Jae Sung Lee

List of Publications by Year
in descending order

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244	23,195	5268	8866
papers	citations	83 h-index	145 g-index

250	250	250	22757
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heterojunction BiVO4/WO3 electrodes for enhanced photoactivity of water oxidation. Energy and Environmental Science, 2011, 4, 1781.	30.8	1,068
2	Toward practical solar hydrogen production â€“ an artificial photosynthetic leaf-to-farm challenge. Chemical Society Reviews, 2019, 48, 1908-1971.	38.1	781
3	Single-crystalline, wormlike hematite photoanodes for efficient solar water splitting. Scientific Reports, 2013, 3, 2681.	3.3	580
4	Cross-modal plasticity and cochlear implants. Nature, 2001, 409, 149-150.	27.8	575
5	An Undoped, Single-Phase Oxide Photocatalyst Working under Visible Light. Journal of the American Chemical Society, 2004, 126, 8912-8913.	13.7	536
6	Highly Active and Stable Hydrogen Evolution Electrocatalysts Based on Molybdenum Compounds on Carbon Nanotubeâ€“Graphene Hybrid Support. ACS Nano, 2014, 8, 5164-5173.	14.6	531
7	Boosting the performance of Cu2O photocathodes for unassisted solar water splitting devices. Nature Catalysis, 2018, 1, 412-420.	34.4	489
8	Phosphate Doping into Monoclinic BiVO₄ for Enhanced Photoelectrochemical Water Oxidation Activity. Angewandte Chemie - International Edition, 2012, 51, 3147-3151.	13.8	435
9	Solvothermal Synthesis of CdS Nanowires for Photocatalytic Hydrogen and Electricity Production. Journal of Physical Chemistry C, 2007, 111, 13280-13287.	3.1	400
10	Fabrication of ZnO/CdS core/shell nanowire arrays for efficient solar energy conversion. Journal of Materials Chemistry, 2009, 19, 5945.	6.7	393
11	Effects of Pretreatment Conditions on CO Oxidation over Supported Au Catalysts. Journal of Catalysis, 1999, 186, 1-11.	6.2	392
12	Transition Metal Carbides and Nitrides as Electrode Materials for Low Temperature Fuel Cells. Energies, 2009, 2, 873-899.	3.1	372
13	Elaborately Modified BiVO₄ Photoanodes for Solar Water Splitting. Advanced Materials, 2019, 31, e1806938.	21.0	333
14	Efficient Hydrogen Evolution Reaction Catalysis in Alkaline Media by Allâ€inâ€One MoS₂ with Multifunctional Active Sites. Advanced Materials, 2018, 30, e1707105.	21.0	321
15	Photocatalytic and Photoelectrochemical Water Oxidation over Metalâ€Doped Monoclinic BiVO₄ Photoanodes. ChemSusChem, 2012, 5, 1926-1934.	6.8	311
16	Nafion/Sulfonated Montmorillonite Composite:Â A New Concept Electrolyte Membrane for Direct Methanol Fuel Cells. Chemistry of Materials, 2005, 17, 1691-1697.	6.7	286
17	Fabrication of CaFe₂O₄/TaON Heterojunction Photoanode for Photoelectrochemical Water Oxidation. Journal of the American Chemical Society, 2013, 135, 5375-5383.	13.7	282
18	Heterojunction semiconductors: A strategy to develop efficient photocatalytic materials for visible light water splitting. Catalysis Today, 2012, 185, 270-277.	4.4	277

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19	Hetero-type dual photoanodes for unbiased solar water splitting with extended light harvesting. Nature Communications, 2016, 7, 13380.	12.8	263
20	Tungsten Carbide Microspheres as a Noble-Metal-Economic Electrocatalyst for Methanol Oxidation. Angewandte Chemie - International Edition, 2005, 44, 6557-6560.	13.8	257
