Kazuhiro Takanabe

List of Publications by Citations

200 papers	23,764 citations	55 h-index	153 g-index
213 ext. papers	26,776 ext. citations	7.8 avg, IF	7.29 L-index

#	Paper	IF	Citations
200	A metal-free polymeric photocatalyst for hydrogen production from water under visible light. *Nature Materials*, **2009**, 8, 76-80	27	8489
199	Polymer semiconductors for artificial photosynthesis: hydrogen evolution by mesoporous graphitic carbon nitride with visible light. *Journal of the American Chemical Society*, **2009**, 131, 1680-1	16.4	1418
198	Insight on Tafel slopes from a microkinetic analysis of aqueous electrocatalysis for energy conversion. *Scientific Reports*, **2015**, 5, 13801	4.9	1315
197	Synthesis of a carbon nitride structure for visible-light catalysis by copolymerization. *Angewandte Chemie - International Edition*, **2010**, 49, 441-4	16.4	1118
196	Accelerating materials development for photoelectrochemical hydrogen production: Standards for methods, definitions, and reporting protocols. *Journal of Materials Research*, **2010**, 25, 3-16	2.5	893
195	Photocatalytic Water Splitting: Quantitative Approaches toward Photocatalyst by Design. *ACS Catalysis*, **2017**, 7, 8006-8022	13.1	424
194	Ordered Mesoporous SBA-15 Type Graphitic Carbon Nitride: A Semiconductor Host Structure for Photocatalytic Hydrogen Evolution with Visible Light. *Chemistry of Materials*, **2009**, 21, 4093-4095	9.6	358
193	Chemisorption of CO and mechanism of CO oxidation on supported platinum nanoclusters. *Journal of the American Chemical Society*, **2011**, 133, 4498-517	16.4	346
192	A highly selective copper-indium bimetallic electrocatalyst for the electrochemical reduction of aqueous CO2 to CO. *Angewandte Chemie - International Edition*, **2015**, 54, 2146-50	16.4	338
191	Vertically aligned Ta3N5 nanorod arrays for solar-driven photoelectrochemical water splitting. *Advanced Materials*, **2013**, 25, 125-31	24	334
190	Titania-supported cobalt and nickel bimetallic catalysts for carbon dioxide reforming of methane. *Journal of Catalysis*, **2005**, 232, 268-275	7.3	331
189	Photocatalytic hydrogen evolution on dye-sensitized mesoporous carbon nitride photocatalyst with magnesium phthalocyanine. *Physical Chemistry Chemical Physics*, **2010**, 12, 13020-5	3.6	295
188	Cu–Sn Bimetallic Catalyst for Selective Aqueous Electroreduction of CO2 to CO. *ACS Catalysis*, **2016**, 6, 2842-2851	13.1	284
187	Cobalt phosphate-modified barium-doped tantalum nitride nanorod photoanode with 1.5% solar energy conversion efficiency. *Nature Communications*, **2013**, 4, 2566	17.4	279
186	Harvesting solar light with crystalline carbon nitrides for efficient photocatalytic hydrogen evolution. *Angewandte Chemie - International Edition*, **2014**, 53, 11001-5	16.4	238
185	Sustainable hydrogen from bio-oils—Steam reforming of acetic acid as a model oxygenate. *Journal of Catalysis*, **2004**, 227, 101-108	7.3	238
184	Role and Function of Noble-Metal/Cr-Layer Core/Shell Structure Cocatalysts for Photocatalytic Overall Water Splitting Studied by Model Electrodes. *Journal of Physical Chemistry C*, **2009**, 113, 10151-10157	3.8	194

183	Simultaneous Reduction of CO2 and Splitting of H2O by a Single Immobilized Cobalt Phthalocyanine Electrocatalyst. *ACS Catalysis*, **2016**, 6, 3092-3095	13.1	183
182	Insights on Measuring and Reporting Heterogeneous Photocatalysis: Efficiency Definitions and Setup Examples. *Chemistry of Materials*, **2017**, 29, 158-167	9.6	180
181	Tungsten carbide nanoparticles as efficient cocatalysts for photocatalytic overall water splitting. *ChemSusChem*, **2013**, 6, 168-81	8.3	166
180	Photocatalytic Water-Splitting Reaction from Catalytic and Kinetic Perspectives. *Catalysis Letters*, **2015**, 145, 95-108	2.8	165
179	Synthesis of a Carbon Nitride Structure for Visible-Light Catalysis by Copolymerization. *Angewandte Chemie*, **2010**, 122, 451-454	3.6	146
178	Steam reforming of acetic acid as a biomass derived oxygenate: Bifunctional pathway for hydrogen formation over Pt/ZrO2 catalysts. *Journal of Catalysis*, **2006**, 243, 263-269	7.3	135
177	Catalyst deactivation during steam reforming of acetic acid over Pt/ZrO2. *Chemical Engineering Journal*, **2006**, 120, 133-137	14.7	133
