

Fuxiang Zhang

List of Publications by Year in descending order

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papers

9,259
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41344

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121
docs citations

121
times ranked

10088
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatial separation of photogenerated electrons and holes among {010} and {110} crystal facets of BiVO ₄ . Nature Communications, 2013, 4, 1432.	12.8	1,458
2	Highly efficient photocatalysts constructed by rational assembly of dual-cocatalysts separately on different facets of BiVO ₄ . Energy and Environmental Science, 2014, 7, 1369-1376.	30.8	491
3	Cobalt-Modified Porous Single-Crystalline LaTiO ₂ N for Highly Efficient Water Oxidation under Visible Light. Journal of the American Chemical Society, 2012, 134, 8348-8351.	13.7	382
4	A Tantalum Nitride Photoanode Modified with a Hole-Storage Layer for Highly Stable Solar Water Splitting. Angewandte Chemie - International Edition, 2014, 53, 7295-7299.	13.8	354
5	Fabrication of TiO ₂ /C ₃ N ₄ heterostructure for enhanced photocatalytic Z-scheme overall water splitting. Applied Catalysis B: Environmental, 2016, 191, 130-137.	20.2	344
6	Interface Engineering of a CoO _x /Ta ₃ N ₅ Photocatalyst for Unprecedented Water Oxidation Performance under Visible-Light Irradiation. Angewandte Chemie - International Edition, 2015, 54, 3047-3051.	13.8	254
7	Efficient Visible-Light-Driven Z-Scheme Overall Water Splitting Using a MgTa ₂ O ₆ /TaON Heterostructure Photocatalyst for H ₂ Evolution. Angewandte Chemie - International Edition, 2015, 54, 8498-8501.	13.8	252
8	Water oxidation on a mononuclear manganese heterogeneous catalyst. Nature Catalysis, 2018, 1, 870-877.	34.4	244
9	High photocatalytic activity and selectivity for nitrogen in nitrate reduction on Ag/TiO catalyst with fine silver clusters. Journal of Catalysis, 2005, 232, 424-431.	6.2	236
10	Size-Controlled Synthesis of Magnetite (Fe ₃ O ₄) Nanoparticles Coated with Glucose and Gluconic Acid from a Single Fe(III) Precursor by a Sucrose Bifunctional Hydrothermal Method. Journal of Physical Chemistry C, 2009, 113, 16002-16008.	3.1	227
11	Spontaneous Phase and Morphology Transformations of Anodized Titania Nanotubes Induced by Water at Room Temperature. Nano Letters, 2011, 11, 3649-3655.	9.1	188
12	Titania supported Pd-Cu bimetallic catalyst for the reduction of nitrate in drinking water. Applied Catalysis B: Environmental, 2003, 46, 341-351.	20.2	169
13	Synergetic Effect of Conjugated Ni(OH) ₂ /IrO ₂ Cocatalyst on Titanium-Doped Hematite Photoanode for Solar Water Splitting. Journal of Physical Chemistry C, 2015, 119, 19607-19612.	3.1	167
14	Visible-Light-Responsive 2D Cadmium-Organic Framework Single Crystals with Dual Functions of Water Reduction and Oxidation. Advanced Materials, 2018, 30, e1803401.	21.0	157
15	Unraveling of cocatalysts photodeposited selectively on facets of BiVO ₄ to boost solar water splitting. Nature Communications, 2022, 13, 484.	12.8	156
16	Surface Strategies for Particulate Photocatalysts toward Artificial Photosynthesis. Joule, 2018, 2, 2260-2288.	24.0	146
17	Scalable Low-Band-Gap Sb ₂ Se ₃ Thin-Film Photocathodes for Efficient Visible-Near-Infrared Solar Hydrogen Evolution. ACS Nano, 2017, 11, 12753-12763.	14.6	127
18	Synthesis of Titania-Supported Platinum Catalyst: The Effect of pH on Morphology Control and Valence State during Photodeposition. Langmuir, 2004, 20, 9329-9334.	3.5	123