21	Synthesis of hexagonal WO₃nanowires by microwave-assisted hydrothermal method and their electrocatalytic activities for hydrogen evolution reaction. Journal of Materials Chemistry, 2010, 20, 1683-1690.	6.7	253
22	Photocatalytic Hydrogen Production from Water over M-Doped La2Ti2O7(M = Cr, Fe) under Visible Light Irradiation (Î» > 420 nm)â€. Journal of Physical Chemistry B, 2005, 109, 2093-2102.	2.6	237
23	Carbon dioxide Fischer-Tropsch synthesis: A new path to carbon-neutral fuels. Applied Catalysis B: Environmental, 2017, 202, 605-610.	20.2	230
24	Fabrication of CaFe2O4/MgFe2O4 bulk heterojunction for enhanced visible light photocatalysis. Chemical Communications, 2009, , 5889.	4.1	220
25	Wireless Solar Water Splitting Device with Robust Cobalt-Catalyzed, Dual-Doped BiVO₄ Photoanode and Perovskite Solar Cell in Tandem: A Dual Absorber Artificial Leaf. ACS Nano, 2015, 9, 11820-11829.	14.6	219
26	Size effects of WO3 nanocrystals for photooxidation of water in particulate suspension and photoelectrochemical film systems. International Journal of Hydrogen Energy, 2009, 34, 3234-3242.	7.1	218
27	Platinum-free tungsten carbides as an efficient counter electrode for dye sensitized solar cells. Chemical Communications, 2010, 46, 8600.	4.1	215
28	Recycling Carbon Dioxide through Catalytic Hydrogenation: Recent Key Developments and Perspectives. ACS Catalysis, 2020, 10, 11318-11345.	11.2	215
29	Sulfur and Nitrogen Dual-Doped Molybdenum Phosphide Nanocrystallites as an Active and Stable Hydrogen Evolution Reaction Electrocatalyst in Acidic and Alkaline Media. ACS Catalysis, 2017, 7, 3030-3038.	11.2	210
30	Electronic Band Structure and Photocatalytic Activity of Ln2Ti2O7 (Ln = La, Pr, Nd). Journal of Physical Chemistry B, 2003, 107, 4963-4970.	2.6	207
31	Highly Conformal Deposition of an Ultrathin FeOOH Layer on a Hematite Nanostructure for Efficient Solar Water Splitting. Angewandte Chemie - International Edition, 2016, 55, 10854-10858.	13.8	200
32	Optimization of CdS/TiO2 nano-bulk composite photocatalysts for hydrogen production from Na2S/Na2SO3 aqueous electrolyte solution under visible light (Î»â‰¥420nm). Journal of Photochemistry and Photobiology A: Chemistry, 2007, 188, 112-119.	3.9	188
33	Location and State of Pt in Platinized CdS/TiO₂ Photocatalysts for Hydrogen Production from Water under Visible Light. Journal of Physical Chemistry C, 2008, 112, 17200-17205.	3.1	188
34	Photocatalytic Water Splitting Under Visible Light with Particulate Semiconductor Catalysts. Catalysis Surveys From Asia, 2005, 9, 217-227.	2.6	187
35	Mg-Doped WO3 as a Novel Photocatalyst for Visible Light-Induced Water Splitting. Catalysis Letters, 2002, 80, 53-57.	2.6	186
36	Bifunctional sulfur-doped cobalt phosphide electrocatalyst outperforms all-noble-metal electrocatalysts in alkaline electrolyzer for overall water splitting. Nano Energy, 2018, 53, 286-295.	16.0	184

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37	One-pot synthesis of NiFe layered double hydroxide/reduced graphene oxide composite as an efficient electrocatalyst for electrochemical and photoelectrochemical water oxidation. Journal of Power Sources, 2015, 294, 437-443.	7.8	183
38	Defective ZnFe₂O₄ nanorods with oxygen vacancy for photoelectrochemical water splitting. Nanoscale, 2015, 7, 19144-19151.	5.6	183
