

CITATION REPORT

List of articles citing

Engineering heterogeneous semiconductors for solar water splitting

DOI: 10.1039/c4ta04461d

Journal of Materials Chemistry A, 2015, 3, 2485-2534.

Source: <https://exaly.com/paper-pdf/62789686/citation-report.pdf>

Version: 2024-04-25

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
1447	In Situ Photodeposited Construction of PtCdS/gC ₃ N ₄ MnO _x Composite Photocatalyst for Efficient Visible-Light-Driven Overall Water Splitting.		
1446	Effect of transition metal ion doping on photocatalytic properties of In ₂ O ₃ oxides. 2015 , 30, 3259-3266		2
1445	Improvement of catalytic activity and mechanistic analysis of transition metal ion doped nanoCeO ₂ by aqueous Rhodamine B degradation. 2015 , 30, 2763-2771		6
1444	Effects of surfactants on visible-light-driven photocatalytic hydrogen evolution activities of AgInZn ₇ S ₉ nanorods. 2015 , 358, 485-490		18
1443	New Sustainable Model of Biorefineries: Biofactories and Challenges of Integrating Bio- and Solar Refineries. 2015 , 8, 2854-66		44
1442	Stable Co-Catalyst-Free Photocatalytic H ₂ Evolution From Oxidized Titanium Nitride Nanopowders. 2015 , 54, 13385-9		31
1441	Effect of Titania Regular Macroporosity on the Photocatalytic Hydrogen Evolution on Cd _{1-x} Zn _x S/TiO ₂ Catalysts under Visible Light. 2015 , 7, 4108-4117		29
1440	Stable Co-Catalyst-Free Photocatalytic H ₂ Evolution From Oxidized Titanium Nitride Nanopowders. 2015 , 127, 13583-13587		2
1439	Licht: außergewöhnlicher Reaktionspartner und außergewöhnliches Produkt. 2015 , 127, 11474-11492		23
1438	Light: A Very Peculiar Reactant and Product. 2015 , 54, 11320-37		83
1437	Efficient Degradation of Methylene Blue over Two-Dimensional Au/TiO ₂ Nanosheet Films with Overlapped Light Harvesting Nanostructures. 2015 , 2015, 1-10		6
1436	Interface Charge Transfer versus Surface Proton Reduction: Which Is More Pronounced on Photoinduced Hydrogen Generation over Sensitized Pt Cocatalyst on RGO?. 2015 , 119, 13561-13568		43
1435	Improving the photocatalytic performance of polyimide by constructing an inorganic-organic hybrid ZnO-polyimide core-shell structure. 2015 , 406, 46-50		41
1434	Enhanced photoelectrochemical performance of CdSe quantum dot sensitized SrTiO ₃ . <i>Journal of Materials Chemistry A</i> , 2015 , 3, 13476-13482	13	22
1433	Enhanced photocatalytic performances of n-TiO ₂ nanotubes by uniform creation of p-n heterojunctions with p-Bi ₂ O ₃ quantum dots. 2015 , 7, 11552-60		102
1432	III-Nitride nanowire optoelectronics. 2015 , 44, 14-68		152
1431	Photocatalysis fundamentals and surface modification of TiO ₂ nanomaterials. 2015 , 36, 2049-2070		383

