

Kazunari Domen

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570
papers

71,835
citations

127
h-index

257
g-index

599
ext. papers

80,192
ext. citations

9.6
avg, IF

8.41
L-index

#	Paper	IF	Citations
570	A metal-free polymeric photocatalyst for hydrogen production from water under visible light. <i>Nature Materials</i> , 2009 , 8, 76-80	27	8489
569	Recent advances in semiconductors for photocatalytic and photoelectrochemical water splitting. <i>Chemical Society Reviews</i> , 2014 , 43, 7520-35	58.5	3037
568	Photocatalyst releasing hydrogen from water. <i>Nature</i> , 2006 , 440, 295	50.4	2395
567	Photocatalytic Water Splitting: Recent Progress and Future Challenges. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 2655-2661	6.4	1940
566	Polymer semiconductors for artificial photosynthesis: hydrogen evolution by mesoporous graphitic carbon nitride with visible light. <i>Journal of the American Chemical Society</i> , 2009 , 131, 1680-1	16.4	1418
565	New Non-Oxide Photocatalysts Designed for Overall Water Splitting under Visible Light. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 7851-7861	3.8	1239
564	GaN:ZnO solid solution as a photocatalyst for visible-light-driven overall water splitting. <i>Journal of the American Chemical Society</i> , 2005 , 127, 8286-7	16.4	1195
563	Synthesis of a carbon nitride structure for visible-light catalysis by copolymerization. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 441-4	16.4	1118
562	Recent developments in heterogeneous photocatalysts for solar-driven overall water splitting. <i>Chemical Society Reviews</i> , 2019 , 48, 2109-2125	58.5	1029
561	Scalable water splitting on particulate photocatalyst sheets with a solar-to-hydrogen energy conversion efficiency exceeding 1. <i>Nature Materials</i> , 2016 , 15, 611-5	27	979
560	Particulate photocatalysts for overall water splitting. <i>Nature Reviews Materials</i> , 2017 , 2,	73.3	902
559	Accelerating materials development for photoelectrochemical hydrogen production: Standards for methods, definitions, and reporting protocols. <i>Journal of Materials Research</i> , 2010 , 25, 3-16	2.5	893
558	Self-Templated Synthesis of Nanoporous CdS Nanostructures for Highly Efficient Photocatalytic Hydrogen Production under Visible Light. <i>Chemistry of Materials</i> , 2008 , 20, 110-117	9.6	837
557	Conduction and Valence Band Positions of Ta ₂ O ₅ , TaON, and Ta ₃ N ₅ by UPS and Electrochemical Methods. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 1798-1803	3.4	811
556	Particulate Photocatalysts for Light-Driven Water Splitting: Mechanisms, Challenges, and Design Strategies. <i>Chemical Reviews</i> , 2020 , 120, 919-985	68.1	765
555	Oxysulfide Sm ₂ Ti ₂ S ₂ O ₅ as a stable photocatalyst for water oxidation and reduction under visible light irradiation (lambda Journal of the American Chemical Society, 2002 , 124, 13547-53	16.4	741
554	Cu ₂ O as a photocatalyst for overall water splitting under visible light irradiation. <i>Chemical Communications</i> , 1998 , 357-358	5.8	685

