

Roel van de krol

List of Publications by Citations

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140
papers

10,785
citations

45
h-index

103
g-index

149
ext. papers

12,325
ext. citations

9.4
avg, IF

6.8
L-index

#	Paper	IF	Citations
140	Efficient solar water splitting by enhanced charge separation in a bismuth vanadate-silicon tandem photoelectrode. <i>Nature Communications</i> , 2013 , 4, 2195	17.4	977
139	Semiconducting materials for photoelectrochemical energy conversion. <i>Nature Reviews Materials</i> , 2016 , 1,	73.3	899
138	Solar hydrogen production with nanostructured metal oxides. <i>Journal of Materials Chemistry</i> , 2008 , 18, 2311		580
137	Unravelling the mechanism of photoinduced charge transfer processes in lead iodide perovskite solar cells. <i>Nature Photonics</i> , 2014 , 8, 250-255	33.9	567
136	Nature and Light Dependence of Bulk Recombination in Co-Pi-Catalyzed BiVO ₄ Photoanodes. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 9398-9404	3.8	445
135	The Origin of Slow Carrier Transport in BiVO ₄ Thin Film Photoanodes: A Time-Resolved Microwave Conductivity Study. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 2752-2757	6.4	394
134	Water-splitting catalysis and solar fuel devices: artificial leaves on the move. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 10426-37	16.4	383
133	Highly Improved Quantum Efficiencies for Thin Film BiVO ₄ Photoanodes. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 17594-17598	3.8	340
132	Photoelectrochemical Hydrogen Production. <i>Kluwer International Series in Electronic Materials: Science and Technology</i> , 2012 ,		319
131	Efficient BiVO ₄ Thin Film Photoanodes Modified with Cobalt Phosphate Catalyst and W-doping. <i>ChemCatChem</i> , 2013 , 5, 490-496	5.2	290
130	Photocurrent of BiVO is limited by surface recombination, not surface catalysis. <i>Chemical Science</i> , 2017 , 8, 3712-3719	9.4	281
129	Two phase morphology limits lithium diffusion in TiO ₂ (anatase): a ⁷ Li MAS NMR study. <i>Journal of the American Chemical Society</i> , 2001 , 123, 11454-61	16.4	247
128	A Bismuth Vanadate/Cuprous Oxide Tandem Cell for Overall Solar Water Splitting. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 16959-16966	3.8	206
127	Hetero-type dual photoanodes for unbiased solar water splitting with extended light harvesting. <i>Nature Communications</i> , 2016 , 7, 13380	17.4	197
126	Selective photoreduction of nitric oxide to nitrogen by nanostructured TiO ₂ photocatalysts: role of oxygen vacancies and iron dopant. <i>Journal of the American Chemical Society</i> , 2012 , 134, 9369-75	16.4	194
125	Comprehensive Evaluation of CuBi ₂ O ₄ as a Photocathode Material for Photoelectrochemical Water Splitting. <i>Chemistry of Materials</i> , 2016 , 28, 4231-4242	9.6	191
124	Mott-Schottky Analysis of Nanometer-Scale Thin-Film Anatase TiO ₂ . <i>Journal of the Electrochemical Society</i> , 1997 , 144, 1723-1727	3.9	170

