Roel van de krol

List of Publications by Year
in descending order

145 papers	13,884 citations	36271 51 h-index	20943 115 g-index
149 all docs	149 docs citations	149 times ranked	14300 citing authors

#	Article	IF	Citations
1	Semiconducting materials for photoelectrochemical energy conversion. Nature Reviews Materials, 2016, 1, .	23.3	1,212
2	Efficient solar water splitting by enhanced charge separation in a bismuth vanadate-silicon tandem photoelectrode. Nature Communications, 2013, 4, 2195.	5.8	1,137
3	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. Nature Photonics, 2014, 8, 250-255.	15.6	648
4	Solar hydrogen production with nanostructured metal oxides. Journal of Materials Chemistry, 2008, 18, 2311.	6.7	625
5	Nature and Light Dependence of Bulk Recombination in Co-Pi-Catalyzed BiVO₄ Photoanodes. Journal of Physical Chemistry C, 2012, 116, 9398-9404.	1.5	503
6	The Origin of Slow Carrier Transport in BiVO₄ Thin Film Photoanodes: A Time-Resolved Microwave Conductivity Study. Journal of Physical Chemistry Letters, 2013, 4, 2752-2757.	2.1	478
7	Waterâ€Splitting Catalysis and Solar Fuel Devices: Artificial Leaves on the Move. Angewandte Chemie - International Edition, 2013, 52, 10426-10437.	7.2	421
8	Photocurrent of BiVO₄ is limited by surface recombination, not surface catalysis. Chemical Science, 2017, 8, 3712-3719.	3.7	409
9	Highly Improved Quantum Efficiencies for Thin Film BiVO₄ Photoanodes. Journal of Physical Chemistry C, 2011, 115, 17594-17598.	1.5	386
10	Photoelectrochemical Hydrogen Production. Kluwer International Series in Electronic Materials: Science and Technology, 2012, , .	0.3	383
11	Efficient BiVO₄ Thin Film Photoanodes Modified with Cobalt Phosphate Catalyst and Wâ€doping. ChemCatChem, 2013, 5, 490-496.	1.8	321
12	Two Phase Morphology Limits Lithium Diffusion in TiO2(Anatase):Â A7Li MAS NMR Study. Journal of the American Chemical Society, 2001, 123, 11454-11461.	6.6	285
13	Comprehensive Evaluation of CuBi₂O₄ as a Photocathode Material for Photoelectrochemical Water Splitting. Chemistry of Materials, 2016, 28, 4231-4242.	3.2	271
14	Hetero-type dual photoanodes for unbiased solar water splitting with extended light harvesting. Nature Communications, 2016, 7, 13380.	5.8	263
15	Pathways to electrochemical solar-hydrogen technologies. Energy and Environmental Science, 2018, 11, 2768-2783.	15.6	238
16	Selective Photoreduction of Nitric Oxide to Nitrogen by Nanostructured TiO₂ Photocatalysts: Role of Oxygen Vacancies and Iron Dopant. Journal of the American Chemical Society, 2012, 134, 9369-9375.	6.6	233
17	A Bismuth Vanadateâ€"Cuprous Oxide Tandem Cell for Overall Solar Water Splitting. Journal of Physical Chemistry C, 2014, 118, 16959-16966.	1.5	226
18	Mottâ€Schottky Analysis of Nanometerâ€Scale Thinâ€Film Anatase TiO2. Journal of the Electrochemical Society, 1997, 144, 1723-1727.	1.3	205

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19	Gradient Self-Doped CuBi₂O₄ with Highly Improved Charge Separation Efficiency. Journal of the American Chemical Society, 2017, 139, 15094-15103.	6.6	187
20	In Situ Xâ€Ray Diffraction of Lithium Intercalation in Nanostructured and Thin Film Anatase TiO2. Journal of the Electrochemical Society, 1999, 146, 3150-3154.	1.3	186
21	Microcontactâ€Printingâ€Assisted Access of Graphitic Carbon Nitride Films with Favorable Textures toward Photoelectrochemical Application. Advanced Materials, 2015, 27, 712-718.	11.1	177