553	Sulfur-mediated synthesis of carbon nitride: Band-gap engineering and improved functions for photocatalysis. <i>Energy and Environmental Science</i> , 2011 , 4, 675-678	35.4	624
552	Photocatalytic Activities of Graphitic Carbon Nitride Powder for Water Reduction and Oxidation under Visible Light. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 4940-4947	3.8	601
551	Efficient nonsacrificial water splitting through two-step photoexcitation by visible light using a modified oxynitride as a hydrogen evolution photocatalyst. <i>Journal of the American Chemical Society</i> , 2010 , 132, 5858-68	16.4	597
550	An oxynitride, TaON, as an efficient water oxidation photocatalyst under visible light irradiation (lambda Chemical Communications, 2002 , 1698-9	5.8	540
549	Reaction systems for solar hydrogen production via water splitting with particulate semiconductor photocatalysts. <i>Nature Catalysis</i> , 2019 , 2, 387-399	36.5	539
548	Photocatalytic water splitting with a quantum efficiency of almost unity. <i>Nature</i> , 2020 , 581, 411-414	50.4	533
547	Single-crystalline, wormlike hematite photoanodes for efficient solar water splitting. <i>Scientific Reports</i> , 2013 , 3, 2681	4.9	519
546	Noble-metal/Cr(2)O(3) core/shell nanoparticles as a cocatalyst for photocatalytic overall water splitting. <i>Angewandte Chemie - International Edition</i> , 2006 , 45, 7806-9	16.4	468
545	Acid-Catalyzed Reactions on Flexible Polycyclic Aromatic Carbon in Amorphous Carbon. <i>Chemistry of Materials</i> , 2006 , 18, 3039-3045	9.6	448
544	Surface Modification of CoO(x) Loaded BiVO ₄ 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
543	Photoreactions on LaTiO ₂ N under Visible Light Irradiation. <i>Journal of Physical Chemistry A</i> , 2002 , 106, 6750-6753	2.8	419
542	Facile fabrication of an efficient oxynitride TaON photoanode for overall water splitting into H ₂ and O ₂ under visible light irradiation. <i>Journal of the American Chemical Society</i> , 2010 , 132, 11828-9	16.4	410
541	Overall water splitting on (Ga(1-x)Zn(x))(N(1-x)O(x)) solid solution photocatalyst: relationship between physical properties and photocatalytic activity. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 20504-10	3.4	360
540	Ordered Mesoporous SBA-15 Type Graphitic Carbon Nitride: A Semiconductor Host Structure for Photocatalytic Hydrogen Evolution with Visible Light. <i>Chemistry of Materials</i> , 2009 , 21, 4093-4095	9.6	358
539	Artificial Z-scheme constructed with a supramolecular metal complex and semiconductor for the photocatalytic reduction of CO ₂ . <i>Journal of the American Chemical Society</i> , 2013 , 135, 4596-9	16.4	353
538	RuO ₂ -loaded beta-Ge ₃ N ₄ as a non-oxide photocatalyst for overall water splitting. <i>Journal of the American Chemical Society</i> , 2005 , 127, 4150-1	16.4	353
537	Highly stable water splitting on oxynitride TaON photoanode system under visible light irradiation. <i>Journal of the American Chemical Society</i> , 2012 , 134, 6968-71	16.4	347
536	Ta ₃ N ₅ as a Novel Visible Light-Driven Photocatalyst (<i>Chemistry Letters</i> , 2002 , 31, 736-737	1.7	347