1430	Zn-Co layered double hydroxide modified hematite photoanode for enhanced photoelectrochemical water splitting. 2015 , 358, 436-442		44
1429	One-pot synthesis of heterostructured Bi ₂ S ₃ /BiOBr microspheres with highly efficient visible light photocatalytic performance. 2015 , 5, 16239-16249		108
1428	One-step hydrothermal synthesis of flowerlike MoS ₂ /CdS heterostructures for enhanced visible-light photocatalytic activities. 2015 , 5, 15621-15626		56
1427	Electrospun Cr-doped Bi ₄ Ti ₃ O ₁₂ /Bi ₂ Ti ₂ O ₇ heterostructure fibers with enhanced visible-light photocatalytic properties. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 6586-6591	13	53
1426	Efficient charge separation on 3D architectures of TiO ₂ mesocrystals packed with a chemically exfoliated MoS ₂ shell in synergetic hydrogen evolution. 2015 , 51, 7187-90		68
1425	Drastic Layer-Number-Dependent Activity Enhancement in Photocatalytic H ₂ Evolution over nMoS ₂ /CdS (n = 1) Under Visible Light. 2015 , 5, 1402279		197
1424	Photocatalysis of Bi ₄ NbO ₈ Cl hierarchical nanostructure for degradation of dye under solar/UV irradiation. 2015 , 39, 3956-3963		24
1423	Metal-free carbon nanotube/BiC nanowire heterostructures with enhanced photocatalytic H ₂ evolution under visible light irradiation. 2015 , 5, 2798-2806		67
1422	Synthesis of Ce ions doped metal-organic framework for promoting catalytic H ₂ production from ammonia borane under visible light irradiation. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 14134-14141	13	83
1421	Product selectivity of visible-light photocatalytic reduction of carbon dioxide using titanium dioxide doped by different nitrogen-sources. 2015 , 355, 45-51		44
1420	Facile synthesis of CeO ₂ hollow structures with controllable morphology by template-engaged etching of Cu ₂ O and their visible light photocatalytic performance. 2015 , 179, 458-467		59
1419	Effect of Phase Junction Structure on the Photocatalytic Performance in Overall Water Splitting: Ga ₂ O ₃ Photocatalyst as an Example. 2015 , 119, 18221-18228		83
1418	Co-doped MoS ₂ NPs with matched energy band and low overpotential high efficiently convert CO ₂ to methanol. 2015 , 353, 1003-1012		53
1417	Enhancement of visible light photocatalytic activity of Ag ₂ O/F-TiO ₂ composites. 2015 , 407, 25-31		29
1416	Effect of effective mass and spontaneous polarization on photocatalytic activity of wurtzite and zinc-blende ZnS. 2015 , 3, 104404		53
1415	Enhancing carrier generation in TiO ₂ by a synergistic effect between plasmon resonance in Ag nanoparticles and optical interference. 2015 , 7, 13468-76		29
1414	Ag/g-C ₃ N ₄ catalyst with superior catalytic performance for the degradation of dyes: a borohydride-generated superoxide radical approach. 2015 , 7, 13723-33		176
1413	Realizing nanosized interfacial contact via constructing BiVO ₄ /Bi ₄ V ₂ O ₁₁ element-copied heterojunction nanofibres for superior photocatalytic properties. 2015 , 179, 54-60		76

