Takeshi Morikawa

List of Publications by Year
in descending order

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88 papers	7,116 citations	66343 42 h-index	54911 84 g-index
90 all docs	90 docs citations	90 times ranked	8525 citing authors

#	Article	IF	Citations
1	A Highly Durable, Self-Photosensitized Mononuclear Ruthenium Catalyst for CO2 Reduction. Synlett, 2022, 33, 1137-1141.	1.8	8
2	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.	13.7	56
3	Hot-carrier photocatalysts for artificial photosynthesis. Journal of Chemical Physics, 2022, 156, 164705.	3.0	1
4	Solar-Driven CO₂ Reduction Using a Semiconductor/Molecule Hybrid Photosystem: From Photocatalysts to a Monolithic Artificial Leaf. Accounts of Chemical Research, 2022, 55, 933-943.	15.6	47
5	Photocatalytic CO₂ Reduction Using an Ironâ€“Bipyridyl Complex Supported by Two Phosphines for Improving Catalyst Durability. Organometallics, 2022, 41, 1865-1871.	2.3	7
6	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.	20.2	8
7	Study of Excited States and Electron Transfer of Semiconductorâ€Metalâ€Complex Hybrid Photocatalysts for CO 2 Reduction by Using Picosecond Timeâ€Resolved Spectroscopies. Chemistry - A European Journal, 2021, 27, 1127-1137.	3.3	4
8	A large-sized cell for solar-driven CO2 conversion with a solar-to-formate conversion efficiency of 7.2%. Joule, 2021, 5, 687-705.	24.0	54
9	Carbon Nanohorn Support for Solar driven CO₂ Reduction to CO Catalyzed by Mnâ€complex in an All Earthâ€abundant System. ChemNanoMat, 2021, 7, 596-599.	2.8	3
10	Electrochemical CO₂ Reduction to HCOOH Catalyzed by Ag<i>_n</i>(NO₃)<i>_n</i>₊₁ Clusters Prepared by Laser Ablation at the Air-Liquid Interface. Chemistry Letters, 2021, 50, 1941-1944.	1.3	0
11	Electrochemical CO2 reduction improved by tuning the Cu-Cu distance in halogen-bridged dinuclear cuprous coordination polymers. Journal of Catalysis, 2021, 404, 12-17.	6.2	5
12	Particulate photocatalytic reactors with spectrum-splitting function for artificial photosynthesis. Physical Chemistry Chemical Physics, 2021, 23, 15659-15674.	2.8	2
13	Solar Fuel Production from CO₂ Using a 1 m-Square-Sized Reactor with a Solar-to-Formate Conversion Efficiency of 10.5%. ACS Sustainable Chemistry and Engineering, 2021, 9, 16031-16037.	6.7	18
14	Photoelectrochemical water-splitting over a surface modified p-type Cr₂O₃ photocathode. Dalton Transactions, 2020, 49, 659-666.	3.3	23
15	Charge Trapping Process in Photoexcited Nitrogen-Doped Titanium Oxides. Inorganic Chemistry, 2020, 59, 10439-10449.	4.0	3
16	Electrochemical CO₂ reduction over nanoparticles derived from an oxidized Cuâ€“Ni intermetallic alloy. Chemical Communications, 2020, 56, 15008-15011.	4.1	10
17	Low-Overpotential Electrochemical Water Oxidation Catalyzed by CuO Derived from 2 nm-Sized Cu₂(NO₃)(OH)₃ Nanoparticles Generated by Laser Ablation at the Airâ€“Liquid Interface. ACS Applied Energy Materials, 2020, 3, 8383-8392.	5.1	12
18	Self-assembled Cuprous Coordination Polymer as a Catalyst for CO₂ Electrochemical Reduction into C₂ Products. ACS Catalysis, 2020, 10, 10412-10419.	11.2	44

