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Photoelectrochemical cells for solar hydrogen production: current state of promising photoelectrodes, methods to improve their properties, and outlook

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#	Paper	IF	Citations
895	Band positions and photoelectrochemical properties of Cu ₂ ZnSnS ₄ thin films by the ultrasonic spray pyrolysis method. 2013 , 46, 235108		90
894	Efficient solar water oxidation using photovoltaic devices functionalized with earth-abundant oxygen evolving catalysts. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 13083-92	3.6	30
893	Synthesis of Pt@NH ₂ -MIL-125(Ti) as a photocathode material for photoelectrochemical hydrogen production. 2013 , 3, 19820		30
892	A co-catalyst-loaded Ta(3)N(5) photoanode with a high solar photocurrent for water splitting upon facile removal of the surface layer. 2013 , 52, 11016-20		189
891	Twin-induced one-dimensional homojunctions yield high quantum efficiency for solar hydrogen generation. 2013 , 4, 2278		241
890	Cobalt-bilayer catalyst decorated Ta ₃ N ₅ nanorod arrays as integrated electrodes for photoelectrochemical water oxidation. <i>Energy and Environmental Science</i> , 2013 , 6, 3322	35.4	89
889	Single-crystalline, wormlike hematite photoanodes for efficient solar water splitting. 2013 , 3, 2681		519
888	Combined charge carrier transport and photoelectrochemical characterization of BiVO ₄ single crystals: intrinsic behavior of a complex metal oxide. 2013 , 135, 11389-96		359
887	Reactive Sputtering of Bismuth Vanadate Photoanodes for Solar Water Splitting. 2013 , 117, 21635-21642		140
886	Two-dimensional nanosheets for photoelectrochemical water splitting: Possibilities and opportunities. 2013 , 8, 598-618		292
885	Highly efficient photoelectrochemical hydrogen generation using a quantum dot coupled hierarchical ZnO nanowires array. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 13258-64	9.5	41
884	Photocurrent improvement in nanocrystalline Cu ₂ ZnSnS ₄ photocathodes by introducing porous structures. 2013 , 1, 15479		47
883	Electrochemically hydrogenated TiO ₂ nanotubes with improved photoelectrochemical water splitting performance. 2013 , 8, 391		110
882	Quantum dot CdS coupled Cd ₂ SnO ₄ photoanode with high photoelectrochemical water splitting efficiency. 2013 , 1, 12426		17
881	Tuning the Fermi Level and the Kinetics of Surface States of TiO ₂ Nanorods by Means of Ammonia Treatments. 2013 , 117, 20517-20524		53
880	A monolithic device for solar water splitting based on series interconnected thin film absorbers reaching over 10% solar-to-hydrogen efficiency. <i>Energy and Environmental Science</i> , 2013 , 6, 3676	35.4	171
879	On the orbital anisotropy in hematite nanorod-based photoanodes. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 13483-8	3.6	17

878	Theoretical study of water adsorption and dissociation on Ta ₃ N ₅ (100) surfaces. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 16054-64	3.6	24
877	Doping La into the depletion layer of the Cd(0.6)Zn(0.4)S photocatalyst for efficient H ₂ evolution. 2013 , 49, 10142-4		31
876	Highly efficient visible light photocatalytic activity of Cr ^{III} -doped SrTiO ₃ with surface alkalization: An insight from DFT calculation. 2013 , 79, 87-94		14
875	Water Adsorption and Decomposition on N/V-Doped Anatase TiO ₂ (101) Surfaces. 2013 , 117, 6172-6184		22
874	High quantity and quality few-layers transition metal disulfide nanosheets from wet-milling exfoliation. 2013 , 3, 13193		69
873	Photo-driven autonomous hydrogen generation system based on hierarchically shelled ZnO nanostructures. <i>Applied Physics Letters</i> , 2013 , 103, 223903	3.4	2
872	Preparation of Mn-doped BiOBr microspheres for efficient visible-light-induced photocatalysis. 2013 , 3, 145-149		28
871	A Co-catalyst-Loaded Ta ₃ N ₅ Photoanode with a High Solar Photocurrent for Water Splitting upon Facile Removal of the Surface Layer. 2013 , 125, 11222-11226		14
870	Diffusion-Controlled Growth of Oxygen Bubble Evolved from Nanorod-Array TiO ₂ Photoelectrode. 2014 , 2014, 1-5		6
869	A Review: CO ₂ Utilization. 2014 , 14, 480-499		201
868	Quantum size effects in TiO ₂ thin films grown by atomic layer deposition. 2014 , 5, 77-82		14
867	Ge-mediated modification in Ta ₃ N ₅ photoelectrodes with enhanced charge transport for solar water splitting. <i>Chemistry - A European Journal</i> , 2014 , 20, 16384-90	4.8	36
866	Solar Hydrogen Generation from Water Splitting Using ZnO/CuO Hetero Nanostructures. 2014 , 61, 345-348		5
865	The significant effect of heterojunction quality on photoelectrochemical water splitting in bilayer photoelectrodes: Rb(x)WO ₃ thin films on RbLaNb ₂ O ₇ layers. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 26901-8	3.6	8
864	a-Si:H/p-Si:H tandem junction based photocathodes with high open-circuit voltage for efficient hydrogen production. 2014 , 29, 2605-2614		34
863	Simultaneous doping and growth of Sn-doped hematite nanocrystalline films with improved photoelectrochemical performance. 2014 , 4, 63408-63413		19
862	Quantitative Analysis and Visualized Evidence for High Charge Separation Efficiency in a Solid-Liquid Bulk Heterojunction. <i>Advanced Energy Materials</i> , 2014 , 4, 1301785	21.8	75
861	Epitaxial growth of ZnO Nanodisks with large exposed polar facets on nanowire arrays for promoting photoelectrochemical water splitting. <i>Small</i> , 2014 , 10, 4760-9	11	53

860	Oxidative degradation of industrial wastewater using spray deposited TiO ₂ /Au:Fe ₂ O ₃ bilayered thin films. 2014 , 141, 315-24		18
859	Effects of BaD codoping on the photocatalytic activities of Ta ₃ N ₅ photocatalyst: a DFT study. 2014 , 4, 55615-55621		9
858	Atomic layer deposition of metastable FeD ₂ via isomorphic epitaxy for photoassisted water oxidation. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 21894-900	9.5	26
857	Titania Nanotubes by Electrochemical Anodization for Solar Energy Conversion. 2014 , 161, D3066-D3077		26
856	Sn self-doped β -Fe ₂ O ₃ nanobranh arrays supported on a transparent, conductive SnO ₂ trunk to improve photoelectrochemical water oxidation. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 16459-16467	6.7	32
855	A critical review of CO ₂ photoconversion: Catalysts and reactors. 2014 , 224, 3-12		474
854	Growth of anatase and rutile TiO ₂ @Sb:SnO ₂ heterostructures and their application in photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 17508-17516	6.7	12
853	A gas-phase reactor powered by solar energy and ethanol for H ₂ production. 2014 , 70, 1270-1275		24
852	Surface-area-tuned, quantum-dot-sensitized heterostructured nanoarchitectures for highly efficient photoelectrodes. 2014 , 7, 144-153		24
851	Hydrogen evolution from water using Ag(x)Cu(1-x)GaSe ₂ photocathodes under visible light. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 6167-74	3.6	59
850	Formation mechanism of ZnS impurities and their effect on photoelectrochemical properties on a Cu ₂ ZnSnS ₄ photocathode. <i>CrystEngComm</i> , 2014 , 16, 2929	3.3	38
849	Photoelectrochemical water oxidation on photoanodes fabricated with hexagonal nanoflower and nanoblock WO ₃ . 2014 , 6, 2061-6		72
848	Tantalum-based semiconductors for solar water splitting. 2014 , 43, 4395-422		360
847	Hydrogen evolution from a copper(I) oxide photocathode coated with an amorphous molybdenum sulphide catalyst. 2014 , 5, 3059		376
846	Semiconductors with NIR driven upconversion performance for photocatalysis and photoelectrochemical water splitting. <i>CrystEngComm</i> , 2014 , 16, 3059	3.3	47
845	Highly Photo-Responsive LaTiO ₂ N Photoanodes by Improvement of Charge Carrier Transport among Film Particles. 2014 , 24, 3535-3542		153
844	CuO/Pd composite photocathodes for photoelectrochemical hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7686-7696	6.7	86
843	Research Update: Strategies for efficient photoelectrochemical water splitting using metal oxide photoanodes. 2014 , 2, 010703		87

842	Hierarchical assembly of TiO ₂ -SrTiO ₃ heterostructures on conductive SnO ₂ backbone nanobelts for enhanced photoelectrochemical and photocatalytic performance. 2014 , 275, 10-8		31
841	Recent advances in semiconductors for photocatalytic and photoelectrochemical water splitting. 2014 , 43, 7520-35		3037
840	Manipulating solar absorption and electron transport properties of rutile TiO ₂ photocatalysts via highly n-type F-doping. 2014 , 2, 3513		49
839	Efficient solar photoelectrolysis by nanoporous Mo:BiVO ₄ through controlled electron transport. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 1121-31	3.6	149
838	Platinum-free photoelectrochemical water splitting. 2014 , 43, 72-74		23
837	Water content in the anodization electrolyte affects the electrochemical and electronic transport properties of TiO ₂ nanotubes: a study by electrochemical impedance spectroscopy. <i>Electrochimica Acta</i> , 2014 , 121, 203-209	6.7	25
836	Formation of internal p-n junctions in Ta ₃ N ₅ photoanodes for water splitting. 2014 , 2, 20570-20577		39
835	Hetero-nanostructured suspended photocatalysts for solar-to-fuel conversion. <i>Energy and Environmental Science</i> , 2014 , 7, 3934-3951	35.4	408
834	Defect controlled water splitting characteristics of gold nanoparticle functionalized ZnO nanowire films. 2014 , 4, 20955-20963		20
833	Long-term durable silicon photocathode protected by a thin Al ₂ O ₃ /SiO _x layer for photoelectrochemical hydrogen evolution. 2014 , 2, 2928		79
832	A ferroelectric photocatalyst for enhancing hydrogen evolution: polarized particulate suspension. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 10408-13	3.6	74
831	Band gap engineering of NaTaO ₃ using density functional theory: a charge compensated codoping strategy. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 17116-24	3.6	45
830	Electrodeposition of Ni-doped FeOOH oxygen evolution reaction catalyst for photoelectrochemical water splitting. 2014 , 2, 14957		73
829	Single-LED solar simulator for amorphous Si and dye-sensitized solar cells. 2014 , 4, 19165-19171		18
828	Triple-layered nanostructured WO ₃ photoanodes with enhanced photocurrent generation and superior stability for photoelectrochemical solar energy conversion. 2014 , 6, 13457-62		52
827	Tetrapod CdSe-sensitized macroporous inverse opal electrodes for photo-electrochemical applications. 2014 , 2, 17568-17573		9
826	The electrical conductivity of thin film donor doped hematite: from insulator to semiconductor by defect modulation. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 11374-80	3.6	48
825	Localized nano-solid-solution induced by Cu doping in ZnS for efficient solar hydrogen generation. 2014 , 43, 11533-41		16

824	Substrate Dependent Water Splitting with Ultrathin α -Fe ₂ O ₃ Electrodes. 2014 , 118, 16494-16503		59
823	Single Crystalline Hematite Films for Solar Water Splitting: Ti-Doping and Thickness Effects. 2014 , 118, 3007-3014		82
822	Hierarchical hematite nanoplatelets for photoelectrochemical water splitting. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 11997-2004	9.5	62
821	Measurement of minority-carrier diffusion lengths using wedge-shaped semiconductor photoelectrodes. <i>Energy and Environmental Science</i> , 2014 , 7, 3424-3430	35.4	48
820	In Situ Photochemical Synthesis of Zn-Doped Cu ₂ O Hollow Microcubes for High Efficient Photocatalytic H ₂ Production. 2014 , 2, 1446-1452		70
819	Water Oxidation by Co-Based Oxides with Molecular Properties. 2014 , 163-185		4
818	Efficient H ₂ production over Au/graphene/TiO ₂ induced by surface plasmon resonance of Au and band-gap excitation of TiO ₂ . 2014 , 59, 111-116		11
817	Morphology control of one-dimensional heterojunctions for highly efficient photoanodes used for solar water splitting. 2014 , 2, 11408		37
816	Cobalt-phosphate-assisted photoelectrochemical water oxidation by arrays of molybdenum-doped zinc oxide nanorods. 2014 , 7, 2748-54		18
815	Materials and Processes for Solar Fuel Production. 2014 ,		7
814	Enhanced photoelectrochemical water oxidation on bismuth vanadate by electrodeposition of amorphous titanium dioxide. 2014 , 136, 14011-4		172
813	High-performance p-Cu ₂ O/n-TaON heterojunction nanorod photoanodes passivated with an ultrathin carbon sheath for photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2014 , 7, 3758-3768	35.4	152
812	Morphological, optical and photoelectrochemical properties of Fe ₂ O ₃ /ZnO NP composite thin films. 2014 , 4, 17671		25
811	Role of oxygen impurity on the mechanical stability and atomic cohesion of TaN semiconductor photocatalyst. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 15375-80	3.6	35
810	Photoexcited Hole Transfer to a MnOx Cocatalyst on a SrTiO ₃ Photoelectrode during Oxygen Evolution Studied by In Situ X-ray Absorption Spectroscopy. 2014 , 118, 24302-24309		37
809	Hierarchically Nanostructured One-Dimensional Metal Oxide Arrays for Solar Cells. 2014 , 27-74		1
808	Ga ₂ O ₃ Films for Photoelectrochemical Hydrogen Generation. 2014 , 161, H508-H511		20
807	Novel V ₂ O ₅ /BiVO ₄ /TiO ₂ Nanocomposites with High Visible-Light-Induced Photocatalytic Activity for the Degradation of Toluene. 2014 , 118, 10113-10121		153

806	Cathodic shift of onset potential for water oxidation on a Ti ⁴⁺ doped Fe ₂ O ₃ photoanode by suppressing the back reaction. <i>Energy and Environmental Science</i> , 2014 , 7, 752-759	35.4	201
805	Optical and transport properties of LaTi _{1-x} Mx(O,N) ₃ (x=0; 0.1, M=Nb ⁵⁺ , W ⁶⁺) thin films prepared by plasma ammonolysis. 2014 , 211, 106-112		13
804	Highly oriented Ge-doped hematite nanosheet arrays for photoelectrochemical water oxidation. 2014 , 9, 282-290		89
803	Why the photocatalytic activity of Mo-doped BiVO ₄ is enhanced: a comprehensive density functional study. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 13465-76	3.6	73
802	TiO ₂ nanotubes modified with electrochemically reduced graphene oxide for photoelectrochemical water splitting. 2014 , 80, 591-598		38
801	Enhanced photoelectrochemical water-splitting performance of semiconductors by surface passivation layers. <i>Energy and Environmental Science</i> , 2014 , 7, 2504-2517	35.4	443
800	Photonic light trapping in self-organized all-oxide microspheroids impacts photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2014 , 7, 2680-2688	35.4	40
799	Photoelectrochemical water oxidation of LaTaON ₂ under visible-light irradiation. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7697-7704	6.7	48
798	3D TiO ₂ /SnO ₂ hierarchically branched nanowires on transparent FTO substrate as photoanode for efficient water splitting. 2014 , 5, 132-138		59
797	Effects of oxygen doping on optical band gap and band edge positions of Ta ₃ N ₅ photocatalyst: A GGA+U calculation. 2014 , 309, 291-299		61
796	Improved photoelectrochemical water splitting of hematite nanorods thermally grown on FeTi alloys. 2014 , 44, 49-53		10
795	Photoelectrochemical splitting of water with nanocrystalline Zn _{1-x} MnxO thin films: First-principle DFT computations supporting the systematic experimental endeavor. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 3637-3648	6.7	17
794	Design and Development of Ferrite Composite Film Electrode for Photoelectrochemical Energy Application. 2014 , 781, 45-61		
793	CO ₂ recycling: a key strategy to introduce green energy in the chemical production chain. 2014 , 7, 1274-82		156
792	Efficient photoelectrochemical water splitting with ultrathin films of hematite on three-dimensional nanophotonic structures. 2014 , 14, 2123-9		277
791	Perspectives of Nanostructured Metal Oxides and Their Heterostructures in Photoelectrochemical Water Splitting for Solar Hydrogen Production. 2015 , 457-495		
790	Oxygen related recombination defects in Ta ₃ N ₅ water splitting photoanode. <i>Applied Physics Letters</i> , 2015 , 107, 171902	3.4	36
789	Fe ₂ O ₃ /TiO ₂ Nano-heterostructure Photoanodes for Highly Efficient Solar Water Oxidation. 2015 , 2, 1500313		83

- 788 Chemical Vapor Deposition of FeOCl Nanosheet Arrays and Their Conversion to Porous α -Fe₂O₃ Photoanodes for Photoelectrochemical Water Splitting. *Chemistry - A European Journal*, **2015**, 21, 18024-18028 4.8 15
- 787 Efficient Hole Extraction from a Hole-Storage-Layer-Stabilized Tantalum Nitride Photoanode for Solar Water Splitting. *Chemistry - A European Journal*, **2015**, 21, 9624-8 4.8 57
- 786 Enhanced Charge Transport in Tantalum Nitride Nanotube Photoanodes for Solar Water Splitting. **2015**, 8, 2615-20 38
- 785 3D ZnO/Au/CdS Sandwich Structured Inverse Opal as Photoelectrochemical Anode with Improved Performance. **2015**, 2, 1500428 44
- 784 Probing Long-Lived Plasmonic-Generated Charges in TiO₂/Au by High-Resolution X-ray Absorption Spectroscopy. **2015**, 127, 5503-5506 17
- 783 Enhancement of Photoelectrochemical Performance in Water Oxidation over Bismuth Vanadate Photoanodes by Incorporation with Reduced Graphene Oxide. **2015**, 7, 2979-2985 10
- 782 General Characterization Methods for Photoelectrochemical Cells for Solar Water Splitting. **2015**, 8, 3192-203 51
- 781 Design Guidelines for High-Performance Particle-Based Photoanodes for Water Splitting: Lanthanum Titanium Oxynitride as a Model. **2015**, 8, 3451-8 34
- 780 Enhancing the Performance of Amorphous-Silicon Photoanodes for Photoelectrocatalytic Water Oxidation. **2015**, 8, 3987-91 14
- 779 Formation and thermal decomposition of oxynitride germanium compounds. **2015**, 50, 769-772 0
- 778 Site-selective photodeposition of Pt on a particulate Sc-La₅Ti₂Cu₅SO₇ photocathode: evidence for one-dimensional charge transfer. **2015**, 51, 4302-5 33
- 777 Architecting smart UmbrellaBi₂S₃/rGO-modified TiO₂ nanorod array structures at the nanoscale for efficient photoelectrocatalysis under visible light. **2015**, 3, 1235-1242 84
- 776 Facile Fabrication of a Photocatalyst of Ta₄N₅Nanocolumn Arrays by Using Reactive Sputtering. **2015**, 162, H371-H375 2
- 775 Comparison of the electrochemical properties of hematite thin films prepared by spray pyrolysis and electrodeposition. *Ceramics International*, **2015**, 41, 9024-9029 5.1 11
- 774 Ni-Ci oxygen evolution catalyst integrated BiVO₄ photoanodes for solar induced water oxidation. **2015**, 5, 47080-47089 11
- 773 Unraveling the mechanism of 720 nm sub-band-gap optical absorption of a Ta₃N₅ semiconductor photocatalyst: a hybrid-DFT calculation. *Physical Chemistry Chemical Physics*, **2015**, 17, 8166-71 3.6 32
- 772 Interfacial nanosphere lithography toward Ag₃-Ag heterostructured nanobowl arrays with effective resistance switching and enhanced photoresponses. *Small*, **2015**, 11, 1183-8 11 28
- 771 Photovoltaic device based on TiO₂ rutile/anatase phase junctions fabricated in coaxial nanorod arrays. **2015**, 15, 406-412 46