123	In Situ X-Ray Diffraction of Lithium Intercalation in Nanostructured and Thin Film Anatase TiO ₂ . <i>Journal of the Electrochemical Society</i> , 1999 , 146, 3150-3154	3.9	169
122	Pathways to electrochemical solar-hydrogen technologies. <i>Energy and Environmental Science</i> , 2018 , 11, 2768-2783	35.4	165
121	Spatial Extent of Lithium Intercalation in Anatase TiO ₂ . <i>Journal of Physical Chemistry B</i> , 1999 , 103, 7151-7159	3.159	159
120	Microcontact-printing-assisted access of graphitic carbon nitride films with favorable textures toward photoelectrochemical application. <i>Advanced Materials</i> , 2015 , 27, 712-8	24	151
119	Efficient water-splitting device based on a bismuth vanadate photoanode and thin-film silicon solar cells. <i>ChemSusChem</i> , 2014 , 7, 2832-8	8.3	130
118	Creating Oxygen Vacancies as a Novel Strategy To Form Tetrahedrally Coordinated Ti ⁴⁺ in Fe/TiO ₂ Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 7219-7226	3.8	130
117	Gradient Self-Doped CuBiO with Highly Improved Charge Separation Efficiency. <i>Journal of the American Chemical Society</i> , 2017 , 139, 15094-15103	16.4	122
116	Unraveling the Carrier Dynamics of BiVO ₄ : A Femtosecond to Microsecond Transient Absorption Study. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 27793-27800	3.8	116
115	Evaluating Charge Carrier Transport and Surface States in CuFeO ₂ Photocathodes. <i>Chemistry of Materials</i> , 2017 , 29, 4952-4962	9.6	106
114	Recent advances in rational engineering of multinary semiconductors for photoelectrochemical hydrogen generation. <i>Nano Energy</i> , 2018 , 51, 457-480	17.1	106
113	Embedding laser generated nanocrystals in BiVO photoanode for efficient photoelectrochemical water splitting. <i>Nature Communications</i> , 2019 , 10, 2609	17.4	93
112	Direct Time-Resolved Observation of Carrier Trapping and Polaron Conductivity in BiVO ₄ . <i>ACS Energy Letters</i> , 2016 , 1, 888-894	20.1	88
111	Efficient plasma route to nanostructure materials: case study on the use of m-WO ₃ for solar water splitting. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 7621-5	9.5	84
110	Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment. <i>Advanced Energy Materials</i> , 2017 , 7, 1701536	21.8	78
109	Solar Water Splitting Combining a BiVO ₄ Light Absorber with a Ru-Based Molecular Cocatalyst. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 7275-7281	3.8	65
108	High-Temperature Ammonolysis of Thin Film Ta ₂ O ₅ Photoanodes: Evolution of Structural, Optical, and Photoelectrochemical Properties. <i>Chemistry of Materials</i> , 2015 , 27, 708-715	9.6	63
107	Spray pyrolysis of CuBi ₂ O ₄ photocathodes: improved solution chemistry for highly homogeneous thin films. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 12838-12847	13	62
106	Electrical and optical properties of TiO ₂ in accumulation and of lithium titanate Li _{0.5} TiO ₂ . <i>Journal of Applied Physics</i> , 2001 , 90, 2235-2242	2.5	60

105	Plasmonic enhancement of the optical absorption and catalytic efficiency of BiVO ₄ photoanodes decorated with Ag@SiO ₂ core-shell nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 15272-7	3.6	54
104	Photoelectrochemical properties of cadmium chalcogenide-sensitized textured porous zinc oxide plate electrodes. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 1113-21	9.5	53
103	Oxynitrogenography: Controlled Synthesis of Single-Phase Tantalum Oxynitride Photoabsorbers. <i>Chemistry of Materials</i> , 2015 , 27, 7091-7099	9.6	51
102	Probing the Interfacial Chemistry of Ultrathin ALD-Grown TiO ₂ Films: An In-Line XPS Study. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 5531-5538	3.8	50
101	Formation and suppression of defects during heat treatment of BiVO ₄ photoanodes for solar water splitting. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 18694-18700	13	49
100	Structural Transformation Identification of Sputtered Amorphous MoS _x as an Efficient Hydrogen-Evolving Catalyst during Electrochemical Activation. <i>ACS Catalysis</i> , 2019 , 9, 2368-2380	13.1	48
99	Demonstration of a 50 cm ² BiVO ₄ tandem photoelectrochemical-photovoltaic water splitting device. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 2366-2379	5.8	48
98	The Photoresponse of Iron- and Carbon-Doped TiO ₂ (Anatase) Photoelectrodes. <i>Journal of Electroceramics</i> , 2004 , 13, 177-182	1.5	48
97	Photoelectrochemical Characterization of Sprayed Fe ₂ O ₃ Thin Films: Influence of Si Doping and SnO ₂ Interfacial Layer. <i>International Journal of Photoenergy</i> , 2008 , 2008, 1-7	2.1	47
96	Photo-electrochemical Properties of Thin-Film InVO ₄ Photoanodes: the Role of Deep Donor States. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 19351-19360	3.8	45
95	Electroceramics: The role of interfaces. <i>Solid State Ionics</i> , 2002 , 150, 167-179	3.3	44
94	Analysis of the interfacial characteristics of BiVO ₄ /metal oxide heterostructures and its implication on their junction properties. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 5086-5096	3.6	43
93	Evaluation of electrodeposited Mn ₂ O ₃ as a catalyst for the oxygen evolution reaction. <i>Catalysis Today</i> , 2017 , 290, 2-9	5.3	42
92	Metal-organic framework thin films for protective coating of Pd-based optical hydrogen sensors. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 8146	7.1	42
91	Fe ₂ O ₃ films for photoelectrochemical water oxidation: Insights of key performance parameters. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 20196-20202	13	41
90	Cu:NiO as a hole-selective back contact to improve the photoelectrochemical performance of CuBi ₂ O ₄ thin film photocathodes. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 9183-9194	13	40
89	Optimization of amorphous silicon double junction solar cells for an efficient photoelectrochemical water splitting device based on a bismuth vanadate photoanode. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 4220-9	3.6	39
88	Revealing the Performance-Limiting Factors in SnWO ₄ Photoanodes for Solar Water Splitting. <i>Chemistry of Materials</i> , 2018 , 30, 8322-8331	9.6	39

