, 192, 23-27.	1.4	9
33	Red light-inducible overall water-splitting photocatalyst, gold-inserted zinc rhodium oxide and bismuth vanadium oxide heterojunction, connected using gold prepared by sputtering in ionic liquid. <i>Journal of Chemical Physics</i> , 2020, 153, 014701.	1.2	9
34	Improvement of the Photocatalytic Water Splitting Activity of Silver Tantalate by Photodeposited Platinum and Cobalt-Oxide Nanoclusters. <i>Electrochemistry</i> , 2016, 84, 784-788.	0.6	8
35	Cocatalyst modification of niobium-substituted silver tantalate photocatalyst for enhanced solar water-splitting activity. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 23600-23609.	3.8	8
36	Niobium(V) oxide with added silver as a thermoelectric material prepared by spark plasma sintering. <i>Materials Letters</i> , 2015, 156, 94-97.	1.3	6

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37	Acceleration of electrocatalytic CO <sub>2</sub> reduction by adding proton-coupled electron transfer inducing compounds. Journal of Photonics for Energy, 2016, 7, 012005.	0.8	5
38	Structural and Thermoelectric Properties of Rare-Earth-Substituted Sr <sub>3</sub> Fe <sub>2</sub> O <sub>7</sub> . Materials Transactions, 2013, 54, 1986-1992.	0.4	4
39	Photo- and gas-tuned, reversible thermoelectric properties and anomalous photo-thermoelectric effects of platinum-loaded tungsten trioxide. Journal of Applied Physics, 2016, 119, 245109.	1.1	4
40	Controllable Anomalous n- and p-Type Photothermoelectric Effects of Platinum Oxide and Tungsten Trioxide Layers with and without Chromic Reaction. Chemistry of Materials, 2019, 31, 6202-6209.	3.2	4
41	Hydrothermal synthesis of visible light-sensitive conduction band-controlled tungsten-doped titanium dioxide photocatalysts with copper ion-grafts. Journal of the Ceramic Society of Japan, 2013, 121, 563-567.	0.5	3
42	Zinc rhodium oxide and its possibility as a constituent photocatalyst for carbon dioxide reduction using water as an electron source. Catalysis Today, 2019, 335, 402-408.	2.2	3
43	Enhanced Visible-Light-Sensitive Two-Step Overall Water-Splitting Based on Band Structure Controls of Titanium Dioxide and Strontium Titanate. Journal of Materials Science and Chemical Engineering, 2017, 05, 129-141.	0.2	3
44	Development of optically transparent water oxidation catalysts using manganese pyrophosphate compounds. Journal of Photochemistry and Photobiology B: Biology, 2015, 152, 139-145.	1.7	2
45	Synthesis and Photocatalytic Properties of Iron Disilicide/SiC Composite Powder. MRS Advances, 2017, 2, 471-476.	0.5	2
46	Selective loading of platinum cocatalyst onto zinc rhodium oxide in a silver-inserted heterojunction overall water-splitting photocatalyst consisting of zinc rhodium oxide and bismuth vanadium oxide. Journal of the Ceramic Society of Japan, 2021, 129, 453-457.	0.5	1
47	Anomalous photo-thermoelectric effects of platinum-photodeposited tungsten trioxide after gaseous reaction. Journal of Applied Physics, 2022, 131, 185102.	1.1	1
48	Acceleration of electrocatalytic CO <sub>2</sub> reduction by adding proton-coupled electron transfer inducing compounds. Journal of Photonics for Energy, 0, , 012001.	0.8	0
49	Selective Loading of Platinum or Silver Cocatalyst on a Hydrogen-Evolution Photocatalyst in an Overall Water-Splitting System, Silver-Inserted Zinc Rhodium Oxide and Bismuth Vanadium Oxide. ECS Meeting Abstracts, 2020, MA2020-02, 3067-3067.	0.0	0