535	Mechanism of photocatalytic decomposition of water into H ₂ and O ₂ over NiO/SrTiO ₃ . <i>Journal of Catalysis</i> , 1986 , 102, 92-98	7.3	337
534	Vertically aligned Ta ₃ N ₅ nanorod arrays for solar-driven photoelectrochemical water splitting. <i>Advanced Materials</i> , 2013 , 25, 125-31	24	334
533	Photocatalytic Activity Enhancing for Titanium Dioxide by Co-doping with Bromine and Chlorine. <i>Chemistry of Materials</i> , 2004 , 16, 846-849	9.6	333
532	Cobalt-modified porous single-crystalline LaTiO ₂ N for highly efficient water oxidation under visible light. <i>Journal of the American Chemical Society</i> , 2012 , 134, 8348-51	16.4	329
531	Photocatalytic decomposition of water into hydrogen and oxygen over nickel(II) oxide-strontium titanate (SrTiO ₃) powder. 1. Structure of the catalysts. <i>The Journal of Physical Chemistry</i> , 1986 , 90, 292-295		328
530	Photocatalytic overall water splitting promoted by two different cocatalysts for hydrogen and oxygen evolution under visible light. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 4096-9	16.4	325
529	Photocatalytic Decomposition of Water on Spontaneously Hydrated Layered Perovskites. <i>Chemistry of Materials</i> , 1997 , 9, 1063-1064	9.6	321
528	Solid Solution of GaN and ZnO as a Stable Photocatalyst for Overall Water Splitting under Visible Light. <i>Chemistry of Materials</i> , 2010 , 22, 612-623	9.6	318
527	Photocatalytic decomposition of water vapour on an NiO/SrTiO ₃ catalyst. <i>Journal of the Chemical Society Chemical Communications</i> , 1980 , 543-544		318
526	TaON and Ta ₃ N ₅ as new visible light driven photocatalysts. <i>Catalysis Today</i> , 2003 , 78, 555-560	5.3	314
525	A complex perovskite-type oxynitride: the first photocatalyst for water splitting operable at up to 600 nm. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 2955-9	16.4	311
524	A Particulate Photocatalyst Water-Splitting Panel for Large-Scale Solar Hydrogen Generation. <i>Joule</i> , 2018 , 2, 509-520	27.8	307
523	Photocatalytic hydrogen evolution on dye-sensitized mesoporous carbon nitride photocatalyst with magnesium phthalocyanine. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 13020-5	3.6	295
522	Fabrication of efficient TaON and Ta ₃ N ₅ photoanodes for water splitting under visible light irradiation. <i>Energy and Environmental Science</i> , 2011 , 4, 4138	35.4	291
521	Photo- and Mechano-Catalytic Overall Water Splitting Reactions to Form Hydrogen and Oxygen on Heterogeneous Catalysts. <i>Bulletin of the Chemical Society of Japan</i> , 2000 , 73, 1307-1331	5.1	291
520	A new type of water splitting system composed of two different TiO ₂ photocatalysts (anatase, rutile) and a IO ₃ ⁻ /I ⁻ shuttle redox mediator. <i>Chemical Physics Letters</i> , 2001 , 344, 339-344	2.5	287
519	Cobalt phosphate-modified barium-doped tantalum nitride nanorod photoanode with 1.5% solar energy conversion efficiency. <i>Nature Communications</i> , 2013 , 4, 2566	17.4	279
518	Photocatalytic overall water splitting under visible light by TaON and WO ₃ with an IO ₃ ⁻ /I ⁻ shuttle redox mediator. <i>Chemical Communications</i> , 2005 , 3829-31	5.8	276

517	LaTiO ₂ N as a Visible-Light (300 nm)-Driven Photocatalyst (2). <i>Journal of Physical Chemistry B</i> , 2003 , 107, 791-797	3.4	264
516	Effect of post-calcination on photocatalytic activity of (Ga _{1-x} Zn _x)(N _{1-x} O _x) solid solution for overall water splitting under visible light. <i>Journal of Catalysis</i> , 2008 , 254, 198-204	7.3	263
515	A Front-Illuminated Nanostructured Transparent BiVO ₄ Photoanode for >2% Efficient Water Splitting. <i>Advanced Energy Materials</i> , 2016 , 6, 1501645	21.8	262
514	Fabrication of CaFe ₂ O ₄ /TaON heterojunction photoanode for photoelectrochemical water oxidation. <i>Journal of the American Chemical Society</i> , 2013 , 135, 5375-83	16.4	261
513	Photocatalytic Overall Water Splitting under Visible Light Using ATaO ₂ N (A = Ca, Sr, Ba) and WO ₃ in a IO ₃ ⁻ /I ⁻ Shuttle Redox Mediated System. <i>Chemistry of Materials</i> , 2009 , 21, 1543-1549	9.6	259
512	Overall water splitting by Ta ₃ N ₅ nanorod single crystals grown on the edges of KTaO ₃ particles. <i>Nature Catalysis</i> , 2018 , 1, 756-763	36.5	259
511	Photocatalytic water splitting using modified GaN:ZnO solid solution under visible light: long-time operation and regeneration of activity. <i>Journal of the American Chemical Society</i> , 2012 , 134, 8254-9	16.4	257
510	Particle suspension reactors and materials for solar-driven water splitting. <i>Energy and Environmental Science</i> , 2015 , 8, 2825-2850	35.4	256
509	Stable hydrogen evolution from CdS-modified CuGaSe ₂ photoelectrode under visible-light irradiation. <i>Journal of the American Chemical Society</i> , 2013 , 135, 3733-5	16.4	255
508	Particulate Photocatalyst Sheets Based on Carbon Conductor Layer for Efficient Z-Scheme Pure-Water Splitting at Ambient Pressure. <i>Journal of the American Chemical Society</i> , 2017 , 139, 1675-1683	16.4	252
507	Zinc Germanium Oxynitride as a Photocatalyst for Overall Water Splitting under Visible Light. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 1042-1048	3.8	239
506	Photocatalytic oxidation of water by polymeric carbon nitride nanohybrids made of sustainable elements. <i>Chemical Science</i> , 2012 , 3, 443-446	9.4	232
505	Exfoliated nanosheets as a new strong solid acid catalyst. <i>Journal of the American Chemical Society</i> , 2003 , 125, 5479-85	16.4	229
504	Photoelectrochemical properties of LaTiO ₂ N electrodes prepared by particle transfer for sunlight-driven water splitting. <i>Chemical Science</i> , 2013 , 4, 1120	9.4	226
503	Core/Shell photocatalyst with spatially separated co-catalysts for efficient reduction and oxidation of water. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 11252-6	16.4	225
502	Oxysulfide photocatalyst for visible-light-driven overall water splitting. <i>Nature Materials</i> , 2019 , 18, 827-832	32	222
501	Pt/In ₂ S ₃ /CdS/Cu ₂ ZnSnS ₄ Thin Film as an Efficient and Stable Photocathode for Water Reduction under Sunlight Radiation. <i>Journal of the American Chemical Society</i> , 2015 , 137, 13691-7	16.4	221
500	Recent progress in the development of (oxy)nitride photocatalysts for water splitting under visible-light irradiation. <i>Coordination Chemistry Reviews</i> , 2013 , 257, 1957-1969	23.2	210