87	Protonated Imine-Linked Covalent Organic Frameworks for Photocatalytic Hydrogen Evolution. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 19797-19803	16.4	38
86	Elucidation of the opto-electronic and photoelectrochemical properties of FeVO ₄ photoanodes for solar water oxidation. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 548-555	13	38
85	Assessing the Suitability of Iron Tungstate (Fe ₂ WO ₆) as a Photoelectrode Material for Water Oxidation. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 153-160	3.8	37
84	BiVO ₄ photoanodes for water splitting with high injection efficiency, deposited by reactive magnetron co-sputtering. <i>AIP Advances</i> , 2016 , 6, 045108	1.5	37
83	MOF@MOF core-shell vs. Janus particles and the effect of strain: potential for guest sorption, separation and sequestration. <i>CrystEngComm</i> , 2013 , 15, 6003	3.3	36
82	Addition of carbon to anatase TiO ₂ by n-hexane treatment—surface or bulk doping?. <i>Applied Surface Science</i> , 2006 , 252, 6342-6347	6.7	36
81	Interface Science Using Ambient Pressure Hard X-ray Photoelectron Spectroscopy. <i>Surfaces</i> , 2019 , 2, 78-99	2.9	34
80	Perspectives on the photoelectrochemical storage of solar energy. <i>MRS Energy & Sustainability</i> , 2017 , 4, 1	2.2	33
79	Spray-deposited Co-Pi Catalyzed BiVO ₄ : a low-cost route towards highly efficient photoanodes. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1446, 7		33
78	Combined soft and hard X-ray ambient pressure photoelectron spectroscopy studies of semiconductor/electrolyte interfaces. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2017 , 221, 106-115	1.7	32
77	Photoelectrochemical Properties of GaN Photoanodes with Cobalt Phosphate Catalyst for Solar Water Splitting in Neutral Electrolyte. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 12540-12545	3.8	31
76	A dopant-mediated recombination mechanism in Fe-doped TiO ₂ nanoparticles for the photocatalytic decomposition of nitric oxide. <i>Catalysis Today</i> , 2014 , 225, 96-101	5.3	29
75	Probing hydrogen spillover in Pd@MIL-101(Cr) with a focus on hydrogen chemisorption. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 5803-9	3.6	29
74	Evaluation of Copper Vanadate (Cu ₂ V ₂ O ₇) as a Photoanode Material for Photoelectrochemical Water Oxidation. <i>Chemistry of Materials</i> , 2020 , 32, 2408-2419	9.6	27
73	Titanium nitride: A new Ohmic contact material for n-type CdS. <i>Journal of Applied Physics</i> , 2011 , 110, 033717	2.5	26
72	Artificial Leaf for Water Splitting Based on a Triple-Junction Thin-Film Silicon Solar Cell and a PEDOT:PSS/Catalyst Blend. <i>Energy Technology</i> , 2016 , 4, 230-241	3.5	25
71	Enhanced Carrier Transport and Bandgap Reduction in Sulfur-Modified BiVO ₄ Photoanodes. <i>Chemistry of Materials</i> , 2018 , 30, 8630-8638	9.6	25
70	Efficient and Stable TiO ₂ :Pt@Cu(In,Ga)Se ₂ Composite Photoelectrodes for Visible Light Driven Hydrogen Evolution. <i>Advanced Energy Materials</i> , 2015 , 5, 1402148	21.8	24