39	Carbon-doped ZnO nanostructures synthesized using vitamin C for visible light photocatalysis. CrystEngComm, 2010, 12, 3929.	2.6	175
40	Fabrication of CdS/TiO2 nano-bulk composite photocatalysts for hydrogen production from aqueous H2S solution under visible light. Chemical Physics Letters, 2006, 425, 278-282.	2.6	168
41	Selective CO production by Au coupled ZnTe/ZnO in the photoelectrochemical CO₂reduction system. Energy and Environmental Science, 2015, 8, 3597-3604.	30.8	152
42	Recent theoretical progress in the development of photoanode materials for solar water splitting photoelectrochemical cells. Journal of Materials Chemistry A, 2015, 3, 10632-10659.	10.3	146
43	Key Strategies to Advance the Photoelectrochemical Water Splitting Performance of Î±â€Fe₂O₃ Photoanode. ChemCatChem, 2019, 11, 157-179.	3.7	135
44	Benchmark performance of low-cost Sb2Se3 photocathodes for unassisted solar overall water splitting. Nature Communications, 2020, 11, 861.	12.8	135
45	Gradient tantalum-doped hematite homojunction photoanode improves both photocurrents and turn-on voltage for solar water splitting. Nature Communications, 2020, 11, 4622.	12.8	133
46	Unbiased Sunlight-Driven Artificial Photosynthesis of Carbon Monoxide from CO₂ Using a ZnTe-Based Photocathode and a Perovskite Solar Cell in Tandem. ACS Nano, 2016, 10, 6980-6987.	14.6	128
47	A highly efficient transition metal nitride-based electrocatalyst for oxygen reduction reaction: TiN on a CNTâ€“graphene hybrid support. Journal of Materials Chemistry A, 2013, 1, 8007.	10.3	126
48	Boron- and Nitrogen-Codoped Molybdenum Carbide Nanoparticles Imbedded in a BCN Network as a Bifunctional Electrocatalyst for Hydrogen and Oxygen Evolution Reactions. ACS Catalysis, 2018, 8, 8296-8305.	11.2	126
49	Highly Efficient Overall Water Splitting Through Optimization of Preparation and Operation Conditions of Layered Perovskite Photocatalysts. Topics in Catalysis, 2005, 35, 295-303.	2.8	125
50	Mn-Promoted Ni/Al2O3 Catalysts for Stable Carbon Dioxide Reforming of Methane. Journal of Catalysis, 2002, 209, 6-15.	6.2	124
51	Platinized mesoporous tungsten carbide for electrochemical methanol oxidation. Electrochemistry Communications, 2007, 9, 2576-2579.	4.7	122
52	Barium Substituted Lanthanum Manganite Perovskite for CO₂ Reforming of Methane. ACS Catalysis, 2013, 3, 1537-1544.	11.2	121
53	Research Update: Strategies for efficient photoelectrochemical water splitting using metal oxide photoanodes. APL Materials, 2014, 2, .	5.1	120
54	Stable carbon dioxide reforming of methane over modified Ni/Al2O3 catalysts. Catalysis Letters, 1998, 52, 43-47.	2.6	118

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55	Photocatalytic hydrogen production from natural seawater. Journal of Photochemistry and Photobiology A: Chemistry, 2007, 189, 141-144.	3.9	117
56	Phase transition-induced band edge engineering of BiVO ₄ to split pure water under visible light. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13774-13778.	7.1	116
57	Role of platinum-like tungsten carbide as cocatalyst of CdS photocatalyst for hydrogen production under visible light irradiation. Applied Catalysis A: General, 2008, 346, 149-154.	4.3	115
58	Improved Photoelectrochemical Activity of CaFe₂O₄/BiVO₄ Heterojunction Photoanode by Reduced Surface Recombination in Solar Water Oxidation. ACS Applied Materials & Interfaces, 2014, 6, 17762-17769.	8.0	114