176	ATR-SEIRAS investigation of the Fermi level of Pt cocatalyst on a GaN photocatalyst for hydrogen evolution under irradiation. *Journal of the American Chemical Society*, **2009**, 131, 13218-9	16.4	126
175	Modification of Co/TiO2 for dry reforming of methane at 2 MPa by Pt, Ru or Ni. *Applied Catalysis A: General*, **2004**, 268, 151-158	5.1	126
174	Aspects of the Water Splitting Mechanism on (Ga1−xZnx)(N1−xOx) Photocatalyst Modified with Rh2−yCryO3 Cocatalyst. *Journal of Physical Chemistry C*, **2009**, 113, 21458-21466	3.8	119
173	A Highly Selective Copper–Indium Bimetallic Electrocatalyst for the Electrochemical Reduction of Aqueous CO2 to CO. *Angewandte Chemie*, **2015**, 127, 2174-2178	3.6	118
172	Molybdenum carbide–carbon nanocomposites synthesized from a reactive template for electrochemical hydrogen evolution. *Journal of Materials Chemistry A*, **2014**, 2, 10548-10556	13	114
171	Highly active mesoporous Nb-W oxide solid-acid catalyst. *Angewandte Chemie - International Edition* , **2010**, 49, 1128-32	16.4	114
170	Nano-sized TiN on carbon black as an efficient electrocatalyst for the oxygen reduction reaction prepared using an mpg-C3N4 template. *Chemical Communications*, **2010**, 46, 7492-4	5.8	111
169	Dendritic Tip-on Polytriazine-Based Carbon Nitride Photocatalyst with High Hydrogen Evolution Activity. *Chemistry of Materials*, **2015**, 27, 8237-8247	9.6	108
168	Synthesis and photocatalytic activity of poly(triazine imide). *Chemistry - an Asian Journal*, **2013**, 8, 218-24	4.5	108
167	Mechanistic Aspects and Reaction Pathways for Oxidative Coupling of Methane on Mn/Na2WO4/SiO2 Catalysts. *Journal of Physical Chemistry C*, **2009**, 113, 10131-10145	3.8	108
166	Temperature Dependence of Electrocatalytic and Photocatalytic Oxygen Evolution Reaction Rates Using NiFe Oxide. *ACS Catalysis*, **2016**, 6, 1713-1722	13.1	106

165	Towards Versatile and Sustainable Hydrogen Production through Electrocatalytic Water Splitting: Electrolyte Engineering. *ChemSusChem*, **2017**, 10, 1318-1336	8.3	104
164	Influence of reduction temperature on the catalytic behavior of Co/TiO2 catalysts for CH4/CO2 reforming and its relation with titania bulk crystal structure. *Journal of Catalysis*, **2005**, 230, 75-85	7.3	100
163	Synthesis of ordered porous graphitic-C3N4 and regularly arranged Ta3N5 nanoparticles by using self-assembled silica nanospheres as a primary template. *Chemistry - an Asian Journal*, **2011**, 6, 103-9	4.5	93
162	Enhanced visible-light activity of titania via confinement inside carbon nanotubes. *Journal of the American Chemical Society*, **2011**, 133, 14896-9	16.4	91
161	An Oxygen-Insensitive Hydrogen Evolution Catalyst Coated by a Molybdenum-Based Layer for Overall Water Splitting. *Angewandte Chemie - International Edition*, **2017**, 56, 5780-5784	16.4	89
160	Critical Role of the Semiconductor□Electrolyte Interface in Photocatalytic Performance for Water-Splitting Reactions Using Ta3N5 Particles. *Chemistry of Materials*, **2014**, 26, 4812-4825	9.6	88
159	Preparation of Inorganic Photocatalytic Materials for Overall Water Splitting. *ChemCatChem*, **2012**, 4, 1485-1497	5.2	86
158	Harvesting Solar Light with Crystalline Carbon Nitrides for Efficient Photocatalytic Hydrogen Evolution. *Angewandte Chemie*, **2014**, 126, 11181-11185	3.6	83
157	Generation of Cu□h alloy surfaces from CuInO2 as selective catalytic sites for CO2 electroreduction. *Journal of Materials Chemistry A*, **2015**, 3, 19085-19092	13	77
156	Tuning the properties of visible-light-responsive tantalum (oxy)nitride photocatalysts by non-stoichiometric compositions: a first-principles viewpoint. *Physical Chemistry Chemical Physics*, **2014**, 16, 20548-60	3.6	77
155	Carrier dynamics of a visible-light-responsive Ta3N5 photoanode for water oxidation. *Physical Chemistry Chemical Physics*, **2015**, 17, 2670-7	3.6	76
154	Rate and selectivity enhancements mediated by OH radicals in the oxidative coupling of methane catalyzed by Mn/Na2WO4/SiO2. *Angewandte Chemie - International Edition*, **2008**, 47, 7689-93	16.4	74
153	Influence of the reduction temperature on catalytic activity of Co/TiO2 (anatase-type) for high pressure dry reforming of methane. *Applied Catalysis A: General*, **2003**, 255, 13-21	5.1	74
