Akihiko Kudo

List of Publications by Year
in descending order

104 papers	30,423 citations	22099 59 h-index	28224 105 g-index
106 all docs	106 docs citations	106 times ranked	20500 citing authors

#	Article	IF	Citations
1	Photocatalytic CO₂ Reduction Using Water as an Electron Donor under Visible Light Irradiation by Z-Scheme and Photoelectrochemical Systems over (CuGa)_{0.5}ZnS₂ in the Presence of Basic Additives. Journal of the American Chemical Society, 2022, 144, 2323-2332.	6.6	56
2	CO₂ Reduction Using Water as an Electron Donor over Heterogeneous Photocatalysts Aiming at Artificial Photosynthesis. Accounts of Chemical Research, 2022, 55, 966-977.	7.6	80
3	Photocatalytic Overall Water Splitting Under Visible Light Enabled by a Particulate Conjugated Polymer Loaded with Palladium and Iridium**. Angewandte Chemie, 2022, 134, .	1.6	7
4	Photocatalytic Overall Water Splitting Under Visible Light Enabled by a Particulate Conjugated Polymer Loaded with Palladium and Iridium**. Angewandte Chemie - International Edition, 2022, 61, .	7.2	40
5	Powder-Based Cu₃VS₄ Photocathode Prepared by Particle-Transfer Method for Water Splitting Using the Whole Range of Visible Light. ECS Journal of Solid State Science and Technology, 2022, 11, 063002.	0.9	2
6	Heterogeneous Photocatalyst for CO2 Reduction. Springer Handbooks, 2022, , 1369-1380.	0.3	2
7	Photocatalytic CO2 reduction by a Z-scheme mechanism in an aqueous suspension of particulate (CuGa)0.3Zn1.4S2, BiVO4 and a Co complex operating dual-functionally as an electron mediator and as a cocatalyst. Applied Catalysis B: Environmental, 2022, 316, 121600.	10.8	8
8	Highly crystalline Na_{0.5}Bi_{0.5}TiO₃ of a photocatalyst valence-band-controlled with Bi(<scp>iii</scp>) for solar water splitting. Chemical Communications, 2021, 57, 323-326.	2.2	8
9	Visible light responsive photocatalysts developed by substitution with metal cations aiming at artificial photosynthesis. Frontiers in Energy, 2021, 15, 568-576.	1.2	9
10	New Visible-Light-Driven H₂- and O₂-Evolving Photocatalysts Developed by Ag(I) and Cu(I) Ion Exchange of Various Layered and Tunneling Metal Oxides Using Molten Salts Treatments. Chemistry of Materials, 2020, 32, 10524-10537.	3.2	6
11	<i>In situ</i> photoacoustic analysis of near-infrared absorption of rhodium-doped strontium titanate photocatalyst powder. Chemical Communications, 2020, 56, 14255-14258.	2.2	9
12	Z-Schematic CO₂ Reduction to CO through Interparticle Electron Transfer between SrTiO₃:Rh of a Reducing Photocatalyst and BiVO₄ of a Water Oxidation Photocatalyst under Visible Light. ACS Applied Energy Materials, 2020, 3, 10001-10007.	2.5	30
13	Long wavelength visible light-responsive SrTiO₃ photocatalysts doped with valence-controlled Ru for sacrificial H₂ and O₂ evolution. Catalysis Science and Technology, 2020, 10, 4912-4916.	2.1	24
14	Z-Schematic Solar Water Splitting Using Fine Particles of H₂-Evolving (CuGa)_{0.5}ZnS₂ Photocatalyst Prepared by a Flux Method with Chloride Salts. ACS Applied Energy Materials, 2020, 3, 5684-5692.	2.5	22
15	Activation of Waterâ€Splitting Photocatalysts by Loading with Ultrafine Rhâ€“Cr Mixedâ€Oxide Cocatalyst Nanoparticles. Angewandte Chemie, 2020, 132, 7142-7148.	1.6	7
16	Activation of Waterâ€Splitting Photocatalysts by Loading with Ultrafine Rhâ€“Cr Mixedâ€Oxide Cocatalyst Nanoparticles. Angewandte Chemie - International Edition, 2020, 59, 7076-7082.	7.2	48