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19	Redox-Based Visible-Light-Driven Z-Scheme Overall Water Splitting with Apparent Quantum Efficiency Exceeding 10%. <i>Joule</i> , 2018, 2, 2393-2402.	24.0	121
20	Enhancement of visible-light-driven O ₂ evolution from water oxidation on WO ₃ treated with hydrogen. <i>Journal of Catalysis</i> , 2013, 307, 148-152.	6.2	118
21	Titania-supported bimetallic catalysts for photocatalytic reduction of nitrate. <i>Catalysis Today</i> , 2004, 90, 331-336.	4.4	116
22	Heterostructure of 1D Ta ₃ N ₅ Nanorod/BaTaO ₂ N Nanoparticle Fabricated by a One-Step Ammonia Thermal Route for Remarkably Promoted Solar Hydrogen Production. <i>Advanced Materials</i> , 2019, 31, e1808185.	21.0	115
23	Composite Sr ₂ TiO ₄ /SrTiO ₃ (La,Cr) heterojunction based photocatalyst for hydrogen production under visible light irradiation. <i>Journal of Materials Chemistry A</i> , 2013, 1, 7905.	10.3	114
24	Achievement of visible-light-driven Z-scheme overall water splitting using barium-modified Ta ₃ N ₅ as a H ₂ -evolving photocatalyst. <i>Chemical Science</i> , 2017, 8, 437-443.	7.4	110
25	Water-Stable Nickel Metal-Organic Framework Nanobelts for Cocatalyst-Free Photocatalytic Water Splitting to Produce Hydrogen. <i>Journal of the American Chemical Society</i> , 2022, 144, 2747-2754.	13.7	109
26	Synthesis and Demonstration of Subnanometric Iridium Oxide as Highly Efficient and Robust Water Oxidation Catalyst. <i>ACS Catalysis</i> , 2017, 7, 5983-5986.	11.2	100
27	Unexpected Selective Photocatalytic Reduction of Nitrite to Nitrogen on Silver-Doped Titanium Dioxide. <i>Journal of Physical Chemistry C</i> , 2007, 111, 3756-3761.	3.1	98
28	Photocatalytic reduction of nitrate ion in drinking water by using metal-loaded MgTiO ₃ -TiO ₂ composite semiconductor catalyst. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2004, 162, 585-590.	3.9	89
29	Nitrogen-doped layered oxide Sr ₅ Ta ₄ O ₁₅ ·xN _x for water reduction and oxidation under visible light irradiation. <i>Journal of Materials Chemistry A</i> , 2013, 1, 5651.	10.3	89
30	Control of Morphology of Silver Clusters Coated on Titanium Dioxide during Photocatalysis. <i>Langmuir</i> , 2003, 19, 8230-8234.	3.5	88
31	Selective photocatalytic conversion of glycerol to hydroxyacetaldehyde in aqueous solution on facet tuned TiO ₂ -based catalysts. <i>Chemical Communications</i> , 2014, 50, 165-167.	4.1	83
32	A wide visible-light-responsive tunneled MgTa ₂ O ₆ ·xN _x photocatalyst for water oxidation and reduction. <i>Chemical Communications</i> , 2014, 50, 14415-14417.	4.1	75
33	Size-Dependent Hydrogenation Selectivity of Nitrate on Pd ⁰ /Cu/TiO ₂ Catalysts. <i>Journal of Physical Chemistry C</i> , 2008, 112, 7665-7671.	3.1	72
34	Species, engineering and characterizations of defects in TiO ₂ -based photocatalyst. <i>Chinese Chemical Letters</i> , 2018, 29, 671-680.	9.0	67
35	An artificial photosynthetic system containing an inorganic semiconductor and a molecular catalyst for photocatalytic water oxidation. <i>Journal of Catalysis</i> , 2016, 338, 168-173.	6.2	66
36	Facile Postsynthesis of Visible-Light-Sensitive Titanium Dioxide/Mesoporous SBA-15. <i>Chemistry of Materials</i> , 2007, 19, 3286-3293.	6.7	63