59	Activating MoS₂ Basal Plane with Ni₂P Nanoparticles for Ptâ€Like Hydrogen Evolution Reaction in Acidic Media. Advanced Functional Materials, 2019, 29, 1809151.	14.9	114
60	Covalent 0Dâ€“2D Heterostructuring of Co₉S₈â€“MoS₂ for Enhanced Hydrogen Evolution in All pH Electrolytes. Advanced Functional Materials, 2020, 30, 2002536.	14.9	114
61	Carbonate-coordinated cobalt co-catalyzed BiVO4/WO3 composite photoanode tailored for CO2 reduction to fuels. Nano Energy, 2015, 15, 153-163.	16.0	113
62	Oxygen-Intercalated CuFeO₂ Photocathode Fabricated by Hybrid Microwave Annealing for Efficient Solar Hydrogen Production. Chemistry of Materials, 2016, 28, 6054-6061.	6.7	113
63	Photocatalytic Water Splitting over La₂Ti₂O₇Synthesized by the Polymerizable Complex Method. Catalysis Letters, 2003, 91, 193-198.	2.6	112
64	Overall Photoelectrochemical Water Splitting using Tandem Cell under Simulated Sunlight. ChemSusChem, 2016, 9, 61-66.	6.8	112
65	A Stable and Efficient Hematite Photoanode in a Neutral Electrolyte for Solar Water Splitting: Towards Stability Engineering. Advanced Energy Materials, 2014, 4, 1400476.	19.5	110
66	Reduced perovskite LaNiO3 catalysts modified with Co and Mn for low coke formation in dry reforming of methane. Applied Catalysis A: General, 2019, 575, 198-203.	4.3	107
67	Highly Efficient and Stable Cadmium Chalcogenide Quantum Dot/ZnO Nanowires for Photoelectrochemical Hydrogen Generation. Chemistry of Materials, 2013, 25, 184-189.	6.7	106
68	Photocatalytic hydrogen production from waterâ€“methanol mixtures using N-doped Sr2Nb2O7under visible light irradiation: effects of catalyst structure. Physical Chemistry Chemical Physics, 2005, 7, 1315-1321.	2.8	104
69	Immiscible bi-metal single-atoms driven synthesis of electrocatalysts having superb mass-activity and durability. Applied Catalysis B: Environmental, 2020, 270, 118896.	20.2	102
70	Catalytic CO₂ hydrogenation to formic acid over carbon nanotube-graphene supported PdNi alloy catalysts. RSC Advances, 2015, 5, 105560-105566.	3.6	99
71	Encapsulating Iridium Nanoparticles Inside a 3D Cageâ€Like Organic Network as an Efficient and Durable Catalyst for the Hydrogen Evolution Reaction. Advanced Materials, 2018, 30, e1805606.	21.0	98
72	BiVO₄-Based Heterostructured Photocatalysts for Solar Water Splitting: A Review. Energy and Environment Focus, 2014, 3, 339-353.	0.3	96

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73	Photoelectrochemical Water Splitting with pâ€Type Metal Oxide Semiconductor Photocathodes. ChemSusChem, 2019, 12, 1835-1845.	6.8	96
74	Awakening Solar Waterâ€Splitting Activity of ZnFe₂O₄ Nanorods by Hybrid Microwave Annealing. Advanced Energy Materials, 2015, 5, 1401933.	19.5	95
75	Cobalt Ferrite Nanoparticles to Form a Catalytic Coâ€“Fe Alloy Carbide Phase for Selective CO₂ Hydrogenation to Light Olefins. ACS Catalysis, 2020, 10, 8660-8671.	11.2	95
76	Rhodium and Iridium Nanoparticles Entrapped in Aluminum Oxyhydroxide Nanofibers: Catalysts for Hydrogenations of Arenes and Ketones at Room Temperature with Hydrogen Balloon. Advanced Synthesis and Catalysis, 2007, 349, 2039-2047.	4.3	94
77	Pt/WC as an anode catalyst for PEMFC: Activity and CO tolerance. Catalysis Today, 2008, 132, 117-122.	4.4	92