17	Solar water splitting over Rh_{0.5}Cr_{1.5}O₃-loaded AgTaO₃ of a valence-band-controlled metal oxide photocatalyst. Chemical Science, 2020, 11, 2330-2334.	3.7	26
18	Water Splitting on Aluminum Porphyrins To Form Hydrogen and Hydrogen Peroxide by One Photon of Visible Light. ACS Applied Energy Materials, 2019, 2, 8045-8051.	2.5	29

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19	Photocathode Characteristics of a Spray-Deposited Cu₂ZnGeS₄ Thin Film for CO₂ Reduction in a CO₂-Saturated Aqueous Solution. ACS Applied Energy Materials, 2019, 2, 6911-6918.	2.5	37
20	Impact of lattice defects on water oxidation properties in SnNb2O6 photoanode prepared by pulsed-laser deposition method. Journal of Applied Physics, 2019, 126, .	1.1	5
21	Cu₃MS₄ (M=V, Nb, Ta) and its Solid Solutions with Sulvanite Structure for Photocatalytic and Photoelectrochemical H₂ Evolution under Visibleâ€Light Irradiation. ChemSusChem, 2019, 12, 1977-1983.	3.6	24
22	Z-scheme photocatalyst systems employing Rh- and Ir-doped metal oxide materials for water splitting under visible light irradiation. Faraday Discussions, 2019, 215, 313-328.	1.6	33
23	Revealing the role of the Rh valence state, La doping level and Ru cocatalyst in determining the H₂ evolution efficiency in doped SrTiO₃ photocatalysts. Sustainable Energy and Fuels, 2019, 3, 208-218.	2.5	56
24	Beyond artificial photosynthesis: general discussion. Faraday Discussions, 2019, 215, 422-438.	1.6	0
25	Demonstrator devices for artificial photosynthesis: general discussion. Faraday Discussions, 2019, 215, 345-363.	1.6	2
26	The Importance of the Interfacial Contact: Is Reduced Graphene Oxide Always an Enhancer in Photo(Electro)Catalytic Water Oxidation?. ACS Applied Materials & Interfaces, 2019, 11, 23125-23134.	4.0	34
27	Effects of Coapplication of Rh-Doping and Ag-Substitution on the Band Structure of Li₂TiO₃ and the Photocatalytic Property. ACS Sustainable Chemistry and Engineering, 2019, 7, 9881-9887.	3.2	10
28	Atomic-Level Understanding of the Effect of Heteroatom Doping of the Cocatalyst on Water-Splitting Activity in AuPd or AuPt Alloy Cluster-Loaded BaLa₄Ti₄O₁₅. ACS Applied Energy Materials, 2019, 2, 4175-4187.	2.5	61
29	Au₂₅-Loaded BaLa₄Ti₄O₁₅ Water-Splitting Photocatalyst with Enhanced Activity and Durability Produced Using New Chromium Oxide Shell Formation Method. Journal of Physical Chemistry C, 2018, 122, 13669-13681.	1.5	67
30	Powder-based (CuGa_{1â^'y}In_y)_{1â^'x}Zn_{2x}S₂ solid solution photocathodes with a largely positive onset potential for solar water splitting. Sustainable Energy and Fuels, 2018, 2, 2016-2024.	2.5	28
31	Photocatalytic CO2 reduction using water as an electron donor over Ag-loaded metal oxide photocatalysts consisting of several polyhedra of Ti4+, Zr4+, and Ta5+. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 358, 416-421.	2.0	23
32	Photochemical hydrogen evolution on metal ion surface-grafted TiO2-particles prepared by sol/gel method without calcination. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 358, 386-394.	2.0	15
33	Enhancement of CO2 reduction activity under visible light irradiation over Zn-based metal sulfides by combination with Ru-complex catalysts. Applied Catalysis B: Environmental, 2018, 224, 572-578.	10.8	55