1412	Enhanced hydrogen evolution from water splitting using Fe-Ni codoped and Ag deposited anatase TiO ₂ synthesized by solvothermal method. 2015 , 347, 696-705	48
1411	Synergetic effect of metal nickel and graphene as a cocatalyst for enhanced photocatalytic hydrogen evolution via dye sensitization. 2015 , 5, 10589	66
1410	Nickel-based cocatalysts for photocatalytic hydrogen production. 2015 , 351, 779-793	174
1409	Single-crystalline Bi ₁₉ Br ₃ S ₂₇ nanorods with an efficiently improved photocatalytic activity. 2015 , 17, 6120-6126	9
1408	Photocatalytic reduction of CO ₂ using molybdenum-doped titanate nanotubes in a MEA solution. 2015 , 5, 63142-63151	12
1407	Photocatalytic reduction of triclosan on Au-Cu ₂ O nanowire arrays as plasmonic photocatalysts under visible light irradiation. 2015 , 17, 17421-8	28
1406	Improvement of hydrogen evolution under visible light over Zn _{1-x} (CuGa) _x Ga ₂ S ₄ photocatalysts by synthesis utilizing a polymerizable complex method. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 14239-14244 ¹⁰	10
1405	Fabrication of hierarchical ZnO/CdS heterostructured nanocomposites for enhanced hydrogen evolution from solar water splitting. 2015 , 17, 20407-15	50
1404	Dye-sensitized InGa ₃ N nanowire arrays for efficient hydrogen production under visible light irradiation. 2015 , 26, 285401	13
1403	Preparation of Fe ₂ O ₃ films by electrodeposition and photodeposition of Co ₃ O ₄ on them to enhance their photoelectrochemical properties. 2015 , 5, 36307-36314	22
1402	Dual Z-scheme charge transfer in TiO ₂ /Ag ₂ O composite for enhanced photocatalytic hydrogen generation. 2015 , 1, 124-133	76
1401	CdS/Graphene Nanocomposite Photocatalysts. 2015 , 5, 1500010	584
1400	Preparation of efficient cadmium sulfide nanofibers for hydrogen production using ethylenediamine (NH ₂ CH ₂ CH ₂ NH ₂) as template. 2015 , 451, 40-5	31
1399	In situ growth of CdS nanoparticles on UiO-66 metal-organic framework octahedrons for enhanced photocatalytic hydrogen production under visible light irradiation. 2015 , 346, 278-283	171
1398	One-pot synthesis of hierarchical Cu ₂ O/Cu hollow microspheres with enhanced visible-light photocatalytic activity. 2015 , 228, 174-182	12
1397	Constructing inverse V-type TiO ₂ -based photocatalyst via bio-template approach to enhance the photosynthetic water oxidation. 2015 , 347, 368-377	3
1396	Importance of hydrophilic pretreatment in the hydrothermal growth of amorphous molybdenum sulfide for hydrogen evolution catalysis. 2015 , 31, 5220-7	58
1395	Multi-layered MoS ₂ phototransistors as high performance photovoltaic cells and self-powered photodetectors. 2015 , 5, 45239-45248	24

1394	Super-paramagnetic nano-Fe ₃ O ₄ /graphene for visible-light-driven hydrogen evolution. 2015 , 51, 10158-61	48
1393	One-pot synthesis of copper-doped graphitic carbon nitride nanosheet by heating Cu/helamine supramolecular network and its enhanced visible-light-driven photocatalysis. 2015 , 228, 60-64	105
1392	Facile hydrothermal synthesis of cobalt manganese oxides spindles and their magnetic properties. 2015 , 41, 8670-8679	15
1391	Amorphous nickel/cobalt tungsten sulfide electrocatalysts for high-efficiency hydrogen evolution reaction. 2015 , 341, 149-156	61
1390	Excellent hydrogen evolution by a multi approach via structure-property tailoring of titania. 2015 , 5, 39122-39130	15
1389	Facile hydrothermal synthesis of novel Bi ₁₂ TiO ₂₀ -Bi ₂ WO ₆ heterostructure photocatalyst with enhanced photocatalytic activity. 2015 , 346, 33-40	36
1388	Ag ₂ ZnO heterostructure nanoparticles with plasmon-enhanced catalytic degradation for Congo red under visible light. 2015 , 5, 34456-34465	51
1387	One-pot synthesis of a TiO ₂ /CdS nano-heterostructure assembly with enhanced photocatalytic activity. 2015 , 5, 34942-34948	14
1386	Enhanced visible light photocatalytic H ₂ -production of g-C ₃ N ₄ /WS ₂ composite heterostructures. 2015 , 358, 196-203	276
1385	Au and Pt co-loaded g-C ₃ N ₄ nanosheets for enhanced photocatalytic hydrogen production under visible light irradiation. 2015 , 358, 304-312	108
1384	Visible light driven photocatalytic hydrogen evolution over CdS incorporated mesoporous silica derived from MCM-48. 2015 , 356, 308-316	35
1383	Enhanced visible light photocatalytic H ₂ production activity of g-C ₃ N ₄ via carbon fiber. 2015 , 358, 287-295	86
1382	Integrating photonic bandgaps with surface plasmon resonance for the enhancement of visible-light photocatalytic performance. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 23501-23511	13 41
1381	Illustration of high-active Ag ₂ CrO ₄ photocatalyst from the first-principle calculation of electronic structures and carrier effective mass. 2015 , 358, 457-462	56
1380	One-step hydrothermal synthesis of iron and nitrogen co-doped TiO ₂ nanotubes with enhanced visible-light photocatalytic activity. 2015 , 17, 8368-8376	23
1379	Uniform decoration of Pt nanoparticles on well-defined CdSe tetrapods and the effect of their Pt cluster size on photocatalytic H ₂ generation. 2015 , 17, 8423-8427	16
1378	Striving Toward Noble-Metal-Free Photocatalytic Water Splitting: The Hydrogenated-Graphene/TiO ₂ Prototype. 2015 , 27, 6282-6296	70
1377	Fabrication of TiO ₂ /MoS ₂ @zeolite photocatalyst and its photocatalytic activity for degradation of methyl orange under visible light. 2015 , 358, 468-478	107

