

Akihide Iwase

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

99
papers

7,305
citations

40
h-index

85
g-index

108
ext. papers

8,057
ext. citations

7.7
avg, IF

6.16
L-index

#	Paper	IF	Citations
99	Development of visible-light-responsive Ir and La-codoped KTaO photocatalysts for water splitting. <i>Chemical Communications</i> , 2021 , 57, 10331-10334	5.8	1
98	Band Engineering of Semiconductors Toward Visible-Light-Responsive Photocatalysts 2021 , 203-213		
97	Long wavelength visible light-responsive SrTiO ₃ photocatalysts doped with valence-controlled Ru for sacrificial H ₂ and O ₂ evolution. <i>Catalysis Science and Technology</i> , 2020 , 10, 4912-4916	5.5	6
96	Z-Schematic Solar Water Splitting Using Fine Particles of H ₂ -Evolving (CuGa) _{0.5} ZnS ₂ Photocatalyst Prepared by a Flux Method with Chloride Salts. <i>ACS Applied Energy Materials</i> , 2020 , 3, 5684-5692	6.1	10
95	Activation of Water-Splitting Photocatalysts by Loading with Ultrafine Rh ₃ Ir Mixed-Oxide Cocatalyst Nanoparticles. <i>Angewandte Chemie</i> , 2020 , 132, 7142-7148	3.6	2
94	Activation of Water-Splitting Photocatalysts by Loading with Ultrafine Rh-Cr Mixed-Oxide Cocatalyst Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 7076-7082	16.4	27
93	Solar water splitting over RhCrO-loaded AgTaO of a valence-band-controlled metal oxide photocatalyst. <i>Chemical Science</i> , 2020 , 11, 2330-2334	9.4	17
92	New Visible-Light-Driven H ₂ - and O ₂ -Evolving Photocatalysts Developed by Ag(I) and Cu(I) Ion Exchange of Various Layered and Tunneling Metal Oxides Using Molten Salts Treatments. <i>Chemistry of Materials</i> , 2020 , 32, 10524-10537	9.6	3
91	Z-Schematic CO ₂ Reduction to CO through Interparticle Electron Transfer between SrTiO ₃ :Rh of a Reducing Photocatalyst and BiVO ₄ of a Water Oxidation Photocatalyst under Visible Light. <i>ACS Applied Energy Materials</i> , 2020 , 3, 10001-10007	6.1	7
90	Photocathode Characteristics of a Spray-Deposited Cu ₂ ZnGeS ₄ Thin Film for CO ₂ Reduction in a CO ₂ -Saturated Aqueous Solution. <i>ACS Applied Energy Materials</i> , 2019 , 2, 6911-6918	6.1	19
89	Cu MS (M=V, Nb, Ta) and its Solid Solutions with Sulvanite Structure for Photocatalytic and Photoelectrochemical H Evolution under Visible-Light Irradiation. <i>ChemSusChem</i> , 2019 , 12, 1977-1983	8.3	15
88	Z-scheme photocatalyst systems employing Rh- and Ir-doped metal oxide materials for water splitting under visible light irradiation. <i>Faraday Discussions</i> , 2019 , 215, 313-328	3.6	21
87	The Importance of the Interfacial Contact: Is Reduced Graphene Oxide Always an Enhancer in Photo(Electro)Catalytic Water Oxidation?. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 23125-23134	9.5	28
86	Solar Water Splitting under Neutral Conditions Using Z-Scheme Systems with Mo-Doped BiVO ₄ as an O ₂ -Evolving Photocatalyst. <i>Energy Technology</i> , 2019 , 7, 1900358	3.5	8
85	Effects of Coapplication of Rh-Doping and Ag-Substitution on the Band Structure of Li ₂ TiO ₃ and the Photocatalytic Property. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 9881-9887	8.3	7
84	Atomic-Level Understanding of the Effect of Heteroatom Doping of the Cocatalyst on Water-Splitting Activity in AuPd or AuPt Alloy Cluster-Loaded BaLa ₄ Ti ₄ O ₁₅ . <i>ACS Applied Energy Materials</i> , 2019 , 2, 4175-4187	6.1	37
83	Z-scheme water splitting by microspherical Rh-doped SrTiO ₃ photocatalysts prepared by a spray drying method. <i>Applied Catalysis B: Environmental</i> , 2019 , 252, 222-229	21.8	19