770	Hierarchical Co ₃ O ₄ /Co(OH) ₂ Nanoflakes as a Supercapacitor Electrode: Experimental and Semi-Empirical Model. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 11172-9	9.5	92
769	Semiconductors for Photocatalytic and Photoelectrochemical Solar Water Splitting. 2015 , 1-56		4
768	Preformed ZnS nanoflower prompted evolution of CuS/ZnS p-n heterojunctions for exceptional visible-light driven photocatalytic activity. 2015 , 39, 5628-5635		55
767	Effects of oxygen impurities and nitrogen vacancies on the surface properties of the Ta ₃ N ₅ photocatalyst: a DFT study. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 23265-72	3.6	17
766	Enhanced Performance of Photoelectrochemical Water Splitting with ITO@TiO ₂ -Fe ₂ O ₃ Core-Shell Nanowire Array as Photoanode. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26482-90	9.5	53
765	One-dimensional hybrid nanostructures for heterogeneous photocatalysis and photoelectrocatalysis. <i>Small</i> , 2015 , 11, 2115-31	11	183
764	Enabling practical electrocatalyst-assisted photoelectron-chemical water splitting with earth abundant materials. 2015 , 8, 56-81		77
763	Recent progress in enhancing solar-to-hydrogen efficiency. 2015 , 280, 649-666		88
762	Activation of Hematite Photoanodes for Solar Water Splitting: Effect of FTO Deformation. 2015 , 119, 3810-3817		88
761	Abnormal effects of cations (Li ⁺ , Na ⁺ , and K ⁺) on photoelectrochemical and electrocatalytic water splitting. 2015 , 119, 3560-6		24
760	Photoelectrochemical Behavior of Nanoporous Oxide of Fe-Ni-B Alloy. 2015 , 162, H220-H228		3
759	Controlled Synthesis of Monodispersed Sub-50 nm Nanoporous In ₂ O ₃ Spheres and Their Photoelectrochemical Performance. 2015 , 2015, 845-851		8
758	Bifunctional TiO ₂ underlayer for TiO ₂ -Fe ₂ O ₃ nanorod based photoelectrochemical cells: enhanced interface and Ti ⁴⁺ doping. 2015 , 3, 5007-5013		81
757	Quasi-1D hyperbranched WO ₃ nanostructures for low-voltage photoelectrochemical water splitting. 2015 , 3, 6110-6117		35
756	Enhanced photoelectrochemical water splitting from Si quantum dots/TiO ₂ nanotube arrays composite electrodes. 2015 , 66, 9-15		15
755	Loading Ni(OH) ₂ on the Ti-doped hematite photoanode for photoelectrochemical water splitting. <i>Electrochimica Acta</i> , 2015 , 155, 383-390	6.7	40
754	Visible-light driven heterojunction photocatalysts for water splitting: a critical review. <i>Energy and Environmental Science</i> , 2015 , 8, 731-759	35.4	1652
753	A wide-spectrum-responsive TiO ₂ photoanode for photoelectrochemical cells. <i>Applied Catalysis B: Environmental</i> , 2015 , 168-169, 483-489	21.8	22

752	Synthesis of three-dimensional hyperbranched TiO ₂ nanowire arrays with significantly enhanced photoelectrochemical hydrogen production. 2015 , 3, 4004-4009		38
751	Electrochemical Signatures of Crystallographic Orientation and Counterion Binding at the Hematite/Water Interface. 2015 , 119, 5988-5994		14
750	Photo-catalytic activity of BiVO ₄ thin-film electrodes for solar-driven water splitting. 2015 , 504, 266-271		48
749	Photoelectrochemical water oxidation efficiency of a core/shell array photoanode enhanced by a dual suppression strategy. 2015 , 8, 1568-76		78
748	Probing long-lived plasmonic-generated charges in TiO ₂ /Au by high-resolution X-ray absorption spectroscopy. 2015 , 54, 5413-6		59
747	B-Fe ₂ O ₃ /NiOOH: An Effective Heterostructure for Photoelectrochemical Water Oxidation. 2015 , 5, 5292-5300	191	
746	A significant cathodic shift in the onset potential and enhanced photoelectrochemical water splitting using Au nanoparticles decorated WO ₃ nanorod array. <i>Journal of Colloid and Interface Science</i> , 2015 , 458, 194-9	9.3	27
745	Electrospun Black Titania Nanofibers: Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance. 2015 , 119, 18835-18842		58
744	A stable inverse opal structure of cadmium chalcogenide for efficient water splitting. 2015 , 3, 18521-18527		27
743	Au@TiO ₂ core-shell hollow spheres for plasmon-induced photocatalytic reduction of CO ₂ to solar fuel via a local electromagnetic field. 2015 , 7, 14232-6		127
742	Enhancing the Performances of P3HT:PCBM-MoS ₃ -Based H ₂ -Evolving Photocathodes with Interfacial Layers. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 16395-403	9.5	45
741	Solar fuel production: Strategies and new opportunities with nanostructures. 2015 , 10, 468-486		112
740	Enhanced photoelectrocatalytic hydrogen production activity of SrTiO ₃ /TiO ₂ hetero-nanoparticle modified TiO ₂ nanotube arrays. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 9704-9712	6.7	37
739	Poly(3,4-dinitrothiophene)/SWCNT composite as a low overpotential hydrogen evolution metal-free catalyst. 2015 , 3, 78-82		21
738	A hybrid density functional theory study of the anion distribution and applied electronic properties of the LaTiO ₂ N semiconductor photocatalyst. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 19631-6	3.6	11
737	Correlating flat band and onset potentials for solar water splitting on model hematite photoanodes. 2015 , 5, 61021-61030		52
736	Hierarchical Assembly of SnO ₂ /ZnO Nanostructures for Enhanced Photocatalytic Performance. 2015 , 5, 11609		83
735	Recent progress in photoelectrochemical water splitting for solar hydrogen production. 2015 , 358, 236-247		42

734	One-step preparation of optically transparent Ni-Fe oxide film electrocatalyst for oxygen evolution reaction. <i>Electrochimica Acta</i> , 2015 , 169, 402-408	6.7	39
733	High and stable photoelectrochemical activity of ZnO/ZnSe/CdSe/Cu(x)S core-shell nanowire arrays: nanoporous surface with Cu(x)S as a hole mediator. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 14827-35	3.6	25
732	Perovskite-Hematite Tandem Cells for Efficient Overall Solar Driven Water Splitting. 2015 , 15, 3833-9		211
731	N/Si co-doped oriented single crystalline rutile TiO ₂ nanorods for photoelectrochemical water splitting. 2015 , 3, 10020-10025		52
730	Solar-microbial hybrid device based on oxygen-deficient niobium pentoxide anodes for sustainable hydrogen production. 2015 , 6, 6799-6805		45
729	Surface engineering for an enhanced photoelectrochemical response of TiO ₂ nanotube arrays by simple surface air plasma treatment. 2015 , 51, 16940-3		24
728	La ₅ Ti ₂ Cu _{1-x} Ag _x S ₅ O ₇ photocathodes operating at positive potentials during photoelectrochemical hydrogen evolution under irradiation of up to 710 nm. <i>Energy and Environmental Science</i> , 2015 , 8, 3354-3362	354	44
727	BiOI solar cells. 2015 , 5, 95813-95816		30
726	Electrochemical Synthesis of Photoelectrodes and Catalysts for Use in Solar Water Splitting. 2015 , 115, 12839-87		403
725	Simultaneous enhancements in photon absorption and charge transport of bismuth vanadate photoanodes for solar water splitting. 2015 , 6, 8769		357
724	Hierarchical carbon quantum dots/hydrogenated-TaON heterojunctions for broad spectrum photocatalytic performance. 2015 , 18, 143-153		87
723	Soft X-ray spectroscopic studies of the electronic structure of M:BiVO ₄ (M = Mo, W) single crystals. 2015 , 3, 23743-23753		24
722	Wireless Solar Water Splitting Device with Robust Cobalt-Catalyzed, Dual-Doped BiVO ₄ Photoanode and Perovskite Solar Cell in Tandem: A Dual Absorber Artificial Leaf. 2015 , 9, 11820-9		172
721	Role of Graphene Oxide as a Sacrificial Interlayer for Enhanced Photoelectrochemical Water Oxidation of Hematite Nanorods. 2015 , 119, 19996-20002		26
720	Photocatalytic CO ₂ reduction of BaCeO ₃ with 4f configuration electrons. <i>Applied Surface Science</i> , 2015 , 358, 463-467	6.7	23
719	Pt/In ₂ S ₃ /CdS/Cu ₂ ZnSnS ₄ Thin Film as an Efficient and Stable Photocathode for Water Reduction under Sunlight Radiation. 2015 , 137, 13691-7		221
718	New application for the BiVO ₄ photoanode: A photoelectroanalytical sensor for nitrite. 2015 , 61, 1-4		37
717	Defect chemistry and defect engineering of TiO ₂ -based semiconductors for solar energy conversion. 2015 , 44, 8424-42		218

716	H:ZnO Nanorod-Based Photoanode Sensitized by CdS and Carbon Quantum Dots for Photoelectrochemical Water Splitting. 2015 , 119, 24323-24331		57
715	MoSx supported hematite with enhanced photoelectrochemical performance. 2015 , 3, 21444-21450		28
714	The role of photonics in energy. 2015 , 5, 050997		11
713	Carbon coated Cu ₂ O nanowires for photo-electrochemical water splitting with enhanced activity. <i>Applied Surface Science</i> , 2015 , 358, 404-411	6.7	48
712	Discovery of Overcoating Metal Oxides on Photoelectrode for Water Splitting by Automated Screening. 2015 , 17, 592-9		10
711	RETRACTED: Solar hydrogen hybrid energy systems for off-grid electricity supply: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2015 , 52, 1791-1808	16.2	47
710	Thin Water Films at Multifaceted Hematite Particle Surfaces. 2015 , 31, 13127-37		21
709	Graphene Oxide Regulated Tin Oxide Nanostructures: Engineering Composition, Morphology, Band Structure, and Photocatalytic Properties. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 27167-75	9.5	52
708	Electrochemical deposition of Fe ₂ O ₃ in the presence of organic additives: a route to enhanced photoactivity. 2015 , 5, 103512-103522		30
707	Improved photoactivity of TiO ₂ -Fe ₂ O ₃ nanocomposites for visible-light water splitting after phosphate bridging and its mechanism. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 5043-50	3.6	75
706	Single crystalline Cu ₂ ZnSnS ₄ nanosheet arrays for efficient photochemical hydrogen generation. 2015 , 5, 2543-2549		46
705	Awakening Solar Water-Splitting Activity of ZnFe ₂ O ₄ Nanorods by Hybrid Microwave Annealing. <i>Advanced Energy Materials</i> , 2015 , 5, 1401933	21.8	85
704	Effective charge separation in the rutile TiO ₂ nanorod-coupled α -Fe ₂ O ₃ with exceptionally high visible activities. 2014 , 4, 6180		79
703	Selective modulation of charge-carrier transport of a photoanode in a photoelectrochemical cell by a graphitized fullerene interfacial layer. 2015 , 8, 172-6		5
702	Diethylenetriamine-assisted hydrothermal synthesis of dodecahedral α -Fe ₂ O ₃ nanocrystals with enhanced and stable photoelectrochemical activity. <i>CrystEngComm</i> , 2015 , 17, 27-31	3.3	8
701	Visible-Light-Active NiV ₂ O ₆ Films for Photoelectrochemical Water Oxidation. 2015 , 119, 14524-14531		20
700	Photogeneration of hydrogen from water by hybrid molybdenum sulfide clusters immobilized on titania. 2015 , 8, 148-57		39
699	Durable hydrogen evolution from water driven by sunlight using (Ag,Cu)GaSe photocathodes modified with CdS and CuGaSe. 2015 , 6, 894-901		80

698	Semiconductor-based photocatalysts and photoelectrochemical cells for solar fuel generation: a review. 2015 , 5, 1360-1384		673
697	Micro- and nanostructures of photoelectrodes for solar-driven water splitting. 2015 , 27, 562-8		47
696	Hydrogen Evolution Reaction of $\text{[Mo}_0.5\text{W}_0.5\text{]C}$ Achieved by High Pressure High Temperature Synthesis. 2016 , 6, 208		3
695	(040)-Crystal Facet Engineering of BiVO_4 Plate Photoanodes for Solar Fuel Production. <i>Advanced Energy Materials</i> , 2016 , 6, 1501754	21.8	110
694	Water Splitting Progress in Tandem Devices: Moving Photolysis beyond Electrolysis. <i>Advanced Energy Materials</i> , 2016 , 6, 1600602	21.8	216
693	Hematite homojunctions without foreign element doping for efficient and stable overall water splitting. 2016 , 6, 62263-62269		13
692	TiO_2 /graphene/ NiFe -layered double hydroxide nanorod array photoanodes for efficient photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2016 , 9, 2633-2643	35.4	339
691	The goldilocks electrolyte: examining the performance of iron/nickel oxide thin films as catalysts for electrochemical water splitting in various aqueous NaOH solutions. 2016 , 4, 11397-11407		39
690	Strongly Coupled Nafion Molecules and Ordered Porous CdS Networks for Enhanced Visible-Light Photoelectrochemical Hydrogen Evolution. 2016 , 28, 4935-42		75
689	Material informatics driven design and experimental validation of lead titanate as an aqueous solar photocathode. 2016 , 6, 9-16		21
688	Preparation of the $\text{TiO}/\text{Graphitic Carbon Nitride}$ Core-Shell Array as a Photoanode for Efficient Photoelectrochemical Water Splitting. 2016 , 32, 13322-13332		62
687	Photocatalytic and photoelectrochemical performance of Ta_3N_5 microcolumn films fabricated using facile reactive sputtering. <i>Journal of Applied Physics</i> , 2016 , 120, 075303	2.5	8
686	Zr-Doped Mesoporous TaN Microspheres for Efficient Photocatalytic Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 35407-35418	9.5	45
685	Hetero-type dual photoanodes for unbiased solar water splitting with extended light harvesting. 2016 , 7, 13380		197
684	Solar fuel production by using PV/PEC junctions based on earth-abundant materials. 2016 ,		1
683	Oxygen Vacancies Engineering of Iron Oxides Films for Solar Water Splitting. 2016 , 120, 7482-7490		86
682	A water splitting system using an organo-photocathode and titanium dioxide photoanode capable of bias-free H_2 and O_2 evolution. 2016 , 52, 7735-7		20
681	Formation of Hierarchical Structure Composed of $(\text{Co/Ni})\text{Mn-LDH}$ Nanosheets on MWCNT Backbones for Efficient Electrocatalytic Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14527-34	9.5	123

680	Fabrication of Fe ₂ TiO ₅ /TiO ₂ nanoheterostructures with enhanced visible-light photocatalytic activity. 2016 , 6, 45343-45348		29
679	Nanomaterials for Hydrogen Generation from Solar Water Splitting. 2016 , 445-470		1
678	Nanoscale Engineering in the Development of Photoelectrocatalytic Cells for Producing Solar Fuels. 2016 , 59, 757-771		22
677	Photoelectrochemical characteristics of TiO ₂ nanorod arrays grown on fluorine doped tin oxide substrates by the facile seeding layer assisted hydrothermal method. 2016 , 12, 161-165		3
676	CdS/CdSe co-sensitized 3D SnO ₂ /TiO ₂ sea urchin-like nanotube arrays as an efficient photoanode for photoelectrochemical hydrogen generation. 2016 , 6, 37407-37411		21
675	H ₂ - and NH ₃ -treated ZnO nanorods sensitized with CdS for photoanode enhanced in photoelectrochemical performance. 2016 , 317, 169-176		17
674	Photo-enhanced salt-water splitting using orthorhombic Ag ₈ SnS ₆ photoelectrodes in photoelectrochemical cells. 2016 , 317, 81-92		27
673	Synergistic crystal facet engineering and structural control of WO ₃ films exhibiting unprecedented photoelectrochemical performance. 2016 , 24, 94-102		193
672	Enhanced photoelectrochemical performance of nanoporous BiVO ₄ photoanode by combining surface deposited cobalt-phosphate with hydrogenation treatment. <i>Electrochimica Acta</i> , 2016 , 195, 51-58	6.7	55
671	Hydrogen Photoassisted Generation by Visible Light and an Earth Abundant Photocatalyst: Pyrite (FeS ₂). 2016 , 120, 9547-9552		31
670	Solar light sensitized p-Ag ₂ O/n-TiO ₂ nanotubes heterojunction photocatalysts for enhanced hydrogen production in aqueous-glycerol solution. 2016 , 154, 78-87		77
669	Controlled Design of Functional Nano-Coatings: Reduction of Loss Mechanisms in Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 12149-57	9.5	19
668	Stable and Enhanced Visible-Light Water Electrolysis Using C, N, and S Surface Functionalized ZnO Nanorod Photoanodes: Engineering the Absorption and Electronic Structure. 2016 , 4, 5693-5702		30
667	Fast and Simple Construction of Efficient Solar-Water-Splitting Electrodes with Micrometer-Sized Light-Absorbing Precursor Particles. 2016 , 1, 1600119		11
666	Enhanced Water-Splitting Performance of Perovskite SrTaO ₂ N Photoanode Film through Ameliorating Interparticle Charge Transport. 2016 , 26, 7156-7163		63
665	Fabrication of metallic charge transfer channel between photoanode Ti/Fe ₂ O ₃ and cocatalyst CoOx: an effective strategy for promoting photoelectrochemical water oxidation. 2016 , 4, 16661-16669		47
664	Solar-Powered Plasmon-Enhanced Heterogeneous Catalysis. 2016 , 5, 112-133		84
663	Facile Spray Deposition of Photocatalytic ZnO/CuIn-Zn-S Heterostructured Composite Thin Film. <i>ChemistrySelect</i> , 2016 , 1, 4979-4986	1.8	1