1376	Synthesis of a Bi ₂ S ₃ /CeO ₂ nanocatalyst and its visible light-driven conversion of CO ₂ into CH ₃ OH and CH ₄ . 2015 , 5, 5208-5215	47
1375	Microwave-assisted synthesis of a superfine Ag/AgI photocatalyst with high activity and excellent durability. 2015 , 50, 6935-6946	12
1374	A review on g-C ₃ N ₄ for photocatalytic water splitting and CO ₂ reduction. 2015 , 358, 15-27	560
1373	Effect of Rh oxide as a cocatalyst over Bi _{0.5} VO ₄ on photocatalytic overall water splitting. 2015 , 355, 1069-1074	20
1372	Synthesis of Pt-Loaded Self-Interspersed Anatase TiO ₂ with a Large Fraction of (001) Facets for Efficient Photocatalytic Nitrobenzene Degradation. 2015 , 7, 20349-59	65
1371	Enhanced photocatalytic degradation and adsorption of methylene blue via TiO ₂ nanocrystals supported on graphene-like bamboo charcoal. 2015 , 358, 425-435	90
1370	Earth-abundant NiS co-catalyst modified metal-free mpg-C ₃ N ₄ /CNT nanocomposites for highly efficient visible-light photocatalytic H ₂ evolution. 2015 , 44, 18260-9	102
1369	Enhanced visible-light H ₂ evolution of g-C ₃ N ₄ photocatalysts via the synergetic effect of amorphous NiS and cheap metal-free carbon black nanoparticles as co-catalysts. 2015 , 358, 204-212	176
1368	The energy-chemistry nexus: A vision of the future from sustainability perspective. 2015 , 24, 535-547	40
1367	Effect of defects on photocatalytic activity of rutile TiO ₂ nanorods. 2015 , 8, 4061-4071	133
1366	All electrochemical fabrication of a bilayer membrane composed of nanotubular photocatalyst and palladium toward high-purity hydrogen production. 2015 , 357, 214-220	6
1365	Enhance photoelectrochemical hydrogen-generation activity and stability of TiO ₂ nanorod arrays sensitized by PbS and CdS quantum dots under UV-visible light. 2015 , 10, 418	19
1364	Some Unitary, Binary, and Ternary Non-TiO ₂ Photocatalysts. 2016 ,	2
1363	A Review on the Fabrication of Hierarchical ZnO Nanostructures for Photocatalysis Application. 2016 , 6, 148	68
1362	Nanostructured p-Type Semiconductor Electrodes and Photoelectrochemistry of Their Reduction Processes. 2016 , 9, 373	41
1361	(040)-Crystal Facet Engineering of BiVO ₄ Plate Photoanodes for Solar Fuel Production. 2016 , 6, 1501754	110
1360	Layered Double Hydroxide Nanostructured Photocatalysts for Renewable Energy Production. 2016 , 6, 1501974	289
1359	Integration of Multiple Plasmonic and Co-Catalyst Nanostructures on TiO ₂ Nanosheets for Visible-Near-Infrared Photocatalytic Hydrogen Evolution. 2016 , 12, 1640-8	111