82	Water Splitting on Aluminum Porphyrins To Form Hydrogen and Hydrogen Peroxide by One Photon of Visible Light. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8045-8051	6.1	16
81	Water reduction into hydrogen using Rh-doped SrTiO ₃ photoelectrodes surface-modified by minute amounts of Pt: Insights from heterogeneous kinetic analysis. <i>Electrochimica Acta</i> , 2019 , 297, 696-704	6.7	9
80	Au ₂₅ -Loaded BaLa ₄ Ti ₄ O ₁₅ Water-Splitting Photocatalyst with Enhanced Activity and Durability Produced Using New Chromium Oxide Shell Formation Method. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 13669-13681	3.8	45
79	Phase relations in the pseudo ternary system In ₂ O ₃ -TiO ₂ -BO (B: Zn, Co and Ni) at 1200 °C in air. <i>Journal of Solid State Chemistry</i> , 2018 , 258, 865-875	3.3	1
78	The role of surface states during photocurrent switching: Intensity modulated photocurrent spectroscopy analysis of BiVO ₄ photoelectrodes. <i>Applied Catalysis B: Environmental</i> , 2018 , 237, 401-408	21.8	45
77	Powder-based (CuGa _{1-x} In _x) _{1-x} Zn _{2x} S ₂ solid solution photocathodes with a largely positive onset potential for solar water splitting. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 2016-2024	5.8	21
76	Photocatalytic CO ₂ reduction using water as an electron donor over Ag-loaded metal oxide photocatalysts consisting of several polyhedra of Ti ⁴⁺ , Zr ⁴⁺ , and Ta ⁵⁺ . <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018 , 358, 416-421	4.7	15
75	Photochemical hydrogen evolution on metal ion surface-grafted TiO ₂ -particles prepared by sol/gel method without calcination. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018 , 358, 386-394	4.7	9
74	Decomposition of an aqueous ammonia solution as a photon energy conversion reaction using a Ru-loaded ZnS photocatalyst. <i>Chemical Communications</i> , 2018 , 54, 6117-6119	5.8	10
73	Enhanced H ₂ evolution over an Ir-doped SrTiO ₃ photocatalyst by loading of an Ir cocatalyst using visible light up to 800 nm. <i>Chemical Communications</i> , 2018 , 54, 10606-10609	5.8	24
72	Photoexcited Electrons Driven by Doping Concentration Gradient: Flux-Prepared NaTaO ₃ Photocatalysts Doped with Strontium Cations. <i>ACS Catalysis</i> , 2018 , 8, 9334-9341	13.1	22
71	Z-Schematic and visible-light-driven CO reduction using HO ₂ as an electron donor by a particulate mixture of a Ru-complex/(CuGa)ZnS hybrid catalyst, BiVO ₄ and an electron mediator. <i>Chemical Communications</i> , 2018 , 54, 10199-10202	5.8	33
70	Fundamentals of Development of Photocatalyst Materials and Evaluation of Photocatalytic Abilities. <i>Journal of the Institute of Electrical Engineers of Japan</i> , 2018 , 138, 594-597	0	
69	Preparation of Mo- and W-doped BiVO ₄ fine particles prepared by an aqueous route for photocatalytic and photoelectrochemical O ₂ evolution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2018 , 353, 284-291	4.7	27
68	Enhancement of CO ₂ reduction activity under visible light irradiation over Zn-based metal sulfides by combination with Ru-complex catalysts. <i>Applied Catalysis B: Environmental</i> , 2018 , 224, 572-578	21.8	40
67	Water Splitting over Ba ₂ In ₂ O ₅ Photocatalysts with a Brownmillerite Structure and the Effect of La-substitution on Its Band Structure and Photocatalytic Activities. <i>Chemistry Letters</i> , 2018 , 47, 1526-1529	1.7	2
66	Photoelectrochemical Reduction of CO ₂ to CO Using a CuGaS ₂ Thin-film Photocathode Prepared by a Spray Pyrolysis Method. <i>Chemistry Letters</i> , 2018 , 47, 1424-1427	1.7	10
65	Nitrogen/fluorine-codoped rutile titania as a stable oxygen-evolution photocatalyst for solar-driven Z-scheme water splitting. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 2025-2035	5.8	28