34	Photoelectrochemical Reduction of CO₂ to CO Using a CuGaS₂ Thin-film Photocathode Prepared by a Spray Pyrolysis Method. Chemistry Letters, 2018, 47, 1424-1427.	0.7	15
35	Enhanced H₂ evolution over an Ir-doped SrTiO₃ photocatalyst by loading of an Ir cocatalyst using visible light up to 800 nm. Chemical Communications, 2018, 54, 10606-10609.	2.2	39
36	Z-Schematic and visible-light-driven CO₂ reduction using H₂O as an electron donor by a particulate mixture of a Ru-complex/(CuGa)_{1â^'x}Zn_{2x}S₂ hybrid catalyst, BiVO₄ and an electron mediator. Chemical Communications, 2018, 54, 10199-10202.	2.2	52

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37	Particulate Photocatalyst Sheets Based on Carbon Conductor Layer for Efficient Z-Scheme Pure-Water Splitting at Ambient Pressure. Journal of the American Chemical Society, 2017, 139, 1675-1683.	6.6	322
38	Particulate photocatalyst sheets for Z-scheme water splitting: advantages over powder suspension and photoelectrochemical systems and future challenges. Faraday Discussions, 2017, 197, 491-504.	1.6	45
39	Development of Various Metal Sulfide Photocatalysts Consisting of d⁰, d⁵, and d¹⁰ Metal Ions for Sacrificial H₂ Evolution under Visible Light Irradiation. Chemistry Letters, 2017, 46, 616-619.	0.7	27
40	Development of Ir and La-codoped BaTa₂O₆ photocatalysts using visible light up to 640 nm as an H₂-evolving photocatalyst for Z-schematic water splitting. Chemical Communications, 2017, 53, 6156-6159.	2.2	33
41	Photocatalytic CO₂ reduction using water as an electron donor by a powdered Z-scheme system consisting of metal sulfide and an RGOâ€"TiO₂ composite. Faraday Discussions, 2017, 198, 397-407.	1.6	71
42	Ultrastable low-bias water splitting photoanodes via photocorrosion inhibition and in situ catalystÂregeneration. Nature Energy, 2017, 2, .	19.8	298
43	A CoOx-modified SnNb2O6photoelectrode for highly efficient oxygen evolution from water. Chemical Communications, 2017, 53, 629-632.	2.2	33
44	Highly Active NaTaO₃â€Based Photocatalysts for CO₂ Reduction to Form CO Using Water as the Electron Donor. ChemSusChem, 2017, 10, 112-118.	3.6	124
45	Water Splitting and CO₂ Reduction under Visible Light Irradiation Using Z-Scheme Systems Consisting of Metal Sulfides, CoOx-Loaded BiVO₄, and a Reduced Graphene Oxide Electron Mediator. Journal of the American Chemical Society, 2016, 138, 10260-10264.	6.6	461
46	Interfacing BiVO 4 with Reduced Graphene Oxide for Enhanced Photoactivity: A Tale of Facet Dependence of Electron Shuttling. Small, 2016, 12, 5295-5302.	5.2	68
47	Photoelectrochemical water splitting enhanced by self-assembled metal nanopillars embedded in an oxide semiconductor photoelectrode. Nature Communications, 2016, 7, 11818.	5.8	70
48	A Frontâ€Illuminated Nanostructured Transparent BiVO₄ Photoanode for >2% Efficient Water Splitting. Advanced Energy Materials, 2016, 6, 1501645.	10.2	313
49	Visible-Light-Responsive CuLi_{1/3}Ti_{2/3}O₂ Powders Prepared by a Molten CuCl Treatment of Li₂TiO₃ for Photocatalytic H₂ Evolution and Z-Schematic Water Splitting. Chemistry of Materials, 2016, 28, 4677-4685.	3.2	20
50	Scalable water splitting on particulate photocatalyst sheets with a solar-to-hydrogen energy conversion efficiency exceeding 1%. Nature Materials, 2016, 15, 611-615.	13.3	1,311
51	Photocatalytic Water Splitting and CO2 Reduction over KCaSrTa5O15 Nanorod Prepared by a Polymerized Complex Method. Bulletin of the Chemical Society of Japan, 2015, 88, 538-543.	2.0	47