152	Generation of Multiple Excitons in Ag2S Quantum Dots: Single High-Energy versus Multiple-Photon Excitation. *Journal of Physical Chemistry Letters*, **2014**, 5, 659-65	6.4	72
151	A Permselective CeO Coating To Improve the Stability of Oxygen Evolution Electrocatalysts. *Angewandte Chemie - International Edition*, **2018**, 57, 1616-1620	16.4	69
150	Combined experimental and theoretical assessments of the lattice dynamics and optoelectronics of TaON and Ta3N5. *Journal of Solid State Chemistry*, **2015**, 229, 219-227	3.3	63
149	Influence of the phase composition of titania on catalytic behavior of Co/TiO2 for the dry reforming of methane. *Chemical Communications*, **2002**, 1006-7	5.8	61
148	In-operando elucidation of bimetallic CoNi nanoparticles during high-temperature CH4/CO2 reaction. *Applied Catalysis B: Environmental*, **2017**, 213, 177-189	21.8	60

147	Synthesis of tantalum carbide and nitride nanoparticles using a reactive mesoporous template for electrochemical hydrogen evolution. *Journal of Materials Chemistry A*, **2013**, 1, 12606	13	60
146	Toward Visible Light Response: Overall Water Splitting Using Heterogeneous Photocatalysts. *Green* , **2011**, 1,		59
145	Electrocatalytic Hydrogen Evolution under Densely Buffered Neutral pH Conditions. *Journal of Physical Chemistry C*, **2015**, 119, 20453-20458	3.8	53
144	A simplified theoretical guideline for overall water splitting using photocatalyst particles. *Journal of Materials Chemistry A*, **2016**, 4, 2894-2908	13	53
143	Surface Generation of a Cobalt-Derived Water Oxidation Electrocatalyst Developed in a Neutral HCO3/CO2 System. *Advanced Energy Materials*, **2014**, 4, 1400252	21.8	52
142	Synthesis and Characterization of Mesoporous Ta-W Oxides as Strong Solid Acid Catalysts. *Chemistry of Materials*, **2010**, 22, 3072-3078	9.6	52
141	Tantalum nitride for photocatalytic water splitting: concept and applications. *Materials for Renewable and Sustainable Energy*, **2016**, 5, 1	4.7	51
140	Improved resistance against coke deposition of titania supported cobalt and nickel bimetallic catalysts for carbon dioxide reforming of methane. *Catalysis Letters*, **2005**, 102, 153-157	2.8	51
139	Photoelectrochemical conversion of toluene to methylcyclohexane as an organic hydride by Cu2ZnSnS4-based photoelectrode assemblies. *Journal of the American Chemical Society*, **2012**, 134, 2469-72	16.4	49
138	Isotopic and kinetic assessment of photocatalytic water splitting on Zn-added Ga2O3 photocatalyst loaded with Rh2-yCryO3 cocatalyst. *Chemical Physics Letters*, **2010**, 486, 144-146	2.5	47
137	Design of a core-shell Pt-SiO2 catalyst in a reverse microemulsion system: Distinctive kinetics on CO oxidation at low temperature. *Journal of Catalysis*, **2016**, 340, 368-375	7.3	46
136	Homo-Tandem Polymer Solar Cells with VOC >1.8 V for Efficient PV-Driven Water Splitting. *Advanced Materials*, **2016**, 28, 3366-73	24	46
135	An Efficient and Stable Hydrophobic Molecular Cobalt Catalyst for Water Electro-oxidation at Neutral pH. *ACS Catalysis*, **2016**, 6, 4647-4652	13.1	44
134	Boosting the Performance of the Nickel Anode in the Oxygen Evolution Reaction by Simple Electrochemical Activation. *Angewandte Chemie - International Edition*, **2017**, 56, 5061-5065	16.4	43
133	Photocatalytic hydrogen production using visible-light-responsive Ta3N5 photocatalyst supported on monodisperse spherical SiO2 particulates. *Materials Research Bulletin*, **2014**, 49, 58-65	5.1	43
132	Nano-nitride Cathode Catalysts of Ti, Ta, and Nb for Polymer Electrolyte Fuel Cells: Temperature-Programmed Desorption Investigation of Molecularly Adsorbed Oxygen at Low Temperature. *Journal of Physical Chemistry C*, **2013**, 117, 496-502	3.8	42
131	Layered and nanosheet tantalum molybdate as strong solid acid catalysts. *Journal of Catalysis*, **2010** , 270, 206-212	7.3	41
130	Establishing Efficient Cobalt-Based Catalytic Sites for Oxygen Evolution on a Ta3N5 Photocatalyst. *Chemistry of Materials*, **2015**, 27, 5685-5694	9.6	40

129	Solar Water Splitting Using Semiconductor Photocatalyst Powders. *Topics in Current Chemistry*, **2016**, 371, 73-103		40