662	High Energy Efficiency and Stability for Photoassisted Aqueous Lithium-Iodine Redox Batteries. 2016 , 1, 806-813		35
661	Enhanced photoelectrochemical performance with in-situ Au modified TiO ₂ nanorod arrays as photoanode. 2016 , 688, 914-920		10
660	Noble metal-free hydrogen-evolving photocathodes based on small molecule organic semiconductors. 2016 , 27, 355401		17
659	Oxygen Evolution at Hematite Surfaces: The Impact of Structure and Oxygen Vacancies on Lowering the Overpotential. 2016 , 120, 18201-18208		97
658	Hematite heterostructures for photoelectrochemical water splitting: rational materials design and charge carrier dynamics. <i>Energy and Environmental Science</i> , 2016 , 9, 2744-2775	35.4	352
657	Bi-Fe ₂ O ₃ nanospheres: facile synthesis and highly efficient photo-degradation of organic dyes and surface activation by nano-Pt for enhanced methanol sensing. 2016 , 6, 75347-75358		40
656	Modellierung, Simulation und Implementierung von Zellen für die solarbetriebene Wasserspaltung. 2016 , 128, 13168-13183		7
655	Converting Ag nanowire into one-dimensional silver niobate and their enhanced photocatalytic activity. 2016 , 122, 1		4
654	Solution-processed CuSbS ₂ thin film: A promising earth-abundant photocathode for efficient visible-light-driven hydrogen evolution. 2016 , 28, 135-142		49
653	Charge Transport in Two-Photon Semiconducting Structures for Solar Fuels. 2016 , 9, 2878-2904		33
652	Ultrafast fabrication of highly active BiVO photoanodes by hybrid microwave annealing for unbiased solar water splitting. 2016 , 8, 17623-17631		30
651	Layer-by-layer assembly of nitrogen-doped graphene quantum dots monolayer decorated one-dimensional semiconductor nanoarchitectures for solar-driven water splitting. 2016 , 4, 16383-16393		51
650	Modeling, Simulation, and Implementation of Solar-Driven Water-Splitting Devices. 2016 , 55, 12974-12988		86
649	Hydrogen Treated Niobium Oxide Nanotube Arrays for Photoelectrochemical Water Oxidation. 2016 , 163, H1165-H1170		11
648	Sn/Be Sequentially co-doped Hematite Photoanodes for Enhanced Photoelectrochemical Water Oxidation: Effect of Be(2+) as co-dopant. 2016 , 6, 23183		55
647	A soft X-ray spectroscopic perspective of electron localization and transport in tungsten doped bismuth vanadate single crystals. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 31958-31965	3.6	11
646	Enhanced carrier collection efficiency in hierarchical nano-electrode for a high-performance photoelectrochemical cell. 2016 , 336, 367-375		7
645	Gradient doping - a case study with Ti-FeO towards an improved photoelectrochemical response. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 32735-32743	3.6	30

644	Hollow α -Fe ₂ O ₃ nanofibres for solar water oxidation: improving the photoelectrochemical performance by formation of α -Fe ₂ O ₃ /ITO-composite photoanodes. 2016 , 4, 18444-18456		32
643	Construction of CuS/Au Heterostructure through a Simple Photoreduction Route for Enhanced Electrochemical Hydrogen Evolution and Photocatalysis. 2016 , 6, 34738		52
642	Upscaling of integrated photoelectrochemical water-splitting devices to large areas. 2016 , 7, 12681		76
641	Integrating a dual-silicon photoelectrochemical cell into a redox flow battery for unassisted photocharging. 2016 , 7, 11474		100
640	Heterostructured TiO ₂ Nanorod@Nanobowl Arrays for Efficient Photoelectrochemical Water Splitting. <i>Small</i> , 2016 , 12, 1469-78	11	126
639	Challenges and Perspectives in Designing Artificial Photosynthetic Systems. <i>Chemistry - A European Journal</i> , 2016 , 22, 9870-85	4.8	57
638	Mn-doping and NiFe layered double hydroxide coating: Effective approaches to enhancing the performance of α -Fe ₂ O ₃ in photoelectrochemical water oxidation. 2016 , 340, 261-269		79
637	Solar water splitting: Efficiency discussion. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 11941-11948	4.8	27
636	Accepting Excited High-Energy-Level Electrons and Catalyzing H ₂ Evolution of Dual-Functional Ag-TiO ₂ Modifier for Promoting Visible-Light Photocatalytic Activities of Nanosized Oxides. 2016 , 120, 11831-11836		22
635	Efficient solar-to-chemical conversion with chlorine photoanode. 2016 , 67, 69-72		2
634	Enhanced performance of photoelectrochemical water oxidation using a three-dimensional interconnected nanostructural photoanode via simultaneously harnessing charge transfer and coating with an oxygen evolution catalyst. 2016 , 26, 257-266		23
633	Modeling and Simulations in Photoelectrochemical Water Oxidation: From Single Level to Multiscale Modeling. 2016 , 9, 1223-42		73
632	Investigation of technical and economic aspects for methanol production through CO ₂ hydrogenation. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 2202-2214	6.7	100
631	Indium Tin Oxide Nanowire Array Based CdSe/CdS/TiO ₂ One-Dimensional Heterojunction Photoelectrode for Enhanced Solar Hydrogen Production. 2016 , 4, 1161-1168		30
630	A comprehensive comparison of dye-sensitized NiO photocathodes for solar energy conversion. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 10727-38	3.6	116
629	A novel g-C ₃ N ₄ based photocathode for photoelectrochemical hydrogen evolution. 2016 , 6, 7465-7473		24
628	Enhanced Photoelectrochemical Performance of TiO ₂ Nanorod Arrays by a 500°C Annealing in Air: Insights into the Mechanism. 2016 , 45, 648-653		23
627	Photoelectrochemical cell for unassisted overall solar water splitting using a BiVO ₄ photoanode and Si nanoarray photocathode. 2016 , 6, 9905-9910		51

626	Tantalum (oxy)nitride based photoanodes for solar-driven water oxidation. 2016 , 4, 2783-2800		103
625	CuO-Functionalized Silicon Photoanodes for Photoelectrochemical Water Splitting Devices. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 696-702	9.5	24
624	Benchmarking nanoparticulate metal oxide electrocatalysts for the alkaline water oxidation reaction. 2016 , 4, 3068-3076		344
623	Electronic and optical properties of single crystal SnS ₂ : an earth-abundant disulfide photocatalyst. 2016 , 4, 1312-1318		190
622	Chemically Immobilized Triazine Based CuIIS ₃ C ₃ N ₃ Metallopolymer on Copper as a Photocathode for Photoelectrochemical Hydrogen Evolution. 2016 , 163, H402-H409		7
621	Three-Dimensional Hierarchical Structures of TiO ₂ /CdS Branched Core-Shell Nanorods as a High-Performance Photoelectrochemical Cell Electrode for Hydrogen Production. 2016 , 163, H434-H439		17
620	Mesoporous WO ₃ photoanodes for hydrogen production by water splitting and PhotoFuelCell operation. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 5902-5907	6.7	39
619	Photoelectrochemical oxidation of water using La(Ta,Nb)O ₂ N modified electrodes. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 11644-11652	6.7	23
618	CuWO ₄ Nanoflake Array-Based Single-Junction and Heterojunction Photoanodes for Photoelectrochemical Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 9211-7	9.5	59
617	Visible-light-driven high photocatalytic activities of Cu/g-C ₃ N ₄ photocatalysts for hydrogen production. 2016 , 6, 34633-34640		50
616	Extremely stable bare hematite photoanode for solar water splitting. 2016 , 23, 70-79		141
615	Plasmonically Enhanced Photocatalytic Hydrogen Production from Water: The Critical Role of Tunable Surface Plasmon Resonance from Gold-Silver Nanoshells. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 9152-61	9.5	33
614	Electrodeposited Ti-doped hematite photoanodes and their employment for photoelectrocatalytic hydrogen production in the presence of ethanol. <i>Chemical Engineering Journal</i> , 2016 , 295, 288-294	14.7	30
613	Theoretical study on the surface stabilities, electronic structures and water adsorption behavior of the Ta ₃ N ₅ (110) surface. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 7938-45	3.6	7
612	Photoelectrochemical Approach Using Photocatalysts. 2016 , 319-344		2
611	All solution-processed organic photocathodes with increased efficiency and stability via the tuning of the hole-extracting layer. 2016 , 4, 4831-4839		37
610	Study of the photocurrent in a photocatalytic fuel cell for wastewater treatment and the effects of TiO ₂ surface morphology to the apportionment of the photocurrent. <i>Electrochimica Acta</i> , 2016 , 192, 319-327	6.7	18
609	Polymer-Mediated Self-Assembly of TiO ₂ @Cu ₂ O Core-Shell Nanowire Array for Highly Efficient Photoelectrochemical Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 6082-92	9.5	92

608	Efficient WO ₃ photoanodes fabricated by pulsed laser deposition for photoelectrochemical water splitting with high faradaic efficiency. <i>Applied Catalysis B: Environmental</i> , 2016 , 189, 133-140	21.8	62
607	Substrate-Electrode Interface Engineering by an Electron-Transport Layer in Hematite Photoanode. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 7086-91	9.5	26
606	Bismuth oxyhalides: synthesis, structure and photoelectrochemical activity. 2016 , 7, 4832-4841		197
605	Photoelectrochemical Water Splitting System--A Study of Interfacial Charge Transfer with Scanning Electrochemical Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 1606-14	9.5	29
604	Deposition of Nd-Doped Fe ₂ O ₃ Nanoparticles on Cenosphere by Hydrothermal Method. 2016 , 11, 1650026		1
603	Photoelectrochemical salt water splitting using ternary silver-bismuth selenide photoelectrodes. 2016 , 307, 329-339		17
602	Principles on design and fabrication of nanomaterials as photocatalysts for water-splitting. <i>Renewable and Sustainable Energy Reviews</i> , 2016 , 57, 584-601	16.2	156
601	Nanoparticle layer deposition for highly controlled multilayer formation based on high- coverage monolayers of nanoparticles. 2016 , 598, 16-24		18
600	Charge Carrier Transfer in Ta ₃ N ₅ Photoanodes Prepared by Different Methods for Solar Water Splitting. 2016 , 69, 631		2
599	Electrolyte-less design of PEC cells for solar fuels: Prospects and open issues in the development of cells and related catalytic electrodes. 2016 , 259, 246-258		63
598	Highly functional titania nanoparticles produced by flame spray pyrolysis. Photoelectrochemical and solar cell applications. <i>Applied Catalysis B: Environmental</i> , 2016 , 182, 369-374	21.8	22
597	Multijunction Si photocathodes with tunable photovoltages from 2.0 V to 2.8 V for light induced water splitting. <i>Energy and Environmental Science</i> , 2016 , 9, 145-154	35.4	107
596	Fabrication of superior β -Fe ₂ O ₃ nanorod photoanodes through ex-situ Sn-doping for solar water splitting. 2016 , 144, 247-255		81
595	Controlled Growth of Ferrihydrite Branched Nanosheet Arrays and Their Transformation to Hematite Nanosheet Arrays for Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 3651-60	9.5	44
594	Synthesis of TiO ₂ /rGO Nanocomposites with Enhanced Photoelectrochemical Performance and Photocatalytic Activity. 2016 , 11, 1650007		7
593	Photoelectrocatalytic hydrogen production by water splitting using BiVO ₄ photoanodes. <i>Chemical Engineering Journal</i> , 2016 , 286, 91-97	14.7	60
592	Cold gas spraying \square A promising technique for photoelectrodes. 2016 , 260, 140-147		12
591	Effects of La-doping on charge separation behavior of ZnO:GaN for its enhanced photocatalytic performance. 2016 , 6, 1033-1041		11

590	Photoanodes on titanium substrates: one-step deposited BiVO ₄ versus two-step nano-V ₂ O ₅ films impregnated with Bi ³⁺ . 2016 , 20, 273-283		3
589	Light-induced degradation of adapted quadruple junction thin film silicon solar cells for photoelectrochemical water splitting. 2016 , 145, 142-147		26
588	Recent Progress in Energy-Driven Water Splitting. 2017 , 4, 1600337		419
587	Immobilising a cobalt cubane catalyst on a dye-sensitised TiO ₂ photoanode via electrochemical polymerisation for light-driven water oxidation. 2017 , 7, 4102-4107		7
586	Solar water splitting on porous-alumina-assisted TiO ₂ -doped WO _x nanorod photoanodes: Paradoxes and challenges. 2017 , 33, 72-87		27
585	Dual absorber Fe ₂ O ₃ /WO ₃ host-guest architectures for improved charge generation and transfer in photoelectrochemical applications. 2017 , 4, 016409		22
584	Chlorophyll ^a /ZnO Nanorod Based Hybrid Photoanodes for Enhanced Photoelectrochemical Splitting of Water. <i>ChemistrySelect</i> , 2017 , 2, 1911-1916	1.8	3
583	Origin of Photovoltage Enhancement via Interfacial Modification with Silver Nanoparticles Embedded in an a-SiC:H p-Type Layer in a-Si:H Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 11184-11192	9.5	5
582	Effects of Mg ²⁺ /Zr codoping on the photoelectrochemical properties of a Ta ₃ N ₅ semiconductor: a theoretical insight. 2017 , 5, 6966-6973		16
581	Few-layer MoS ₂ flakes as a hole-selective layer for solution-processed hybrid organic hydrogen-evolving photocathodes. 2017 , 5, 4384-4396		43
580	Oxygen-Impurity-Induced Direct/Indirect Band Gap in Perovskite SrTaO ₂ N. 2017 , 121, 6864-6867		11
579	Photoelectrochemical performance of NiO-coated ZnO/TiO ₂ core-shell photoanode. 2017 , 50, 10LT01		8
578	Artificial Photosynthesis on III-Nitride Nanowire Arrays. 2017 , 97, 223-255		8
577	Photoanodes based on TiO ₂ and β -FeO for solar water splitting - superior role of 1D nanoarchitectures and of combined heterostructures. 2017 , 46, 3716-3769		385
576	A beta-FeO nanoparticle-assembled film for photoelectrochemical water splitting. 2017 , 46, 10673-10677		16
575	Photoelectrochemical performances of kesterite Ag ₂ ZnSnSe ₄ photoelectrodes in the salt-water and water solutions. 2017 , 75, 199-208		12
574	Influence of [Cu]/[Cu+Sn] molar ratios in p-type Cu ₃ SnS ₈ photoelectrodes on their photoelectrochemical performances in water and salt-water solutions. 2017 , 75, 209-219		4
573	1T-Phase MoS ₂ Nanosheets on TiO ₂ Nanorod Arrays: 3D Photoanode with Extraordinary Catalytic Performance. 2017 , 5, 5175-5182		85

572	A small bandgap semiconductor, p-type MnVO, active for photocatalytic hydrogen and oxygen production. 2017 , 46, 10657-10664		25
571	Electron transport and visible light absorption in a plasmonic photocatalyst based on strontium niobate. 2017 , 8, 15070		48
570	Enhanced photosplitting of water using ultrathin cobalt sulfide nanoflakes-sensitized zinc oxide nanorods array. 2017 , 23, 3401-3408		5
569	Surface Texture-Induced Enhancement of Optical and Photoelectrochemical Activity of Cu ₂ ZnSnS ₄ Photocathodes. 2017 , 46, 5308-5318		7
568	Interface engineering of 3D BiVO ₄ /Fe-based layered double hydroxide core/shell nanostructures for boosting photoelectrochemical water oxidation. 2017 , 5, 9952-9959		112
567	Vacuum-annealing induces sub-surface redox-states in surfactant-structured α -Fe ₂ O ₃ photoanodes prepared by ink-jet printing. <i>Applied Catalysis B: Environmental</i> , 2017 , 211, 289-295	21.8	14
566	Boosting Photoelectrochemical Water Splitting by TENG-Charged Li-Ion Battery. <i>Advanced Energy Materials</i> , 2017 , 7, 1700124	21.8	24
565	Optimization of photoelectrochemical performance in chemical bath deposited nanostructured CuO. 2017 , 695, 3655-3665		26
564	Cathodic shift of a photo-potential on a Ta ₃ N ₅ photoanode by post-heating a TiO ₂ passivation layer. 2017 , 7, 30650-30656		7
563	Spatial separation of photogenerated electron-hole pairs in solution-grown ZnO tandem n-p core-shell nanowire arrays toward highly sensitive photoelectrochemical detection of hydrogen peroxide. 2017 , 5, 14397-14405		17
562	Electrochemical Deposition of MgO@ZnO Shell-Core Nanorod Arrays Largely Enhances the Photoelectrochemical Water Splitting Performance. 2017 , 4, 2019-2026		7
561	Surface modifications of chalcopyrite CuInS ₂ thin films for photocathodes in photoelectrochemical water splitting under sunlight irradiation. 2017 , 172, 012021		9
560	Ultrafine Ti ⁴⁺ doped α -Fe ₂ O ₃ nanorod array photoanodes with high charge separation efficiency for solar water splitting. 2017 , 50, 255502		4
559	An anti-photocorrosive photoanode based on a CdS/Ni x S y @NF heterostructure for visible-light-driven water splitting. <i>Applied Surface Science</i> , 2017 , 420, 161-166	6.7	21
558	Enhanced visible-light photocatalytic H ₂ production of graphitic carbon nitride nanosheets by dye-sensitization combined with surface plasmon resonance. 2017 , 78, 185-194		20
557	Effective silicon nanowire arrays/WO core/shell photoelectrode for neutral pH water splitting. 2017 , 28, 275401		18
556	Photoexcitation in Donor-Acceptor Dyads Based on Endohedral Fullerenes and Their Applications in Organic Photovoltaics. 2017 , 103-122		
555	Temperature-controlled evolution of microstructures that promote charge separation in a TaON photoanode for enhanced solar energy conversion. 2017 , 5, 12848-12855		21