69	Pure CuBi ₂ O ₄ Photoelectrodes with Increased Stability by Rapid Thermal Processing of Bi ₂ O ₃ /CuO Grown by Pulsed Laser Deposition. <i>Advanced Functional Materials</i> , 2020 , 30, 1910832	15.6	24
68	Assessment of a W:BiVO-CuBiOTandem Photoelectrochemical Cell for Overall Solar Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 13959-13970	9.5	24
67	Wet ammonia Synthesis of Semiconducting N:Ta ₂ O ₅ , Ta ₃ N ₅ and TaON Films for Photoanode Applications. <i>Energy Procedia</i> , 2012 , 22, 15-22	2.3	24
66	The interface of GaP(100) and H ₂ O studied by photoemission and reflection anisotropy spectroscopy. <i>New Journal of Physics</i> , 2013 , 15, 103003	2.9	23
65	An n-Si/n-Fe ₂ O ₃ heterojunction tandem photoanode for solar water splitting. <i>Chimia</i> , 2013 , 67, 168-71	1.3	23
64	Characterization of structured Fe ₂ O ₃ photoanodes prepared via electrodeposition and thermal oxidation of iron. <i>Thin Solid Films</i> , 2011 , 520, 1034-1040	2.2	23
63	Nano-morphology of lithiated thin film TiO ₂ anatase probed with in situ neutron reflectometry. <i>Physica B: Condensed Matter</i> , 2003 , 336, 124-129	2.8	23
62	Structure and properties of anatase TiO ₂ thin films made by reactive electron beam evaporation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2003 , 21, 76-83	2.9	23
61	Light-Induced Surface Reactions at the Bismuth Vanadate/Potassium Phosphate Interface. <i>Journal of Physical Chemistry B</i> , 2018 , 122, 801-809	3.4	22
60	Solution-processed multilayered BiVO ₄ photoanodes: influence of intermediate heat treatments on the photoactivity. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1723-1728	13	22
59	Energy-Band Alignment of BiVO ₄ from Photoelectron Spectroscopy of Solid-State Interfaces. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 20861-20870	3.8	22
58	Efficient NO adsorption and release at Fe ³⁺ sites in Fe/TiO ₂ nanoparticles. <i>Energy and Environmental Science</i> , 2011 , 4, 2140	35.4	22
57	In situ observation of pH change during water splitting in neutral pH conditions: impact of natural convection driven by buoyancy effects. <i>Energy and Environmental Science</i> , 2020 , 13, 5104-5116	35.4	22
56	On the benchmarking of multi-junction photoelectrochemical fuel generating devices. <i>Sustainable Energy and Fuels</i> , 2017 , 1, 492-503	5.8	20
55	Interplay of Linker Functionalization and Hydrogen Adsorption in the Metal-Organic Framework MIL-101. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 19572-19579	3.8	20
54	In Situ Structural Study of MnPi-Modified BiVO ₄ Photoanodes by Soft X-ray Absorption Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 19668-19676	3.8	20
53	Different Photostability of BiVO in Near-pH-Neutral Electrolytes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 9523-9527	6.1	18
52	In situ XAS study of CoB modified hematite photoanodes. <i>Dalton Transactions</i> , 2017 , 46, 15719-15726	4.3	17