22	Spatial Extent of Lithium Intercalation in Anatase TiO2. Journal of Physical Chemistry B, 1999, 103, 7151-7159.	1.2	172
23	Protonated Imineâ€Linked Covalent Organic Frameworks for Photocatalytic Hydrogen Evolution. Angewandte Chemie - International Edition, 2021, 60, 19797-19803.	7.2	171
24	Creating Oxygen Vacancies as a Novel Strategy To Form Tetrahedrally Coordinated Ti⁴⁺ in Fe/TiO₂ Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 7219-7226.	1.5	159
25	Efficient Waterâ€Splitting Device Based on a Bismuth Vanadate Photoanode and Thinâ€Film Silicon Solar Cells. ChemSusChem, 2014, 7, 2832-2838.	3.6	149
26	Unraveling the Carrier Dynamics of BiVO₄: A Femtosecond to Microsecond Transient Absorption Study. Journal of Physical Chemistry C, 2014, 118, 27793-27800.	1.5	142
27	Recent advances in rational engineering of multinary semiconductors for photoelectrochemical hydrogen generation. Nano Energy, 2018, 51, 457-480.	8.2	140
28	Embedding laser generated nanocrystals in BiVO4 photoanode for efficient photoelectrochemical water splitting. Nature Communications, 2019, 10, 2609.	5.8	140
29	Evaluating Charge Carrier Transport and Surface States in CuFeO₂ Photocathodes. Chemistry of Materials, 2017, 29, 4952-4962.	3.2	133
30	Direct Time-Resolved Observation of Carrier Trapping and Polaron Conductivity in BiVO₄. ACS Energy Letters, 2016, 1, 888-894.	8.8	111
31	Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment. Advanced Energy Materials, 2017, 7, 1701536.	10.2	104
32	Understanding the Hydrogen Evolution Reaction Kinetics of Electrodeposited Nickelâ€Molybdenum in Acidic, Nearâ€Neutral, and Alkaline Conditions. ChemElectroChem, 2021, 8, 195-208.	1.7	100
33	Host, Suppressor, and Promoterâ€"The Roles of Ni and Fe on Oxygen Evolution Reaction Activity and Stability of NiFe Alloy Thin Films in Alkaline Media. ACS Catalysis, 2021, 11, 10537-10552.	5.5	98
34	Efficient Plasma Route to Nanostructure Materials: Case Study on the Use of m-WO₃ for Solar Water Splitting. ACS Applied Materials & Interfaces, 2013, 5, 7621-7625.	4.0	96
35	Demonstration of a 50 cm² BiVO₄ tandem photoelectrochemical-photovoltaic water splitting device. Sustainable Energy and Fuels, 2019, 3, 2366-2379.	2.5	84
36	Spray pyrolysis of CuBi₂O₄ photocathodes: improved solution chemistry for highly homogeneous thin films. Journal of Materials Chemistry A, 2017, 5, 12838-12847.	5.2	82

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37	Formation and suppression of defects during heat treatment of BiVO₄ photoanodes for solar water splitting. Journal of Materials Chemistry A, 2018, 6, 18694-18700.	5.2	82
38	Structural Transformation Identification of Sputtered Amorphous MoS_{<i>x</i>} as an Efficient Hydrogen-Evolving Catalyst during Electrochemical Activation. ACS Catalysis, 2019, 9, 2368-2380.	5.5	78
39	Solar Water Splitting Combining a BiVO₄Light Absorber with a Ru-Based Molecular Cocatalyst. Journal of Physical Chemistry C, 2015, 119, 7275-7281.	1.5	75
40	High-Temperature Ammonolysis of Thin Film Ta₂O₅ Photoanodes: Evolution of Structural, Optical, and Photoelectrochemical Properties. Chemistry of Materials, 2015, 27, 708-715.	3.2	71
41	Cu:NiO as a hole-selective back contact to improve the photoelectrochemical performance of CuBi₂O₄ thin film photocathodes. Journal of Materials Chemistry A, 2019, 7, 9183-9194.	5.2	70
