

# Mamiko Nakabayashi

## List of Publications by Year in Descending Order

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**Version:** 2024-04-09

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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.

66 papers	5,107 citations	30 h-index	68 g-index
68 ext. papers	6,639 ext. citations	14 avg, IF	5.71 L-index

#	Paper	IF	Citations
66	Interface engineering of TaN thin film photoanode for highly efficient photoelectrochemical water splitting.. <i>Nature Communications</i> , <b>2022</b> , 13, 729	17.4	13
65	Enhanced Overall Water Splitting by a Zirconium-Doped TaON-Based Photocatalyst.. <i>Angewandte Chemie - International Edition</i> , <b>2022</b> , e202116573	16.4	3
64	A self-healing catalyst for electrocatalytic and photoelectrochemical oxygen evolution in highly alkaline conditions. <i>Nature Communications</i> , <b>2021</b> , 12, 5980	17.4	10
63	Simultaneously Tuning the Defects and Surface Properties of TaN Nanoparticles by Mg-Zr Codoping for Significantly Accelerated Photocatalytic H Evolution. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 10059-10064	16.4	17
62	Surface Modifications of (ZnSe)(CuGaSe) to Promote Photocatalytic Z-Scheme Overall Water Splitting. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 10633-10641	16.4	29
61	Synthesis of Y2Ti2O5S2 by thermal sulfidation for photocatalytic water oxidation and reduction under visible light irradiation. <i>Research on Chemical Intermediates</i> , <b>2021</b> , 47, 225-234	2.8	6
60	Sequential cocatalyst decoration on BaTaON towards highly-active Z-scheme water splitting. <i>Nature Communications</i> , <b>2021</b> , 12, 1005	17.4	46
59	Synthesis of a Ga-doped La5Ti2Cu0.9Ag0.1O7S5 photocatalyst by thermal sulfidation for hydrogen evolution under visible light. <i>Journal of Catalysis</i> , <b>2021</b> , 399, 230-236	7.3	5
58	Photocatalytic solar hydrogen production from water on a 100-m scale. <i>Nature</i> , <b>2021</b> , 598, 304-307	50.4	134
57	Photocatalytic water splitting with a quantum efficiency of almost unity. <i>Nature</i> , <b>2020</b> , 581, 411-414	50.4	533
56	Self-activated Rh-Zr mixed oxide as a nonhazardous cocatalyst for photocatalytic hydrogen evolution. <i>Chemical Science</i> , <b>2020</b> , 11, 6862-6867	9.4	8
55	Ta3N5-Nanorods enabling highly efficient water oxidation via advantageous light harvesting and charge collection. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 1519-1530	35.4	42
54	Efficient Water Oxidation Using Ta N Thin Film Photoelectrodes Prepared on Insulating Transparent Substrates. <i>ChemSusChem</i> , <b>2020</b> , 13, 1974-1978	8.3	11
53	Plasma-enhanced chemical vapor deposition Ta3N5 synthesis leading to high current density during PEC oxygen evolution. <i>Sustainable Energy and Fuels</i> , <b>2020</b> , 4, 2293-2300	5.8	4
52	Fabrication of BaTaO2N Thin Films by Interfacial Reactions of BaCO3/Ta3N5 Layers on a Ta Substrate and Resulting High Photoanode Efficiencies During Water Splitting. <i>Solar Rrl</i> , <b>2020</b> , 4, 1900542	7.1	9
51	Band structure engineering and defect control of Ta3N5 for efficient photoelectrochemical water oxidation. <i>Nature Catalysis</i> , <b>2020</b> , 3, 932-940	36.5	80
50	Efficient photocatalytic hydrogen evolution on single-crystalline metal selenide particles with suitable cocatalysts. <i>Chemical Science</i> , <b>2020</b> , 11, 6436-6441	9.4	13