51	Elucidating the Pulsed Laser Deposition Process of BiVO ₄ Photoelectrodes for Solar Water Splitting. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 4438-4447	3.8	17
50	Influence of Si dopant and SnO ₂ interfacial layer on the structure of the spray-deposited Fe ₂ O ₃ films. <i>Chemical Physics Letters</i> , 2009 , 479, 86-90	2.5	17
49	Influence of the Metal Center in MnO _x Catalysts on the CO ₂ Reduction Reaction on Gas Diffusion Electrodes. <i>ACS Catalysis</i> , 2021 , 11, 5850-5864	13.1	17
48	Chemical, Structural, and Electronic Characterization of the (010) Surface of Single Crystalline Bismuth Vanadate. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 8347-8359	3.8	17
47	Effect of Doping and Excitation Wavelength on Charge Carrier Dynamics in Hematite by Time-Resolved Microwave and Terahertz Photoconductivity. <i>Advanced Functional Materials</i> , 2020 , 30, 1901590	15.6	17
46	Host, Suppressor, and Promoter: The Roles of Ni and Fe on Oxygen Evolution Reaction Activity and Stability of NiFe Alloy Thin Films in Alkaline Media. <i>ACS Catalysis</i> , 2021 , 11, 10537-10552	13.1	16
45	Photocorrosion Mechanism of TiO ₂ -Coated Photoanodes. <i>International Journal of Photoenergy</i> , 2015 , 2015, 1-8	2.1	15
44	Grain Boundaries Limit the Charge Carrier Transport in Pulsed Laser Deposited BiVO ₄ Thin Film Photoabsorbers. <i>ACS Applied Energy Materials</i> , 2020 , 3, 4320-4330	6.1	15
43	Femtosecond time-resolved two-photon photoemission studies of ultrafast carrier relaxation in CuO photoelectrodes. <i>Nature Communications</i> , 2019 , 10, 2106	17.4	14
42	Nature of Nitrogen Incorporation in BiVO ₄ Photoanodes through Chemical and Physical Methods. <i>Solar Rrl</i> , 2020 , 4, 1900290	7.1	14
41	Fluidized-bed atomic layer deposition reactor for the synthesis of core-shell nanoparticles. <i>Review of Scientific Instruments</i> , 2014 , 85, 013905	1.7	13
40	Influence of point defects on the performance of InVO ₄ photoanodes. <i>Journal of Photonics for Energy</i> , 2011 , 1, 016001	1.2	12
39	Understanding the Hydrogen Evolution Reaction Kinetics of Electrodeposited Nickel-Molybdenum in Acidic, Near-Neutral, and Alkaline Conditions. <i>ChemElectroChem</i> , 2021 , 8, 195-208	4.3	12
38	The role of ultra-thin MnO _x co-catalysts on the photoelectrochemical properties of BiVO ₄ photoanodes. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 5508-5516	13	11
37	Architectures for scalable integrated photo driven catalytic devices-A concept study. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 20823-20831	6.7	11
36	Multinary Metal Oxide Photoelectrodes 2016 , 355-391		11
35	Interfacial Oxide Formation Limits the Photovoltage of BiVO ₄ /NiO _x Photoanodes Prepared by Pulsed Laser Deposition. <i>Advanced Energy Materials</i> , 2021 , 11, 2003183	21.8	11
34	Enhanced photoluminescence at poly(3-octyl-thiophene)/TiO ₂ interfaces. <i>Applied Physics Letters</i> , 2004 , 84, 2539-2541	3.4	10

33	Extraction of mobile charge carrier photogeneration yield spectrum of ultrathin-film metal oxide photoanodes for solar water splitting. <i>Nature Materials</i> , 2021 , 20, 833-840	27	10
32	Overcoming Phase-Purity Challenges in Complex Metal Oxide Photoelectrodes: A Case Study of CuBi ₂ O ₄ . <i>Advanced Energy Materials</i> , 2021 , 11, 2003474	21.8	9
31	Spectroscopic analysis with tender X-rays: SpAnTeX, a new AP-HAXPES end-station at BESSY II. <i>Surface Science</i> , 2021 , 713, 121903	1.8	8
30	On the Origin of the OER Activity of Ultrathin Manganese Oxide Films. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 2428-2436	9.5	8
29	Photocurrent Enhancement by Spontaneous Formation of a p-n Junction in Calcium-Doped Bismuth Vanadate Photoelectrodes. <i>ChemPlusChem</i> , 2018 , 83, 941-946	2.8	6
28	Zn-Doped Fe ₂ TiO ₅ Pseudobrookite-Based Photoanodes Grown by Aerosol-Assisted Chemical Vapor Deposition. <i>ACS Applied Energy Materials</i> , 2020 , 3, 12066-12077	6.1	6
27	The electronic structure and the formation of polarons in Mo-doped BiVO measured by angle-resolved photoemission spectroscopy.. <i>RSC Advances</i> , 2019 , 9, 15606-15614	3.7	5
26	A Faster Path to Solar Water Splitting. <i>Matter</i> , 2020 , 3, 1389-1391	12.7	5
25	Shining a Hot Light on Emerging Photoabsorber Materials: The Power of Rapid Radiative Heating in Developing Oxide Thin-Film Photoelectrodes. <i>ACS Energy Letters</i> , 514-522	20.1	5
24	Pulsed Laser Deposited Fe ₂ TiO ₅ Photoanodes for Photoelectrochemical Water Oxidation. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 19911-19921	3.8	5
23	Photo-Electrochemical Production of Hydrogen 2008 , 121-142		5
22	Elucidating the optical, electronic, and photoelectrochemical properties of p-type copper vanadate (p-Cu ₅ V ₂ O ₁₀) photocathodes. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 12538-12547	13	4
21	Influence of post-deposition annealing on the photoelectrochemical performance of CuBi ₂ O ₄ thin films. <i>APL Materials</i> , 2020 , 8, 061101	5.7	4
20	Absorption Enhancement for Ultrathin Solar Fuel Devices with Plasmonic Gratings. <i>ACS Applied Energy Materials</i> , 2018 , 1, 5810-5815	6.1	4
19	Facet-dependent carrier dynamics of cuprous oxide regulating the photocatalytic hydrogen generation. <i>Materials Advances</i> ,	3.3	3
18	Planar and Nanostructured n-Si/Metal-Oxide/WO ₃ /BiVO ₄ Monolithic Tandem Devices for Unassisted Solar Water Splitting. <i>Advanced Energy and Sustainability Research</i> , 2020 , 1, 2000037	1.6	3
17	Nano-Structured Materials for a Hydrogen Economy. <i>NATO Science Series Series II, Mathematics, Physics and Chemistry</i> , 2005 , 251-258		3
16	Sulfur-Treatment Passivates Bulk Defects in Sb ₂ Se ₃ Photocathodes for Water Splitting. <i>Advanced Functional Materials</i> , 2112184	15.6	3