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19	Photocatalytic CO₂ Reduction Using a Robust Multifunctional Iridium Complex toward the Selective Formation of Formic Acid. Journal of the American Chemical Society, 2020, 142, 10261-10266.	13.7	90
20	Formation of C2 organic molecules from CO₂ and H₂O by femtosecond laser induced chemical reactions in water. Japanese Journal of Applied Physics, 2020, 59, 057001.	1.5	4
21	Spectrally robust series/parallel-connected triple-junction photovoltaic cells used for artificial photosynthesis. Journal of Applied Physics, 2020, 127, .	2.5	8
22	Operando X-ray absorption spectroscopy of hyperfine Î²-FeOOH nanorods modified with amorphous Ni(OH)2 under electrocatalytic water oxidation conditions. Chemical Communications, 2020, 56, 5158-5161.	4.1	12
23	High-pressure synthesis of Îµ-FeOOH from Î²-FeOOH and its application to the water oxidation catalyst. RSC Advances, 2020, 10, 44756-44767.	3.6	6
24	Solar-driven CO₂ to CO reduction utilizing H₂O as an electron donor by earth-abundant Mnâ€“bipyridine complex and Ni-modified Fe-oxyhydroxide catalysts activated in a single-compartment reactor. Chemical Communications, 2019, 55, 237-240.	4.1	33
25	First principles calculations of surface dependent electronic structures: a study on Î²-FeOOH and Î³-FeOOH. Physical Chemistry Chemical Physics, 2019, 21, 18486-18494.	2.8	17
26	Molecular Catalysts Immobilized on Semiconductor Photosensitizers for Proton Reduction toward Visibleâ€Lightâ€Driven Overall Water Splitting. ChemSusChem, 2019, 12, 1807-1824.	6.8	25
27	Self-Assembled Single-Crystalline GaN Having a Bimodal Meso/Macropore Structure To Enhance Photoabsorption and Photocatalytic Reactions. ACS Applied Materials & Interfaces, 2019, 11, 4233-4241.	8.0	11
28	Highly Enhanced Electrochemical Water Oxidation Reaction over Hyperfine Î²-FeOOH(Cl):Ni Nanorod Electrode by Modification with Amorphous Ni(OH)2. Bulletin of the Chemical Society of Japan, 2018, 91, 778-786.	3.2	24
29	Low-Energy Electrocatalytic CO₂ Reduction in Water over Mn-Complex Catalyst Electrode Aided by a Nanocarbon Support and K⁺ Cations. ACS Catalysis, 2018, 8, 4452-4458.	11.2	79
30	Band bending and dipole effect at interface of metal-nanoparticles and TiO₂ directly observed by angular-resolved hard X-ray photoemission spectroscopy. Physical Chemistry Chemical Physics, 2018, 20, 11342-11346.	2.8	12
31	Effects of Ta₂O₅ Surface Modification by NH₃ on the Electronic Structure of a Ru-Complex/Nâ€“Ta₂O₅ Hybrid Photocatalyst for Selective CO₂ Reduction. Journal of Physical Chemistry C, 2018, 122, 1921-1929.	3.1	12
32	Solar-Driven Photocatalytic CO₂ Reduction in Water Utilizing a Ruthenium Complex Catalyst on p-Type Fe₂O₃ with a Multiheterojunction. ACS Catalysis, 2018, 8, 1405-1416.	11.2	110
33	Light-Driven Carbon Dioxide Reduction Devices. Green Chemistry and Sustainable Technology, 2018, , 259-280.	0.7	2
34	Sodium hexatitanate photocatalysts prepared by a flux method for reduction of carbon dioxide with water. Catalysis Today, 2018, 303, 296-304.	4.4	26
35	[Ir(tpy)(bpy)Cl] as a Photocatalyst for CO₂ Reduction under Visibleâ€Light Irradiation. ChemPhotoChem, 2018, 2, 207-212.	3.0	32
36	Electrocatalytic CO₂ reduction near the theoretical potential in water using Ru complex supported on carbon nanotubes. Nanotechnology, 2018, 29, 034001.	2.6	19