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37	Magnesia interface nanolayer modification of Pt/Ta ₃ N ₅ for promoted photocatalytic hydrogen production under visible light irradiation. <i>Journal of Catalysis</i> , 2016, 339, 77-83.	6.2	62
38	NO SCR with propane and propene on Co-based alumina catalysts prepared by co-precipitation. <i>Applied Catalysis B: Environmental</i> , 2007, 73, 209-219.	20.2	59
39	CoO _x nanoparticle anchored on sulfonated-graphite as efficient water oxidation catalyst. <i>Chemical Science</i> , 2017, 8, 6111-6116.	7.4	59
40	Heterostructured MOFs photocatalysts for water splitting to produce hydrogen. <i>Journal of Energy Chemistry</i> , 2021, 58, 508-522.	12.9	58
41	Band gap engineering of metal-organic frameworks for solar fuel productions. <i>Coordination Chemistry Reviews</i> , 2021, 435, 213785.	18.8	57
42	Nanostructure Engineering and Modulation of (Oxy)Nitrides for Application in Visible-Light-Driven Water Splitting. <i>Advanced Materials</i> , 2021, 33, e2004697.	21.0	55
43	Effect of post-treatments on the photocatalytic activity of Sm ₂ Ti ₂ S ₂ O ₅ for the hydrogen evolution reaction. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 12051.	2.8	53
44	Direct synthesis of zeolite coatings on cordierite supports by in situ hydrothermal method. <i>Applied Catalysis A: General</i> , 2005, 292, 312-321.	4.3	52
45	Catalytic reduction of nitrite ions in drinking water over Pd-Cu/TiO ₂ bimetallic catalyst. <i>Catalysis Today</i> , 2004, 93-95, 333-339.	4.4	51
46	NO selective reduction by hydrogen on potassium titanate supported palladium catalyst. <i>Catalysis Communications</i> , 2008, 9, 1827-1832.	3.3	51
47	Synergetic effect of dual cocatalysts in photocatalytic H ₂ production on Pd-IrO _x /TiO ₂ : a new insight into dual cocatalyst location. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 17734.	2.8	51
48	One-pot synthesis of BaMg _{1/3} Ta _{2/3} O _{3-x} Ny/Ta ₃ N ₅ heterostructures as H ₂ -evolving photocatalysts for construction of visible-light-driven Z-scheme overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2019, 241, 1-7.	20.2	51
49	Electrochemical synthesis of ammonia: Progress and challenges. <i>Materials Today Physics</i> , 2021, 16, 100310.	6.0	50
50	Development of a bismuth-based metal-organic framework for photocatalytic hydrogen production. <i>Chinese Journal of Catalysis</i> , 2019, 40, 1339-1344.	14.0	49
51	Interface Engineering of a CoO _x /Ta ₃ N ₅ Photocatalyst for Unprecedented Water Oxidation Performance under Visible-Light Irradiation. <i>Angewandte Chemie</i> , 2015, 127, 3090-3094.	2.0	48
52	β-Cyclodextrin-Assisted Synthesis of Superparamagnetic Magnetite Nanoparticles from a Single Fe(III) Precursor. <i>Journal of Physical Chemistry C</i> , 2008, 112, 17148-17155.	3.1	46
53	Modification of oxysulfides with two nanoparticulate cocatalysts to achieve enhanced hydrogen production from water with visible light. <i>Chemical Communications</i> , 2010, 46, 7313.	4.1	46
54	Synthesis of BaTaO ₂ N oxynitride from Ba-rich oxide precursor for construction of visible-light-driven Z-scheme overall water splitting. <i>Dalton Transactions</i> , 2017, 46, 10707-10713.	3.3	45