42	Electrical and optical properties of TiO2 in accumulation and of lithium titanate Li0.5TiO2. Journal of Applied Physics, 2001, 90, 2235-2242.	1.1	66
43	Evaluation of electrodeposited Î±-Mn 2 O 3 as a catalyst for the oxygen evolution reaction. Catalysis Today, 2017, 290, 2-9.	2.2	65
44	Plasmonic enhancement of the optical absorption and catalytic efficiency of BiVO4 photoanodes decorated with Ag@SiO2 coreâ€"shell nanoparticles. Physical Chemistry Chemical Physics, 2014, 16, 15272-15277.	1.3	61
45	Probing the Interfacial Chemistry of Ultrathin ALD-Grown TiO₂ Films: An In-Line XPS Study. Journal of Physical Chemistry C, 2017, 121, 5531-5538.	1.5	61
46	Photoelectrochemical Characterization of Sprayed<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Î±</mml:mi></mml:math>-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>Fe</mml:mtext><mml:mtext>2</mml:mtext></mml:m Films: Influence of Si Doping and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>SnO</mml:mtext><mml:mtext>2</mml:mtext></mml International Journal of Photoenergy, 2008, 2008, 1-7.	1.4	59
47	Oxynitrogenography: Controlled Synthesis of Single-Phase Tantalum Oxynitride Photoabsorbers. Chemistry of Materials, 2015, 27, 7091-7099.	3.2	59
48	Revealing the Performance-Limiting Factors in Î±-SnWO₄ Photoanodes for Solar Water Splitting. Chemistry of Materials, 2018, 30, 8322-8331.	3.2	58
49	Photoelectrochemical Properties of Cadmium Chalcogenide-Sensitized Textured Porous Zinc Oxide Plate Electrodes. ACS Applied Materials & Interfaces, 2013, 5, 1113-1121.	4.0	57
50	The Photoresponse of Iron- and Carbon-Doped TiO2 (Anatase) Photoelectrodes. Journal of Electroceramics, 2004, 13, 177-182.	0.8	56
51	Analysis of the interfacial characteristics of BiVO₄/metal oxide heterostructures and its implication on their junction properties. Physical Chemistry Chemical Physics, 2019, 21, 5086-5096.	1.3	56
52	Pure CuBi₂O₄ Photoelectrodes with Increased Stability by Rapid Thermal Processing of Bi₂O₃/CuO Grown by Pulsed Laser Deposition. Advanced Functional Materials, 2020, 30, 1910832.	7.8	54
53	<i>In situ</i> observation of pH change during water splitting in neutral pH conditions: impact of natural convection driven by buoyancy effects. Energy and Environmental Science, 2020, 13, 5104-5116.	15.6	53
54	Elucidation of the opto-electronic and photoelectrochemical properties of FeVO₄ photoanodes for solar water oxidation. Journal of Materials Chemistry A, 2018, 6, 548-555.	5.2	50

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55	Assessment of a W:BiVO₄â€“CuBi₂O₄Tandem Photoelectrochemical Cell for Overall Solar Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 13959-13970.	4.0	50
56	Influence of the Metal Center in Mâ€“Nâ€“C Catalysts on the CO₂ Reduction Reaction on Gas Diffusion Electrodes. ACS Catalysis, 2021, 11, 5850-5864.	5.5	50
57	Assessing the Suitability of Iron Tungstate (Fe₂WO₆) as a Photoelectrode Material for Water Oxidation. Journal of Physical Chemistry C, 2017, 121, 153-160.	1.5	49
58	Perspectives on the photoelectrochemical storage of solar energy. MRS Energy & Sustainability, 2017, 4, 1.	1.3	49
59	Electroceramicsâ€"the role of interfaces. Solid State Ionics, 2002, 150, 167-179.	1.3	48
60	Photo-electrochemical Properties of Thin-Film InVO₄ Photoanodes: the Role of Deep Donor States. Journal of Physical Chemistry C, 2009, 113, 19351-19360.	1.5	48