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37	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.	20.2	55
38	Electrochemical Water Oxidation Catalysed by CoOâ€Co₂O₃â€Co(OH)₂ Multiphaseâ€Nanoparticles Prepared by Femtosecond Laser Ablation in Water. ChemistrySelect, 2018, 3, 4979-4984.	1.5	14
39	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.	4.1	52
40	Highly crystalline Î²-FeOOH(Cl) nanorod catalysts doped with transition metals for efficient water oxidation. Sustainable Energy and Fuels, 2017, 1, 636-643.	4.9	40
41	Stoichiometric water splitting using a p-type Fe₂O₃based photocathode with the aid of a multi-heterojunction. Journal of Materials Chemistry A, 2017, 5, 6483-6493.	10.3	34
42	Photoelectrochemical hydrogen production by water splitting over dual-functionally modified oxide: p-Type N-doped Ta2O5 photocathode active under visible light irradiation. Applied Catalysis B: Environmental, 2017, 202, 597-604.	20.2	49
43	Evaluation of photocatalytic activities and characteristics of Cu- or Fe-modified nitrogen-doped titanium dioxides for applications in environmental purification. Japanese Journal of Applied Physics, 2016, 55, 01AA05.	1.5	10
44	Carbon microfiber layer as noble metal-catalyst support for selective CO2 photoconversion in phosphate solution: Toward artificial photosynthesis in a single-compartment reactor. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 327, 1-5.	3.9	8
45	Aminoalkylsilane-modified Silver Cathodes for Electrochemical CO₂ Reduction. Chemistry Letters, 2016, 45, 1362-1364.	1.3	3
46	CO2 Reduction by Photoelectrochemistry. Lecture Notes in Energy, 2016, , 281-296.	0.3	4
47	Photoelectrochemical CO₂ reduction using a Ru(<scp>ii</scp>)â€“Re(<scp>i</scp>) multinuclear metal complex on a p-type semiconducting NiO electrode. Chemical Communications, 2015, 51, 10722-10725.	4.1	131
48	A monolithic device for CO₂ photoreduction to generate liquid organic substances in a single-compartment reactor. Energy and Environmental Science, 2015, 8, 1998-2002.	30.8	157
49	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.	10.3	65
50	Toward Solar-Driven Photocatalytic CO₂ Reduction Using Water as an Electron Donor. Inorganic Chemistry, 2015, 54, 5105-5113.	4.0	115
51	Nitrogen-Doped Titanium Dioxide as Visible-Light-Sensitive Photocatalyst: Designs, Developments, and Prospects. Chemical Reviews, 2014, 114, 9824-9852.	47.7	1,086
52	Structural Improvement of CaFe₂O₄ by Metal Doping toward Enhanced Cathodic Photocurrent. ACS Applied Materials & Interfaces, 2014, 6, 10969-10973.	8.0	65
53	Nitrogen and transition-metal codoped titania nanotube arrays for visible-light-sensitive photoelectrochemical water oxidation. Chemical Communications, 2014, 50, 7614.	4.1	17
54	Charge-Carrier Dynamics in Cu- or Fe-Loaded Nitrogen-Doped TiO₂ Powder Studied by Femtosecond Diffuse Reflectance Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 16448-16456.	3.1	42

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55	A Highly Efficient Mononuclear Iridium Complex Photocatalyst for CO₂ Reduction under Visible Light. Angewandte Chemie - International Edition, 2013, 52, 988-992.	13.8	277
56	Solar CO2 reduction using H2O by a semiconductor/metal-complex hybrid photocatalyst: enhanced efficiency and demonstration of a wireless system using SrTiO3 photoanodes. Energy and Environmental Science, 2013, 6, 1274.	30.8	251
57	Photoactivity of p-Type Î±-Fe₂O₃Induced by Anionic/Cationic Codoping of N and Zn. Applied Physics Express, 2013, 6, 041201.	2.4	14
58	Charge-Carrier Dynamics in Nitrogen-Doped TiO₂ Powder Studied by Femtosecond Time-Resolved Diffuse Reflectance Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 1286-1292.	3.1	58
59	Visible light-sensitive mesoporous N-doped Ta2O5 spheres: synthesis and photocatalytic activity for hydrogen evolution and CO2 reduction. Journal of Materials Chemistry, 2012, 22, 24584.	6.7	65
60	Photoinduced Electron Transfer from Nitrogen-Doped Tantalum Oxide to Adsorbed Ruthenium Complex. Journal of Physical Chemistry C, 2011, 115, 18348-18353.	3.1	58
61	Selective CO2 conversion to formate in water using a CZTS photocathode modified with a ruthenium complex polymer. Chemical Communications, 2011, 47, 12664.	4.1	127
62	Direct assembly synthesis of metal complexâ€“semiconductor hybrid photocatalysts anchored by phosphonate for highly efficient CO2 reduction. Chemical Communications, 2011, 47, 8673.	4.1	108
63	p -type conduction induced by N-doping in Î±-Fe2O3. Applied Physics Letters, 2011, 98, .	3.3	37
64	Selective CO₂ Conversion to Formate Conjugated with H₂O Oxidation Utilizing Semiconductor/Complex Hybrid Photocatalysts. Journal of the American Chemical Society, 2011, 133, 15240-15243.	13.7	458
65	Visibleâ€Lightâ€Induced Selective CO₂ Reduction Utilizing a Ruthenium Complex Electrocatalyst Linked to a pâ€Type Nitrogenâ€Doped Ta₂O₅ Semiconductor. Angewandte Chemie - International Edition, 2010, 49, 5101-5105.	13.8	325
66	Synthesis and Optical Properties of Monolayer Organosilicon Nanosheets. Journal of the American Chemical Society, 2010, 132, 5946-5947.	13.7	154
67	Dual functional modification by N doping of Ta2O5: p-type conduction in visible-light-activated N-doped Ta2O5. Applied Physics Letters, 2010, 96, .	3.3	56
68	Charge Separation and Trapping in N-Doped TiO₂ Photocatalysts: A Time-Resolved Microwave Conductivity Study. Journal of Physical Chemistry Letters, 2010, 1, 3261-3265.	4.6	103
69	Photoelectrochemical reduction of CO2 in water under visible-light irradiation by a p-type InP photocathode modified with an electropolymerized ruthenium complex. Chemical Communications, 2010, 46, 6944.	4.1	180
70	Remarkably enhanced photocatalytic activity by nickel nanoparticle deposition on sulfur-doped titanium dioxide thin film. Applied Catalysis B: Environmental, 2009, 87, 239-244.	20.2	37
71	Optical bandgap widening of p-type Cu2O films by nitrogen doping. Applied Physics Letters, 2009, 94, .	3.3	156
72	Visible-light-induced photocatalytic oxidation of carboxylic acids and aldehydes over N-doped TiO2 loaded with Fe, Cu or Pt. Applied Catalysis B: Environmental, 2008, 83, 56-62.	20.2	110