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55	Selective catalytic reduction of NO by propane in excess oxygen over IrCu-ZSM-5 catalyst. <i>Catalysis Communications</i> , 2007, 8, 583-588.	3.3	42
56	Simple and low-cost preparation method for highly dispersed Pd/TiO ₂ catalysts. <i>Catalysis Today</i> , 2004, 93-95, 645-650.	4.4	41
57	Sulfurization-Assisted Cobalt Deposition on Sm ₂ Ti ₂ S ₂ O ₅ Photocatalyst for Water Oxidation under Visible Light Irradiation. <i>Journal of Physical Chemistry C</i> , 2013, 117, 376-382.	3.1	40
58	Visible Light-Responsive N-Doped TiO ₂ Photocatalysis: Synthesis, Characterizations, and Applications. <i>Transactions of Tianjin University</i> , 2022, 28, 33-52.	6.4	40
59	Selective Catalytic Reduction of Nitrogen Oxides from Exhaust of Lean Burn Engine over In-Situ Synthesized Cu ²⁺ /ZSM-5/Cordierite. <i>Environmental Science & Technology</i> , 2005, 39, 2841-2847.	10.0	38
60	Development of Novel Perovskite-Like Oxide Photocatalyst LiCuTa ₃ O ₉ with Dual Functions of Water Reduction and Oxidation under Visible Light Irradiation. <i>Advanced Energy Materials</i> , 2018, 8, 1801660.	19.5	38
61	Development of Mixed-Anion Photocatalysts with Wide Visible-Light Absorption Bands for Solar Water Splitting. <i>ChemSusChem</i> , 2019, 12, 1872-1888.	6.8	36
62	Para-selectivity of modified HZSM-5 zeolites by nitridation for ethylation of ethylbenzene with ethanol. <i>Journal of Molecular Catalysis A</i> , 2006, 248, 220-225.	4.8	34
63	Amorphous Cobalt Oxide Nanoparticles as Active Water-Oxidation Catalysts. <i>ChemCatChem</i> , 2017, 9, 3641-3645.	3.7	34
64	Inhibiting competing reactions of iodate/iodide redox mediators by surface modification of photocatalysts to enable Z-scheme overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2018, 224, 579-585.	20.2	33
65	Synthesis and Characterization of N-doped TiO ₂ Nanowires with Visible Light Response. <i>Catalysis Letters</i> , 2009, 129, 507-512.	2.6	31
66	Insight into the structure and localization of the titania overlayer in TiO ₂ -coated SBA-15 materials. <i>New Journal of Chemistry</i> , 2010, 34, 508.	2.8	31
67	Improvement of the photocatalytic hydrogen evolution activity of Sm ₂ Ti ₂ S ₂ O ₅ under visible light by metal ion additives. <i>Journal of Catalysis</i> , 2011, 280, 1-7.	6.2	31
68	Metal-seed assistant photodeposition of platinum over Ta ₃ N ₅ photocatalyst for promoted solar hydrogen production under visible light. <i>Journal of Energy Chemistry</i> , 2021, 55, 444-448.	12.9	27
69	Using Pd as a Cocatalyst on GaN/ZnO Solid Solution for Visible-Light-Driven Overall Water Splitting. <i>Catalysis Letters</i> , 2018, 148, 933-939.	2.6	26
70	Main Descriptors To Correlate Structures with the Performances of Electrocatalysts. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	25
71	Long-Lived Internal Charge-Separated State in Two-Dimensional Metal-Organic Frameworks Improving Photocatalytic Performance. <i>ACS Energy Letters</i> , 2022, 7, 2323-2330.	17.4	24
72	Synthesis of Anatase TiO ₂ Nanoparticles with β -Cyclodextrin as a Supramolecular Shell. <i>Chemistry - an Asian Journal</i> , 2006, 1, 664-668.	3.3	23