499	Ultrastable low-bias water splitting photoanodes via photocorrosion inhibition and in situ catalyst regeneration. <i>Nature Energy</i> , 2017 , 2,	62.3	206
498	Efficient Visible-Light-Driven Z-Scheme Overall Water Splitting Using a MgTa ₂ O(6-x)N(y)/TaON Heterostructure Photocatalyst for H ₂ Evolution. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 8498-501	16.4	205
497	SrNbO ₂ N as a water-splitting photoanode with a wide visible-light absorption band. <i>Journal of the American Chemical Society</i> , 2011 , 133, 12334-7	16.4	204
496	Mesoporous Tantalum Oxide. 1. Characterization and Photocatalytic Activity for the Overall Water Decomposition. <i>Chemistry of Materials</i> , 2001 , 13, 1194-1199	9.6	204
495	Glucose production from saccharides using layered transition metal oxide and exfoliated nanosheets as a water-tolerant solid acid catalyst. <i>Chemical Communications</i> , 2008 , 5363-5	5.8	203
494	Roles of Rh/Cr ₂ O ₃ (Core/Shell) Nanoparticles Photodeposited on Visible-Light-Responsive (Ga _{1-x} Zn _x)(N _{1-x} O _x) Solid Solutions in Photocatalytic Overall Water Splitting. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 7554-7560	3.8	200
493	Core/Shell Structured La- and Rh-Codoped SrTiO ₃ as a Hydrogen Evolution Photocatalyst in Z-Scheme Overall Water Splitting under Visible Light Irradiation. <i>Chemistry of Materials</i> , 2014 , 26, 4144-4150	8.6	197
492	Efficient overall water splitting under visible-light irradiation on (Ga _{1-x} Zn _x)(N _{1-x} O _x) dispersed with Rh-Cr mixed-oxide nanoparticles: Effect of reaction conditions on photocatalytic activity. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 13107-12	3.4	196
491	Visible light-induced photocatalytic behavior of a layered perovskite-type rubidium lead niobate, RbPb ₂ Nb ₃ O ₁₀ . <i>The Journal of Physical Chemistry</i> , 1993 , 97, 1970-1973		196
490	Role and Function of Noble-Metal/Cr-Layer Core/Shell Structure Cocatalysts for Photocatalytic Overall Water Splitting Studied by Model Electrodes. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 10151-10157	3.8	194
489	Nanostructured WO ₃ /BiVO ₄ photoanodes for efficient photoelectrochemical water splitting. <i>Small</i> , 2014 , 10, 3692-9	11	191
488	Synthesis and photocatalytic activity of perovskite niobium oxynitrides with wide visible-light absorption bands. <i>ChemSusChem</i> , 2011 , 4, 74-8	8.3	189
487	Improvement of photocatalytic activity of (Ga _{1-x} Zn _x)(N _{1-x} O _x) solid solution for overall water splitting by co-loading Cr and another transition metal. <i>Journal of Catalysis</i> , 2006 , 243, 303-308	7.3	188
486	Defect Engineering of Photocatalysts by Doping of Aliovalent Metal Cations for Efficient Water Splitting. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 19386-19388	3.8	187
485	Enhanced water oxidation on Ta ₃ N ₅ photocatalysts by modification with alkaline metal salts. <i>Journal of the American Chemical Society</i> , 2012 , 134, 19993-6	16.4	186
484	Crystallization of Mesoporous Metal Oxides. <i>Chemistry of Materials</i> , 2008 , 20, 835-847	9.6	185
483	Recent progress of visible-light-driven heterogeneous photocatalysts for overall water splitting. <i>Solid State Ionics</i> , 2004 , 172, 591-595	3.3	183
482	Two step water splitting into H ₂ and O ₂ under visible light by ATaO ₂ N (A=Ca, Sr, Ba) and WO ₃ with . <i>Chemical Physics Letters</i> , 2008 , 452, 120-123	2.5	174