49	The effects of annealing barium niobium oxynitride in argon on photoelectrochemical water oxidation activity. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 493-502	13	19
48	Defect-Rich NiCeOx Electrocatalyst with Ultrahigh Stability and Low Overpotential for Water Oxidation. <i>ACS Catalysis</i> , <b>2019</b> , 9, 1605-1611	13.1	64
47	Efficient hydrogen evolution on (CuInS)(ZnS) solid solution-based photocathodes under simulated sunlight. <i>Chemical Communications</i> , <b>2019</b> , 55, 470-473	5.8	16
46	Sunlight-Driven Production of Methylcyclohexane from Water and Toluene Using ZnSe : Cu(In,Ga)Se <sub>2</sub> -Based Photocathode. <i>ChemCatChem</i> , <b>2019</b> , 11, 4266-4271	5.2	7
45	Oxysulfide photocatalyst for visible-light-driven overall water splitting. <i>Nature Materials</i> , <b>2019</b> , 18, 827-832	8.7	222
44	One-dimensional Anisotropic Electronic States in Needle-shaped La <sub>5</sub> Ti <sub>2</sub> CuS <sub>5</sub> O <sub>7</sub> Single Crystals Grown in Molten Salt in Bridgman Furnace. <i>Crystal Growth and Design</i> , <b>2019</b> , 19, 2419-2427	3.5	2
43	Metal selenide photocatalysts for visible-light-driven Z-scheme pure water splitting. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 7415-7422	13	46
42	Solar-Driven Water Splitting over a BaTaO <sub>2</sub> N Photoanode Enhanced by Annealing in Argon. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 5777-5784	6.1	23
41	Upscaling of Temperature-Sensitive Particle Photocatalyst Electrodes: Fully Ambient and Scalable Roll-Press Fabrication of Ta <sub>3</sub> N <sub>5</sub> Photoelectrodes on Metal Substrate. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 19407-19414	8.3	6
40	Stable Hydrogen Production from Water on an NIR-Responsive Photocathode under Harsh Conditions. <i>Small Methods</i> , <b>2018</b> , 2, 1800018	12.8	14
39	Activation of a particulate Ta <sub>3</sub> N <sub>5</sub> water-oxidation photoanode with a GaN hole-blocking layer. <i>Sustainable Energy and Fuels</i> , <b>2018</b> , 2, 73-78	5.8	13
38	Towards zero bias photoelectrochemical water splitting: onset potential improvement on a Mg:GaN modified-Ta <sub>3</sub> N <sub>5</sub> photoanode. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 15265-15273	13	22
37	Water Splitting: Stable Hydrogen Production from Water on an NIR-Responsive Photocathode under Harsh Conditions (Small Methods 5/2018). <i>Small Methods</i> , <b>2018</b> , 2, 1800029	12.8	
36	Surface Protective and Catalytic Layer Consisting of RuO and Pt for Stable Production of Methylcyclohexane Using Solar Energy. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 44396-44402	9.5	11
35	Printable Photocatalyst Sheets Incorporating a Transparent Conductive Mediator for Z-Scheme Water Splitting. <i>Joule</i> , <b>2018</b> , 2, 2667-2680	27.8	41
34	Efficient Solar-Driven Water Oxidation over Perovskite-Type BaNbO <sub>2</sub> N Photoanodes Absorbing Visible Light up to 740 nm. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1800094	21.8	47
33	Molten salt flux synthesis of La <sub>5</sub> Ti <sub>2</sub> CuS <sub>5</sub> O <sub>7</sub> towards elongated single crystallites. <i>Japanese Journal of Applied Physics</i> , <b>2017</b> , 56, 055503	1.4	7
32	Highly Active GaN-Stabilized Ta <sub>3</sub> N <sub>5</sub> Thin-Film Photoanode for Solar Water Oxidation. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 4817-4821	3.6	22

31	Highly Active GaN-Stabilized Ta N Thin-Film Photoanode for Solar Water Oxidation. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 4739-4743	16.4	110
30	Enhancement of Charge Separation and Hydrogen Evolution on Particulate LaTiCuSO Photocathodes by Surface Modification. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 375-379	6.4	14
29	Ultrastable low-bias water splitting photoanodes via photocorrosion inhibition and in situ catalyst regeneration. <i>Nature Energy</i> , <b>2017</b> , 2,	62.3	206
28	A particulate (ZnSe) <sub>0.85</sub> (CuIn <sub>0.7</sub> Ga <sub>0.3</sub> Se <sub>2</sub> ) <sub>0.15</sub> photocathode modified with CdS and ZnS for sunlight-driven overall water splitting. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 21242-21248	13	21
27	Highly Efficient Water Oxidation Photoanode Made of Surface Modified LaTiO N Particles. <i>Small</i> , <b>2016</b> , 12, 5468-5476	11	33
26	Photoreduced Graphene Oxide as a Conductive Binder to Improve the Water Splitting Activity of Photocatalyst Sheets. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 7011-7019	15.6	47
25	Visible Light-Driven Z-Scheme Water Splitting Using Oxysulfide H Evolution Photocatalysts. <i>Journal of Physical Chemistry Letters</i> , <b>2016</b> , 7, 3892-3896	6.4	78
24	Photocatalyst Sheets Composed of Particulate LaMg <sub>1/3</sub> Ta <sub>2/3</sub> O <sub>2</sub> N and Mo-Doped BiVO <sub>4</sub> for Z-Scheme Water Splitting under Visible Light. <i>ACS Catalysis</i> , <b>2016</b> , 6, 7188-7196	13.1	68
23	Enhanced Hydrogen Evolution under Simulated Sunlight from Neutral Electrolytes on (ZnSe) <sub>0.85</sub> (CuIn <sub>0.7</sub> Ga <sub>0.3</sub> Se <sub>2</sub> ) <sub>0.15</sub> Photocathodes Prepared by a Bilayer Method. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 15555-15559	3.6	7
22	Enhanced Hydrogen Evolution under Simulated Sunlight from Neutral Electrolytes on (ZnSe) (CuIn Ga Se ) Photocathodes Prepared by a Bilayer Method. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 15329-15333	16.4	35
21	A Novel Photocathode Material for Sunlight-Driven Overall Water Splitting: Solid Solution of ZnSe and Cu(In,Ga)Se <sub>2</sub> . <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 4570-4577	15.6	91
20	Application of LaMg <sub>1/3</sub> Ta <sub>2/3</sub> O <sub>2</sub> N as a hydrogen evolution photocatalyst of a photocatalyst sheet for Z-scheme water splitting. <i>Applied Catalysis A: General</i> , <b>2016</b> , 521, 26-33	5.1	28
19	Band engineering of perovskite-type transition metal oxynitrides for photocatalytic overall water splitting. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 4544-4552	13	52
18	Scalable water splitting on particulate photocatalyst sheets with a solar-to-hydrogen energy conversion efficiency exceeding 1. <i>Nature Materials</i> , <b>2016</b> , 15, 611-5	27	979
17	Simultaneous enhancement of photovoltage and charge transfer in Cu <sub>2</sub> O-based photocathode using buffer and protective layers. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 033902	3.4	25
16	Thin film transfer for the fabrication of tantalum nitride photoelectrodes with controllable layered structures for water splitting. <i>Chemical Science</i> , <b>2016</b> , 7, 5821-5826	9.4	21
15	Effects of interfacial layers on the photoelectrochemical properties of tantalum nitride photoanodes for solar water splitting. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 13837-13843	13	10
14	Positive onset potential and stability of Cu <sub>2</sub> O-based photocathodes in water splitting by atomic layer deposition of a Ga <sub>2</sub> O <sub>3</sub> buffer layer. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 1493-1500	35.4	170