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73	Investigation of cocatalysts on silver-modified Sm ₂ Ti ₂ S ₂ O ₅ photocatalyst for water reduction and oxidation under visible light irradiation. <i>Catalysis Today</i> , 2012, 185, 253-258.	4.4	21
74	Energy Analysis of Cascade Heating with High Back-Pressure Large-Scale Steam Turbine. <i>Energies</i> , 2018, 11, 119.	3.1	21
75	A wide visible light driven complex perovskite Ba(Mg _{1/3} Ta _{2/3})O _{3-x} N _y photocatalyst for water oxidation and reduction. <i>Journal of Materials Chemistry A</i> , 2017, 5, 18870-18877.	10.3	20
76	Strategies and Methods of Modulating Nitrogen-Incorporated Oxide Photocatalysts for Promoted Water Splitting. <i>Accounts of Materials Research</i> , 2022, 3, 449-460.	11.7	20
77	Synthesis and characterization of a basic molecular sieve: Nitrogen-incorporated SAPO-34. <i>Materials Letters</i> , 2006, 60, 3141-3144.	2.6	18
78	Unexpectedly selective hydrogenation of phenylacetylene to styrene on titania supported platinum photocatalyst under 385 nm monochromatic light irradiation. <i>Chinese Journal of Catalysis</i> , 2020, 41, 598-603.	14.0	17
79	Alkali-mediated dissolution-recrystallization strategy for in situ construction of a BiVO ₄ /Bi ₂₅ VO ₄₀ heterojunction with promoted interfacial charge transfer: Formation mechanism and photocatalytic tetracycline degradation studies. <i>Chemical Engineering Journal</i> , 2022, 431, 134181.	12.7	17
80	Application of X-Ray Absorption Spectroscopy in Electrocatalytic Water Splitting and CO ₂ Reduction. <i>Small Science</i> , 2021, 1, 2100023.	9.9	16
81	Titania-Supported Pd-Cu Bimetallic Catalyst for the Reduction of Nitrite Ions in Drinking Water. <i>Catalysis Letters</i> , 2003, 91, 25-30.	2.6	14
82	Physico-chemical characterization of nitrated mesoporous silicon MCM-41. <i>Microporous and Mesoporous Materials</i> , 2010, 135, 2-8.	4.4	14
83	A hydrated amorphous iron oxide nanoparticle as active water oxidation catalyst. <i>Chinese Journal of Catalysis</i> , 2019, 40, 38-42.	14.0	14
84	Water-stable Mn-based MOF nanosheet as robust visible-light-responsive photocatalyst in aqueous solution. <i>Science China Chemistry</i> , 2020, 63, 1756-1760.	8.2	14
85	Synthesis of a Visible-Light-Responsive Perovskite SmTiO ₂ N Bifunctional Photocatalyst via an Evaporation-Assisted Layered Precursor Strategy. <i>Advanced Materials</i> , 2021, 33, e2101883.	21.0	14
86	Heterostructure of Ta ₃ N ₅ nanorods and CaTaO ₂ N nanosheets fabricated using a precursor template to boost water splitting under visible light. <i>Journal of Energy Chemistry</i> , 2022, 67, 27-33.	12.9	14
87	Recent progress on photocatalysts with wide visible light range absorption for heterogeneous water splitting. <i>Chinese Journal of Catalysis</i> , 2014, 35, 1431-1432.	14.0	13
88	Investigation on the Influence of Sc Ions Doping on the Structure and Performance of Ta ₃ N ₅ Photocatalyst for Water Oxidation under Visible Light Irradiation. <i>Solar Rrl</i> , 2020, 4, 1900445.	5.8	13
89	Synthesis of perovskite BaTaO ₂ N with low defect by Zn doping for boosted photocatalytic water reduction. <i>Journal of Energy Chemistry</i> , 2021, 63, 358-363.	12.9	13
90	Synthesis of Nickel Nitride-Based 1D/0D Heterostructure via a Morphology-Inherited Nitridation Strategy for Efficient Electrocatalytic Hydrogen Evolution. <i>Small</i> , 2022, 18, .	10.0	13