128	Immobilization of a molecular cobalt electrocatalyst by hydrophobic interaction with a hematite photoanode for highly stable oxygen evolution. *Chemical Communications*, **2015**, 51, 13481-4	5.8	40
127	Catalytic Conversion of Methane: Carbon Dioxide Reforming and Oxidative Coupling. *Journal of the Japan Petroleum Institute*, **2012**, 55, 1-12	1	40
126	Enhancement of photocatalytic activity of zinc-germanium oxynitride solid solution for overall water splitting under visible irradiation. *Dalton Transactions*, **2009**, 10055-62	4.3	40
125	Electrodeposited Ultrafine NbOx, ZrOx, and TaOx Nanoparticles on Carbon Black Supports for Oxygen Reduction Electrocatalysts in Acidic Media. *ACS Catalysis*, **2013**, 3, 2181-2189	13.1	38
124	Effects of La addition to Ni/Al2O3 catalysts on rates and carbon deposition during steam reforming of n-dodecane. *Fuel Processing Technology*, **2011**, 92, 21-25	7.2	38
123	Determination of the electronic, dielectric, and optical properties of sillenite Bi12TiO20 and perovskite-like Bi4Ti3O12 materials from hybrid first-principle calculations. *Journal of Chemical Physics*, **2016**, 144, 134702	3.9	38
122	Enhanced Kinetics of Hole Transfer and Electrocatalysis during Photocatalytic Oxygen Evolution by Cocatalyst Tuning. *ACS Catalysis*, **2016**, 6, 4117-4126	13.1	38
121	State-of-the-art Sn2+-based ternary oxides as photocatalysts for water splitting: electronic structures and optoelectronic properties. *Catalysis Science and Technology*, **2016**, 6, 7656-7670	5.5	37
120	Catalytic consequences of ultrafine Pt clusters supported on SrTiO3 for photocatalytic overall water splitting. *Journal of Catalysis*, **2019**, 376, 180-190	7.3	37
119	Mechanistic Switching by Hydronium Ion Activity for Hydrogen Evolution and Oxidation over Polycrystalline Platinum Disk and Platinum/Carbon Electrodes. *ChemElectroChem*, **2014**, 1, 1497-1507	4.3	37
118	Niobium-based catalysts prepared by reactive radio-frequency magnetron sputtering and arc plasma methods as non-noble metal cathode catalysts for polymer electrolyte fuel cells. *Electrochimica Acta*, **2010**, 55, 5393-5400	6.7	37
117	Integrated In Situ Characterization of a Molten Salt Catalyst Surface: Evidence of Sodium Peroxide and Hydroxyl Radical Formation. *Angewandte Chemie - International Edition*, **2017**, 56, 10403-10407	16.4	36
116	Surface Functionalization of g-C3 N4 : Molecular-Level Design of Noble-Metal-Free Hydrogen Evolution Photocatalysts. *Chemistry - A European Journal*, **2015**, 21, 10290-5	4.8	36
115	Photoelectrochemical and electrocatalytic properties of thermally oxidized copper oxide for efficient solar fuel production. *Journal of Materials Chemistry A*, **2014**, 2, 7389-7401	13	35
114	Kinetics on NiZn Bimetallic Catalysts for Hydrogen Evolution via Selective Dehydrogenation of Methylcyclohexane to Toluene. *ACS Catalysis*, **2017**, 7, 1592-1600	13.1	34
113	Flux-assisted synthesis of SnNb2O6 for tuning photocatalytic properties. *Physical Chemistry Chemical Physics*, **2014**, 16, 10762-9	3.6	34
112	UV-Vis optoelectronic properties of □SnWO4: A comparative experimental and density functional theory based study. *APL Materials*, **2015**, 3, 096101	5.7	34

111	Screened coulomb hybrid DFT investigation of band gap and optical absorption predictions of CuVO3, CuNbO3 and Cu5Ta11O30 materials. *Physical Chemistry Chemical Physics*, **2014**, 16, 18198-204	3.6	33
110	Titanium Nitride Nanoparticle Electrocatalysts for Oxygen Reduction Reaction in Alkaline Solution. *Journal of the Electrochemical Society*, **2013**, 160, F501-F506	3.9	33
109	Compositionally Screened Eutectic Catalytic Coatings on Halide Perovskite Photocathodes for Photoassisted Selective CO2 Reduction. *ACS Energy Letters*, **2019**, 4, 1279-1286	20.1	32
108	Electronic structure and photocatalytic activity of wurtzite CuGaS nanocrystals and their Zn substitution. *Journal of Materials Chemistry A*, **2015**, 3, 8896-8904	13	32
107	Electrolyte Engineering towards Efficient Water Splitting at Mild pH. *ChemSusChem*, **2017**, 10, 4155-4162	8.3	32
106	Exclusive Hydrogen Generation by Electrocatalysts Coated with an Amorphous Chromium-Based Layer Achieving Efficient Overall Water Splitting. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 8079-8088	8.3	32