61	Metalâ€“organic framework thin films for protective coating of Pd-based optical hydrogen sensors. Journal of Materials Chemistry C, 2013, 1, 8146.	2.7	48
62	Î±-Fe₂O₃films for photoelectrochemical water oxidation â€“ insights of key performance parameters. Journal of Materials Chemistry A, 2014, 2, 20196-20202.	5.2	45
63	BiVO4 photoanodes for water splitting with high injection efficiency, deposited by reactive magnetron co-sputtering. AIP Advances, 2016, 6, .	0.6	45
64	Interface Science Using Ambient Pressure Hard X-ray Photoelectron Spectroscopy. Surfaces, 2019, 2, 78-99.	1.0	45
65	Evaluation of Copper Vanadate (Î²-Cu₂V₂O₇) as a Photoanode Material for Photoelectrochemical Water Oxidation. Chemistry of Materials, 2020, 32, 2408-2419.	3.2	42
66	Different Photostability of BiVO₄ in Near-pH-Neutral Electrolytes. ACS Applied Energy Materials, 2020, 3, 9523-9527.	2.5	41
67	MOF@MOF coreâ€“shell vs. Janus particles and the effect of strain: potential for guest sorption, separation and sequestration. CrystEngComm, 2013, 15, 6003.	1.3	40
68	Optimization of amorphous silicon double junction solar cells for an efficient photoelectrochemical water splitting device based on a bismuth vanadate photoanode. Physical Chemistry Chemical Physics, 2014, 16, 4220-4229.	1.3	40
69	Combined soft and hard X-ray ambient pressure photoelectron spectroscopy studies of semiconductor/electrolyte interfaces. Journal of Electron Spectroscopy and Related Phenomena, 2017, 221, 106-115.	0.8	40
70	Enhanced Carrier Transport and Bandgap Reduction in Sulfur-Modified BiVO₄ Photoanodes. Chemistry of Materials, 2018, 30, 8630-8638.	3.2	39
71	Photoelectrochemical Properties of GaN Photoanodes with Cobalt Phosphate Catalyst for Solar Water Splitting in Neutral Electrolyte. Journal of Physical Chemistry C, 2017, 121, 12540-12545.	1.5	38
72	Energy-Band Alignment of BiVO₄ from Photoelectron Spectroscopy of Solid-State Interfaces. Journal of Physical Chemistry C, 2018, 122, 20861-20870.	1.5	38

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73	A dopant-mediated recombination mechanism in Fe-doped TiO2 nanoparticles for the photocatalytic decomposition of nitric oxide. Catalysis Today, 2014, 225, 96-101.	2.2	37
74	Addition of carbon to anatase TiO2 by n-hexane treatmentâ€"surface or bulk doping?. Applied Surface Science, 2006, 252, 6342-6347.	3.1	36
75	Spray-deposited Co-Pi Catalyzed BiVO₄: a low-cost route towards highly efficient photoanodes. Materials Research Society Symposia Proceedings, 2012, 1446, 7.	0.1	36
76	Elucidating the Pulsed Laser Deposition Process of BiVO₄ Photoelectrodes for Solar Water Splitting. Journal of Physical Chemistry C, 2020, 124, 4438-4447.	1.5	35
77	Activating a Semiconductorâ€"Liquid Junction via Laserâ€Derived Dual Interfacial Layers for Boosted Photoelectrochemical Water Splitting. Advanced Materials, 2022, 34, e2201140.	11.1	34
78	Probing hydrogen spillover in Pd@MIL-101(Cr) with a focus on hydrogen chemisorption. Physical Chemistry Chemical Physics, 2014, 16, 5803.	1.3	33
79	Extraction of mobile charge carrier photogeneration yield spectrum of ultrathin-film metal oxide photoanodes for solar water splitting. Nature Materials, 2021, 20, 833-840.	13.3	32
80	Solution-processed multilayered BiVO₄ photoanodes: influence of intermediate heat treatments on the photoactivity. Journal of Materials Chemistry A, 2016, 4, 1723-1728.	5.2	31