64	Efficient Solar Water Oxidation to Oxygen over Mo-doped BiVO ₄ Thin Film Photoanode Prepared by a Facile Aqueous Solution Route. <i>Chemistry Letters</i> , 2017 , 46, 651-654	1.7	11
63	Development of Various Metal Sulfide Photocatalysts Consisting of d0, d5, and d10 Metal Ions for Sacrificial H ₂ Evolution under Visible Light Irradiation. <i>Chemistry Letters</i> , 2017 , 46, 616-619	1.7	22
62	Development of Ir and La-codoped BaTaO photocatalysts using visible light up to 640 nm as an H-evolving photocatalyst for Z-schematic water splitting. <i>Chemical Communications</i> , 2017 , 53, 6156-6159 ^{5.8}	5.8	28
61	Capturing local structure modulations of photoexcited BiVO by ultrafast transient XAFS. <i>Chemical Communications</i> , 2017 , 53, 7314-7317	5.8	17
60	Inorganic assembly catalysts for artificial photosynthesis: general discussion. <i>Faraday Discussions</i> , 2017 , 198, 481-507	3.6	2
59	Photocatalytic CO reduction using water as an electron donor by a powdered Z-scheme system consisting of metal sulfide and an RGO-TiO composite. <i>Faraday Discussions</i> , 2017 , 198, 397-407	3.6	58
58	A CoO-modified SnNbO photoelectrode for highly efficient oxygen evolution from water. <i>Chemical Communications</i> , 2017 , 53, 629-632	5.8	32
57	Characterization of Rh:SrTiO ₃ photoelectrodes surface-modified with a cobalt clathrochelate and their application to the hydrogen evolution reaction. <i>Electrochimica Acta</i> , 2017 , 258, 255-265	6.7	16
56	Solar Water Splitting Utilizing a SiC Photocathode, a BiVO Photoanode, and a Perovskite Solar Cell. <i>ChemSusChem</i> , 2017 , 10, 4420-4423	8.3	20
55	Highly Active NaTaO -Based Photocatalysts for CO Reduction to Form CO Using Water as the Electron Donor. <i>ChemSusChem</i> , 2017 , 10, 112-118	8.3	97
54	Photoreduced Graphene Oxide as a Conductive Binder to Improve the Water Splitting Activity of Photocatalyst Sheets. <i>Advanced Functional Materials</i> , 2016 , 26, 7011-7019	15.6	47
53	Solar-driven BiVO ₄ Photoanodes Prepared by a Facile Screen Printing Method. <i>Chemistry Letters</i> , 2016 , 45, 152-154	1.7	18
52	Interfacing BiVO with Reduced Graphene Oxide for Enhanced Photoactivity: A Tale of Facet Dependence of Electron Shuttling. <i>Small</i> , 2016 , 12, 5295-5302	11	56
51	Visible-Light-Responsive CuLi _{1/3} Ti _{2/3} O ₂ Powders Prepared by a Molten CuCl Treatment of Li ₂ TiO ₃ for Photocatalytic H ₂ Evolution and Z-Schematic Water Splitting. <i>Chemistry of Materials</i> , 2016 , 28, 4677-4685	8.6	16
50	Photoelectrochemical water oxidation using a Bi ₂ MoO ₆ /MoO ₃ heterojunction photoanode synthesised by hydrothermal treatment of an anodised MoO ₃ thin film. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 6964-6971	13	62
49	In situ metal doping during modified anodization synthesis of Nb ₂ O ₅ with enhanced photoelectrochemical water splitting. <i>AIChE Journal</i> , 2016 , 62, 352-358	3.6	11
48	Photocatalysis: Interfacing BiVO ₄ with Reduced Graphene Oxide for Enhanced Photoactivity: A Tale of Facet Dependence of Electron Shuttling (Small 38/2016). <i>Small</i> , 2016 , 12, 5232-5232	11	
47	Water Splitting and CO ₂ Reduction under Visible Light Irradiation Using Z-Scheme Systems Consisting of Metal Sulfides, CoOx-Loaded BiVO ₄ , and a Reduced Graphene Oxide Electron Mediator. <i>Journal of the American Chemical Society</i> , 2016 , 138, 10260-4	16.4	365