481	Fabrication of an efficient BaTaO ₂ N photoanode harvesting a wide range of visible light for water splitting. <i>Journal of the American Chemical Society</i> , 2013 , 135, 10238-41	16.4	173
480	Positive onset potential and stability of Cu ₂ O-based photocathodes in water splitting by atomic layer deposition of a Ga ₂ O ₃ buffer layer. <i>Energy and Environmental Science</i> , 2015 , 8, 1493-1500	35.4	170
479	Modified Ta ₃ N ₅ powder as a photocatalyst for O ₂ evolution in a two-step water splitting system with an iodate/iodide shuttle redox mediator under visible light. <i>Langmuir</i> , 2010 , 26, 9161-5	4	167
478	Characterization of Rh-Cr mixed-oxide nanoparticles dispersed on (Ga _{1-x} Zn _x)(N _{1-x} O _x) as a cocatalyst for visible-light-driven overall water splitting. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 13753-8	3.4	167
477	Tungsten carbide nanoparticles as efficient cocatalysts for photocatalytic overall water splitting. <i>ChemSusChem</i> , 2013 , 6, 168-81	8.3	166
476	Photocatalytic Water-Splitting Reaction from Catalytic and Kinetic Perspectives. <i>Catalysis Letters</i> , 2015 , 145, 95-108	2.8	165
475	A novel series of photocatalysts with an ion-exchangeable layered structure of niobate. <i>Catalysis Letters</i> , 1990 , 4, 339-343	2.8	161
474	Noble-Metal/Cr ₂ O ₃ Core/Shell Nanoparticles as a Cocatalyst for Photocatalytic Overall Water Splitting. <i>Angewandte Chemie</i> , 2006 , 118, 7970-7973	3.6	159
473	Role and Function of Ruthenium Species as Promoters with TaON-Based Photocatalysts for Oxygen Evolution in Two-Step Water Splitting under Visible Light. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 3057-3064	3.8	155
472	Flux-mediated doping of SrTiO ₃ photocatalysts for efficient overall water splitting. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 3027-3033	13	152
471	Unusual enhancement of H ₂ evolution by Ru on TaON photocatalyst under visible light irradiation. <i>Chemical Communications</i> , 2003 , 3000-1	5.8	152
470	Enhancement of solar hydrogen evolution from water by surface modification with CdS and TiO ₂ on porous CuInS ₂ photocathodes prepared by an electrodeposition-sulfurization method. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 11808-12	16.4	151
469	Synthesis of Crystallized Mesoporous Tantalum Oxide and Its Photocatalytic Activity for Overall Water Splitting under Ultraviolet Light Irradiation. <i>Chemistry of Materials</i> , 2008 , 20, 5361-5367	9.6	150
468	Nanosheets as highly active solid acid catalysts for green chemical syntheses. <i>Energy and Environmental Science</i> , 2010 , 3, 82-93	35.4	149
467	Z-scheme Overall Water Splitting on Modified-TaON Photocatalysts under Visible Light (□) <i>Chemistry Letters</i> , 2008 , 37, 138-139	1.7	149
466	Oxysulfides Ln ₂ Ti ₂ S ₂ O ₅ as Stable Photocatalysts for Water Oxidation and Reduction under Visible-Light Irradiation. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 2637-2642	3.4	148
465	Study of the photocatalytic decomposition of water vapor over a nickel(II) oxide-strontium titanate (SrTiO ₃) catalyst. <i>The Journal of Physical Chemistry</i> , 1982 , 86, 3657-3661		148
464	Mg-Zr Cosubstituted Ta ₃ N ₅ Photoanode for Lower-Onset-Potential Solar-Driven Photoelectrochemical Water Splitting. <i>Journal of the American Chemical Society</i> , 2015 , 137, 12780-3	16.4	147