81	On the benchmarking of multi-junction photoelectrochemical fuel generating devices. Sustainable Energy and Fuels, 2017, 1, 492-503.	2.5	31
82	Efficient NO adsorption and release at Fe3+ sites in Fe/TiO2 nanoparticles. Energy and Environmental Science, 2011, 4, 2140.	15.6	30
83	Artificial Leaf for Water Splitting Based on a Tripleâ€Junction Thinâ€Film Silicon Solar Cell and a PEDOT:PSS/Catalyst Blend. Energy Technology, 2016, 4, 230-241.	1.8	29
84	Light-Induced Surface Reactions at the Bismuth Vanadate/Potassium Phosphate Interface. Journal of Physical Chemistry B, 2018, 122, 801-809.	1.2	29
85	Femtosecond time-resolved two-photon photoemission studies of ultrafast carrier relaxation in Cu2O photoelectrodes. Nature Communications, 2019, 10, 2106.	5.8	29
86	Titanium nitride: A new Ohmic contact material for n-type CdS. Journal of Applied Physics, 2011, 110, .	1.1	28
87	Wet ammonia Synthesis of Semiconducting N:Ta2O5, Ta3N5 and Î²-TaON Films for Photoanode Applications. Energy Procedia, 2012, 22, 15-22.	1.8	28
88	Efficient and Stable TiO₂:Ptâ€"Cu(In,Ga)Se₂ Composite Photoelectrodes for Visible Light Driven Hydrogen Evolution. Advanced Energy Materials, 2015, 5, 1402148.	10.2	28
89	Chemical, Structural, and Electronic Characterization of the (010) Surface of Single Crystalline Bismuth Vanadate. Journal of Physical Chemistry C, 2019, 123, 8347-8359.	1.5	28
90	Grain Boundaries Limit the Charge Carrier Transport in Pulsed Laser Deposited Î±-SnWO4 Thin Film Photoabsorbers. ACS Applied Energy Materials, 2020, 3, 4320-4330.	2.5	28

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91	The interface of GaP(100) and H₂O studied by photoemission and reflection anisotropy spectroscopy. New Journal of Physics, 2013, 15, 103003.	1.2	27
92	Nano-morphology of lithiated thin film TiO2 anatase probed with in situ neutron reflectometry. Physica B: Condensed Matter, 2003, 336, 124-129.	1.3	26
93	In Situ Structural Study of MnP_i-Modified BiVO₄ Photoanodes by Soft X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 19668-19676.	1.5	26
94	Revealing the relationship between photoelectrochemical performance and interface hole trapping in CuBi₂O₄ heterojunction photoelectrodes. Chemical Science, 2020, 11, 11195-11204.	3.7	26
95	Effect of Doping and Excitation Wavelength on Charge Carrier Dynamics in Hematite by Timeâ€Resolved Microwave and Terahertz Photoconductivity. Advanced Functional Materials, 2020, 30, 1901590.	7.8	25
96	On the Origin of the OER Activity of Ultrathin Manganese Oxide Films. ACS Applied Materials & Interfaces, 2021, 13, 2428-2436.	4.0	25
97	An n-Si/n-Fe2O3 Heterojunction Tandem Photoanode for Solar Water Splitting. Chimia, 2013, 67, 168.	0.3	24
98	Structure and properties of anatase TiO2 thin films made by reactive electron beam evaporation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 76-83.	0.9	23
99	Characterization of structured Î±-Fe2O3 photoanodes prepared via electrodeposition and thermal oxidation of iron. Thin Solid Films, 2011, 520, 1034-1040.	0.8	23
100	Nature of Nitrogen Incorporation in BiVO4Photoanodes through Chemical and Physical Methods. Solar Rrl, 2020, 4, 1900290.	3.1	23
101	The role of ultra-thin MnO_x co-catalysts on the photoelectrochemical properties of BiVO₄ photoanodes. Journal of Materials Chemistry A, 2020, 8, 5508-5516.	5.2	23