46	Controlled Loading of Small Au Clusters (n= 10-9) onto BaLa4Ti4O15 Photocatalysts: Toward an Understanding of Size Effect of Cocatalyst on Water-Splitting Photocatalytic Activity. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 11224-11232	3.8	68
45	Utilization of Metal Sulfide Material of (CuGa)(1-x)Zn(2x)S2 Solid Solution with Visible Light Response in Photocatalytic and Photoelectrochemical Solar Water Splitting Systems. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 1042-7	6.4	110
44	Improvement of hydrogen evolution under visible light over Zn1-x(CuGa)xGa2S4 photocatalysts by synthesis utilizing a polymerizable complex method. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 14239-14244	13	10
43	Photocatalytic Properties of Layered Metal Oxides Substituted with Silver by a Molten AgNO3 Treatment. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14638-43	9.5	15
42	Solar hydrogen evolution using a CuGaS2 photocathode improved by incorporating reduced graphene oxide. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8566-8570	13	37
41	Surface Modification of CoO(x) Loaded BiVO4 Photoanodes with Ultrathin p-Type NiO Layers for Improved Solar Water Oxidation. <i>Journal of the American Chemical Society</i> , 2015 , 137, 5053-60	16.4	436
40	An effect of Ag(I)-substitution at Cu sites in CuGaS2 on photocatalytic and photoelectrochemical properties for solar hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 21815-21823	13	52
39	Sensitization of wide band gap photocatalysts to visible light by molten CuCl treatment. <i>Chemical Science</i> , 2015 , 6, 687-692	9.4	28
38	Photocatalytic Water Splitting and CO2 Reduction over KCaSrTa5O15 Nanorod Prepared by a Polymerized Complex Method. <i>Bulletin of the Chemical Society of Japan</i> , 2015 , 88, 538-543	5.1	32
37	Photocatalytic Water Splitting over Rod-shaped K3Ta3Si2O13 and Block-shaped Ba3Ta6Si4O26 Prepared by Flux Method. <i>Chemistry Letters</i> , 2015 , 44, 306-308	1.7	5
36	Photocatalysis using a Wide Range of the Visible Light Spectrum: Hydrogen Evolution from Doped AgGaS2. <i>ChemSusChem</i> , 2015 , 8, 2902-6	8.3	14
35	Z-scheme water splitting under visible light irradiation over powdered metal-complex/semiconductor hybrid photocatalysts mediated by reduced graphene oxide. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 13283-13290	13	54
34	Z-schematic water splitting into H2 and O2 using metal sulfide as a hydrogen-evolving photocatalyst and reduced graphene oxide as a solid-state electron mediator. <i>Journal of the American Chemical Society</i> , 2015 , 137, 604-7	16.4	394
33	A visible light responsive rhodium and antimony-codoped SrTiO3 powdered photocatalyst loaded with an IrO2 cocatalyst for solar water splitting. <i>Chemical Communications</i> , 2014 , 50, 2543-6	5.8	163
32	BiVO4/Bu/SrTiO3:Rh composite Z-scheme photocatalyst for solar water splitting. <i>Chemical Science</i> , 2014 , 5, 1513	9.4	195
31	Water Splitting over CaTa4O11 and LaZrTa3O11 Photocatalysts with Laminated Structure Consisting of Layers of TaO6 Octahedra and TaO7 Decahedra. <i>Chemistry Letters</i> , 2014 , 43, 396-398	1.7	6
30	3.????????????????????~????????????????~. <i>Electrochemistry</i> , 2014 , 82, 492-496	1.2	
29	The KCaSrTa5O15 photocatalyst with tungsten bronze structure for water splitting and CO2 reduction. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 24417-22	3.6	62