554	Investigation of a novel concept for hydrogen production by PEM water electrolysis integrated with multi-junction solar cells. 2017 , 148, 16-29		42
553	Facile room-temperature surface modification of unprecedented FeB co-catalysts on Fe ₂ O ₃ nanorod photoanodes for high photoelectrochemical performance. 2017 , 352, 113-119		29
552	Hydrogen-Economic Synthesis of Gasoline-like Hydrocarbons by Catalytic Hydrodecarboxylation of the Biomass-derived Angelica Lactone Dimer. 2017 , 9, 2622-2626		19
551	Recent Advances in Bismuth-Based Nanomaterials for Photoelectrochemical Water Splitting. 2017 , 10, 3001-3018		77
550	Dual-functional CoAl layered double hydroxide decorated α -Fe ₂ O ₃ as an efficient and stable photoanode for photoelectrochemical water oxidation in neutral electrolyte. 2017 , 5, 8583-8590		44
549	Fabrication of In ₂ O ₃ -Ag-Ag ₃ PO ₄ composites with Z-scheme configuration for photocatalytic ethylene degradation under visible light irradiation. <i>Chemical Engineering Journal</i> , 2017 , 320, 644-652	14.7	52
548	ALD for Photoelectrochemical Water Splitting. 2017 , 225-257		1
547	Nanostructured Semiconductors for Bifunctional Photocatalytic and Photoelectrochemical Energy Conversion. 2017 , 97, 315-347		3
546	Solar-Water-Splitting BiVO ₄ Thin-Film Photoanodes Prepared By Using a Sol-Gel Dip-Coating Technique. 2017 , 1, 273-280		26
545	Review of recent trends in photoelectrocatalytic conversion of solar energy to electricity and hydrogen. <i>Applied Catalysis B: Environmental</i> , 2017 , 210, 235-254	21.8	262
544	Selectivity of quantum dot sensitized ZnO nanotube arrays for improved photocatalytic activity. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 11366-11372	3.6	25
543	Fabrication and characterization of a nanocomposite hydrogel for combined photocatalytic degradation of a mixture of malachite green and fast green dye. 2017 , 2, 1		49
542	Nanoenhanced Materials for Photolytic Hydrogen Production. 2017 , 629-648		2
541	Electrochemical synthesis of nanoporous tungsten carbide and its application as electrocatalysts for photoelectrochemical cells. 2017 , 9, 5413-5424		22
540	Semiconductor, molecular and hybrid systems for photoelectrochemical solar fuel production. 2017 , 26, 219-240		37
539	Mechanism of enhancing visible-light photocatalytic activity of BiVO ₄ via hybridization of graphene based on a first-principles study. 2017 , 7, 4395-4401		20
538	Simple but Effective Way To Enhance Photoelectrochemical Solar-Water-Splitting Performance of ZnO Nanorod Arrays: Charge-Trapping Zn(OH) Annihilation and Oxygen Vacancy Generation by Vacuum Annealing. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 2317-2325	9.5	84
537	The Role of Interfaces in Heterostructures. 2017 , 82, 42-59		23

536	Interfacial band-edge engineered TiO ₂ protection layer on Cu ₂ O photocathodes for efficient water reduction reaction. 2017 , 13, 57-65		26
535	Surface-Modified TaN Nanocrystals with Boron for Enhanced Visible-Light-Driven Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 36715-36722	9.5	15
534	A comparative study of heterostructured CuO/CuWO ₄ nanowires and thin films. 2017 , 480, 78-84		7
533	Band-gap engineering of porous BiVO ₄ nanoshuttles by Fe and Mo co-doping for efficient photocatalytic water oxidation. <i>Inorganic Chemistry Frontiers</i> , 2017 , 4, 2045-2054	6.8	43
532	Artificial Photosynthetic Systems for CO Reduction: Progress on Higher Efficiency with Cobalt Complexes as Catalysts. 2017 , 10, 4393-4402		51
531	Enhanced plasmonic photoelectrochemical response of Au sandwiched WO ₃ photoanodes. 2017 , 172, 361-367		11
530	Roadmap on solar water splitting: current status and future prospects. 2017 , 1, 022001		115
529	Significantly improved charge collection and interface injection in 3D BiVO based multilayered core-shell nanowire photocatalysts. 2017 , 9, 14015-14022		19
528	Production of hydrogen by water splitting in a photoelectrochemical cell using a BiVO ₄ /TiO ₂ layered photoanode. <i>Electrochimica Acta</i> , 2017 , 251, 244-249	6.7	39
527	Graphene-Based Hole-Selective Layers for High-Efficiency, Solution-Processed, Large-Area, Flexible, Hydrogen-Evolving Organic Photocathodes. 2017 , 121, 21887-21903		22
526	Improved charge separation efficiency of hematite photoanodes by coating an ultrathin p-type LaFeO overlayer. 2017 , 28, 394003		7
525	2D-Layered Carbon/TiO ₂ Hybrids Derived from Ti ₃ C ₂ MXenes for Photocatalytic Hydrogen Evolution under Visible Light Irradiation. 2017 , 4, 1700577		67
524	Fuel Production from Seawater and Fuel Cells Using Seawater. 2017 , 10, 4264-4276		55
523	In situ synthesis of g-C ₃ N ₄ /TiO ₂ heterostructures with enhanced photocatalytic hydrogen evolution under visible light. 2017 , 7, 40327-40333		40
522	Three-Dimensional Hierarchical Architectures Derived from Surface-Mounted Metal-Organic Framework Membranes for Enhanced Electrocatalysis. 2017 , 56, 13781-13785		144
521	Designing transition metal and nitrogen-codoped SrTiO ₃ (001) perovskite surfaces as efficient photocatalysts for water splitting. <i>Sustainable Energy and Fuels</i> , 2017 , 1, 1968-1980	5.8	10
520	The synergistic effect of Bi ₂ WO ₆ nanoplates and Co ₃ O ₄ cocatalysts for enhanced photoelectrochemical properties. 2017 , 5, 20594-20597		29
519	One-dimensional hematite photoanodes with spatially separated Pt and FeOOH nanolayers for efficient solar water splitting. 2017 , 5, 17056-17063		47

518	Facile Hydrothermally Synthesized a Novel CdS Nanoflower/Rutile-TiO ₂ Nanorod Heterojunction Photoanode Used for Photoelectrocatalytic Hydrogen Generation. 2017 , 5, 7537-7548		39
517	3D-Printed Conical Arrays of TiO ₂ Electrodes for Enhanced Photoelectrochemical Water Splitting. <i>Advanced Energy Materials</i> , 2017 , 7, 1701060	21.8	48
516	Tantalum (Oxy)Nitride: Narrow Bandgap Photocatalysts for Solar Hydrogen Generation. 2017 , 3, 365-378		32
515	CO ₂ Utilization. 2017 , 1781-1802		2
514	Enhanced Photoelectrochemical Water Oxidation Performance of Fe ₂ O ₃ Nanorods Array by S Doping. 2017 , 5, 7502-7506		91
513	Spatially selective photochemical activity on surfaces of ferroelastics with local polarization. 2017 , 32, 103001		5
512	Highly Selective Self-Powered Sensing Platform for p-Nitrophenol Detection Constructed with a Photocathode-Based Photocatalytic Fuel Cell. 2017 , 89, 8599-8603		41
511	Activation of a Nickel-Based Oxygen Evolution Reaction Catalyst on a Hematite Photoanode via Incorporation of Cerium for Photoelectrochemical Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 30654-30661	9.5	46
510	Template-engineered epitaxial BiVO ₄ photoanodes for efficient solar water splitting. 2017 , 5, 18831-18838		33
509	Synergistic effect of Ag plasmon- and reduced graphene oxide-embedded ZnO nanorod-based photoanodes for enhanced photoelectrochemical activity. <i>Journal of Materials Science</i> , 2017 , 52, 13572-13585	43.5	15
508	Facet Control of Photocatalysts for Water Splitting. 2017 , 97, 349-391		6
507	Sacrificial Interlayer for Promoting Charge Transport in Hematite Photoanode. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 42723-42733	9.5	52
506	Photocurrent Enhancement by a Rapid Thermal Treatment of Nanodisk-Shaped SnS Photocathodes. 2017 , 8, 6099-6105		26
505	Synergistic effect of upconversion and plasmons in NaYF ₄ :Yb ³⁺ , Er ³⁺ , Tm ³⁺ @TiO ₂ /Ag composites for MO photodegradation. 2017 , 7, 54555-54561		11
504	A solar-charged photoelectrochemical wastewater fuel cell for efficient and sustainable hydrogen production. 2017 , 5, 25450-25459		41
503	Chlorophyll sensitized BiVO ₄ as photoanode for solar water splitting and CO ₂ conversion. 2017 , 28, 2254-2258		18
502	Layer-by-Layer Assembly of Polyoxometalates for Photoelectrochemical (PEC) Water Splitting: Toward Modular PEC Devices. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 40151-40161	9.5	45
501	Electronic structure of aqueous solutions: Bridging the gap between theory and experiments. 2017 , 3, e1603210		35

500	When metal clusters meet carbon cages: endohedral clusterfullerenes. 2017 , 46, 5005-5058	175
499	Synergetic effect of CuS@ZnS nanostructures on photocatalytic degradation of organic pollutant under visible light irradiation. 2017 , 7, 34366-34375	29
498	Photo-assisted electrochemical oxidation of the urea onto TiO ₂ -nanotubes modified by hematite. 2017 , 21, 990-997	8
497	Controlling the amount of co-catalyst as a critical factor in determining the efficiency of photoelectrodes: The case of nickel (II) hydroxide on vanadate photoanodes. <i>Applied Catalysis B: Environmental</i> , 2017 , 217, 437-447	21.8 17
496	Photoelectrochemical and structural properties of TiO ₂ nanotubes and nanorods grown on FTO substrate: Comparative study between electrochemical anodization and hydrothermal method used for the nanostructures fabrication. 2017 , 287, 130-136	30
495	CNT based photoelectrodes for PEC generation of hydrogen: A review. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 3994-4006	6.7 30
494	Energy-Related Small Molecule Activation Reactions: Oxygen Reduction and Hydrogen and Oxygen Evolution Reactions Catalyzed by Porphyrin- and Corrole-Based Systems. 2017 , 117, 3717-3797	775
493	Plasmon enhanced photocatalytic activity of Au@TiO ₂ -graphene nanocomposite under visible light for degradation of pollutants. 2017 , 87, 40-47	42
492	Recent Progress on Visible Light Responsive Heterojunctions for Photocatalytic Applications. 2017 , 33, 1-22	146
491	Insights into the electronic bands of WO ₃ /BiVO ₄ /TiO ₂ , revealing high solar water splitting efficiency. 2017 , 5, 1455-1461	61
490	New insight into the roles of oxygen vacancies in hematite for solar water splitting. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 1074-1082	3.6 59
489	An ambipolar azaacene as a stable photocathode for metal-free light-driven water reduction. 2017 , 1, 495-498	26
488	Au nanoparticles modified branched TiO ₂ nanorod array arranged with ultrathin nanorods for enhanced photoelectrochemical water splitting. 2017 , 693, 1124-1132	43
487	A review on triphenylamine (TPA) based organic hole transport materials (HTMs) for dye sensitized solar cells (DSSCs) and perovskite solar cells (PSCs): evolution and molecular engineering. 2017 , 5, 1348-1373	232
486	Wiring of Photosystem I and Hydrogenase on an Electrode for Photoelectrochemical H ₂ Production by using Redox Polymers for Relatively Positive Onset Potential. 2017 , 4, 90-95	44
485	Anodic deposition of nanostructured hematite film using agarose gel as template. Application in water splitting. <i>Electrochimica Acta</i> , 2017 , 258, 1453-1462	6.7
484	Growth, Structure, and Photocatalytic Properties of Hierarchical V ₂ O ₅ /TiO ₂ Nanotube Arrays Obtained from the One-step Anodic Oxidation of Ti-V Alloys. 2017 , 22,	21
483	Enhanced solar photocurrent of LaTaO ₂ photoanodes via electrochemical treatment. 2017 , 182, 012007	1

482	Polymorphism and Structural Distortions of Mixed-Metal Oxide Photocatalysts Constructed with β -U ₃ O ₈ Types of Layers. 2017 , 7, 145		2
481	Solar fuel production by using PV/PEC junctions based on earth-abundant materials. 2017 ,		
480	Hybrid photosynthesis-powering biocatalysts with solar energy captured by inorganic devices. 2017 , 10, 249		22
479	Enhanced photoelectrochemical water splitting performance using morphology-controlled BiVO with W doping. 2017 , 8, 2640-2647		16
478	Phase-Modulated Band Alignment in CdS Nanorod/SnS _x Nanosheet Hierarchical Heterojunctions toward Efficient Water Splitting. 2018 , 28, 1706785		82
477	Crystalline carbon nitride semiconductors prepared at different temperatures for photocatalytic hydrogen production. <i>Applied Catalysis B: Environmental</i> , 2018 , 231, 234-241	21.8	152
476	Ni-doped TiO ₂ nanotubes photoanode for enhanced photoelectrochemical water splitting. <i>Applied Surface Science</i> , 2018 , 443, 321-328	6.7	83
475	TiO nanocrystals decorated Z-schemed core-shell CdS-CdO nanorod arrays as high efficiency anodes for photoelectrochemical hydrogen generation. <i>Journal of Colloid and Interface Science</i> , 2018 , 521, 216-225	9.3	18
474	Quasi-Topotactic Transformation of FeOOH Nanorods to Robust FeO Porous Nanopillars Triggered with a Facile Rapid Dehydration Strategy for Efficient Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 10141-10146	9.5	30
473	Co-N doped reduced graphene oxide as oxygen reduction electrocatalyst applied to Photocatalytic Fuel Cells. 2018 , 315, 31-35		11
472	Study on charge transfer processes in thin-film heterojunction between cuprous oxide and hematite. 2018 , 80, 56-62		11
471	Oxygen vacancy engineering of WO ₃ toward largely enhanced photoelectrochemical water splitting. <i>Electrochimica Acta</i> , 2018 , 274, 217-223	6.7	65
470	Fundamentals of Photocatalytic Water Splitting (Hydrogen and Oxygen Evolution). 2018 , 53-73		0
469	Recent Developments in Heterostructure-Based Catalysts for Water Splitting. 2018 , 191-226		
468	Probing the Performance Limitations in Thin-Film FeVO ₄ Photoanodes for Solar Water Splitting. 2018 , 122, 9773-9782		24
467	An investigation on the role of W doping in BiVO photoanodes used for solar water splitting. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 13637-13645	3.6	23
466	Improving the Back Surface Field on an Amorphous Silicon Carbide Thin-Film Photocathode for Solar Water Splitting. 2018 , 11, 1797-1804		5
465	Polyaniline as a new type of hole-transporting material to significantly increase the solar water splitting performance of BiVO ₄ photoanodes. 2018 , 391, 34-40		24

464	Sb-Doped SnO Nanorods Underlayer Effect to the α -Fe ₂ O ₃ Nanorods Sheathed with TiO ₂ for Enhanced Photoelectrochemical Water Splitting. <i>Small</i> , 2018 , 14, e1703860	11	46
463	Fully Depleted Ti-Nb-Ta-Zr-O Nanotubes: Interfacial Charge Dynamics and Solar Hydrogen Production. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 22997-23008	9.5	59
462	Stable Hydrogen Production from Water on an NIR-Responsive Photocathode under Harsh Conditions. 2018 , 2, 1800018		14
461	Selective Chemical Epitaxial Growth of TiO ₂ Islands on Ferroelectric PbTiO ₃ Crystals to Boost Photocatalytic Activity. 2018 , 2, 1095-1107		66
460	Photonic Fano Resonance of Multishaped Cu ₂ O Nanoparticles on ZnO Nanowires Modulating Efficiency of Hydrogen Generation in Water Splitting Cell. 2018 , 6, 6590-6598		18
459	Durian-Shaped CdS@ZnSe Core@Mesoporous-Shell Nanoparticles for Enhanced and Sustainable Photocatalytic Hydrogen Evolution. 2018 , 9, 2212-2217		21
458	Enhanced photoelectrochemical performance of defect-rich ReS ₂ nanosheets in visible-light assisted hydrogen generation. 2018 , 46, 305-313		72
457	Design Strategy for the Molecular Functionalization of Semiconductor Photoelectrodes: A Case Study of p-Si(111) Photocathodes for H ₂ Generation. 2018 , 34, 2959-2966		2
456	Operando Investigation of Mn ₃ O ₄ /Co-catalyst on Fe ₂ O ₃ Photoanode: Manganese-Valency-Determined Enhancement at Varied Potentials. <i>ACS Applied Energy Materials</i> , 2018 , 1, 814-821	6.1	18
455	Insights into the enhanced photoelectrochemical performance of hydrothermally controlled hematite nanostructures for proficient solar water oxidation. 2018 , 47, 4076-4086		8
454	Firefly-like Water Splitting Cells Based on FRET Phenomena with Ultrahigh Performance over 12. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 5007-5013	9.5	6
453	Photoelectrodes based on 2D opals assembled from Cu-delafoosite double-shelled microspheres for an enhanced photoelectrochemical response. 2018 , 10, 3720-3729		21
452	Plasmon-Dictated Photo-Electrochemical Water Splitting for Solar-to-Chemical Energy Conversion: Current Status and Future Perspectives. 2018 , 5, 1701098		59
451	Enhanced Thermochemical H ₂ Production on Ca-Doped Lanthanum Manganite Perovskites Through Optimizing the Dopant Level and Re-oxidation Temperature. 2018 , 31, 431-439		6
450	High-efficiency SrTiO ₃ /TiO ₂ hetero-photoanode for visible-light water splitting by charge transport design and optical absorption management. 2018 , 10, 3644-3649		20
449	Influence of design and operating conditions on the performance of tandem photoelectrochemical reactors. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 1285-1302	6.7	6
448	A self-powered sensor based on molecularly imprinted polymer-coupled graphitic carbon nitride photoanode for selective detection of bisphenol A. 2018 , 259, 394-401		36
447	Efficient photoelectrochemical water oxidation enabled by an amorphous metal oxide-catalyzed graphene/silicon heterojunction photoanode. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 663-672	5.8	19