102	Overcoming Phaseâ€Purity Challenges in Complex Metal Oxide Photoelectrodes: A Case Study of CuBi₂O₄. Advanced Energy Materials, 2021, 11, 2003474.	10.2	23
103	Interfacial Oxide Formation Limits the Photovoltage of Î±â€SnWO₄/NiO<i>_x</i> Photoanodes Prepared by Pulsed Laser Deposition. Advanced Energy Materials, 2021, 11, 2003183.	10.2	23
104	Interplay of Linker Functionalization and Hydrogen Adsorption in the Metalâ€"Organic Framework MIL-101. Journal of Physical Chemistry C, 2014, 118, 19572-19579.	1.5	22
105	In situ XAS study of CoBi modified hematite photoanodes. Dalton Transactions, 2017, 46, 15719-15726.	1.6	21
106	Zn-Doped Fe₂TiO₅ Pseudobrookite-Based Photoanodes Grown by Aerosol-Assisted Chemical Vapor Deposition. ACS Applied Energy Materials, 2020, 3, 12066-12077.	2.5	20
107	Shining a Hot Light on Emerging Photoabsorber Materials: The Power of Rapid Radiative Heating in Developing Oxide Thin-Film Photoelectrodes. ACS Energy Letters, 2022, 7, 514-522.	8.8	20
108	Spectroscopic analysis with tender X-rays: SpAnTeX, a new AP-HAXPES end-station at BESSY II. Surface Science, 2021, 713, 121903.	0.8	19

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109	Influence of Si dopant and SnO2 interfacial layer on the structure of the spray-deposited Fe2O3 films. Chemical Physics Letters, 2009, 479, 86-90.	1.2	18
110	Fluidized-bed atomic layer deposition reactor for the synthesis of core-shell nanoparticles. Review of Scientific Instruments, 2014, 85, 013905.	0.6	18
111	Photocorrosion Mechanism of TiO₂-Coated Photoanodes. International Journal of Photoenergy, 2015, 2015, 1-8.	1.4	18
112	Sulfur Treatment Passivates Bulk Defects in Sb₂Se₃ Photocathodes for Water Splitting. Advanced Functional Materials, 2022, 32, .	7.8	18
113	Elucidating the optical, electronic, and photoelectrochemical properties of p-type copper vanadate (p-Cu₅V₂O₁₀) photocathodes. Journal of Materials Chemistry A, 2020, 8, 12538-12547.	5.2	17
114	Facet-dependent carrier dynamics of cuprous oxide regulating the photocatalytic hydrogen generation. Materials Advances, 2022, 3, 2200-2212.	2.6	15
115	Architectures for scalable integrated photo driven catalytic devices-A concept study. International Journal of Hydrogen Energy, 2016, 41, 20823-20831.	3.8	14
116	Enhanced photoluminescence at poly(3-octyl-thiophene)/TiO2 interfaces. Applied Physics Letters, 2004, 84, 2539-2541.	1.5	12
117	Influence of point defects on the performance of InVO₄ photoanodes. Journal of Photonics for Energy, 2011, 1, 016001.	0.8	12
118	Multinary Metal Oxide Photoelectrodes. , 2016, , 355-391.		11
119	Photocurrent Enhancement by Spontaneous Formation of a pâ€“n Junction in Calciumâ€Doped Bismuth Vanadate Photoelectrodes. ChemPlusChem, 2018, 83, 941-946.	1.3	11
120	The electronic structure and the formation of polarons in Mo-doped BiVO₄ measured by angle-resolved photoemission spectroscopy. RSC Advances, 2019, 9, 15606-15614.	1.7	11
121	Pulsed Laser Deposited Fe2TiO5 Photoanodes for Photoelectrochemical Water Oxidation. Journal of Physical Chemistry C, 2020, 124, 19911-19921.	1.5	11
122	Influence of post-deposition annealing on the photoelectrochemical performance of CuBi2O4 thin films. APL Materials, 2020, 8, .	2.2	11
123	Absorption Enhancement for Ultrathin Solar Fuel Devices with Plasmonic Gratings. ACS Applied Energy Materials, 2018, 1, 5810-5815.	2.5	10