78	Aqueousâ€Solution Route to Zinc Telluride Films for Application to CO₂ Reduction. Angewandte Chemie - International Edition, 2014, 53, 5852-5857.	13.8	91
79	Tree branch-shaped cupric oxide for highly effective photoelectrochemical water reduction. Nanoscale, 2015, 7, 7624-7631.	5.6	90
80	Bifunctional TiO₂ underlayer for Î±-Fe₂O₃ nanorod based photoelectrochemical cells: enhanced interface and Ti⁴⁺ doping. Journal of Materials Chemistry A, 2015, 3, 5007-5013.	10.3	90
81	Sodiumâ€Containing Spinel Zinc Ferrite as a Catalyst Precursor for the Selective Synthesis of Liquid Hydrocarbon Fuels. ChemSusChem, 2017, 10, 4764-4770.	6.8	89
82	Grapheneâ€“carbon nanotube composite as an effective conducting scaffold to enhance the photoelectrochemical water oxidation activity of a hematite film. RSC Advances, 2012, 2, 9415.	3.6	88
83	Photoelectrochemical water splitting over ordered honeycomb hematite electrodes stabilized by alumina shielding. Energy and Environmental Science, 2012, 5, 6375-6382.	30.8	86
84	Anionâ€Doped Mixed Metal Oxide Nanostructures Derived from Layered Double Hydroxide as Visible Light Photocatalysts. Advanced Functional Materials, 2013, 23, 2348-2356.	14.9	86
85	A versatile photoanode-driven photoelectrochemical system for conversion of CO2 to fuels with high faradaic efficiencies at low bias potentials. Journal of Materials Chemistry A, 2014, 2, 2044.	10.3	85
86	Moâ€Compound/CNTâ€Graphene Composites as Efficient Catalytic Electrodes for Quantumâ€Dotâ€Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1300775.	19.5	84
87	Nanocomposite membranes of surface-sulfonated titanate and NafionÂ® for direct methanol fuel cells. Journal of Power Sources, 2006, 159, 1015-1024.	7.8	83
88	Ultrafast synthesis of MoS2 or WS2-reduced graphene oxide composites via hybrid microwave annealing for anode materials of lithium ion batteries. Journal of Power Sources, 2015, 295, 228-234.	7.8	82
89	BCN network-encapsulated multiple phases of molybdenum carbide for efficient hydrogen evolution reactions in acidic and alkaline media. Journal of Materials Chemistry A, 2017, 5, 13122-13129.	10.3	82
90	Three Birds, Oneâ€Stone Strategy for Hybrid Microwave Synthesis of Ta and Sn Codoped Fe₂O₃@FeTaO₄ Nanorods for Photoâ€Electrochemical Water Oxidation. Advanced Functional Materials, 2019, 29, 1805737.	14.9	79

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91	Fabrication of graphene-based electrode in less than a minute through hybrid microwave annealing. Scientific Reports, 2014, 4, 5492.	3.3	76
92	The role of MnO in Ni/MnO-Al2O3 catalysts for carbon dioxide reforming of methane. Applied Catalysis A: General, 2001, 215, 31-38.	4.3	74
93	CaFe2O4 sensitized hierarchical TiO2 photo composite for hydrogen production under solar light irradiation. Chemical Engineering Journal, 2014, 247, 152-160.	12.7	73
94	Sulfur-Doped Dicobalt Phosphide Outperforming Precious Metals as a Bifunctional Electrocatalyst for Alkaline Water Electrolysis. Chemistry of Materials, 2018, 30, 8861-8870.	6.7	71
95	CdSâ€“AgGaS2 photocatalytic diodes for hydrogen production from aqueous Na2S/Na2SO3 electrolyte solution under visible light (Î»â‰¥420nm). Catalysis Today, 2007, 120, 174-181.	4.4	70
96	Inverse opal structured Î±-Fe2O3 on graphene thin films: enhanced photo-assisted water splitting. Nanoscale, 2013, 5, 1939.	5.6	70