15	Activating Semiconductor-Liquid Junction via Laser Derived Dual Interfacial Layers for Boosted Photoelectrochemical Water Splitting.. <i>Advanced Materials</i> , 2022 , e2201140	24	3
14	Ion beam modification of single crystalline BiVO ₄ . <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017 , 409, 133-137	1.2	2
13	Growth of Bi ₂ O ₃ Films by Thermal- and Plasma-Enhanced Atomic Layer Deposition Monitored with Real-Time Spectroscopic Ellipsometry for Photocatalytic Water Splitting. <i>ACS Applied Nano Materials</i> , 2019 , 2, 6277-6286	5.6	2
12	Structural Monitoring of NiBi Modified BiVO ₄ Photoanodes Using in Situ Soft and Hard X-ray Absorption Spectroscopies. <i>ACS Applied Energy Materials</i> , 2019 , 2, 4126-4134	6.1	2
11	Optical modeling of an efficient water splitting device based on bismuth vanadate photoanode and micromorph silicon solar cells 2014 ,		2
10	Revealing the relationship between photoelectrochemical performance and interface hole trapping in CuBiO heterojunction photoelectrodes. <i>Chemical Science</i> , 2020 , 11, 11195-11204	9.4	2
9	Solar Water Splitting: Enhancing Charge Carrier Lifetime in Metal Oxide Photoelectrodes through Mild Hydrogen Treatment (Adv. Energy Mater. 22/2017). <i>Advanced Energy Materials</i> , 2017 , 7,	21.8	1
8	Influence of point defects on the performance of InVO ₄ photoanodes 2010 ,		1
7	Protection Mechanism against Photocorrosion of GaN Photoanodes Provided by NiO Thin Layers. <i>Solar Rrl</i> , 2020 , 4, 2000568	7.1	1
6	Deposition of conductive TiN shells on SiO ₂ nanoparticles with a fluidized bed ALD reactor. <i>Journal of Nanoparticle Research</i> , 2016 , 18, 1	2.3	1
5	In situ investigation of the bismuth vanadate/potassium phosphate interface reveals morphological and composition dependent light-induced surface reactions. <i>Journal Physics D: Applied Physics</i> , 2021 , 54, 164001	3	1
4	Photocatalytic hydrogenation of acetophenone on a titanium dioxide cellulose film.. <i>RSC Advances</i> , 2022 , 12, 7055-7065	3.7	0
3	Addressing the Key Aspects of Photoelectrocatalytic Systems for Solar Fuel Production. <i>ACS Energy Letters</i> , 2017 , 2, 2725-2726	20.1	
2	Properties of Carbon-doped TiO ₂ (Anatase) Photo-Electrodes. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 885, 1		
1	Photoelectrocatalytic Removal of Color from Water Using TiO ₂ and TiO ₂ /Cu ₂ O Thin Film Electrodes Under Low Light Intensity 2009 , 181-196		