105	Perfluorinated Cobalt Phthalocyanine Effectively Catalyzes Water Electrooxidation. *European Journal of Inorganic Chemistry*, **2015**, 2015, 49-52	2.3	31
104	Highly-dispersed Ta-oxide catalysts prepared by electrodeposition in a non-aqueous plating bath for polymer electrolyte fuel cell cathodes. *Chemical Communications*, **2012**, 48, 9074-6	5.8	31
103	New Insight into the Hydrogen Evolution Reaction under Buffered Near-Neutral pH Conditions: Enthalpy and Entropy of Activation. *Journal of Physical Chemistry C*, **2016**, 120, 24187-24196	3.8	31
102	Ultrathin Microporous SiO2 Membranes Photodeposited on Hydrogen Evolving Catalysts Enabling Overall Water Splitting. *ACS Catalysis*, **2017**, 7, 7931-7940	13.1	30
101	Particle size dependence on oxygen reduction reaction activity of electrodeposited TaO(x) catalysts in acidic media. *Physical Chemistry Chemical Physics*, **2014**, 16, 895-8	3.6	30
100	Composite of TiN nanoparticles and few-walled carbon nanotubes and its application to the electrocatalytic oxygen reduction reaction. *Chemistry - an Asian Journal*, **2012**, 7, 286-9	4.5	30
99	Determination of the Electronic Structure and UV Vis Absorption Properties of (Na2 Cux)Ta4O11 from First-Principle Calculations. *Journal of Physical Chemistry C*, **2013**, 117, 17477-17484	3.8	29
98	Highly Dispersed Niobium Catalyst on Carbon Black by Polymerized Complex Method as PEFC Cathode Catalyst. *Journal of the Electrochemical Society*, **2009**, 156, B811	3.9	28
97	Combined experimental heoretical study of the optoelectronic properties of non-stoichiometric pyrochlore bismuth titanate. *Journal of Materials Chemistry C*, **2015**, 3, 12032-12039	7.1	27
96	Photophysical Properties of SrTaO2N Thin Films and Influence of Anion Ordering: A Joint Theoretical and Experimental Investigation. *Chemistry of Materials*, **2017**, 29, 3989-3998	9.6	26
95	CdS Nanoparticles Exhibiting Quantum Size Effect by Dispersion on TiO2: Photocatalytic H2Evolution and Photoelectrochemical Measurements. *Bulletin of the Chemical Society of Japan*, **2009**, 82, 528-535	5.1	26
94	Highly Dispersed TaOx Nanoparticles Prepared by Electrodeposition as Oxygen Reduction Electrocatalysts for Polymer Electrolyte Fuel Cells. *Journal of Physical Chemistry C*, **2013**, 117, 11635-11646	3.8	25

93	Effects of Transition-Metal Composition of Protonated, Layered Nonstoichiometric Oxides H1−xNb1−xMo1+xO6 on Heterogeneous Acid Catalysis. *Journal of Physical Chemistry C*, **2009**, 113, 17421-17427	3.8	25
92	Solvent-induced deposition of Cu-Ga-In-S nanocrystals onto a titanium dioxide surface for visible-light-driven photocatalytic hydrogen production. *Applied Catalysis B: Environmental*, **2016**, 184, 264-269	21.8	24
91	Nb-doped TiO2 cathode catalysts for oxygen reduction reaction of polymer electrolyte fuel cells. *Catalysis Today*, **2014**, 233, 181-186	5.3	24
90	Role of Oxidized Mo Species on the Active Surface of Ni-Mo Electrocatalysts for Hydrogen Evolution under Alkaline Conditions. *ACS Catalysis*, **2020**, 10, 12858-12866	13.1	24
89	Recent advances in understanding oxygen evolution reaction mechanisms over iridium oxide. *Inorganic Chemistry Frontiers*, **2021**, 8, 2900-2917	6.8	24
88	Identification of intrinsic catalytic activity for electrochemical reduction of water molecules to generate hydrogen. *Physical Chemistry Chemical Physics*, **2015**, 17, 15111-4	3.6	23
87	Poly(3-hydroxybutyrate) production in an integrated electromicrobial setup: Investigation under stress-inducing conditions. *PLoS ONE*, **2018**, 13, e0196079	3.7	23
86	Impact of solute concentration on the electrocatalytic conversion of dissolved gases in buffered solutions. *Journal of Power Sources*, **2015**, 287, 465-471	8.9	22
85	Non-precious bimetallic catalysts for selective dehydrogenation of an organic chemical hydride system. *Chemical Communications*, **2015**, 51, 12931-4	5.8	22
84	A miniature solar device for overall water splitting consisting of series-connected spherical silicon solar cells. *Scientific Reports*, **2016**, 6, 24633	4.9	22
83	Electrolyte Engineering toward Efficient Hydrogen Production Electrocatalysis with Oxygen-Crossover Regulation under Densely Buffered Near-Neutral pH Conditions. *Journal of Physical Chemistry C*, **2016**, 120, 1785-1794	3.8	22