463	Synthesis of a Carbon Nitride Structure for Visible-Light Catalysis by Copolymerization. <i>Angewandte Chemie</i> , 2010 , 122, 451-454	3.6	146
462	Preparation of K ₂ La ₂ Ti ₃ O ₁₀ by Polymerized Complex Method and Photocatalytic Decomposition of Water. <i>Chemistry of Materials</i> , 1998 , 10, 72-77	9.6	145
461	Photoelectrochemical water splitting using a Cu(In,Ga)Se ₂ thin film. <i>Electrochemistry Communications</i> , 2010 , 12, 851-853	5.1	144
460	Photodecomposition of water and hydrogen evolution from aqueous methanol solution over novel niobate photocatalysts. <i>Journal of the Chemical Society Chemical Communications</i> , 1986 , 356		142
459	Particulate Photocatalysts for Water Splitting: Recent Advances and Future Prospects. <i>ACS Energy Letters</i> , 2019 , 4, 542-549	20.1	140
458	Photoelectrochemical oxidation of water using BaTaO ₂ N photoanodes prepared by particle transfer method. <i>Journal of the American Chemical Society</i> , 2015 , 137, 2227-30	16.4	140
457	Efficient solar hydrogen production from neutral electrolytes using surface-modified Cu(In,Ga)Se ₂ photocathodes. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8300-8307	13	139
456	Visible-light-driven nonsacrificial water oxidation over tungsten trioxide powder modified with two different cocatalysts. <i>Energy and Environmental Science</i> , 2012 , 5, 8390	35.4	139
455	Preparation of core-shell-structured nanoparticles (with a noble-metal or metal oxide core and a chromia shell) and their application in water splitting by means of visible light. <i>Chemistry - A European Journal</i> , 2010 , 16, 7750-9	4.8	139
454	Photocatalytic decomposition of liquid water on a NiO/SrTiO ₃ catalyst. <i>Chemical Physics Letters</i> , 1982 , 92, 433-434	2.5	139
453	Electrochemical Behavior of Thin Ta ₃ N ₅ Semiconductor Film. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 11049-11053	3.4	137
452	A Stable and Highly Active Hybrid Mesoporous Solid Acid Catalyst. <i>Advanced Materials</i> , 2005 , 17, 1839-1842	8.4	137
451	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> , 2015 , 137, 9627-34	16.4	135
450	H ₂ Evolution from Water on Modified Cu ₂ ZnSnS ₄ Photoelectrode under Solar Light. <i>Applied Physics Express</i> , 2010 , 3, 101202	2.4	135
449	Photocatalytic solar hydrogen production from water on a 100-m scale. <i>Nature</i> , 2021 , 598, 304-307	50.4	134
448	Direct water splitting into hydrogen and oxygen under visible light by using modified TaON photocatalysts with d(0) electronic configuration. <i>Chemistry - A European Journal</i> , 2013 , 19, 4986-91	4.8	131
447	Ta ₃ N ₅ photoanodes for water splitting prepared by sputtering. <i>Thin Solid Films</i> , 2011 , 519, 2087-2092	2.2	130
446	Surface Modification of TaON with Monoclinic ZrO ₂ to Produce a Composite Photocatalyst with Enhanced Hydrogen Evolution Activity under Visible Light. <i>Bulletin of the Chemical Society of Japan</i> , 2008 , 81, 927-937	5.1	130