97	Nickel-loaded La2Ti2O7 as a bifunctional photocatalyst. Chemical Communications, 2002, , 2488-2489.	4.1	69
98	Nanostructure-Preserved Hematite Thin Film for Efficient Solar Water Splitting. ACS Applied Materials & Interfaces, 2015, 7, 14123-14129.	8.0	69
99	Freeze-dried MoS₂ sponge electrodes for enhanced electrochemical energy storage. Dalton Transactions, 2017, 46, 2122-2128.	3.3	67
100	Effects of Transition Metal Addition on the Solid-State Transformation of Molybdenum Trioxide to Molybdenum Carbides. Chemistry of Materials, 2004, 16, 307-314.	6.7	66
101	Photocatalytic Ohmic layered nanocomposite for efficient utilization of visible light photons. Applied Physics Letters, 2006, 89, 064103.	3.3	66
102	Dopant dependent band gap tailoring of hydrothermally prepared cubic SrTixM1â^'xO3 (M=Ru,Rh,Ir,Pt,Pd) nanoparticles as visible light photocatalysts. Applied Physics Letters, 2008, 92, 104107.	3.3	66
103	Amorphous MoS_xthin-film-coated carbon fiber paper as a 3D electrode for long cycle life symmetric supercapacitors. Nanoscale, 2016, 8, 11787-11791.	5.6	66
104	Development of Korean Standard Brain Templates. Journal of Korean Medical Science, 2005, 20, 483.	2.5	65
105	Palladium oxide as a novel oxygen evolution catalyst on BiVO4 photoanode for photoelectrochemical water splitting. Journal of Catalysis, 2014, 317, 126-134.	6.2	65
106	Solar Water Splitting: Elaborately Modified BiVO₄ Photoanodes for Solar Water Splitting (Adv. Mater. 20/2019). Advanced Materials, 2019, 31, 1970146.	21.0	64
107	Palladiumâ€“nickel alloys loaded on tungsten carbide as platinum-free anode electrocatalysts for polymer electrolyte membrane fuel cells. Chemical Communications, 2011, 47, 5792.	4.1	62
108	Charge transfer in iron oxide photoanode modified with carbon nanotubes for photoelectrochemical water oxidation: An electrochemical impedance study. International Journal of Hydrogen Energy, 2011, 36, 9462-9468.	7.1	62

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109	One-Pot Defunctionalization of Lignin-Derived Compounds by Dual-Functional Pd₅₀Ag₅₀/Fe₃O₄/N-rGO Catalyst. ACS Catalysis, 2015, 5, 6964-6972.	11.2	62
110	New sulfonic acid moiety grafted on montmorillonite as filler of organicâ€“inorganic composite membrane for non-humidified proton-exchange membrane fuel cells. Journal of Power Sources, 2010, 195, 4653-4659.	7.8	61
111	Ferrites: emerging light absorbers for solar water splitting. Journal of Materials Chemistry A, 2020, 8, 9447-9482.	10.3	61
112	Montmorillonite functionalized with perfluorinated sulfonic acid for proton-conducting organicâ€“inorganic composite membranes. Journal of Power Sources, 2006, 162, 180-185.	7.8	60
113	A highly active and stable palladium catalyst on a g-C₃N₄ support for direct formic acid synthesis under neutral conditions. Chemical Communications, 2016, 52, 14302-14305.	4.1	60
114	The Preparation and Characterisation of Pdâ€“ZnO Catalysts for Methanol Synthesis. Topics in Catalysis, 2003, 22, 319-324.	2.8	59
115	Highly loaded PbS/Mn-doped CdS quantum dots for dual application in solar-to-electrical and solar-to-chemical energy conversion. Applied Catalysis B: Environmental, 2018, 227, 409-417.	20.2	59
116	A Few Atomic FeNbO₄ Overlayers on Hematite Nanorods: Microwave-Induced High Temperature Phase for Efficient Photoelectrochemical Water Splitting. ACS Catalysis, 2019, 9, 1289-1297.	11.2	58