446	Enhanced photo catalytic activity of graphene oxide /MoO ₃ nanocomposites in the degradation of Victoria Blue Dye under visible light irradiation. <i>Applied Surface Science</i> , 2018 , 449, 685-696	6.7	17
445	Electrochemical hydrogenation of mixed-phase TiO ₂ nanotube arrays enables remarkably enhanced photoelectrochemical water splitting performance. 2018 , 63, 194-202		16
444	Atomically Thin Mesoporous In ₂ O ₃ /In ₂ S ₃ Lateral Heterostructures Enabling Robust Broadband-Light Photo-Electrochemical Water Splitting. <i>Advanced Energy Materials</i> , 2018 , 8, 1701114	21.8	75
443	Artificial Photosynthesis for Formaldehyde Production with 85% of Faradaic Efficiency by Tuning the Reduction Potential. 2018 , 8, 968-974		24
442	Theoretical study of the oxygen impurity doped Ta ₅ N ₆ . 2018 , 143, 368-373		2
441	Multiscale Computational Design of Functionalized Photocathodes for H ₂ Generation. 2018 , 140, 50-53		10
440	Rational design of electrocatalysts for simultaneously promoting bulk charge separation and surface charge transfer in solar water splitting photoelectrodes. 2018 , 6, 2568-2576		35
439	Balancing Catalytic Activity and Interface Energetics of Electrocatalyst-Coated Photoanodes for Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 3624-3633	9.5	37
438	Recent Advances in Sensitized Photocathodes: From Molecular Dyes to Semiconducting Quantum Dots. 2018 , 5, 1700684		49
437	Solar Water Oxidation by an InGa _N Nanowire Photoanode with a Bandgap of 1.7 eV. 2018 , 3, 307-314		50
436	Solution-processed yolk-shell-shaped WO ₃ /BiVO ₄ heterojunction photoelectrodes for efficient solar water splitting. 2018 , 6, 2585-2592		78
435	Cooperative silanetriolate-carboxylate sensitizer anchoring for outstanding stability and improved performance of dye-sensitized photoelectrodes. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 1707-1718	5.8	7
434	Construct Fe ²⁺ species and Au particles for significantly enhanced photoelectrochemical performance of Fe ₂ O ₃ by ion implantation. <i>Science China Materials</i> , 2018 , 61, 878-886	7.1	12
433	Hydrothermal synthesis of Rb and S co-doped Ti-based TiO ₂ sheet with a thin film showing high photocatalytic activities.. 2018 , 8, 11247-11254		2
432	Polyaniline hybridization promotes photo-electro-catalytic removal of organic contaminants over 3D network structure of rGH-PANI/TiO ₂ hydrogel. <i>Applied Catalysis B: Environmental</i> , 2018 , 232, 232-245	21.8	128
431	Building of peculiar heterostructure of Ag/two-dimensional fullerene shell-WO ₃ -x for enhanced photoelectrochemical performance. <i>Applied Catalysis B: Environmental</i> , 2018 , 231, 381-390	21.8	43
430	Boosting photocatalytic overall water splitting by Co doping into MnO nanoparticles as oxygen evolution cocatalysts. 2018 , 10, 10420-10427		45
429	WO ₃ Mesoporous Nanobelts towards Efficient Photoelectrocatalysts for Water Splitting. 2018 , 5, 322-327		24

428	Solar-to-Hydrogen Energy Conversion Based on Water Splitting. <i>Advanced Energy Materials</i> , 2018 , 8, 1701620	21.8	285
427	Promoted photoelectrochemical activity of BiVO ₄ coupled with LaFeO ₃ and LaCoO ₃ . 2018 , 44, 1013-1024		8
426	Ultrathin nanoporous metal-semiconductor heterojunction photoanodes for visible light hydrogen evolution. 2018 , 11, 2046-2057		7
425	Metal-organic frameworks for solar energy conversion by photoredox catalysis. 2018 , 373, 83-115		113
424	Facial boron incorporation in hematite photoanode for enhanced photoelectrochemical water oxidation. 2018 , 355, 290-297		11
423	Interface Manipulation to Improve Plasmon-Coupled Photoelectrochemical Water Splitting on α -Fe ₂ O ₃ Photoanodes. 2018 , 11, 237-244		28
422	Effect of tetravalent dopants on hematite nanostructure for enhanced photoelectrochemical water splitting. <i>Applied Surface Science</i> , 2018 , 427, 1203-1212	6.7	36
421	Bismuth Vanadate Photoelectrodes with High Photovoltage as Photoanode and Photocathode in Photoelectrochemical Cells for Water Splitting. 2018 , 11, 589-597		24
420	Improving solar water-splitting performance of LaTaO ₂ N ₂ by bulk defect control and interface engineering. <i>Applied Catalysis B: Environmental</i> , 2018 , 226, 111-116	21.8	21
419	Plasmon-mediated charge dynamics and photoactivity enhancement for Au-decorated ZnO nanocrystals. 2018 , 6, 4286-4296		113
418	Theoretical Insight into Charge-Recombination Center in Ta ₃ N ₅ Photocatalyst: Interstitial Hydrogen. 2018 , 122, 489-494		8
417	Direct growth of Cr-doped TiO ₂ nanosheet arrays on stainless steel substrates with visible-light photoelectrochemical properties. 2018 , 42, 1309-1315		11
416	Scale-Up of BiVO ₄ Photoanode for Water Splitting in a Photoelectrochemical Cell: Issues and Challenges. 2018 , 6, 100-109		35
415	Efficient photoelectrochemical water oxidation using a TiO ₂ nanosphere-decorated BiVO ₄ heterojunction photoanode. 2018 , 8, 41439-41444		9
414	Highly self-diffused Sn doping in α -Fe ₂ O ₃ nanorod photoanodes initiated from FeOOH nanorod/FTO by hydrogen treatment for solar water oxidation. 2018 , 10, 22560-22571		36
413	Effects of B site doping on electronic structures of InNbO ₄ based on hybrid density functional calculations. 2018 , 292, 012020		
412	. 2018 ,		3
411	Photocatalysis: From Fundamental Principles to Materials and Applications. <i>ACS Applied Energy Materials</i> , 2018 , 1, 6657-6693	6.1	168

410	Tandem photoelectrochemical cells for solar water splitting. 2018 , 3, 1487267			14
409	Hydrogen Generation from Photoelectrochemical Water Splitting. 2018 , 121-157			
408	Photoelectrochemical Cell: A Versatile Device for Sustainable Hydrogen Production. 2018 , 59-119			3
407	Single-Source Bismuth (Transition Metal) Polyoxovanadate Precursors for the Scalable Synthesis of Doped BiVO Photoanodes. 2018 , 30, e1804033			31
406	A facile hydrothermal approach for catalytic and optical behavior of tin oxide- graphene (SnO ₂ /G) nanocomposite. 2018 , 13, e0202694			21
405	Reprint of Photoelectrocatalytic behavior of electrodeposited zinc ferrite films with varying Zn:Fe ratio 2018 , 366, 18-26			
404	High-Performance and Stable Silicon Photoanode Modified by Crystalline Ni@ Amorphous Co Core-Shell Nanoparticles. 2018 , 10, 5025-5031			11
403	Dual-Functional Photocatalytic and Photoelectrocatalytic Systems for Energy- and Resource-Recovering Water Treatment. 2018 , 8, 11542-11563			90
402	Monodisperse spherical sandwiched core-shell structured SiO ₂ AuTa ₂ O ₅ and SiO ₂ AuTa ₃ N ₅ composites as visible-light plasmonic photocatalysts. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 20546-20562	6.7		10
401	Metal oxide semiconductors for solar water splitting. 2018 , 205-249			5
400	Exploring facile strategies for high-oxidation-state metal nitride synthesis: carbonate-assisted one-step synthesis of Ta ₃ N ₅ films for solar water splitting. 2018 , 63, 1404-1410			14
399	Development of Novel Perovskite-Like Oxide Photocatalyst LiCuTa ₃ O ₉ with Dual Functions of Water Reduction and Oxidation under Visible Light Irradiation. <i>Advanced Energy Materials</i> , 2018 , 8, 1801660	21.8		26
398	Physical and Chemical Defects in WO ₃ Thin Films and Their Impact on Photoelectrochemical Water Splitting. <i>ACS Applied Energy Materials</i> , 2018 , 1, 5887-5895	6.1		33
397	Metal oxide electrodes for photo-activated water splitting. 2018 , 19-48			3
396	An all-inorganic lead halide perovskite-based photocathode for stable water reduction. 2018 , 54, 11459-11462			41
395	Constructing a hexagonal copper-coin-shaped NiCoSe ₂ @NiO@CoNi ₂ S ₄ @CoS ₂ hybrid nanoarray on nickel foam as a robust oxygen evolution reaction electrocatalyst. 2018 , 6, 18641-18648			46
394	Photoactive multilayer WO ₃ electrode synthesized via dip-coating. <i>Ceramics International</i> , 2018 , 44, 22983-22990			39
393	Mechanism Investigation of the Postnecking Treatment to WO ₃ Photoelectrodes. <i>ACS Applied Energy Materials</i> , 2018 , 1, 4670-4677	6.1		8

392	Single-Step Fabrication of Visible-Light-Active ZnO-GaN:ZnO Branched Nanowire Array Photoanodes for Efficient Water Splitting. <i>ACS Applied Energy Materials</i> , 2018 , 1, 3529-3536	6.1	21
391	Photoelectrocatalytic behavior of electrodeposited zinc ferrite films with varying Zn:Fe ratio. 2018 , 362, 49-57		5
390	Improved water-splitting performances of CuW _{1-x} MoxO ₄ photoanodes synthesized by spray pyrolysis. <i>Science China Materials</i> , 2018 , 61, 1297-1304	7.1	14
389	Construction of Au/CuO/Co ₃ O ₄ Tricomponent Heterojunction Nanotubes for Enhanced Photocatalytic Oxygen Evolution under Visible Light Irradiation. 2018 , 6, 8801-8808		14
388	Effect of boron and phosphorus codoping on the electronic and optical properties of graphitic carbon nitride monolayers: First-principle simulations. 2018 , 97,		27
387	Tailoring Crystallographic Orientations to Substantially Enhance Charge Separation Efficiency in Anisotropic BiVO ₄ Photoanodes. 2018 , 8, 5952-5962		59
386	Zn-doped SnO ₂ hierarchical structures formed by a hydrothermal route with remarkably enhanced photocatalytic performance. <i>Ceramics International</i> , 2018 , 44, 15145-15152	5.1	23
385	Photoelectrochemistry of Ultrathin, Semitransparent, and Catalytic Gold Films Electrodeposited Epitaxially onto n-Silicon (111). <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 21365-21371	9.5	11
384	A 3D well-matched electrode pair of NiCoS//NiCoP nanoarrays grown on nickel foam as a high-performance electrocatalyst for water splitting. 2018 , 6, 12506-12514		79
383	Bismuth vanadate-based semiconductor photocatalysts: a short critical review on the efficiency and the mechanism of photodegradation of organic pollutants. <i>Environmental Science and Pollution Research</i> , 2018 , 25, 19362-19379	5.1	32
382	Solar-aided hydrogen production methods for the integration of renewable energies into oil & gas industries. 2018 , 168, 395-406		21
381	Clarifying the Roles of Oxygen Vacancy in W-Doped BiVO ₄ for Solar Water Splitting. <i>ACS Applied Energy Materials</i> , 2018 , 1, 3410-3419	6.1	49
380	Substantially enhanced front illumination photocurrent in porous SnO ₂ nanorods/networked BiVO ₄ heterojunction photoanodes. 2018 , 6, 14633-14643		24
379	A heterojunction strategy to improve the visible light sensitive water splitting performance of photocatalytic materials. 2018 , 6, 21696-21718		159
378	FeCoW multimetal oxide-coated W:BiVO ₄ photoanode for efficient oxygen evolution. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 2053-2059	5.8	7
377	A comparative study of photocatalytically active nanocrystalline tetragonal zircon-type and monoclinic scheelite-type bismuth vanadate. <i>Ceramics International</i> , 2018 , 44, 17953-17961	5.1	18
376	Development of highly efficient CuIn _{0.5} Ga _{0.5} Se ₂ -based photocathode and application to overall solar driven water splitting. <i>Energy and Environmental Science</i> , 2018 , 11, 3003-3009	35.4	85
375	The Electronic Structures of SnS, SnS ₂ , and Sn ₂ S ₃ for Use in PV. 2018 , 175-213		1

374	The photoelectrocatalytic CO ₂ reduction on TiO ₂ @ZnO heterojunction by tuning the conduction band potential. <i>Electrochimica Acta</i> , 2018 , 285, 23-29	6.7	25
373	Triboelectric Nanogenerator Driven Self-Powered Photoelectrochemical Water Splitting Based on Hematite Photoanodes. 2018 , 12, 8625-8632		44
372	A Realistic Approach for Photoelectrochemical Hydrogen Production. 2018 , 11,		9
371	Cobalt-doped NiMn layered double hydroxide nanoplates as high-performance electrocatalyst for oxygen evolution reaction. 2018 , 165, 277-283		31
370	Simultaneous enhancement in charge separation and onset potential for water oxidation in a BiVO ₄ photoanode by WTi codoping. 2018 , 6, 16965-16974		22
369	Non-noble-metal bismuth nanoparticle-decorated bismuth vanadate nanoarray photoanode for efficient water splitting. 2018 , 2, 1799-1804		12
368	A solar responsive photocatalytic fuel cell with the membrane electrode assembly design for simultaneous wastewater treatment and electricity generation. 2018 , 358, 346-354		26
367	Fabrication of BiVO ₄ photoanode consisted of mesoporous nanoparticles with improved bulk charge separation efficiency. <i>Applied Catalysis B: Environmental</i> , 2018 , 238, 586-591	21.8	34
366	Over 1% Efficient Unbiased Stable Solar Water Splitting Based on a Sprayed Cu ₂ ZnSnS ₄ Photocathode Protected by a HfO ₂ Photocorrosion-Resistant Film. 2018 , 3, 1875-1881		54
365	CdS/Au/Ti/Pb(Mg _{1/3} Nb _{2/3}) _{0.7} Ti _{0.3} O ₃ photocatalysts and biphotocatalysts with ferroelectric polarization in single domain for efficient water splitting. <i>Applied Catalysis B: Environmental</i> , 2018 , 238, 248-254	21.8	16
364	Hierarchical CdS Nanorod@SnO Nanobowl Arrays for Efficient and Stable Photoelectrochemical Hydrogen Generation. <i>Small</i> , 2018 , 14, e1801352	11	31
363	The Influence of Ti Doping on Morphology and Photoelectrochemical Properties of Hematite Grown from Aqueous Solution for Water Splitting. 2018 , 6, 2188-2199		14
362	Nanoforest-like CdS/TiO ₂ heterostructure composites: Synthesis and photoelectrochemical application. 2018 , 27, 088802		
361	Boosting the photoelectrochemical activities of all-inorganic perovskite SrTiO ₃ nanofibers by engineering homo/hetero junctions. 2018 , 6, 17530-17539		9
360	Effect of heat treatment on photoelectrochemical performance of hydrothermally synthesised Ag ₂ S/ZnO nanorods arrays. 2018 , 710, 100-107		11
359	Activation of a highly oriented columnar structure of ZnFe ₂ O ₄ for photoelectrochemical water splitting: Orchestrated effects of two-step quenching and Sn ⁴⁺ diffusion. 2018 , 187, 207-218		22
358	Experimental and Computational Investigation of Lanthanide Ion Doping on BiVO ₄ Photoanodes for Solar Water Splitting. 2018 , 122, 19416-19424		27
357	Nanocrystalline Boron-Doped Diamond as a Corrosion-Resistant Anode for Water Oxidation via Si Photoelectrodes. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 29552-29564	9.5	17

356	Molten salt-assisted a-axis-oriented growth of Ta ₃ N ₅ nanorod arrays with enhanced charge transport for efficient photoelectrochemical water oxidation. <i>CrystEngComm</i> , 2018 , 20, 5364-5369	3.3	14
355	Studies on the fabrication and characteristics of photoelectrochemical cells using IrO ₂ -coated TiO ₂ photoanode for Z-scheme water splitting and perovskite solar cell bias. 2018 , 662, 75-81		
354	Highly Efficient Visible-Light-Driven H ₂ Production via an Eosin Y-Based Metal-Organic Framework. 2018 , 57, 7495-7498		19
353	Bismuth Vanadate with Electrostatically Anchored 3D Carbon Nitride Nano-networks as Efficient Photoanodes for Water Oxidation. 2018 , 11, 2510-2516		18
352	Panchromatic Sensitization with Zn Porphyrin-Based Photosensitizers for Light-Driven Hydrogen Production. 2018 , 11, 2517-2528		20
351	Realizing high performance solar water oxidation for Ti-doped hematite nanoarrays by synergistic decoration with ultrathin cobalt-iron phosphate nanolayers. <i>Chemical Engineering Journal</i> , 2019 , 355, 49-57	14.7	41
350	Mo-doped BiVO ₄ @reduced graphene oxide composite as an efficient photoanode for photoelectrochemical water splitting. 2019 , 325, 73-80		33
349	Polarization-Enhanced direct Z-scheme ZnO-WO ₃ -x nanorod arrays for efficient piezoelectric-photoelectrochemical Water splitting. <i>Applied Catalysis B: Environmental</i> , 2019 , 259, 118079	21.8	62
348	Interfacial Coupling Effect on Electron Transport in Hierarchical TaON/Au/ZnCo-LDH Photoanode with Enhanced Photoelectrochemical Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 33062-33073	9.5	9
347	Improving the Water Oxidation Efficiency with a Light-Induced Electric Field in Nanograting Photoanodes. 2019 , 19, 6133-6139		10
346	Depletion layer controls photocatalytic hydrogen evolution with p-type gallium phosphide particles. 2019 , 7, 18020-18029		5
345	Amino-functionalised conjugated porous polymers for improved photocatalytic hydrogen evolution. 2019 , 7, 19087-19093		27
344	Photoelectrochemical properties of the composites based on TiO ₂ nanotubes, CdSe and graphene oxide. 2019 , 45, 4121-4132		2
343	Fabrication of Ni-Doped PbTiO ₃ -Coated TiO ₂ Nanorod Arrays for Improved Photoelectrochemical Performance. 2019 , 2019, 1-8		1
342	Effect of Bulk Hydrogen on the Photocatalytic Activity of Semiconducting Ta ₃ N ₅ : A Hybrid-DFT Viewpoint. 2019 , 123, 28763-28768		3
341	Protein and Proteome Atlas for Plants under Stresses: New Highlights and Ways for Integrated Omics in Post-Genomics Era. 2019 , 20,		9
340	Sn Doping into Hematite Nanorods for High-Performance Photoelectrochemical Water Splitting. 2019 , 166, H743-H749		5
339	Synthesis and SPEF-Induced Enhanced Photoelectrochemical Performance of the BaTiO ₃ @H-Fe ₂ O ₃ Ferroelectric Heterojunction. 2019 , 123, 22431-22438		8