28	Enhanced Activity of BiVO ₄ Powdered Photocatalyst Under Visible Light Irradiation by Preparing Microwave-Assisted Aqueous Solution Methods. <i>Catalysis Letters</i> , 2014 , 144, 1962-1967	2.8	18
27	The effect of Au cocatalyst loaded on La-doped NaTaO ₃ on photocatalytic water splitting and O ₂ photoreduction. <i>Applied Catalysis B: Environmental</i> , 2013 , 136-137, 89-93	21.8	76
26	Photocatalysis of heat treated sodium- and hydrogen-titanate nanoribbons for water splitting, H ₂ /O ₂ generation and oxalic acid oxidation. <i>Chemical Engineering Science</i> , 2013 , 93, 341-349	4.4	28
25	Enhanced photocatalytic water splitting by BaLa ₄ Ti ₄ O ₁₅ loaded with ~1 nm gold nanoclusters using glutathione-protected Au ₂₅ clusters. <i>Nanoscale</i> , 2013 , 5, 7188-92	7.7	83
24	Influence of annealing temperature of WO ₃ in photoelectrochemical conversion and energy storage for water splitting. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 5269-75	9.5	70
23	Understanding self-photorechargeability of WO ₃ for H ₂ generation without light illumination. <i>ChemSusChem</i> , 2013 , 6, 291-8	8.3	27
22	Sustained solar hydrogen generation using a dye-sensitized NiO photocathode/BiVO ₄ tandem photo-electrochemical device. <i>Energy and Environmental Science</i> , 2012 , 5, 9472	35.4	153
21	Transforming Anodized WO ₃ Films into Visible-Light-Active Bi ₂ WO ₆ Photoelectrodes by Hydrothermal Treatment. <i>Journal of Physical Chemistry Letters</i> , 2012 , 3, 913-8	6.4	82
20	Flame preparation of visible-light-responsive BiVO ₄ oxygen evolution photocatalysts with subsequent activation via aqueous route. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 1997-2004	9.5	117
19	Reduced graphene oxide as a solid-state electron mediator in Z-scheme photocatalytic water splitting under visible light. <i>Journal of the American Chemical Society</i> , 2011 , 133, 11054-7	16.4	844
18	Photocatalytic Overall Water Splitting over Al ₂ Ti ₆ O ₁₄ (A: 2Na and Sr) with Tunneling Structure. <i>Chemistry Letters</i> , 2011 , 40, 108-110	1.7	6
17	Semiconductor/reduced graphene oxide nanocomposites derived from photocatalytic reactions. <i>Catalysis Today</i> , 2011 , 164, 353-357	5.3	155
16	Visible light-induced charge storage, on-demand release and self-photorechargeability of WO ₃ film. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 13421-6	3.6	47
15	A Simple Preparation Method of Visible-Light-Driven BiVO ₄ Photocatalysts From Oxide Starting Materials (Bi ₂ O ₃ and V ₂ O ₅) and Their Photocatalytic Activities. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2010 , 132,	2.3	48
14	Photocatalytic H ₂ Evolution over TiO ₂ Nanoparticles. The Synergistic Effect of Anatase and Rutile. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 2821-2829	3.8	307
13	Reducing Graphene Oxide on a Visible-Light BiVO ₄ Photocatalyst for an Enhanced Photoelectrochemical Water Splitting. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 2607-2612	6.4	768
12	Photoelectrochemical water splitting using visible-light-responsive BiVO ₄ fine particles prepared in an aqueous acetic acid solution. <i>Journal of Materials Chemistry</i> , 2010 , 20, 7536		176
11	The effect of alkaline earth metal ion dopants on photocatalytic water splitting by NaTaO ₃ powder. <i>ChemSusChem</i> , 2009 , 2, 873-7	8.3	84

10	Time-Resolved Infrared Absorption Study of NaTaO ₃ Photocatalysts Doped with Alkali Earth Metals. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 13918-13923	3.8	50
9	Sensitization of NaMO ₃ (M: Nb and Ta) Photocatalysts with Wide Band Gaps to Visible Light by Ir Doping. <i>Bulletin of the Chemical Society of Japan</i> , 2009 , 82, 514-518	5.1	54
8	Loading effects of silver oxides upon generation of reactive oxygen species in semiconductor photocatalysis. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 2986-92	3.6	61
7	The effect of co-catalyst for Z-scheme photocatalysis systems with an Fe ³⁺ /Fe ²⁺ electron mediator on overall water splitting under visible light irradiation. <i>Journal of Catalysis</i> , 2008 , 259, 133-137	7.3	329
6	Effects of doping of metal cations on morphology, activity, and visible light response of photocatalysts. <i>Chemical Physics</i> , 2007 , 339, 104-110	2.3	178
5	Role of Iron Ion Electron Mediator on Photocatalytic Overall Water Splitting under Visible Light Irradiation Using Z-Scheme Systems. <i>Bulletin of the Chemical Society of Japan</i> , 2007 , 80, 2457-2464	5.1	115
4	Nanosized Au Particles as an Efficient Cocatalyst for Photocatalytic Overall Water Splitting. <i>Catalysis Letters</i> , 2006 , 108, 7-10	2.8	122
3	Control of Surface Structure and Effect of Cocatalyst Aiming at Water Splitting over Photocatalyst. <i>Hyomen Kagaku</i> , 2006 , 27, 386-391		1
2	A Novel Photodeposition Method in the Presence of Nitrate Ions for Loading of an Iridium Oxide Cocatalyst for Water Splitting. <i>Chemistry Letters</i> , 2005 , 34, 946-947	1.7	72
1	Formation of Surface Nano-step Structures and Improvement of Photocatalytic Activities of NaTaO ₃ by Doping of Alkaline Earth Metal Ions. <i>Chemistry Letters</i> , 2004 , 33, 1260-1261	1.7	73