117	Engineered Nanorod Perovskite Film Photocatalysts to Harvest Visible Light. Advanced Materials, 2011, 23, 2088-2092.	21.0	57
118	Activating the surface and bulk of hematite photoanodes to improve solar water splitting. Chemical Science, 2019, 10, 10436-10444.	7.4	57
119	Phase and photoelectrochemical behavior of solution-processed Fe2O3 nanocrystals for oxidation of water under solar light. Applied Physics Letters, 2008, 93, .	3.3	56
120	All-in-one synthesis of mesoporous silicon nanosheets from natural clay and their applicability to hydrogen evolution. NPG Asia Materials, 2016, 8, e248-e248.	7.9	56
121	Photocatalytic Degradation of CH3Cl over a Nickel-Loaded Layered Perovskite. Industrial & Engineering Chemistry Research, 2003, 42, 1184-1189.	3.7	54
122	Effects of Copper Phase on CO Oxidation over Supported Wacker-Type Catalysts. Journal of Catalysis, 1998, 180, 123-131.	6.2	53
123	Rutheniumâ€Catalyzed, Oneâ€Pot Alcohol Oxidationâ€“Wittig Reaction Producing Î±,Î²â€Unsaturated Esters. European Journal of Organic Chemistry, 2009, 2009, 2943-2946.	2.4	53
124	Direct synthesis of sulfonated mesoporous silica as inorganic fillers of proton-conducting organicâ€“inorganic composite membranes. Journal of Membrane Science, 2010, 357, 199-205.	8.2	52
125	Engineering Highly Ordered Iron Titanate Nanotube Array Photoanodes for Enhanced Solar Water Splitting Activity. Advanced Functional Materials, 2017, 27, 1702428.	14.9	52
126	A multitude of modifications strategy of ZnFe2O4 nanorod photoanodes for enhanced photoelectrochemical water splitting activity. Journal of Materials Chemistry A, 2018, 6, 12693-12700.	10.3	52

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127	Photocatalytic overall water splitting with dual-bed system under visible light irradiation. International Journal of Hydrogen Energy, 2009, 34, 3243-3249.	7.1	51
128	TiN Nanoparticles on CNTâ€“Graphene Hybrid Support as Nobleâ€Metalâ€Free Counter Electrode for Quantumâ€Dotâ€Sensitized Solar Cells. ChemSusChem, 2013, 6, 261-267.	6.8	51
129	Nanomaterials for photocatalytic hydrogen production: from theoretical perspectives. RSC Advances, 2017, 7, 34875-34885.	3.6	51
130	A precious metal-free solar water splitting cell with a bifunctional cobalt phosphide electrocatalyst and doubly promoted bismuth vanadate photoanode. Journal of Materials Chemistry A, 2018, 6, 1266-1274.	10.3	51
131	In situ carburization of metallic molybdenum during catalytic reactions of carbon-containing gases. Catalysis Letters, 1993, 20, 97-106.	2.6	50
132	Effect of Zr Substitution for Ti in KLaTiO4 for Photocatalytic Water Splitting. Catalysis Letters, 2003, 90, 39-43.	2.6	48
133	Coke tolerance of Ni/Al₂O₃ nanosheet catalyst for dry reforming of methane. Catalysis Science and Technology, 2016, 6, 2060-2064.	4.1	47
134	Photocatalytic water splitting over ZrO2 prepared by precipitation method. Korean Journal of Chemical Engineering, 2003, 20, 1026-1029.	2.7	46
135	Improved activity and coke resistance by promoters of nanosized trimetallic catalysts for autothermal carbon dioxide reforming of methane. Applied Catalysis A: General, 2013, 450, 63-72.	4.3	46
136	Selective Formation of HÃgg Iron Carbide with gâ€₃N₄ as a Sacrificial Support for Highly Active Fischerâ€“Tropsch Synthesis. ChemCatChem, 2015, 7, 3488-3494.	3.7	46