82	Hydrogen production by autothermal reforming of kerosene over MgAlOx-supported Rh catalysts. *Applied Catalysis A: General*, **2009**, 371, 173-178	5.1	22
81	TiO-supported Pt single atoms by surface organometallic chemistry for photocatalytic hydrogen evolution. *Physical Chemistry Chemical Physics*, **2019**, 21, 24429-24440	3.6	22
80	Highly Active Mesoporous Nb-W Oxide Solid-Acid Catalyst. *Angewandte Chemie*, **2010**, 122, 1146-1150	3.6	21
79	Addressing fundamental experimental aspects of photocatalysis studies. *Journal of Catalysis*, **2019**, 370, 480-484	7.3	21
78	Rate and Selectivity Enhancements Mediated by OH Radicals in the Oxidative Coupling of Methane Catalyzed by Mn/Na2WO4/SiO2. *Angewandte Chemie*, **2008**, 120, 7803-7807	3.6	20
77	A Permselective CeOx Coating To Improve the Stability of Oxygen Evolution Electrocatalysts. *Angewandte Chemie*, **2018**, 130, 1632-1636	3.6	20
76	Combined theoretical and experimental characterizations of semiconductors for photoelectrocatalytic applications. *Journal of Photochemistry and Photobiology C: Photochemistry Reviews*, **2019**, 40, 212-233	16.4	19

75	Maximizing Hydrogen Evolution Performance on Pt in Buffered Solutions: Mass Transfer Constrains of H2 and Buffer Ions. *Journal of Physical Chemistry C*, **2019**, 123, 21554-21563	3.8	19
74	Mineralization of volatile organic compounds (VOCs) over the catalyst CuO□Co3O4□CeO2 and its applications in industrial odor control. *Applied Catalysis A: General*, **2011**, 409-410, 209-214	5.1	19
73	Bismuth Silver Oxysulfide for Photoconversion Applications: Structural and Optoelectronic Properties. *Chemistry of Materials*, **2017**, 29, 8679-8689	9.6	18
72	Microkinetic assessment of electrocatalytic oxygen evolution reaction over iridium oxide in unbuffered conditions. *Journal of Catalysis*, **2020**, 391, 435-445	7.3	18
71	Electrocatalytic Reduction of Carbon Dioxide with a Well-Defined PN -Ru Pincer Complex. *ChemPlusChem*, **2016**, 81, 166-171	2.8	18
70	Tethering metal ions to photocatalyst particulate surfaces by bifunctional molecular linkers for efficient hydrogen evolution. *ChemSusChem*, **2014**, 7, 2575-83	8.3	17
69	Mechanistic Aspects of Catalytic Steam Reforming of Biomass-related Oxygenates. *Topics in Catalysis*, **2008**, 49, 68-72	2.3	17
68	Nano-sized quaternary CuGa2In3S8 as an efficient photocatalyst for solar hydrogen production. *ChemSusChem*, **2014**, 7, 3112-21	8.3	16
67	UV-Vis Spectroscopy. *SpringerBriefs in Energy*, **2013**, 49-62	0.3	16
66	Polymerized Complex Synthesis of Niobium- and Zirconium-Based Electrocatalysts for PEFC Cathodes. *Journal of the Electrochemical Society*, **2010**, 157, B240	3.9	16
65	Water Electrolysis in Saturated Phosphate Buffer at Neutral pH. *ChemSusChem*, **2020**, 13, 5921-5933	8.3	16
64	Catalytic routes to fuels from C and oxygenate molecules. *Faraday Discussions*, **2017**, 197, 9-39	3.6	15
63	Electrodeposited Ultrafine TaOx/CB Catalysts for PEFC Cathode Application: Their Oxygen Reduction Reaction Kinetics. *Electrochimica Acta*, **2014**, 149, 76-85	6.7	15
62	Dehydrogenation of ethane to ethylene via radical pathways enhanced by alkali metal based catalyst in oxysteam condition. *AICHE Journal*, **2017**, 63, 105-110	3.6	15
61	Critical difference between optoelectronic properties of □and □SnWO4 semiconductors: A DFT/HSE06 and experimental investigation. *Physica Status Solidi (B): Basic Research*, **2016**, 253, 1115-1119	1.3	15
60	Photophysics and electrochemistry relevant to photocatalytic water splitting involved at solid□electrolyte interfaces. *Journal of Energy Chemistry*, **2017**, 26, 259-269	12	14
59	Synthesis and catalytic properties of porous Nb□Mo oxide solid acid. *Catalysis Today*, **2011**, 164, 358-363	5.3	14
58	Improved catalytic performance of nitrided Co□i and Fe□i catalysts for oxygen reduction as non-noble metal cathodes in acidic media. *Electrochemistry Communications*, **2010**, 12, 1177-1179	5.1	14

57	Boosting the Performance of the Nickel Anode in the Oxygen Evolution Reaction by Simple Electrochemical Activation. *Angewandte Chemie*, **2017**, 129, 5143-5147	3.6	13
56	Contribution of electrolyte in nanoscale electrolysis of pure and buffered water by particulate photocatalysis. *Sustainable Energy and Fuels*, **2018**, 2, 2044-2052	5.8	13