1358	Three-Dimensional Electrocatalysts for Sustainable Water Splitting Reactions. 2016 , 2016, 1916-1923	37
1357	Nanodiamond-Embedded p-Type Copper(I) Oxide Nanocrystals for Broad-Spectrum Photocatalytic Hydrogen Evolution. 2016 , 6, 1501865	66
1356	New Insights into Defect-Mediated Heterostructures for Photoelectrochemical Water Splitting. 2016 , 6, 1502268	75
1355	Enhancing photoelectrochemical activity with three-dimensional p-CuO/n-ZnO junction photocathodes. 2016 , 59, 825-832	26
1354	A Floating Sheet for Efficient Photocatalytic Water Splitting. 2016 , 6, 1600510	54
1353	Fabrication of photostable ternary CdS/MoS ₂ /MWCNTs hybrid photocatalysts with enhanced H ₂ generation activity. 2016 , 525, 9-22	36
1352	Ru-bis(pyridine)pyrazolate (bpp)-Based Water-Oxidation Catalysts Anchored on TiO ₂ : The Importance of the Nature and Position of the Anchoring Group. 2016 , 22, 5261-8	18
1351	Photoelectrocatalytic oxidation of phenol for water treatment using a BiVO ₄ thin-film photoanode. 2016 , 31, 2627-2639	12
1350	Hydrogen generation from pure water using Al-Sn powders consolidated through high-pressure torsion. 2016 , 31, 775-782	13
1349	Enhancing electrocatalytic activity of bifunctional Ni ₃ Se ₂ for overall water splitting through etching-induced surface nanostructuring. 2016 , 31, 2888-2896	19
1348	Programming Interfacial Energetic Offsets and Charge Transfer in EPb _{0.33} V ₂ O ₅ /Quantum-Dot Heterostructures: Tuning Valence-Band Edges to Overlap with Midgap States. 2016 , 120, 28992-29001	9
1347	Photodegradation of organic pollutants RhB dye using UV simulated sunlight on ceria based TiO ₂ nanomaterials for antibacterial applications. 2016 , 6, 38064	277
1346	Insights into enhanced visible-light photocatalytic activity of C modified g-CN hybrids: the role of nitrogen. 2016 , 18, 33094-33102	26
1345	Flower-like Cobalt Hydroxide/Oxide on Graphitic Carbon Nitride for Visible-Light-Driven Water Oxidation. 2016 , 8, 35203-35212	65
1344	Photocatalytic activity enhancement of TiO ₂ nanocrystalline thin film with surface modification of poly-3-hexylthiophene by in situ polymerization. 2016 , 31, 1448-1455	9
1343	Solar Electricity and Solar Fuels: Status and Perspectives in the Context of the Energy Transition. 2016 , 22, 32-57	239
1342	Effect of specific surface area on photoelectrochemical properties of TiO ₂ nanotubes, nanosheets and nanowires coated with TiC thin films. 2016 , 324, 126-133	12
1341	Enhanced photocatalytic and photoelectrochemical activities of reduced TiO ₂ /BiOCl heterojunctions. 2016 , 312, 12-22	44