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91	Ir/ZSM-5/cordierite monolith for catalytic NO _x reduction from automobile exhaust. Catalysis Communications, 2008, 9, 409-415.	3.3	12
92	Electronic Engineering of ABO ₃ Perovskite Metal Oxides Based on <i>d</i> ⁰ Configuration Metallic Ions toward Photocatalytic Water Splitting under Visible Light. Small Structures, 2022, 3, .	12.0	12
93	Long-lived excited states of platinum(<i>ii</i>)-porphyrins for highly efficient photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 13402-13409.	10.3	12
94	Selective catalytic reduction of nitric oxide with propane over Ni-Al ₂ O ₃ : effect of Ni loading. Reaction Kinetics and Catalysis Letters, 2006, 89, 81-87.	0.6	11
95	Flux-Assisted Synthesis of Prism-like Octahedral Ta ₃ N ₅ Single-Crystals with Controllable Facets for Promoted Photocatalytic H ₂ Evolution. Solar Rrl, 2021, 5, 2000574.	5.8	10
96	Development of Sn ²⁺ -based oxyfluoride photocatalyst with visible light response of ca. 650 nm via strengthened hybridization of Sn 5s and O 2p orbitals. Journal of Energy Chemistry, 2021, 63, 385-390.	12.9	9
97	Water-Stable Cobalt-Based MOF for Water Oxidation in Neutral Aqueous Solution: A Case of Mimicking the Photosystem II. Inorganic Chemistry, 2021, 60, 1790-1796.	4.0	8
98	Homogeneous nitrogen-doped (111)-type layered Sr ₅ Nb ₄ O ₁₅ ·xN _x as a visible-light-responsive photocatalyst for water oxidation. Nano Research, 2022, 15, 9976-9984.	10.4	8
99	Engineering Efficient Ni _x /CNT Hybrid Nanostructures for pH-Universal Oxygen Evolution. Journal of Physical Chemistry C, 2021, 125, 26003-26012.	3.1	6
100	Understanding the morphology evolution of 1D BiVO ₄ nanoarrays from nanorods to nanocones with enhanced photocatalytic performance. CrystEngComm, 2022, 24, 3297-3306.	2.6	6
101	Defect Management of SrNbO ₂ N through Zn Modification for Promoted Photocatalytic Water Oxidation. Energy & Fuels, 2022, 36, 11477-11484.	5.1	6
102	Photocatalytic Water Splitting for Hydrogen Production. Acta Chimica Sinica, 2022, 80, 827.	1.4	6
103	Sub-2 nm cobalt oxide cluster catalyst supported on alumina for efficient water oxidation. Applied Catalysis A: General, 2016, 521, 154-159.	4.3	5
104	Overall water splitting over conjugated polymer photocatalysts with crystal facets modulated. Science China Chemistry, 2020, 63, 1582-1583.	8.2	5
105	Artificial Photosynthesis near the Biological Limit. Joule, 2020, 4, 1364-1366.	24.0	5
106	Main Descriptors To Correlate Structures with the Performances of Electrocatalysts. Angewandte Chemie, 2022, 134, .	2.0	5
107	Influences of Mesoporous Structure on the NO+H ₂ +O ₂ Low Temperature Reaction over Pt/Si-MCM-41 Catalyst. Acta Physico-chimica Sinica, 2008, 24, 369-374.	0.6	4
108	Semiconductor monolayer assemblies with oriented crystal faces. CrystEngComm, 2012, 14, 59-62.	2.6	4

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109	Reversed configuration of photocatalyst to exhibit improved properties of basic processes compared to conventional one. <i>Science China Chemistry</i> , 2020, 63, 771-776.	8.2	4
110	Tip-induced directional charge separation on one-dimensional BiVO ₄ nanocones for asymmetric light absorption. <i>Journal of Energy Chemistry</i> , 2022, 72, 326-332.	12.9	4
111	Synthesis of a novel nitrogen-doped K ₂ Ti ₆ O ₁₃ nanorod with visible-light-driven water splitting performance promoted by fabrication of 1D/2D heterostructure. <i>Applied Surface Science</i> , 2022, 581, 152345.	6.1	3
112	Semiconductor-Based Photocatalytic Water Splitting. <i>Lecture Notes in Energy</i> , 2016, , 299-317.	0.3	2
113	Dual-Modified Hollow Spherical Shell MoS ₂ @TiO ₂ /TiN Composites for Photocatalytic Hydrogen Production. <i>Energy Technology</i> , 0, , 2100265.	3.8	2
114	Density Functional Theory Study of Nitridation of ZSM-5 Zeolite. <i>Chinese Journal of Catalysis</i> , 2008, 29, 203-205.	14.0	1
115	Nitrided BaO-MCM-41 as a new mesoporous basic material. <i>Studies in Surface Science and Catalysis</i> , 2007, 165, 91-94.	1.5	0
116	Modification of Sm ₂ Ti ₂ S ₂ O ₅ with two cocatalysts for remarkably enhanced hydrogen production from water using visible light. , 2010, , .		0