55	Improvement of Pt/ZrO2 by CeO2 for high pressure CH4/CO2 reforming. *Catalysis Letters*, **2005**, 99, 97-100	2.8	13
54	An Oxygen-Insensitive Hydrogen Evolution Catalyst Coated by a Molybdenum-Based Layer for Overall Water Splitting. *Angewandte Chemie*, **2017**, 129, 5874-5878	3.6	12
53	Nano-design of quantum dot-based photocatalysts for hydrogen generation using advanced surface molecular chemistry. *Physical Chemistry Chemical Physics*, **2015**, 17, 1001-9	3.6	12
52	Methane Coupling Reaction in an Oxy-Steam Stream through an OH Radical Pathway by using Supported Alkali Metal Catalysts. *ChemCatChem*, **2014**, 6, n/a-n/a	5.2	12
51	On the reconstruction of NiMo electrocatalysts by operando spectroscopy. *Journal of Materials Chemistry A*, **2019**, 7, 15031-15035	13	11
50	Efficient Water Oxidation Using Ta N Thin Film Photoelectrodes Prepared on Insulating Transparent Substrates. *ChemSusChem*, **2020**, 13, 1974-1978	8.3	11
49	Integrated In Situ Characterization of a Molten Salt Catalyst Surface: Evidence of Sodium Peroxide and Hydroxyl Radical Formation. *Angewandte Chemie*, **2017**, 129, 10539-10543	3.6	11
48	Methane dry reforming on supported cobalt nanoparticles promoted by boron. *Journal of Catalysis*, **2020**, 392, 126-134	7.3	11
47	Optoelectronic Structure and Photocatalytic Applications of Na(Bi,La)S2 Solid Solutions with Tunable Band Gaps. *Chemistry of Materials*, **2019**, 31, 3211-3220	9.6	10
46	A new high temperature reactor for operando XAS: Application for the dry reforming of methane over Ni/ZrO catalyst. *Review of Scientific Instruments*, **2018**, 89, 035109	1.7	7
45	Ammonia Synthesis Using Ti and Nb Nitride Nanoparticles Prepared by Mesoporous Graphitic C3N4. *Bulletin of the Chemical Society of Japan*, **2015**, 88, 584-590	5.1	7
44	Co/TiO2 catalyst for high pressure dry reforming of methane and its modification by other metals. *Studies in Surface Science and Catalysis*, **2004**, 147, 187-192	1.8	7
43	Generation and Characteristics of IV–VI transition Metal Nitride and Carbide Nanoparticles using a Reactive Mesoporous Carbon Nitride. *ChemistrySelect*, **2016**, 1, 290-296	1.8	7
42	Impact of OH Radical Generator Involvement in the Gas-Phase Radical Reaction Network on the Oxidative Coupling of Methane—A Simulation Study. *Energy Technology*, **2020**, 8, 1900563	3.5	7
41	Delivering the Full Potential of Oxygen Evolving Electrocatalyst by Conditioning Electrolytes at Near-Neutral pH. *ChemSusChem*, **2021**, 14, 1554-1564	8.3	7
40	Flat-Band Potential Techniques. *SpringerBriefs in Energy*, **2013**, 63-85	0.3	7

39	Electrochemical Oxidation of a Highly Soluble Redox Mediator in Aqueous Solution for Energy Conversion. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 7241-7251	8.3	6
38	Generation of Transparent Oxygen Evolution Electrode Consisting of Regularly Ordered Nanoparticles from Self-Assembly Cobalt Phthalocyanine as a Template. *ACS Applied Materials & Interfaces*, **2016**, 8, 32376-32384	9.5	6
37	Switching of Kinetically Relevant Reactants for the Aqueous Cathodic Process Determined by Mass-transport Coupled with Protolysis. *ChemCatChem*, **2019**, 11, 5961-5968	5.2	6
36	Surface-Modified Ta3N5 Photoanodes for Sunlight-Driven Overall Water Splitting by Photoelectrochemical Cells. *Catalysts*, **2021**, 11, 584	4	6
35	Operando Elucidation on the Working State of Immobilized Fluorinated Iron Porphyrin for Selective Aqueous Electroreduction of CO2 to CO. *ACS Catalysis*, **2021**, 11, 6499-6509	13.1	6
34	Incident Photon-to-Current Efficiency and Photocurrent Spectroscopy. *SpringerBriefs in Energy*, **2013**, 87-97	0.3	5
33	Electrocatalysts: Surface Generation of a Cobalt-Derived Water Oxidation Electrocatalyst Developed in a Neutral HCO3/CO2 System (Adv. Energy Mater. 16/2014). *Advanced Energy Materials*, **2014**, 4, n/a-n/a	21.8	5
32	Effect of post-calcination thermal treatment on acid properties and pores structure of a mesoporous niobium–tungsten oxide. *Catalysis Today*, **2012**, 192, 144-148	5.3	5
31	Exploring the Structure and Performance of Cd–Chalcogenide Photocatalysts in Selective Trifluoromethylation. *ACS Catalysis*,14772-14780	13.1	4