13	Fabrication of a Core-Shell-Type Photocatalyst via Photodeposition of Group IV and V Transition Metal Oxyhydroxides: An Effective Surface Modification Method for Overall Water Splitting. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 9627-34	16.4	135
12	Surface Modification of CoO(x) Loaded BiVO <sub>4</sub> Photoanodes with Ultrathin p-Type NiO Layers for Improved Solar Water Oxidation. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 5053-60	16.4	436
11	Mg-Zr Cosubstituted Ta <sub>3</sub> N <sub>5</sub> Photoanode for Lower-Onset-Potential Solar-Driven Photoelectrochemical Water Splitting. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 12780-3	16.4	147
10	Durable hydrogen evolution from water driven by sunlight using (Ag,Cu)GaSe photocathodes modified with CdS and CuGaSe. <i>Chemical Science</i> , <b>2015</b> , 6, 894-901	9.4	80
9	Innentitelbild: A Complex Perovskite-Type Oxynitride: The First Photocatalyst for Water Splitting Operable at up to 600 nm (Angew. Chem. 10/2015). <i>Angewandte Chemie</i> , <b>2015</b> , 127, 2900-2900	3.6	2
8	Z-scheme water splitting using particulate semiconductors immobilized onto metal layers for efficient electron relay. <i>Journal of Catalysis</i> , <b>2015</b> , 328, 308-315	7.3	91
7	A Complex Perovskite-Type Oxynitride: The First Photocatalyst for Water Splitting Operable at up to 600 nm. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 2998-3002	3.6	56
6	A complex perovskite-type oxynitride: the first photocatalyst for water splitting operable at up to 600 nm. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 2955-9	16.4	311
5	Photoelectrochemical oxidation of water using BaTaO <sub>2</sub> N photoanodes prepared by particle transfer method. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 2227-30	16.4	140
4	Enhancement of Solar Hydrogen Evolution from Water by Surface Modification with CdS and TiO <sub>2</sub> on Porous CuInS <sub>2</sub> Photocathodes Prepared by an Electrodeposition-Sulfurization Method. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 12002-12006	3.6	12
3	Enhancement of solar hydrogen evolution from water by surface modification with CdS and TiO <sub>2</sub> on porous CuInS <sub>2</sub> photocathodes prepared by an electrodeposition-sulfurization method. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 11808-12	16.4	151
2	Preparation of Size-controlled Ruthenium Metal Particles on Carbon from Hydrido-carbonyl Cluster Complex. <i>Chemistry Letters</i> , <b>1994</b> , 23, 1275-1278	1.7	4
1	Cocatalyst engineering of a narrow bandgap Ga-La <sub>5</sub> Ti <sub>2</sub> Cu <sub>0.9</sub> Ag <sub>0.1</sub> O <sub>7</sub> S <sub>5</sub> photocatalyst towards effectively enhanced water splitting. <i>Journal of Materials Chemistry A</i> ,	13	1