52	Z-scheme water splitting under visible light irradiation over powdered metal-complex/semiconductor hybrid photocatalysts mediated by reduced graphene oxide. Journal of Materials Chemistry A, 2015, 3, 13283-13290.	5.2	65
53	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. Journal of the American Chemical Society, 2015, 137, 604-607.	6.6	467
54	Utilization of Metal Sulfide Material of (CuGa)_{1â€"<i>x</i>}Zn_{2<i>x</i>}S₂ Solid Solution with Visible Light Response in Photocatalytic and Photoelectrochemical Solar Water Splitting Systems. Journal of Physical Chemistry Letters, 2015, 6, 1042-1047.	2.1	130

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55	Photocatalytic Properties of Layered Metal Oxides Substituted with Silver by a Molten AgNO₃ Treatment. ACS Applied Materials & Interfaces, 2015, 7, 14638-14643.	4.0	18
56	Surface Modification of CoO_{<i>x</i>} Loaded BiVO₄ Photoanodes with Ultrathin <i>p</i>-Type NiO Layers for Improved Solar Water Oxidation. Journal of the American Chemical Society, 2015, 137, 5053-5060.	6.6	542
57	An effect of Ag(<scp>i</scp>)-substitution at Cu sites in CuGaS₂ on photocatalytic and photoelectrochemical properties for solar hydrogen evolution. Journal of Materials Chemistry A, 2015, 3, 21815-21823.	5.2	59
58	Sensitization of wide band gap photocatalysts to visible light by molten CuCl treatment. Chemical Science, 2015, 6, 687-692.	3.7	31
59	The KCaSrTa₅O₁₅ photocatalyst with tungsten bronze structure for water splitting and CO₂ reduction. Physical Chemistry Chemical Physics, 2014, 16, 24417-24422.	1.3	74
60	Hydrothermal-synthesized SrTiO3 photocatalyst codoped with rhodium and antimony with visible-light response for sacrificial H2 and O2 evolution and application to overall water splitting. Applied Catalysis B: Environmental, 2014, 150-151, 187-196.	10.8	131
61	Cosubstituting effects of copper(I) and gallium(III) for ZnGa2S4 with defect chalcopyrite structure on photocatalytic activity for hydrogen evolution. Journal of Catalysis, 2014, 310, 31-36.	3.1	32
62	A visible light responsive rhodium and antimony-codoped SrTiO₃ powdered photocatalyst loaded with an IrO₂ cocatalyst for solar water splitting. Chemical Communications, 2014, 50, 2543-2546.	2.2	202
63	Electronic Structure and Photoelectrochemical Properties of an Ir-Doped SrTiO₃ Photocatalyst. Journal of Physical Chemistry C, 2014, 118, 20222-20228.	1.5	63
64	BiVO4â€“Ru/SrTiO3:Rh composite Z-scheme photocatalyst for solar water splitting. Chemical Science, 2014, 5, 1513.	3.7	228
65	Synthesis of highly active rhodium-doped SrTiO3 powders in Z-scheme systems for visible-light-driven photocatalytic overall water splitting. Journal of Materials Chemistry A, 2013, 1, 12327.	5.2	214
66	[Co(bpy)₃]^{3+/2+} and [Co(phen)₃]^{3+/2+} Electron Mediators for Overall Water Splitting under Sunlight Irradiation Using Z-Scheme Photocatalyst System. Journal of the American Chemical Society, 2013, 135, 5441-5449.	6.6	327
67	Time-Resolved Infrared Absorption Study of SrTiO₃ Photocatalysts Codoped with Rhodium and Antimony. Journal of Physical Chemistry C, 2013, 117, 19101-19106.	1.5	91
68	Elucidation of Rh-Induced In-Gap States of Rh:SrTiO₃ Visible-Light-Driven Photocatalyst by Soft X-ray Spectroscopy and First-Principles Calculations. Journal of Physical Chemistry C, 2012, 116, 24445-24448.	1.5	89