445	Photocatalytic water splitting on nickel intercalated A ₄ TaxNb _{6-x} O ₁₇ (A = K, Rb). <i>Catalysis Today</i> , 1996 , 28, 175-182	5.3	128
444	Solar-Driven Z-scheme Water Splitting Using Modified BaZrO ₃ BaTaO ₂ N Solid Solutions as Photocatalysts. <i>ACS Catalysis</i> , 2013 , 3, 1026-1033	13.1	127
443	Photocatalytic Overall Water Splitting Promoted by Two Different Cocatalysts for Hydrogen and Oxygen Evolution under Visible Light. <i>Angewandte Chemie</i> , 2010 , 122, 4190-4193	3.6	127
442	Efficient Photocatalytic Water Splitting Using Al-Doped SrTiO ₃ Coloaded with Molybdenum Oxide and Rhodium-Chromium Oxide. <i>ACS Catalysis</i> , 2018 , 8, 2782-2788	13.1	126
441	ATR-SEIRAS investigation of the Fermi level of Pt cocatalyst on a GaN photocatalyst for hydrogen evolution under irradiation. <i>Journal of the American Chemical Society</i> , 2009 , 131, 13218-9	16.4	126
440	Development of Novel Photocatalyst and Cocatalyst Materials for Water Splitting under Visible Light. <i>Bulletin of the Chemical Society of Japan</i> , 2016 , 89, 627-648	5.1	125
439	TiN _x O _y F _z as a Stable Photocatalyst for Water Oxidation in Visible Light (. <i>Chemistry Letters</i> , 2003 , 32, 196-197	1.7	123
438	Selective CO production by Au coupled ZnTe/ZnO in the photoelectrochemical CO ₂ reduction system. <i>Energy and Environmental Science</i> , 2015 , 8, 3597-3604	35.4	122
437	Amorphous Carbon Bearing Sulfonic Acid Groups in Mesoporous Silica as a Selective Catalyst. <i>Chemistry of Materials</i> , 2009 , 21, 186-193	9.6	122
436	Photocatalytic Hydrogen Evolution from Water Using Copper Gallium Sulfide under Visible-Light Irradiation. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 11215-11220	3.8	119
435	Aspects of the Water Splitting Mechanism on (Ga _{1-x} Zn _x)(N _{1-x} O _x) Photocatalyst Modified with Rh ₂ CrO ₃ Cocatalyst. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 21458-21466	3.8	119
434	Three-dimensionally ordered mesoporous niobium oxide. <i>Journal of the American Chemical Society</i> , 2002 , 124, 11256-7	16.4	118
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163	Core/Shell Photocatalyst with Spatially Separated Co-Catalysts for Efficient Reduction and Oxidation of Water. <i>Angewandte Chemie</i> , 2013 , 125, 11462-11466	3.6	16
162	Polymerized Complex Synthesis of Niobium- and Zirconium-Based Electrocatalysts for PEFC Cathodes. <i>Journal of the Electrochemical Society</i> , 2010 , 157, B240	3.9	16
161	Isotope Exchange Reaction of Formate with Molecular Hydrogen on Ni(110) by IRAS. <i>The Journal of Physical Chemistry</i> , 1996 , 100, 18177-18182		16
160	Synthesis and Photocatalytic Activity of La ₅ Ti ₂ Cu(S _{1-x} Se _x) ₅ O ₇ Solid Solutions for H ₂ Production under Visible Light Irradiation. <i>ChemPhotoChem</i> , 2017 , 1, 265-272	3.3	15
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155	Surface nanostructures in photocatalysts for visible-light-driven water splitting. <i>Topics in Current Chemistry</i> , 2011 , 303, 95-119		15
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152	Enhancement of Charge Separation and Hydrogen Evolution on Particulate LaTiCuSO Photocathodes by Surface Modification. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 375-379	6.4	14
151	Regression model for stabilization energies associated with anion ordering in perovskite-type oxynitrides. <i>Journal of Energy Chemistry</i> , 2019 , 36, 7-14	12	14
150	Stable Hydrogen Production from Water on an NIR-Responsive Photocathode under Harsh Conditions. <i>Small Methods</i> , 2018 , 2, 1800018	12.8	14
149	Effects of Se Incorporation in LaTiCuSO by Annealing on Physical Properties and Photocatalytic H Evolution Activity. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 5595-5601	9.5	14
148	Hydrogen Production by Photocatalytic Water Splitting. <i>Journal of the Japan Petroleum Institute</i> , 2013 , 56, 280-287	1	14
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