137	Nitrogen-doped carbon nanotubeâ€“graphene hybrid stabilizes MxN (Mâ€¯=â€¯Fe, Co) nanoparticles for efficient oxygen reduction reaction. Applied Catalysis B: Environmental, 2020, 268, 118415.	20.2	46
138	Precipitating Metal Nitrate Deposition of Amorphous Metal Oxyhydroxide Electrodes Containing Ni, Fe, and Co for Electrocatalytic Water Oxidation. ACS Catalysis, 2019, 9, 9650-9662.	11.2	43
139	A Composite Photocatalyst of CdS Nanoparticles Deposited on TiO2 Nanosheets. Journal of Nanoscience and Nanotechnology, 2006, 6, 3642-3646.	0.9	42
140	Metalâ€Free Artificial Photosynthesis of Carbon Monoxide Using Nâ€Doped ZnTe Nanorod Photocathode Decorated with Nâ€Doped Carbon Electrocatalyst Layer. Advanced Energy Materials, 2018, 8, 1702636.	19.5	42
141	Supported PdCl2î—¸CuCl2 catalysts for carbon monoxide oxidation 1. Effects of catalyst composition and reaction conditions. Applied Catalysis B: Environmental, 1994, 5, 103-115.	20.2	41
142	Controlled Gd2O3 nanorods and nanotubes by the annealing of Gd(OH)3 nanorod and nanotube precursors and self-templates produced by a microwave-assisted hydrothermal process. CrystEngComm, 2010, 12, 2962.	2.6	40
143	Solution-based fabrication of ZnO/ZnSe heterostructure nanowire arrays for solar energy conversion. Journal of Materials Chemistry, 2011, 21, 17816.	6.7	40
144	Ultrafast fabrication of highly active BiVO₄photoanodes by hybrid microwave annealing for unbiased solar water splitting. Nanoscale, 2016, 8, 17623-17631.	5.6	40

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145	Thermal and chemical stability of titanium-substituted MCM-41. Catalysis Letters, 1996, 40, 261-264.	2.6	39
146	Formation of Hierarchical Pore Structures in Zn/ZSMâ€5 to Improve the Catalyst Stability in the Aromatization of Branched Olefins. ChemCatChem, 2012, 4, 1143-1153.	3.7	39
147	Vertically Aligned Coreâ€“Shell PbTiO₃@TiO₂ Heterojunction Nanotube Array for Photoelectrochemical and Photocatalytic Applications. Journal of Physical Chemistry C, 2017, 121, 15063-15070.	3.1	39
148	Molybdenum Nitride and Carbide Prepared from Heteropolyacid. Journal of Catalysis, 1998, 178, 119-136.	6.2	38
149	The fabrication of highly uniform ZnO/CdS core/shell structures using a spin-coating-based successive ion layer adsorption and reaction method. Nanotechnology, 2010, 21, 325604.	2.6	38
150	Fabrication of a Vertically Aligned Ferroelectric Perovskite Nanowire Array on Conducting Substrate. Chemistry of Materials, 2010, 22, 4806-4813.	6.7	37
151	An exceptionally facile method to produce layered double hydroxides on a conducting substrate and their application for solar water splitting without an external bias. Energy and Environmental Science, 2014, 7, 2301.	30.8	37
152	Solar Hydrogen Production from Zinc Telluride Photocathode Modified with Carbon and Molybdenum Sulfide. ACS Applied Materials & Interfaces, 2016, 8, 7748-7755.	8.0	37
153	Molecularly Engineered Carbon Platform To Anchor Edge-Hosted Single-Atomic Mâ€“N/C (M = Fe, Co, Ni,) Tj ETQq1 1 0.784314 rgBT /O	11.2	36
154	One-dimensional CuIn alloy nanowires as a robust and efficient electrocatalyst for selective CO2-to-CO conversion. Journal of Power Sources, 2018, 378, 412-417.	7.8	35
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