30	Maximizing Oxygen Evolution Performance on a Transparent NiFeO/TaN Photoelectrode Fabricated on an Insulator. *ACS Applied Materials & Interfaces*, **2021**, 13, 16317-16325	9.5	4
29	Recent Developments in Visible-Light-Absorbing Semitransparent Photoanodes for Tandem Cells Driving Solar Water Splitting. *Advanced Energy and Sustainability Research*, **2021**, 2, 2100023	1.6	4
28	Oxidative-Coupling-Assisted Methane Aromatization: A Simulation Study. *Industrial & Engineering Chemistry Research*, **2019**, 58, 22884-22892	3.9	4
27	Solvent-Free Synthesis of Quaternary Metal Sulfide Nanoparticles Derived from Thiourea. *Particle and Particle Systems Characterization*, **2018**, 35, 1700183	3.1	4
26	A Stand-Alone Module for Solar-Driven H2 Production Coupled with Redox-Mediated Sulfide Remediation. *Energy Technology*, **2019**, 7, 1900575	3.5	3
25	Electrolyte Engineering towards Efficient Water Splitting at Mild pH. *ChemSusChem*, **2017**, 10, 4122-4128	8.3	3
24	Semiconductor monolayer assemblies with oriented crystal faces. *CrystEngComm*, **2012**, 14, 59-62	3.3	3
23	Photoelectrodes: Vertically Aligned Ta3N5 Nanorod Arrays for Solar-Driven Photoelectrochemical Water Splitting (Adv. Mater. 1/2013). *Advanced Materials*, **2013**, 25, 152-152	24	3
22	Electrocatalytic Activity and Stability of M-Fe Catalysts Synthesized by Polymer Complex Method for PEFC Cathode. *Journal of the Electrochemical Society*, **2011**, 158, B1491	3.9	3

21	Simple, Low-cost Preparation of High Surface Area Co3O4□eO2Catalysts for Total Decomposition of Toluene. *Chemistry Letters*, **2010**, 39, 26-27	1.7	3
20	Transient Potassium Peroxide Species in Highly Selective Oxidative Coupling of Methane over an Unmolten K2WO4/SiO2 Catalyst Revealed by In Situ Characterization. *ACS Catalysis*, **2021**, 11, 14237-14248	13.1	3
19	Gas crossover regulation by porosity-controlled glass sheet achieves pure hydrogen production by buffered water electrolysis at neutral pH.. *ChemSusChem*, **2021**, e202102294	8.3	3
18	Determination and perturbation of the electronic potentials of solid catalysts for innovative catalysis. *Chemical Science*, **2020**, 12, 540-545	9.4	3
17	Theoretical insights into dehydrogenative chemisorption of alkylaromatics on Pt(1 0 0) and Ni(1 0 0). *Journal of Catalysis*, **2018**, 363, 197-203	7.3	3
16	Photocatalysis in Generation of Hydrogen from Water239-270		3
15	Noncatalytic Oxidative Coupling of Methane (OCM): Gas-Phase Reactions in a Jet Stirred Reactor (JSR).. *ACS Omega*, **2021**, 6, 33757-33768	3.9	2
14	Oxidative coupling of methane over sodium zirconate catalyst. *Catalysis Science and Technology*, **2021**, 11, 4803-4811	5.5	2
13	PEC Characterization Flowchart. *SpringerBriefs in Energy*, **2013**, 45-47	0.3	2
12	Structural and photoelectrochemical properties of SrTaO2N oxynitride thin films deposited by reactive magnetron sputtering. *Journal of the European Ceramic Society*, **2020**, 40, 6301-6308	6	1
11	Solar Cells: Homo-Tandem Polymer Solar Cells with VOC >1.8 V for Efficient PV-Driven Water Splitting (Adv. Mater. 17/2016). *Advanced Materials*, **2016**, 28, 3412-3412	24	1
10	Transferring Knowledge of Electrocatalysis to Photocatalysis: Photocatalytic Water Splitting **2017**, 891-906		1
9	Frontispiece: Surface Functionalization of g-C3N4: Molecular-Level Design of Noble-Metal-Free Hydrogen Evolution Photocatalysts. *Chemistry - A European Journal*, **2015**, 21, n/a-n/a	4.8	1
8	The effect of temperature in flux-assisted synthesis of SnNb2O6 **2014**,		1
7	Experimental Considerations. *SpringerBriefs in Energy*, **2013**, 17-44	0.3	1
6	Hydrogen and Oxygen Detection from Photoelectrodes. *SpringerBriefs in Energy*, **2013**, 105-113	0.3	1
5	Photocatalytic Water Splitting: Fundamentals and Current Concepts **2021**, 269-286		1
4	Design Predictions of n□ Heterojunction Based Photoanode for Efficient Unbiased Overall Solar Water Splitting. *Energy Technology*,2100570	3.5	1

3	A Career in Catalysis: Jean-Marie M. Basset. *ACS Catalysis*,4961-4977	13.1	0
2	R□ktitelbild: Harvesting Solar Light with Crystalline Carbon Nitrides for Efficient Photocatalytic Hydrogen Evolution (Angew. Chem. 41/2014). *Angewandte Chemie*, **2014**, 126, 11278-11278	3.6	
1	Stability Testing. *SpringerBriefs in Energy*, **2013**, 115-118	0.3	