338	A fast molten salt receiver model in MATLAB. 2019 ,		1
337	The Self-Passivation Mechanism in Degradation of BiVO Photoanode. 2019 , 19, 976-985		27
336	Photoelectrochemical Driving and Simultaneous Synthesis of 3-pyridinecarboxylic Acid and Hydrogen in WO ₃ Photoanode-Based Cell. 2019 , 166, H662-H668		5
335	FeNiS (x = 3-6) as potential photocatalysts for solar-driven hydrogen production?. 2019 , 215, 216-226		9
334	Reducing the surface recombination during light-driven water oxidation by core-shell BiVO ₄ @Ni:FeOOH. <i>Electrochimica Acta</i> , 2019 , 300, 77-84	6.7	15
333	Boosting the performance of hematite photoanodes for solar water oxidation by synergistic W-incorporation and Zr-passivation. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 16436-16442	6.7	7
332	Recent advances in BiVO ₄ semiconductor materials for hydrogen production using photoelectrochemical water splitting. <i>Renewable and Sustainable Energy Reviews</i> , 2019 , 111, 332-343	16.2	94
331	Native Surface Oxides Featured Liquid Metals for Printable Self-Powered Photoelectrochemical Device. 2019 , 7, 356		4
330	First-principles calculations and experimental investigation on SnO@ZnO heterojunction photocatalyst with enhanced photocatalytic performance. <i>Journal of Colloid and Interface Science</i> , 2019 , 553, 613-621	9.3	41
329	Recent advances in metal sulfides: from controlled fabrication to electrocatalytic, photocatalytic and photoelectrochemical water splitting and beyond. 2019 , 48, 4178-4280		463
328	Porous Cupric Oxide: Efficient Photocathode for Photoelectrochemical Water Splitting. 2019 , 3, 1254-1262		9
327	Enhanced Surface and Bulk Recombination Kinetics by Virtue of Sequential Metal and Nonmetal Incorporation in Hematite-Based Photoanode for Superior Photoelectrochemical Water Oxidation. <i>ACS Applied Energy Materials</i> , 2019 , 2, 4325-4334	6.1	13
326	Molecular Engineering of Conjugated Acetylenic Polymers for Efficient Cocatalyst-free Photoelectrochemical Water Reduction. 2019 , 131, 10476-10482		5
325	Molecular Engineering of Conjugated Acetylenic Polymers for Efficient Cocatalyst-free Photoelectrochemical Water Reduction. 2019 , 58, 10368-10374		24
324	Bi-Quantum-Dot-Decorated Bi ₄ V ₂ O ₁₁ Hollow Nanocakes: Synthesis, Characterization, and Application as Photocatalysts for CO ₂ Reduction. 2019 , 58, 10402-10409		18
323	Solvent-Free Synthesis of CuO/HKUST-1 Composite and Its Photocatalytic Application. 2019 , 58, 8332-8338		26
322	Bimetallic phosphide decorated Mo-BiVO for significantly improved photoelectrochemical activity and stability.. 2019 , 9, 15629-15634		11
321	Strategies of Anode Materials Design towards Improved Photoelectrochemical Water Splitting Efficiency. 2019 , 9, 309		8

320	Cobalt-phosphate-modified Mo:BiVO ₄ mesoporous photoelectrodes for enhanced photoelectrochemical water splitting. <i>Journal of Materials Science</i> , 2019 , 54, 10670-10683	4.3	15
319	Design Principles for Construction of Charge Transport Channels in Particle-Assembled Water-Splitting Photoelectrodes. 2019 , 7, 10509-10515		10
318	NaNbO ₃ /MoS ₂ and NaNbO ₃ /BiVO ₄ Core-shell Nanostructures for Photoelectrochemical Hydrogen Generation. 2019 , 2, 2651-2662		18
317	Anomalous Phase Transition of Layered Lepidocrocite Titania Nanosheets to Anatase and Rutile. 2019 , 19, 3298-3304		2
316	Stepping towards Solar Water Splitting: Recent Progress in Bismuth Vanadate Photoanodes. 2019 , 6, 3227-3243		29
315	. 2019 , 23, 1621-1630		6
314	Enhanced charge separation by oriented growth of Ta ₃ N ₅ -Cu ₂ O n-p array heterojunction. <i>Applied Physics Letters</i> , 2019 , 114, 132105	3.4	4
313	Electrolyte effects on undoped and Mo-doped BiVO ₄ film for photoelectrochemical water splitting. 2019 , 842, 41-49		9
312	Photo-deposition of cobalt-phosphate group modified hematite for efficient water splitting. 2019 , 195, 241-249		8
311	Co-sensitized TiO ₂ electrodes with different quantum dots for enhanced hydrogen evolution in photoelectrochemical cells. 2019 , 49, 475-484		2
310	Photoelectrocatalytic H ₂ and H ₂ O ₂ Production Using Visible-Light-Absorbing Photoanodes. 2019 , 9, 243		11
309	Boosting photoelectrochemical water splitting performance of Ta ₃ N ₅ nanorod array photoanodes by forming a dual co-catalyst shell. 2019 , 59, 683-688		36
308	Band Positions and Photoelectrochemical Properties of Solution-Processed Silver-Substituted Cu ₂ ZnSnS ₄ Photocathode. <i>ACS Applied Energy Materials</i> , 2019 , 2, 2779-2785	6.1	23
307	Size- and density-controlled photodeposition of metallic platinum nanoparticles on titanium dioxide for photocatalytic applications. 2019 , 7, 14519-14525		12
306	Improved Interfacial Charge Transfer Dynamics and Onset Shift in Nanostructured Hematite Photoanodes via Efficient Ti ⁴⁺ /Sn ⁴⁺ Heterogeneous Self-Doping Through Controlled TiO ₂ Underlayers. 2019 , 7, 6947-6958		20
305	Toward practical solar hydrogen production - an artificial photosynthetic leaf-to-farm challenge. 2019 , 48, 1908-1971		415
304	Novelty in Designing of Photocatalysts for Water Splitting and CO ₂ Reduction. <i>Environmental Chemistry for A Sustainable World</i> , 2019 , 41-65	0.8	
303	Interfacial Effects on the Band Edges of TaN Photoanodes in an Aqueous Environment: A Theoretical View. 2019 , 13, 432-439		10

302	Highly efficient photocatalytic hydrogen evolution from water-soluble conjugated polyelectrolytes. 2019 , 60, 775-783	51
301	Shape-Controlled Hematite: An Efficient Photoanode for Photoelectrochemical Water Splitting. 2019 , 58, 7200-7208	10
300	Review of strategies for the fabrication of heterojunctional nanocomposites as efficient visible-light catalysts by modulating excited electrons with appropriate thermodynamic energy. 2019 , 7, 10879-10897	61
299	A metal-organic framework converted catalyst that boosts photo-electrochemical water splitting. 2019 , 7, 11143-11149	35
298	Elaborately Modified BiVO Photoanodes for Solar Water Splitting. 2019 , 31, e1806938	187
297	Interface Engineering for Modulation of Charge Carrier Behavior in ZnO Photoelectrochemical Water Splitting. 2019 , 29, 1808032	95
296	Enhanced Photoelectrochemical Performance of BiVO ₄ by a NiMoO ₄ Modification. 2019 , 48, 2501-2508	4
295	Tailoring the geometric and electronic structure of tungsten oxide with manganese or vanadium doping toward highly efficient electrochemical and photoelectrochemical water splitting. 2019 , 7, 6161-6172	38
294	Tailoring surface states by sequential doping of Ti and Mg for kinetically enhanced hematite photoanode. <i>Journal of Colloid and Interface Science</i> , 2019 , 542, 441-450	9-3 10
293	Photoelectrochemical application of WS ₂ nanosheets prepared via a low-temperature CVD method. 2019 , 30, 6342-6349	10
292	Photosensitized H ₂ Evolution and NADPH Formation by Photosensitizer/Carbon Nitride Hybrid Nanoparticles. 2019 , 19, 9121-9130	6
291	Visible-Light Activated Titania and Its Application to Photoelectrocatalytic Hydrogen Peroxide Production. 2019 , 12,	11
290	Photoelectrocatalytic Hydrogen Production Using a TiO ₂ /WO ₃ Bilayer Photocatalyst in the Presence of Ethanol as a Fuel. 2019 , 9, 976	12
289	Carbon-Based Photocathode Materials for Solar Hydrogen Production. 2019 , 31, e1801446	54
288	Zinc oxide superstructures: Recent synthesis approaches and application for hydrogen production via photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 2091-2127	6-7 48
287	Multifunctional ternary hydroxalite-like nanosheet arrays as an efficient co-catalyst for vastly improved water splitting performance on bismuth vanadate photoanode. 2019 , 370, 1-10	19
286	Key Strategies to Advance the Photoelectrochemical Water Splitting Performance of Bi-Fe ₂ O ₃ Photoanode. 2019 , 11, 157-179	71
285	Synthesis and characterization of photoactive material Cu ₂ NiSnS ₄ thin films. 2019 , 30, 3338-3348	6

284	Review on photocatalytic and electrocatalytic artificial nitrogen fixation for ammonia synthesis at mild conditions: Advances, challenges and perspectives. 2019 , 12, 1229-1249		172
283	Spatial dual-electric fields for highly enhanced the solar water splitting of TiO ₂ nanotube arrays. 2019 , 57, 542-548		31
282	Introduction of oxygen vacancies into hematite in local reducing atmosphere for solar water oxidation. 2019 , 179, 99-105		9
281	Atomic Layer Deposition of Space-Efficient SnO Underlayers for BiVO ₄ Host-Guest Architectures for Photoassisted Water Splitting. 2019 , 12, 1916-1924		7
280	Nanorod Array of SnO Quantum Dot Interspersed Multiphase TiO Heterojunctions with Highly Photocatalytic Water Splitting and Self-Rechargeable Battery-Like Applications. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 2071-2081	9.5	35
279	In situ growth of α -FeO@CoO core-shell wormlike nanoarrays for a highly efficient photoelectrochemical water oxidation reaction. 2019 , 11, 1111-1122		13
278	Charge compensation doping to improve the photocatalytic and photoelectrochemical activities of Ta ₃ N ₅ : A theoretical study. <i>Applied Catalysis B: Environmental</i> , 2019 , 244, 502-510	21.8	16
277	Inorganic Photochemistry and Solar Energy Harvesting: Current Developments and Challenges to Solar Fuel Production. 2019 , 2019, 1-23		25
276	Easily recyclable photocatalyst Bi ₂ WO ₆ /MOF/PVDF composite film for efficient degradation of aqueous refractory organic pollutants under visible-light irradiation. <i>Journal of Materials Science</i> , 2019 , 54, 6238-6257	4.3	19
275	SpiderMAEn: recombinant spider silk-based hybrid materials for advanced energy technology. 2019 , 8, 99-108		3
274	Synthesis of Tungsten Trioxide/Hematite Core-Shell Nanoarrays for Efficient Photoelectrochemical Water Splitting. 2019 , 6, 543-551		14
273	Suppression of poisoning of photocathode catalysts in photoelectrochemical cells for highly stable sunlight-driven overall water splitting. 2019 , 150, 041713		10
272	Ternary Hierarchical Cu ₇ S ₄ /TiO ₂ /CoCr-LDH Heterostructured Nanorod Arrays with Multiphase Reaction Interfaces for More Efficient Photoelectrochemical Water Splitting. 2019 , 6, 1800970		13
271	An efficient tandem photoelectrochemical cell composed of FeOOH/TiO ₂ /BiVO ₄ and Cu ₂ O for self-driven solar water splitting. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 594-604	6.7	22
270	Photo-Electrochemical Solar-to-Fuel Energy Conversion by Hematite-Based Photo-Anodes [The Role of 1D Nanostructuring. 2020 , 234, 615-631		6
269	Structured photocatalysts for the removal of emerging contaminants under visible or solar light. 2020 , 41-98		4
268	Photoelectrocatalytic production of hydrogen peroxide using a photo(catalytic) fuel cell. 2020 , 389, 112210		8
267	Fabrication of BiVO ₄ photoanode cocatalyzed with NiCo-layered double hydroxide for enhanced photoactivity of water oxidation. <i>Applied Catalysis B: Environmental</i> , 2020 , 263, 118280	21.8	83

266	Photoelectrocatalytic Hydrogen Peroxide Production Using Nanoparticulate WO ₃ as Photocatalyst and Glycerol or Ethanol as Sacrificial Agents. 2020 , 8, 37		2
265	Establishing inorganic-biological hybrid photoelectrochemical platform towards sustainable conversion of β -chitin. <i>Applied Catalysis B: Environmental</i> , 2020 , 265, 118558	21.8	3
264	Hydrogen as an energy vector. <i>Renewable and Sustainable Energy Reviews</i> , 2020 , 120, 109620	16.2	194
263	Photocatalysis: an overview of recent developments and technological advancements. 2020 , 63, 149-181		63
262	Activating a hematite nanorod photoanode via fluorine-doping and surface fluorination for enhanced oxygen evolution reaction. 2020 , 12, 3259-3266		22
261	Kinetic analysis of the synergistic effect of NaBH ₄ treatment and Co-Pi coating on Fe ₂ O ₃ photoanodes for photoelectrochemical water oxidation. 2020 , 381, 139-149		22
260	CuO/Cu ₂ O nanoflake/nanowire heterostructure photocathode with enhanced surface area for photoelectrochemical solar energy conversion. <i>Applied Surface Science</i> , 2020 , 509, 144703	6.7	29
259	Unique Layer-Doping-Induced Regulation of Charge Behavior in Metal-Free Carbon Nitride Photoanodes for Enhanced Performance. 2020 , 13, 328-333		10
258	Semiconductor-based photocatalysts for photocatalytic and photoelectrochemical water splitting: will we stop with photocorrosion?. 2020 , 8, 2286-2322		123
257	Carbon Encapsulation of Organic-Inorganic Hybrid Perovskite toward Efficient and Stable Photo-Electrochemical Carbon Dioxide Reduction. <i>Advanced Energy Materials</i> , 2020 , 10, 2002105	21.8	15
256	Silicon Photoanode Modified with Work-function-tuned Ni@Fe Ni (OH) Core-Shell Particles for Water Oxidation. 2020 , 13, 6037-6044		4
255	Novel BiVO ₄ nanostructures for environmental remediation, enhanced photoelectrocatalytic water oxidation and electrochemical energy storage performance. 2020 , 207, 441-449		13
254	Application of ion beam technology in (photo)electrocatalytic materials for renewable energy. 2020 , 7, 041303		10
253	Pollutants degradation and power generation by photocatalytic fuel cells: A comprehensive review. 2020 , 13, 8458-8480		31
252	A coral-like hematite photoanode on a macroporous SnO ₂ : Sb substrate for enhanced photoelectrochemical water oxidation. <i>Electrochimica Acta</i> , 2020 , 360, 137012	6.7	2
251	Photocatalytic hydrogen generation of monolithic porous titanium oxide-based glass-ceramics. 2020 , 10, 11615		7
250	Photocatalytic Materials: An Apollo Arrow to Tumor Cells. 2020 , 2, 1126-1140		4
249	Effect of morphology and impact of the electrode/electrolyte interface on the PEC response of FeO based systems - comparison of two preparation techniques.. 2020 , 10, 42256-42266		5

248	Insights into the impurities of BiWO synthesized using the hydrothermal method.. 2020 , 10, 40597-40607	8	
247	A simple flame strategy for constructing W-doped BiVO ₄ photoanodes with enhanced photoelectrochemical water splitting. 2020 , 44, 10821-10831	4	
246	Surface Modification of Hematite Photoanodes with CeO Cocatalyst for Improved Photoelectrochemical Water Oxidation Kinetics. 2020 , 13, 5489-5496	8	
245	Interface and surface engineering of hematite photoanode for efficient solar water oxidation. 2020 , 152, 244707	2	
244	First Principle Study of Na and P Co-Doped Heptazine Based Monolayer g-C ₃ N ₄ . 2020 , 978, 369-376	1	
243	Nanoporous TaN electrochemical anodization followed by nitridation for solar water oxidation. 2020 , 49, 15023-15033	2	
242	Photoelectrochemical Studies on Metal-Doped Graphitic Carbon Nitride Nanostructures under Visible-Light Illumination. 2020 , 10, 983	1	
241	Characterizing surface states in hematite nanorod photoanodes, both beneficial and detrimental to solar water splitting efficiency. 2020 , 8, 20513-20530	4	
240	A one-step synthesis of a TaN nanorod photoanode from Ta plates and NHCl powder for photoelectrochemical water oxidation. 2020 , 56, 11843-11846	2	
239	Intervening Bismuth Tungstate with DNA Chain Assemblies: A Perception toward Feedstock Conversion via Photoelectrocatalytic Water Splitting. 2020 , 59, 14501-14512	3	
238	Earth-abundant Cu-based metal oxide photocathodes for photoelectrochemical water splitting. <i>Energy and Environmental Science</i> , 2020 , 13, 3269-3306	35.4	60
237	Effect of Lactic Acid on the Photoelectrocatalytic Water Splitting of Hematite Prepared by Hydrothermal Method. 2020 , 16, 481-490	1	
236	Highly Efficient Photoelectrochemical Water Splitting Using GaN-Nanowire Photoanode with Tungsten Sulfides. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 58028-58037	9.5	13
235	Fabrication of Cr-doped SrTiO ₃ /Ti-doped β -Fe ₂ O ₃ photoanodes with enhanced photoelectrochemical properties. 2020 , 56, 189-195	8	
234	Determining the Efficiency of Photoelectrode Materials by Coupling Cavity-Microelectrode Tips and Scanning Electrochemical Microscopy. 2020 , 7, 2440-2447	1	
233	Decoupling Kinetics and Thermodynamics of Interfacial Catalysis at a Chemically Modified Black Silicon Semiconductor Photoelectrode. 2020 , 5, 1848-1855	3	
232	Recent Advancement of p- and d-Block Elements, Single Atoms, and Graphene-Based Photoelectrochemical Electrodes for Water Splitting. <i>Advanced Energy Materials</i> , 2020 , 10, 2000280	21.8	40
231	Photodeposition of RuO Nanostructures on TiO Films with a Controllable Morphology. 2020 , 5, 10671-10679	2	