69	Facile fabrication of an efficient BiVO ₄ thin film electrode for water splitting under visible light irradiation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11564-11569.	3.3	284
70	Reduced Graphene Oxide as a Solid-State Electron Mediator in Z-Scheme Photocatalytic Water Splitting under Visible Light. Journal of the American Chemical Society, 2011, 133, 11054-11057.	6.6	952
71	Photocatalytic Reduction of Carbon Dioxide over Ag Cocatalyst-Loaded ALa₄Ti₄O₁₅ (A = Ca, Sr, and Ba) Using Water as a Reducing Reagent. Journal of the American Chemical Society, 2011, 133, 20863-20868.	6.6	561
72	Rh-Doped SrTiO₃ Photocatalyst Electrode Showing Cathodic Photocurrent for Water Splitting under Visible-Light Irradiation. Journal of the American Chemical Society, 2011, 133, 13272-13275.	6.6	400

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73	Z-scheme photocatalyst systems for water splitting under visible light irradiation. MRS Bulletin, 2011, 36, 32-38.	1.7	183
74	A Simple Preparation Method of Visible-Light-Driven BiVO4 Photocatalysts From Oxide Starting Materials (Bi2O3 and V2O5) and Their Photocatalytic Activities. Journal of Solar Energy Engineering, Transactions of the ASME, 2010, 132, .	1.1	53
75	Reducing Graphene Oxide on a Visible-Light BiVO₄ Photocatalyst for an Enhanced Photoelectrochemical Water Splitting. Journal of Physical Chemistry Letters, 2010, 1, 2607-2612.	2.1	825
76	Photoelectrochemical water splitting using visible-light-responsive BiVO4 fine particles prepared in an aqueous acetic acid solution. Journal of Materials Chemistry, 2010, 20, 7536.	6.7	197
77	The Effect of Alkaline Earth Metal Ion Dopants on Photocatalytic Water Splitting by NaTaO₃ Powder. ChemSusChem, 2009, 2, 873-877.	3.6	96
78	Heterogeneous photocatalyst materials for water splitting. Chemical Society Reviews, 2009, 38, 253-278.	18.7	9,155
79	Time-Resolved Infrared Absorption Study of NaTaO₃ Photocatalysts Doped with Alkali Earth Metals. Journal of Physical Chemistry C, 2009, 113, 13918-13923.	1.5	55
80	Solar Water Splitting Using Powdered Photocatalysts Driven by Z-Schematic Interparticle Electron Transfer without an Electron Mediator. Journal of Physical Chemistry C, 2009, 113, 17536-17542.	1.5	432
81	Water splitting into H2 and O2 over niobate and titanate photocatalysts with (111) plane-type layered perovskite structure. Energy and Environmental Science, 2009, 2, 306.	15.6	248
82	Enhancement of photocatalytic activity of zinc-germanium oxynitride solid solution for overall water splitting under visible irradiation. Dalton Transactions, 2009, , 10055.	1.6	44
83	Sensitization of NaMO3 (M: Nb and Ta) Photocatalysts with Wide Band Gaps to Visible Light by Ir Doping. Bulletin of the Chemical Society of Japan, 2009, 82, 514-518.	2.0	62
84	Photocatalytic Activities of Layered Titanates and Niobates Ion-Exchanged with Sn²⁺ under Visible Light Irradiation. Journal of Physical Chemistry C, 2008, 112, 17678-17682.	1.5	94
85	Role of Sn²⁺ in the Band Structure of SnM₂O₆ and Sn₂M₂O₇(M = Nb and Ta) and Their Photocatalytic Properties. Chemistry of Materials, 2008, 20, 1299-1307.	3.2	231
86	Visible light response of AgLi₁_{/3}M_{2/3}O₂(M = Ti and) Tj ETQq0 0 0 rgBT /Overlock 1 of Materials Chemistry, 2008, 18, 647-653.	6.7	82
87	Photoinduced Dynamics of TiO₂ Doped with Cr and Sb. Journal of Physical Chemistry C, 2008, 112, 1167-1173.	1.5	109