124	A Faster Path to Solar Water Splitting. Matter, 2020, 3, 1389-1391.	5.0	10
125	The role of selective contacts and built-in field for charge separation and transport in photoelectrochemical devices. Sustainable Energy and Fuels, 2022, 6, 3701-3716.	2.5	10
126	Quantification of the Activator and Sensitizer Ion Distributions in NaYF₄:Yb³⁺, Er³⁺ Upconverting Nanoparticles Via Depthâ€Profiling with Tender Xâ€Ray Photoemission. Small, 2022, 18, .	5.2	10

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127	Planar and Nanostructured nâ€Si/Metalâ€Oxide/WO₃/BiVO₄ Monolithic Tandem Devices for Unassisted Solar Water Splitting. Advanced Energy and Sustainability Research, 2020, 1, 2000037.	2.8	9
128	pH-Dependent Stability of Î±-SnWO₄ Photoelectrodes. Chemistry of Materials, 2022, 34, 1590-1598.	3.2	8
129	Structural Monitoring of NiB_i Modified BiVO₄ Photoanodes Using in Situ Soft and Hard X-ray Absorption Spectroscopies. ACS Applied Energy Materials, 2019, 2, 4126-4134.	2.5	6
130	Photo-Electrochemical Production of Hydrogen. , 2008, , 121-142.		5
131	Growth of Bi₂O₃ Films by Thermal- and Plasma-Enhanced Atomic Layer Deposition Monitored with Real-Time Spectroscopic Ellipsometry for Photocatalytic Water Splitting. ACS Applied Nano Materials, 2019, 2, 6277-6286.	2.4	4
132	Photocatalytic hydrogenation of acetophenone on a titanium dioxide cellulose film. RSC Advances, 2022, 12, 7055-7065.	1.7	4
133	Optical modeling of an efficient water splitting device based on bismuth vanadate photoanode and micromorph silicon solar cells. , 2014, , .		3
134	In situâ€‰investigation of the bismuth vanadate/potassium phosphate interface reveals morphological and composition dependent light-induced surface reactions. Journal Physics D: Applied Physics, 2021, 54, 164001.	1.3	3
135	Nano-Structured Materials for a Hydrogen Economy. NATO Science Series Series II, Mathematics, Physics and Chemistry, 2005, , 251-258.	0.1	3
136	Photoelectrocatalytic Removal of Color from Water Using TiO2 and TiO2/Cu2O Thin Film Electrodes Under Low Light Intensity. , 2009, , 181-196.		3
137	Deposition of conductive TiN shells on SiO2 nanoparticles with a fluidized bed ALD reactor. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	2
138	Ion beam modification of single crystalline BiVO4. Nuclear Instruments & Methods in Physics Research B, 2017, 409, 133-137.	0.6	2
139	Protection Mechanism against Photocorrosion of GaN Photoanodes Provided by NiO Thin Layers. Solar Rrl, 2020, 4, 2000568.	3.1	2
140	Properties of Carbon-doped TiO2 (Anatase) Photo-Electrodes. Materials Research Society Symposia Proceedings, 2005, 885, 1.	0.1	1
141	Influence of point defects on the performance of InVO 4 photoanodes. , 2010, , .		1
142	Solar Water Splitting: Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment (Adv. Energy Mater. 22/2017). Advanced Energy Materials, 2017, 7, .	10.2	1
143	Addressing the Key Aspects of Photoelectrocatalytic Systems for Solar Fuel Production. ACS Energy Letters, 2017, 2, 2725-2726.	8.8	0
144	Net Energy Balance Assessment for a Coupled Photoelectrochemical Water Splitting Device. ECS Meeting Abstracts, 2022, MA2022-01, 1792-1792.	0.0	0

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145	Alternate-Target Layer-By-Layer Pulsed Laser Deposition of Epitaxial BiVO₄ Thin Films. ECS Meeting Abstracts, 2022, MA2022-01, 1559-1559.	0.0	0