230	Establishing a new hot electrons transfer channel by ion doping in a plasmonic metal/semiconductor photocatalyst. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 15795-15798	3.6	2
229	Reversible electron storage in tandem photoelectrochemical cell for light driven unassisted overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2020 , 275, 119094	21.8	21
228	Nitrogen-Doped Carbon Nanolayer Coated Hematite Nanorods for Efficient Photoelectrocatalytic Water Oxidation. <i>Applied Catalysis B: Environmental</i> , 2020 , 275, 119113	21.8	8
227	Well-Crystallized β -FeOOH Cocatalysts Modified BiVO ₄ Photoanodes for Efficient and Stable Photoelectrochemical Water Splitting. <i>ACS Applied Energy Materials</i> , 2020 , 3, 5927-5936	6.1	21
226	Physical Insights into Band Bending in Pristine and Co-Pi-Modified BiVO Photoanodes with Dramatically Enhanced Solar Water Splitting Efficiency. 2020 , 11, 5015-5020		9
225	Highly active deficient ternary sulfide photoanode for photoelectrochemical water splitting. 2020 , 11, 3078		62
224	Implementation of ferroelectric materials in photocatalytic and photoelectrochemical water splitting. 2020 , 5, 1174-1187		26
223	Recent progress for hydrogen production by photocatalytic natural or simulated seawater splitting. 2020 , 13, 2313-2322		47
222	Enhanced Charge Carrier Lifetime of TiS ₃ Photoanode by Introduction of S22 Vacancies for Efficient Photoelectrochemical Hydrogen Evolution. 2020 , 30, 2001286		8
221	Patterning of BiVO Surfaces and Monitoring of Localized Catalytic Activity Using Scanning Photoelectrochemical Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 18065-18073	9.5	7
220	Functional Blocking Layer of Twisted Tungsten Oxide Nanorod Grown by Electrochemical Anodization for Photoelectrochemical Water Splitting. 2020 , 167, 066501		4
219	Spray-processed nanoporous BiVO ₄ photoanodes with high charge separation efficiency for oxygen evolution. 2020 , 8, 031112		3
218	Paving the road toward the use of β -FeO in solar water splitting: Raman identification, phase transformation and strategies for phase stabilization. 2020 , 7, 1059-1067		17
217	Enhanced photocurrent generation from indium β -in-oxide/Fe ₂ TiO ₅ hybrid nanocone arrays. 2020 , 76, 104965		4
216	Innovative multifunctional hybrid photoelectrode design based on a ternary heterojunction with super-enhanced efficiency for artificial photosynthesis. 2020 , 10, 10669		1
215	Use of Chalcogenide-Semiconductor-Sensitized Titania to Directly Charge a Vanadium Redox Battery. 2020 , 10,		1
214	Polyimide-based photocatalysts: rational design for energy and environmental applications. 2020 , 8, 14441-14462		18
213	Photocatalytic activity and photocorrosion of oriented BiVO ₄ single crystal thin films. 2020 , 10, 5091-5099		5

212	Surface defect passivation of TaN photoanode via pyridine grafting for enhanced photoelectrochemical performance. 2020 , 153, 024705		2
211	Effects of oxygen impurity concentration on the interfacial properties of Ta ₃ N ₅ /Ta ₅ N ₆ composite photoelectrode: A DFT calculation. <i>Applied Catalysis B: Environmental</i> , 2020 , 278, 119296	21.8	1
210	Highly piezoelectric lead-free ceramic powder: An efficient and eco-friendly multifunctional photocatalyst. <i>Ceramics International</i> , 2020 , 46, 25266-25272	5.1	3
209	Effect of morphology on the photoelectrochemical performance of nanostructured CuO photocathodes. 2021 , 32,		1
208	Fabrication of WO ₃ nanorod/graphene/BiV _{1-x} MoxO ₄ heterojunction photoelectrode for efficient photoelectrochemical water splitting. 2020 , 31, 3323-3331		1
207	Ambient processed CsPbX ₃ perovskite cubes for photocatalysis. 2020 , 267, 127501		14
206	Suppression of Point Defects for Band Edge Engineering in a Semiconducting Photocatalyst. 2020 , 11, 1708-1713		5
205	Solar water splitting under natural concentrated sunlight using a 200 \times m ² photoelectrochemical-photovoltaic device. 2020 , 454, 227890		14
204	Highly durable photoelectrochemical H ₂ O ₂ production via dual photoanode and cathode processes under solar simulating and external bias-free conditions. <i>Energy and Environmental Science</i> , 2020 , 13, 1730-1742	35.4	37
203	Room Temperature Surface Modification of Ultrathin FeOOH Cocatalysts on Fe ₂ O ₃ Photoanodes for High Photoelectrochemical Water Splitting. 2020 , 2020, 1-7		6
202	Luminescent Solar Concentrators for Photoelectrochemical Water Splitting. <i>ACS Applied Energy Materials</i> , 2020 , 3, 1665-1671	6.1	7
201	LaCl ₃ flux mediated Ta ₃ N ₅ planar photoanode for solar water oxidation. <i>Chemical Engineering Journal</i> , 2020 , 396, 125161	14.7	7
200	Surface plasmon resonance effect of a Pt-nano-particles-modified TiO ₂ nanoball overlayer enables a significant enhancement in efficiency to 3.5% for a Cu ₂ ZnSnS ₄ -based thin film photocathode used for solar water splitting. <i>Chemical Engineering Journal</i> , 2020 , 396, 125264	14.7	14
199	Enhanced Photoelectrochemical Performance by Interface Engineering in Ternary g-C ₃ N ₄ /TiO ₂ /PbTiO ₃ Films. 2020 , 7, 2000185		7
198	Monocrystalline silicon-based tandem configuration for solar-to-hydrogen conversion. 2020 , 116, 107926		3
197	Atomically thin PdSeO nanosheets: a promising 2D photocatalyst produced by quaternary ammonium intercalation and exfoliation. 2020 , 56, 5504-5507		12
196	Ferrites: emerging light absorbers for solar water splitting. 2020 , 8, 9447-9482		26
195	Free-Standing Electrospun W-Doped BiVO Porous Nanotubes for the Efficient Photoelectrochemical Water Oxidation. 2020 , 8, 311		2

194	General Layer-by-Layer Assembly of Multilayered Photoanodes: Triggering Tandem Charge Transport toward Photoelectrochemical Water Oxidation. 2020 , 59, 7325-7334		13
193	KCl flux suppresses surface recombinations of hematite photoanode for water oxidation. 2020 , 8, 130-137		2
192	PbS/CdS/ZnO nanowire arrays: Synthesis, structural, optical, electrical, and photoelectrochemical properties. 2020 , 750, 137486		12
191	Molecular-level understanding of the deactivation pathways during methanol photo-reforming on Pt-decorated TiO ₂ . <i>Applied Catalysis B: Environmental</i> , 2020 , 272, 118980	21.8	10
190	An integrated thermoelectric-assisted photoelectrochemical system to boost water splitting. 2020 , 65, 1163-1169		10
189	Electrochemically Enhanced Hydrothermal Production of Cupric Oxide Photoelectrode on Copper Substrate. 2020 , 167, 066507		5
188	Green-gradient multi-shell CuInSe ₂ /(CuInSexS _{1-x}) ₅ /CuInS ₂ quantum dots for photo-electrochemical hydrogen generation. <i>Applied Catalysis B: Environmental</i> , 2021 , 280, 119402	21.8	21
187	Enhanced photoelectrochemical water-splitting performance with a hierarchical heterostructure: Co ₃ O ₄ nanodots anchored TiO ₂ @P-C ₃ N ₄ core-shell nanorod arrays. <i>Chemical Engineering Journal</i> , 2021 , 404, 126458	14.7	26
186	Lowering the onset potential of Zr-doped hematite nanocoral photoanodes by Al co-doping and surface modification with electrodeposited Co-Pi. <i>Journal of Colloid and Interface Science</i> , 2021 , 581, 751-763	9.3	6
185	Green supercapacitor assisted photocatalytic fuel cell system for sustainable hydrogen production. <i>Chemical Engineering Journal</i> , 2021 , 403, 126368	14.7	11
184	Photocatalytic Water Splitting Utilizing Electrospun Semiconductors for Solar Hydrogen Generation: Fabrication, Modification and Performance. 2021 , 94, 8-20		17
183	An effective CdS/Ti-Fe ₂ O ₃ heterojunction photoanode: Analyzing Z-scheme charge-transfer mechanism for enhanced photoelectrochemical water-oxidation activity. 2021 , 42, 762-771		9
182	Electrochemical reduction induced self-doping of oxygen vacancies into TiBiO ₄ nanotubes as efficient photoanode for boosted photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 3554-3564	6.7	4
181	Sustainable engineering of TiO ₂ -based advanced oxidation technologies: From photocatalyst to application devices. 2021 , 78, 202-222		20
180	An ultrathin TiO ₂ interfacial layer enhancing the performance of an FeVO ₄ photoanode for water splitting. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 261-266	5.8	3
179	Charging a vanadium redox battery with a photo(catalytic) fuel cell. 2021 , 221, 110889		6
178	Bulk phase charge transfer in focus And in sequential along with surface steps. 2021 , 364, 2-6		2
177	Aerosol-Deposited BiVO ₄ Photoelectrodes for Hydrogen Generation. 2021 , 30, 603-616		2

- 176 Strategic Surface Modification for the Enhanced Photocatalytic Activity: Synergistic Promotion for Energy Utilization in TiO₂/Cu₂O/Au. **2021**, 151, 1693-1699 2
- 175 Recent progress in material selection and device designs for photoelectrochemical water-splitting. *Renewable and Sustainable Energy Reviews*, **2021**, 138, 110503 16.2 18
- 174 Interfacial Charge Transport in 1D TiO₂ Based Photoelectrodes for Photoelectrochemical Water Splitting. *Small*, **2021**, 17, e1903378 11 48
- 173 Multifunctional NiMg bimetal-activated Zn(O,S) for hydrogen generation and environmental remediation with simulated solar-light irradiation. 0
- 172 Effect of oxygen concentration and distribution on holes transfer and photoelectrocatalytic properties in hematite. *International Journal of Hydrogen Energy*, **2021**, 46, 7309-7319 6.7 1
- 171 Glasses for Solar-energy Technologies. **2021**, 1113-1123
- 170 Multigraded Heterojunction Hole Extraction Layer of ZIF-CoxZn1-x on Co₃O₄/TiO₂ Skeleton for a New Photoanode Architecture in Water Oxidation. **2021**, 1, 2000033 7
- 169 Engineering Nanostructure-Interface of Photoanode Materials Toward Photoelectrochemical Water Oxidation. **2021**, 33, e2005389 23
- 168 Synthesis and the photoelectrochemical performance of Fe₂O₃ photoanode through pretreatment. **2021**, 714, 042064
- 167 Material Design and Surface/Interface Engineering of Photoelectrodes for Solar Water Splitting. **2021**, 5, 2100100 8
- 166 Synthesis of metal oxide photoanode with improved photoelectrochemical performance by hydrothermal method. **2021**, 714, 022074
- 165 Acid-Resistant BiVO₄ Photoanodes: Insolubility Control by Solvents and Weak W Diffusion in the Lattice. *ACS Applied Materials & Interfaces*, **2021**, 13, 12079-12090 9.5 3
- 164 Green Synthesis and Applications of ZnO and TiO₂ Nanostructures. **2021**, 26, 20
- 163 Synthesis and characterizations of graphene/Sm doped BiFeO₃ composites photoanode for efficient photo-electrochemical water splitting. *International Journal of Hydrogen Energy*, **2021**, 46, 15550-15560 6.7 15560
- 162 Recent Development in Defects Engineered Photocatalysts: An Overview of the Experimental and Theoretical Strategies. 17
- 161 Passivation of ZnSe nanoparticles in sandwiched CdSe/ZnSe/ZnO nanotube array photoanode to substantially enhance solar photoelectrochemical water splitting for hydrogen evolution. **2021**, 614, 126206 2
- 160 New insight into the effect of interface supercapacitance on the performance of titanium dioxide/carbon nanowire array for photoelectrochemical water oxidation. **2021**, 32, 3359-3359 0
- 159 Hot electron injection and electron relay integrated into PbS/Au/ZnO sandwich nanotube arrays boost visible-light responsive photoelectric property. **2021**, 114, 110944 1

158	Efficient suppression of surface charge recombination by CoP-Modified nanoporous BiVO ₄ for photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 15517-15525	6.7	9
157	B-Fe ₂ O ₃ /AmTiO ₂ heterojunction-based photoanode with improved interfacial charge transport properties for enhanced photoelectrochemical water splitting. 1		0
156	Tapping hydrogen fuel from the ocean: A review on photocatalytic, photoelectrochemical and electrolytic splitting of seawater. <i>Renewable and Sustainable Energy Reviews</i> , 2021 , 142, 110866	16.2	9
155	Computational Study Revealing the Influence of Surface Phenomena in p-GaAs Water-Splitting Cells. 2021 , 125, 12478-12487		1
154	Photo-electrochemical water splitting through graphene-based ZnS composites for H ₂ production. 2021 , 889, 115223		7
153	Fabrication of ZnO/Au@Cu ₂ O heterojunction towards deeply oxidative photodegradation of organic dyes. 2021 , 262, 118301		6
152	Interleaved biphasic pB blended copper indium selenide photoelectrode and its application in pulse-driven photoelectrochemical water splitting. <i>Applied Catalysis B: Environmental</i> , 2021 , 285, 119839 ^{21.8}		9
151	In Situ Analytical Techniques for the Investigation of Material Stability and Interface Dynamics in Electrocatalytic and Photoelectrochemical Applications.. 2021 , 5, e2100322		7
150	CoreShell Photoanodes for Photoelectrochemical Water Oxidation. 2021 , 31, 2104269		16
149	B-Fe ₂ O ₃ nanorods decorated with NiMnO ₃ co-catalyst as photoanode for enhanced oxygen evolution reaction in photoelectrochemical water splitting. 2021 , 27, 102231		6
148	50 Years of Materials Research for Photocatalytic Water Splitting. 2021 , 2021, 2435-2441		5
147	Modulation of interfacial charge dynamics of semiconductor heterostructures for advanced photocatalytic applications. 2021 , 438, 213876		33
146	Transition metal sulfides for electrochemical hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 24060-24077	6.7	9
145	Influence of Au plasmons and their synergistic effects with ZnO nanorods for photoelectrochemical water splitting applications. 2021 , 32, 20525-20538		
144	Surface Analysis of Perovskite Oxynitride Thin Films as Photoelectrodes for Solar Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 37785-37796	9.5	3
143	Boosting photoelectrochemical efficiency by near-infrared-active lattice-matched morphological heterojunctions. 2021 , 12, 4296		4
142	Morphology-controlled fabrication of nanostructured WO ₃ thin films by magnetron sputtering with glancing angle deposition for enhanced efficiency photo-electrochemical water splitting. <i>Ceramics International</i> , 2021 , 47, 34455-34455	5.1	2
141	Boosting the photoelectrochemical water oxidation performance of bismuth vanadate by ZnCo ₂ O ₄ nanoparticles. 2021 ,		2

140	Various Material Development Strategies for Suitable Catalysts of Photo Catalytic Water Splitting to Green Fuel H ₂ :A Critical Review. 2021 , 18, 108-142		2
139	Cu ₂ O nanowires based p-n homojunction photocathode for improved current density and hydrogen generation through solar-water splitting. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 28064-28077	6.7	3
138	Titanium Vacancies in TiO Nanofibers Enable Highly Efficient Photodriven Seawater Splitting. <i>Chemistry - A European Journal</i> , 2021 , 27, 14202-14208	4.8	3
137	Multifunctional approach to improve water oxidation performance with MOF-based photoelectrodes. 2021 , 24, 101159		1
136	Passively Q-Switched Yb:CALGO Laser Based on Mo:BiVO Absorber. 2021 , 11,		0
135	Electrocatalytic and Photo-catalytic Water Splitting. 2022 , 673-699		
134	Artificial photosynthesis: photoanodes based on polyquinoid dyes onto mesoporous tin oxide surface. 2021 , 20, 1243-1255		1
133	One-step synthesis of metallic Bi deposited Bi ₂ WO ₆ nanoclusters for enhanced photocatalytic performance: An experimental and DFT study. <i>Applied Surface Science</i> , 2021 , 559, 149970	6.7	8
132	Efficient solar water splitting using a CdS quantum dot decorated TiO ₂ /Ag ₂ Se photoanode. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 34079-34088	6.7	4
131	Synthesis and comparative evaluation of optical and electrochemical properties of efficacious heterostructured-nanocatalysts of ZnSe with commercial and reduced titania. 2021 , 879, 160449		6
130	High efficiency photoelectrochemical hydrogen generation using eco-friendly Cu doped Zn-In-Se colloidal quantum dots. 2021 , 88, 106220		3
129	Sustainable synthesis of multiple-metal-doped Fe ₂ O ₃ nanoparticles with enhanced photocatalytic performance from Fe-bearing dust. 2021 , 15, 810-820		0
128	Metastable-phase γ -Fe ₂ O ₃ photoanodes for solar water splitting with durability exceeding 100 h. 2021 , 42, 1992-1998		1
127	Latest progress on the key operating parameters affecting the photocatalytic activity of TiO ₂ -based photocatalysts for hydrogen fuel production: A comprehensive review. 2021 , 303, 121207		20
126	Highly efficient and stable g-C ₃ N ₄ decorated Ta ₃ N ₅ nanotube on n-Si substrate for solar water oxidation. <i>Applied Surface Science</i> , 2021 , 565, 150456	6.7	3
125	Promoting developments of hydrogen powered vehicle and solar PV hydrogen production in China: A study based on evolutionary game theory method. 2021 , 237, 121649		18
124	Hybridized S cathode with N719 dye for a photo-assisted charging Li-S battery. 2022 , 65, 205-209		3
123	Surface states regulation of sulfide-based photoanode for photoelectrochemical water splitting. <i>Applied Catalysis B: Environmental</i> , 2022 , 300, 120717	21.8	3

122 Energy for rural development. **2021**, 181-222

121 Lanthanum bismuth oxide photocatalysts for CO₂ reduction to CO with high selectivity. *Sustainable Energy and Fuels*, **2021**, 5, 2688-2694

5.8 1

120 Quantum Dots-Based Photoelectrochemical Hydrogen Evolution from Water Splitting. *Advanced Energy Materials*, **2021**, 11, 2003233

21.8 12

119 Three-Dimensional Hierarchical Architectures Derived from Surface-Mounted Metal-Organic Framework Membranes for Enhanced Electrocatalysis. **2017**, 129, 13969-13973

31

118 Strategic Design of Heterojunction CdS Photocatalysts for Solar Hydrogen. **2014**, 1-22

3

117 Encyclopedia of Sustainability Science and Technology. **2018**, 1-52

3

116 Hydrogen Production from Photoelectrochemical Water Splitting. **2019**, 1003-1053

4

115 Highly efficient photoelectrochemical water splitting from P-doped α -Fe₂O₃ nanorod/BiVO₄ heterojunction array. **2020**, 31, 10981-10988