88	Investigations of Electronic Structures and Photocatalytic Activities under Visible Light Irradiation of Lead Molybdate Replaced with Chromium(VI). Bulletin of the Chemical Society of Japan, 2007, 80, 885-893.	2.0	67
89	Photocatalytic O₂ Evolution of Rhodium and Antimony-Codoped Rutile-Type TiO₂ under Visible Light Irradiation. Journal of Physical Chemistry C, 2007, 111, 17420-17426.	1.5	128
90	Photocatalytic Hydrogen Evolution on ZnSâˆ’CuInS2âˆ’AgInS2 Solid Solution Photocatalysts with Wide Visible Light Absorption Bands. Chemistry of Materials, 2006, 18, 1969-1975.	3.2	271

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91	Visible-Light-Induced H_2 Evolution from an Aqueous Solution Containing Sulfide and Sulfite over a ZnS-CuInS2-AgInS2 Solid-Solution Photocatalyst. Angewandte Chemie - International Edition, 2005, 44, 3565-3568.	7.2	434
92	Nickel and either tantalum or niobium-codoped TiO2 and SrTiO3 photocatalysts with visible-light response for H2 or O2 evolution from aqueous solutions. Physical Chemistry Chemical Physics, 2005, 7, 2241.	1.3	280
93	H2 evolution from an aqueous methanol solution on SrTiO3 photocatalysts codoped with chromium and tantalum ions under visible light irradiation. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 163, 181-186.	2.0	323
94	Photocatalytic Activities of Noble Metal Ion Doped SrTiO3under Visible Light Irradiation. Journal of Physical Chemistry B, 2004, 108, 8992-8995.	1.2	832
95	Construction of Z-scheme Type Heterogeneous Photocatalysis Systems for Water Splitting into H2and O2under Visible Light Irradiation. Chemistry Letters, 2004, 33, 1348-1349.	0.7	401
96	Photophysical and Photocatalytic Properties of Molybdates and Tungstates with a Scheelite Structure. Chemistry Letters, 2004, 33, 1216-1217.	0.7	71
97	Strategies for the Development of Visible-light-driven Photocatalysts for Water Splitting. Chemistry Letters, 2004, 33, 1534-1539.	0.7	397
98	Highly Efficient Water Splitting into H2and O2over Lanthanum-Doped NaTaO3Photocatalysts with High Crystallinity and Surface Nanostructure. Journal of the American Chemical Society, 2003, 125, 3082-3089.	6.6	1,585
99	Photophysical properties and photocatalytic activities under visible light irradiation of silver vanadates. Physical Chemistry Chemical Physics, 2003, 5, 3061.	1.3	305
100	Visible-Light-Response and Photocatalytic Activities of TiO2 and SrTiO3 Photocatalysts Codoped with Antimony and Chromium. Journal of Physical Chemistry B, 2002, 106, 5029-5034.	1.2	796
101	Role of Ag+in the Band Structures and Photocatalytic Properties of AgMO3(M:Â Ta and Nb) with the Perovskite Structure. Journal of Physical Chemistry B, 2002, 106, 12441-12447.	1.2	463
102	Water Splitting into H2and O2on Alkali Tantalate Photocatalysts ATaO3(A = Li, Na, and K). Journal of Physical Chemistry B, 2001, 105, 4285-4292.	1.2	629
103	A Novel Aqueous Process for Preparation of Crystal Form-Controlled and Highly Crystalline BiVO4Powder from Layered Vanadates at Room Temperature and Its Photocatalytic and Photophysical Properties. Journal of the American Chemical Society, 1999, 121, 11459-11467.	6.6	1,813
104	H2or O2Evolution from Aqueous Solutions on Layered Oxide Photocatalysts Consisting of Bi3+with 6s2Configuration and d0Transition Metal Ions. Chemistry Letters, 1999, 28, 1103-1104.	0.7	465