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73	Photocatalytic Oxidation of NOx under Visible LED Light Irradiation over Nitrogen-Doped Titania Particles with Iron or Platinum Loading. Journal of Physical Chemistry C, 2008, 112, 12425-12431.	3.1	119
74	Materials design and development of functional materials for industry. Journal of Physics Condensed Matter, 2008, 20, 064227.	1.8	15
75	Emissive Interface States in Organic Light-Emitting Diodes Based on Tris(8-hydroxyquinoline) Aluminum. Japanese Journal of Applied Physics, 2008, 47, 464-467.	1.5	6
76	Deep-Level Characterization of Tris(8-hydroxyquinoline) Aluminum with and without Quinacridone Doping. Japanese Journal of Applied Physics, 2007, 46, 2636-2639.	1.5	6
77	Origin of visible-light sensitivity in N-doped TiO2 films. Chemical Physics, 2007, 339, 20-26.	1.9	58
78	Nitrogen complex species and its chemical nature in TiO2 for visible-light sensitized photocatalysis. Chemical Physics, 2007, 339, 57-63.	1.9	214
79	Electrical characterization of p-type N-doped ZnO films prepared by thermal oxidation of sputtered Zn3N2 films. Applied Physics Letters, 2006, 88, 172103.	3.3	105
80	Trap levels in tris(8-hydroxyquinoline) aluminum studied by deep-level optical spectroscopy. Applied Physics Letters, 2006, 88, 252104.	3.3	8
81	Photodegradation of toluene over TiO2â€"xNx under visible light irradiation. Physical Chemistry Chemical Physics, 2006, 8, 1116.	2.8	120
82	Photocatalytic Degradation of Formaldehyde and Toluene Mixtures in Air with a Nitrogen-doped TiO2Photocatalyst. Chemistry Letters, 2006, 35, 616-617.	1.3	20
83	Enhanced photocatalytic activity of TiO2â'xNx loaded with copper ions under visible light irradiation. Applied Catalysis A: General, 2006, 314, 123-127.	4.3	126
84	Deep-Level Optical Spectroscopy Investigation of Trap Levels in Tris(8-Hydroxyquinoline) Aluminum. Materials Research Society Symposia Proceedings, 2006, 965, 1.	0.1	0
85	Deep-level characterization of N-doped ZnO films prepared by reactive magnetron sputtering. Applied Physics Letters, 2005, 87, 232104.	3.3	35
86	Electrical characterization of band gap states in C-doped TiO2 films. Applied Physics Letters, 2005, 87, 052111.	3.3	68
87	Deep-level optical spectroscopy investigation of N-doped TiO2 films. Applied Physics Letters, 2005, 86, 132104.	3.3	191
88	Band-Gap Narrowing of Titanium Dioxide by Nitrogen Doping. Japanese Journal of Applied Physics, 2001, 40, L561-L563.	1.5	541