4

114 Photocatalytic Production of Hypochlorous Acid over Pt/WO₃ under Simulated Solar Light. **2020**, 8, 8629-8637

7

113 Novel inorganic perovskite quantum dots for photocatalysis. **2017**, 9, 12032-12038

125

112 Hydrogen from wastewater by photocatalytic and photoelectrochemical treatment. **2021**, 3, 012006

11

111 Compensation of band-edge positions in titanium-doped Ta₃N₅ photoanode for enhanced water splitting performance: A first-principles insight. **2017**, 1,

10

110 Plasmonic Au Nanoparticles Modified Nanopyramid-Arrays BiVO₄ with Enhanced Photoelectrochemical Activity. **2019**, 166, H3138-H3145

6

109 In situ charge carrier dynamics of semiconductor nanostructures for advanced photoelectrochemical and photocatalytic applications. **2020**, 10, 777-795

18

108 Construction of Ag₃PO₄/SnO₂ Heterojunction on Carbon Cloth with Enhanced Visible Light Photocatalytic Degradation. **2020**, 10, 3238

2

107 Green Synthetic Fuels: Renewable Routes for the Conversion of Non-Fossil Feedstocks into Gaseous Fuels and Their End Uses. **2020**, 13, 420

32

106 Common-Ion Effect Triggered Highly Sustained Seawater Electrolysis with Additional NaCl Production. **2020**, 2020, 2872141

9

105 Pt-Induced Defects Curing on BiVO₄ Photoanodes for Near-Threshold Charge Separation. *Advanced Energy Materials*, **2021**, 11, 2102384

21.8 12

104	Photoelectrochemical properties of butane flame-treated niobium-doped hematite thin films grown by the liquid-phase deposition method. 2022 , 894, 162428		4
103	Ultrathin Cobalt Oxide Interlayer Facilitated Hole Storage for Sustained Water Oxidation over Compositated Tantalum Nitride Photoanodes. 2021 , 11, 12736-12744		4
102	Introduction. 2017 , 1-75		
101	2 Devices for Solar-Driven Water Splitting to Hydrogen Fuel and Their Technical and Economic Assessments. 2016 , 9-46		
100	The Nature of Electron Transport and Visible Light Absorption in Strontium Niobate λ Plasmonic Water Splitter. 2017 , 41-62		
99	Introduction. 2017 , 1-17		
98	16 Photoelectrochemical Approaches to Solar-H ₂ Generation. 2017 , 691-716		
97	Synthesis of Magneli Phases and Application to the Photoelectrochemical Electrode. 2018 , 28, 261-267		0
96	The Self-Passivation Mechanism in Degradation of BiVO ₄ Photoanode. <i>SSRN Electronic Journal</i> ,	1	
95	Photocatalysts and Photoelectrocatalysts in Fuel Cells and Photofuel Cells. <i>Environmental Chemistry for A Sustainable World</i> , 2020 , 19-55	0.8	1
94	Rational synthesis of Bi ₂ Fe _{1-x} VO ₄ heterostructures impregnated sulfur-doped g-C ₃ N ₄ : A visible-light-driven type-II heterojunction photo(electro)catalyst for efficient photodegradation of roxarsone and photoelectrochemical OER reactions. <i>Applied Catalysis B: Environmental</i> , 2021 , 304, 120852	21.8	4
93	Facile fabrication of BiVO ₄ /Bi ₂ S ₃ /NiCoO ₂ for significant photoelectrochemical water splitting. <i>Applied Surface Science</i> , 2022 , 574, 151562	6.7	5
92	Surface-Structured Cocatalyst Foils Unraveling a Pathway to High-Performance Solar Water Splitting. <i>Advanced Energy Materials</i> , 2102752	21.8	0
91	Solar-to-Pharmaceutical Raw Material Production: Photoelectrochemical Naphthoquinone Formation Using Stabilized BiVO Photoanodes in Acid Media. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 57132-57141	9.5	0
90	Design and fabrication of ternary BiVO ₄ /FeVO ₄ /Cu ₂ O nanorod array photoelectrode for boosting photoelectrochemical water oxidation. <i>Ceramics International</i> , 2021 , 48, 7613-7613	5.1	0
89	Facilitating developments of solar thermal power and nuclear power generations for carbon neutral: A study based on evolutionary game theoretic method. <i>Science of the Total Environment</i> , 2021 , 151927	10.2	8
88	On the relevance of understanding and controlling the locations of dopants in hematite photoanodes for low-cost water splitting. <i>Applied Physics Letters</i> , 2021 , 119, 200501	3.4	4
87	Triple Product Overall Water Splitting [An Environment Friendly and New Direction Water Splitting in Sea-Water Mimicking Electrolyte. <i>ChemistrySelect</i> , 2021 , 6, 12316-12322	1.8	1

86	Microwave-assisted rapid synthesis of Cu ₂ S:ZnIn ₂ S ₄ Marigold Nanoflower heterojunctions and Enhanced Visible Light Photocatalytic Hydrogen Production via Pt Sensitization. <i>Journal of Industrial and Engineering Chemistry</i> , 2022 ,	6.3	1
85	Alkali-mediated dissolution-recrystallization strategy for in situ construction of a BiVO ₄ /Bi ₂ VO ₄ O heterojunction with promoted interfacial charge transfer: Formation mechanism and photocatalytic tetracycline degradation studies. <i>Chemical Engineering Journal</i> , 2022 , 431, 134181	14.7	1
84	Exploring the modulation mechanism of the LSPR effect of Cu periodic nanosphere arrays to promote the performance of TiO ₂ photoelectrodes. <i>Inorganic Chemistry Frontiers</i> ,	6.8	1
83	Ternary Oxide CuWO/BiVO/FeCoO Films for Photoelectrochemical Water Oxidation: Insights into the Electronic Structure and Interfacial Band Alignment.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	1
82	Photocatalytic Oxygen Evolution. 2022 , 485-519		
81	Direct solar to hydrogen conversion enabled by silicon photocathodes with carrier selective passivated contacts. <i>Sustainable Energy and Fuels</i> , 2022 , 6, 349-360	5.8	0
80	Role of Surface Wettability in Photoelectrocatalytic Oxygen Evolution Reactions. <i>Materials Today Energy</i> , 2022 , 100961	7	0
79	Effects of transition metal doping on electronic structure of metastable BiFeO photocatalyst for solar-to-hydrogen conversion.. <i>Physical Chemistry Chemical Physics</i> , 2022 ,	3.6	0
78	Understanding the morphology evolution of 1D BiVO ₄ nanoarrays from nanorods to nanocones with enhanced photocatalytic performance. <i>CrystEngComm</i> ,	3.3	0
77	Economic accounting and high-tech strategy for sustainable production: A case study of methanol production from CO ₂ hydrogenation. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
76	Fabrication of graphene/Titania nanoglass composite on shape memory alloy as photoanodes for photoelectrochemical studies: Role of the graphene. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
75	Built-in electric field enhanced BiFeO ₃ photo-Fenton degradation Rhodamine B solution. <i>Journal of Materials Science</i> , 2022 , 57, 6900-6913	4.3	0
74	Recent developments in industrial organic degradation via semiconductor heterojunctions and the parameters affecting the photocatalytic process: A review study. <i>Journal of Water Process Engineering</i> , 2022 , 47, 102671	6.7	2
73	Carbon hollow matrix anchored by isolated transition metal atoms serving as a single atom cocatalyst to facilitate the water oxidation kinetics of bismuth vanadate.. <i>Journal of Colloid and Interface Science</i> , 2022 , 616, 631-640	9.3	2
72	WO ₃ /BP/g-C ₃ N ₄ Based cauliflower nanocomposite fabricated by pulsed laser ablation for overall water splitting. <i>Optics and Laser Technology</i> , 2022 , 151, 108014	4.2	2
71	A DFT+U look into experimentally synthesized monoclinic scheelite BiVO ₄ . <i>Journal of Applied Physics</i> , 2021 , 130, 235107	2.5	2
70	Graphene-based nanomaterials for solar-driven overall water splitting.. <i>Chemistry - A European Journal</i> , 2022 ,	4.8	0
69	Transition towards carbon-neutral districts based on storage techniques and spatiotemporal energy sharing with electrification and hydrogenation. <i>Renewable and Sustainable Energy Reviews</i> , 2022 , 162, 112444	16.2	4

68 Table_1.docx. 2020,

67 Image_1.pdf. 2019,

66 Photocatalytic Conversion of Plastic Waste: From Photodegradation to Photosynthesis. *Advanced Energy Materials*, 2200435 21.8 3

65 Rational design on photoelectrodes and devices to boost photoelectrochemical performance of solar-driven water splitting: a mini review. *Frontiers of Chemical Science and Engineering*, 4.5 0

64 Scintillator-based radiocatalytic superoxide radical production for long-term tumor DNA damage. *Biomaterials Science*, 7.4

63 ZnO nanowire arrays with in situ sequentially self-assembled vertically oriented CdS nanosheets as superior photoanodes for photoelectrochemical water splitting. *Sustainable Energy and Fuels*, 5.8 2

62 Exploring the Role of Graphene Oxide as a Co-Catalyst in the CZTS Photocathodes for Improved Photoelectrochemical Properties. *ACS Applied Energy Materials*, 6.1 0

61 Enhanced Hydrogen Production of Acidified La₂NiO₄ in Water and Seawater by Coupled Piezo-Photocatalysis. *SSRN Electronic Journal*, 1

60 Recent Advances in Solar Rechargeable Seawater Batteries Based on Semiconductor Photoelectrodes. *Topics in Current Chemistry*, 2022, 380, 7.2 0

59 Regulating Sn self-doping and boosting solar water splitting performance of hematite nanorod arrays grown on fluorine-doped tin oxide via low-level Hf doping. *Journal of Colloid and Interface Science*, 2022, 625, 585-595 9.3 1

58 Photo-assisted decoration of Ag-Pt nanoparticles on Si photocathodes for reducing overpotential toward enhanced photoelectrochemical water splitting. *Science China Materials*, 7.1

57 Building Directional Charge Transport Channel in CdTe-Based Multilayered Photocathode for Efficient Photoelectrochemical Hydrogen Evolution. 1381-1388 1

56 Integrated Photovoltaic Charging and Energy Storage Systems: Mechanism, Optimization, and Future. *Small*, 2203014 11 2

55 The 3D Hierarchical Structure of ZnO@CdS Core-Shell Nanorods on WO₃ Nanoplates for High-Performance Hydrogen Production. *ECS Journal of Solid State Science and Technology*, 2022, 11, 073001 2 0

54 Design of novel p-n heterojunction ZnBi₂O₄-ZnS photocatalysts with impressive photocatalytic and antibacterial activities under visible light. *Environmental Science and Pollution Research*, 5.1 0

53 Low temperature strategy for the synthesis of Ta₃N₅ and electrochemical deposition of Ag₃PO₄ to modify TiO₂ as an advanced photoelectrocatalyst for oxygen evolution reactions. *Electrochimica Acta*, 2022, 140862 6.7 0

52 Unfolding essence of nanoscience for improved water splitting hydrogen generation in the light of newly emergent nanocatalysts. *International Journal of Hydrogen Energy*, 2022, 6.7 1

51 Enhanced and stable photoelectrochemical H₂ production using a engineered nano multijunction with Cu₂O photocathode. *Materials Today Chemistry*, 2022, 26, 101031 6.2 3

50	Local Charge Transport at the Interface of Semiconductor and Charge Transport Mediator. 2201247	o
49	Designing 1D Plasmonic Ag/CuWO ₄ Nanocomposite for Enhancing Visible-Light Photoelectrochemical Performance. 2022 , 169, 086503	
48	Onset Potential Shift of Water Oxidation in the Metastable Phase Transformation Process of BiFeO ₃ .	1
47	Conformal BiVO ₄ /WO ₃ nanobowl array photoanode for efficient photoelectrochemical water splitting. 2022 , 43, 2321-2331	1
46	Plasma Ag-Loaded Bandgap Variational ZnO-Xmgo-Enhanced Charge Separation for Photoelectrochemical Water Oxidation of CuWO ₄ Photoanodes.	o
45	Photocatalytic Approaches for Sustainable Olefin Transfer Hydrogenation and Semihydrogenation of Alkynes Using Natural Sunlight. 2022 , 5, 11052-11057	o
44	Orderly decoupled dynamics modulation in nanoporous BiVO ₄ photoanodes for solar water splitting. 2022 , 167428	o
43	Alternatives to Water Photooxidation for Photoelectrochemical Solar Energy Conversion and Green H ₂ Production. 2201358	o
42	A New Photoelectrocatalyst for Water Oxidation: A Polyoxometalate-Graphitic Carbon Nitride Hybrid Nanomaterial.	o
41	Establishing a water-to-energy platform via dual-functional photocatalytic and photoelectrocatalytic systems: A comparative and perspective review. 2022 , 102793	o
40	Electrocatalytic NAD ⁺ Reduction via Hydrogen-Atom-Coupled Electron Transfer.	1
39	Exploring the Photocorrosion Mechanism of a Photocatalyst. 10356-10363	o
38	Unravelling the Interfacial Dynamics of Band-gap Funneling in Bismuth-based Halide Perovskites. 2207835	o
37	Recent trends and outlooks on engineering of BiVO ₄ photoanodes toward efficient photoelectrochemical water splitting and CO ₂ reduction: A comprehensive review. 2022 ,	o
36	Molecular sieving of semiconductive NTU-9 coatings on titanium dioxide nanowire arrays: Augmented yet selective photoelectrochemical response enabled by boosting charge separation and transfer in confined space. 2023 , 630, 523-533	o
35	Photoelectrochemical Approaches for the Conversion of Lignin at Room Temperature.	o
34	Enhanced Hydrogen Production of Acidified Ruddlesden-Popper Type Perovskite Oxides in Water and Seawater by Coupled Piezo-photocatalysis. 2022 , 100289	o
33	A review of non-oxide semiconductors for photoelectrochemical water splitting.	o

- 32 Plasma Ag-loaded bandgap variational Zn_{1-x}Mg_xO-enhanced charge separation for photoelectrochemical water oxidation of CuWO₄ photoanodes. **2023**, 455, 140861 ○
- 31 Exploring the Electronic Influence of FBr Substitutions in CuTPP on Electrochemical Overall Water Splitting in Alkaline Medium. **2022**, 7, ○
- 30 Structure-Dependent Surface Molecule-Modified Semiconductor Photocatalysts: Recent Progress and Future Challenges. **2022**, 10, 16476-16502 1
- 29 Journey of electrochemical chlorine production: from brine to seawater. **2022**, 101202 1
- 28 Recent progress in photoelectrocatalysis beyond water oxidation. **2022**, 2, 3471-3496 ○
- 27 Coherent-Twinning-Enhanced Solar Water Splitting in Thin-Film Cu₂ZnSnS₄ Photocathodes. 494-501 ○
- 26 CeO₂/TiO₂ Heterojunction Nanotube Arrays for Highly Efficient Visible-Light Photoelectrochemical Water Splitting. ○
- 25 Alleviation of hyperlipidemia, insulin resistance, and myopathy by nano selenium/ nano CoQ10 platform with simvastatin in hyperlipidemic rats; comprehensive outlook. ○
- 24 Narrowing the band gap and suppressing electron-hole recombination in Fe₂O₃ by chlorine doping. ○
- 23 Development of metal oxide heterostructures for hydrogen production. **2023**, 501-533 ○
- 22 Selective photoelectrocatalytic transformations of organic compounds. **2023**, 361-420 ○
- 21 Direct Z-Scheme SnSe₂/SnSe Heterostructure Passivated by Al₂O₃ for Highly Stable and Sensitive Photoelectrochemical Photodetectors. **2023**, 15, 6156-6168 ○
- 20 Investigation on Growth and Anisotropic Charge Lifetime of BiVO₄ Crystal. 2200253 ○
- 19 Structure, materials, and preparation of photoelectrodes. **2023**, 83-174 ○
- 18 Promoted Utilization of Charge Carriers in La₅Ti₂Cu_{0.9}Ag_{0.1}O_{7.5}-Based Photocatalyst Sheets for Efficient Z-Scheme Overall Water Splitting. **2023**, 13, 3285-3294 ○
- 17 Photoelectrochemical water splitting with dual-photoelectrode tandem and parallel configurations: Enhancing light harvesting and carrier collection efficiencies. **2023**, 38, 102813 ○
- 16 Efficient heterostructure of MoS₂/Ti-doped Fe₂O₃ nanorods for high-performance photoelectrochemical activity. **2023**, 341, 134301 ○
- 15 Biohybrid Molecule-Based Photocatalysts for Water Splitting Hydrogen Evolution. **2023**, 88, ○

- 14 Visible-light-driven photodegradation of xanthate in a continuous fixed-bed photoreactor: Experimental study and modeling. **2023**, 461, 141833 ○
- 13 Photoelectrocatalytic H₂ Production. **2023**, 95-121 ○
- 12 Tuning Aerosol Deposition of BiVO₄ Films for Effective Sunlight Harvesting. **2023**, 32, 352-362 ○
- 11 Highly enhanced photocatalytic activity of nanotubular Fe₂O₃/Fe₂WO₆ nanocomposite film formed by anodizing FeW alloy. **2023**, 149, 107460 ○
- 10 Enhancing the activity and stability of Cu₂O nanorods via coupling with a NaNbO₃/SnS₂ heterostructure for photoelectrochemical water-splitting. **2023**, 47, 6294-6304 ○
- 9 Recent advances in ground-breaking conjugated microporous polymers-based materials, their synthesis, modification and potential applications. **2023**, ○
- 8 Analyzing the Effects of Governmental Policy and Solar Power on Facilitating Carbon Neutralization in the Context of Energy Transition: A Four-Party Evolutionary Game Study. **2023**, 15, 5388 ○
- 7 Bias-free visible light-driven photoelectrochemical water splitting of type II ZnO/CuS core/shell heterojunction nanotube arrays. **2023**, ○
- 6 Controllable Synthesis of N₂-Intercalated WO₃ Nanorod Photoanode Harvesting a Wide Range of Visible Light for Photoelectrochemical Water Oxidation. **2023**, 28, 2987 ○
- 5 Immobilized triatomic CuB₂ clusters on 2D carbon nitride: highly selective conversion of CO to ethanol at low potentials. ○
- 4 An updated review of indoor pollutant purification by solar photocatalytic ventilation wall: Materials, modelling and performance evaluation. 1420326X2311642 ○
- 3 Recent Advances on Small Band Gap Semiconductor Materials (0.1 eV) for Solar Water Splitting. **2023**, 13, 728 ○
- 2 Cs₂AgBiCl₆: a novel, high-efficient and stable visible-light photocatalyst for degradation of organic dyes. ○
- 1 Evaluation of alternative power-to-chemical pathways for renewable energy exports. **2023**, 287, 117010 ○