1340	Pd cocatalyst on Sm-doped BiFeO ₃ nanoparticles: synergetic effect of a Pd cocatalyst and samarium doping on photocatalysis. 2016 , 6, 34574-34587	30
1339	Efficient visible-light photocatalytic H ₂ evolution over metal-free g-C ₃ N ₄ co-modified with robust acetylene black and Ni(OH) ₂ as dual co-catalysts. 2016 , 6, 31497-31506	85
1338	Direct Z-scheme composite of CdS and oxygen-defected CdWO ₄ : An efficient visible-light-driven photocatalyst for hydrogen evolution. 2016 , 198, 154-161	154
1337	Enhancement of g-C ₃ N ₄ nanosheets photocatalysis by synergistic interaction of ZnS microsphere and RGO inducing multistep charge transfer. 2016 , 198, 200-210	132
1336	Enhanced photocatalytic H ₂ -production activity of anatase TiO ₂ nanosheet by selectively depositing dual-cocatalysts on {101} and {001} facets. 2016 , 198, 286-294	311
1335	Three-dimensional ruthenium-doped TiO ₂ sea urchins for enhanced visible-light-responsive H ₂ production. 2016 , 18, 15972-9	40
1334	Tailoring ruthenium exposure to enhance the performance of fcc platinum@ruthenium core-shell electrocatalysts in the oxygen evolution reaction. 2016 , 18, 16169-78	44
1333	Layered oxide semiconductor In ₂ Fe ₂ CuO ₇ : Optical properties and visible-light responsive photocatalytic abilities. 2016 , 179, 175-178	9
1332	Graphitic Carbon Nitride (g-C ₃ N ₄)-Based Photocatalysts for Artificial Photosynthesis and Environmental Remediation: Are We a Step Closer To Achieving Sustainability?. 2016 , 116, 7159-329	4018
1331	A wafer-scale antireflective protection layer of solution-processed TiO ₂ nanorods for high performance silicon-based water splitting photocathodes. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 9477-9485 ⁴¹	
1330	Generation of Hydrogen by Visible Light-Induced Water Splitting with the Use of Semiconductors and Dyes. 2016 , 12, 16-23	31
1329	Facile synthesis of nanorod-type graphitic carbon nitride/Fe ₂ O ₃ composite with enhanced photocatalytic performance. 2016 , 238, 246-251	30
1328	Nanocatalysts for Solar Water Splitting and a Perspective on Hydrogen Economy. 2016 , 11, 22-42	56
1327	Polymerizable complex synthesis of SrTiO ₃ :(Cr/Ta) photocatalysts to improve photocatalytic water splitting activity under visible light. 2016 , 192, 145-151	72
1326	Enhanced Photoelectrochemical Performance from Rationally Designed Anatase/Rutile TiO ₂ Heterostructures. 2016 , 8, 12239-45	116
1325	Enhanced optical and electronic properties of a solar light-responsive photocatalyst for efficient hydrogen evolution by SrTiO ₃ /TiO ₂ nanotube combination. 2016 , 134, 52-63	27
1324	Synthesis of WO ₃ nanomaterials with controlled morphology and composition for highly efficient photocatalysis. 2016 , 31, 1065-1076	30
1323	Hierarchically branched Fe ₂ O ₃ @TiO ₂ nanorod arrays for photoelectrochemical water splitting: facile synthesis and enhanced photoelectrochemical performance. 2016 , 8, 11284-90	79

1322	Construction of π -Phase Junction on $\text{Bi}_4\text{V}_2\text{O}_{11}$ via Electrospinning Retardation Effect and Its Promoted Photocatalytic Performance. 2016 , 55, 4782-9	36
1321	Carbon-based H_2 -production photocatalytic materials. 2016 , 27, 72-99	194
1320	Fabrication of mixed phase TiO_2 heterojunction nanorods and their enhanced photoactivities. 2016 , 18, 15260-8	35
1319	One-pot synthesis of hierarchical $\text{Ni}_2\text{P}/\text{MoS}_2$ hybrid electrocatalysts with enhanced activity for hydrogen evolution reaction. 2016 , 383, 276-282	69
1318	$\text{Cu}/\text{Ag}/\text{Ag}_3\text{PO}_4$ ternary composite: A hybrid alloy-semiconductor heterojunction structure with visible light photocatalytic properties. 2016 , 682, 778-784	22
1317	Conformally coated BiVO_4 nanodots on porosity-controlled WO_3 nanorods as highly efficient type II heterojunction photoanodes for water oxidation. 2016 , 28, 250-260	129
1316	Ordered gyroidal tantalum oxide photocatalysts: eliminating diffusion limitations and tuning surface barriers. 2016 , 8, 16694-16701	17
1315	Size Effects of Platinum Nanoparticles in the Photocatalytic Hydrogen Production Over 3D Mesoporous Networks of CdS and Pt Nanojunctions. 2016 , 26, 8062-8071	74
1314	Metal/Graphitic Carbon Nitride Composites: Synthesis, Structures, and Applications. 2016 , 11, 3305-3328	69
1313	Optimization of $\text{CdS}@\text{MoS}_2$ core-shell nanorod arrays for an enhanced photo-response for photo-assisted electrochemical water splitting under solar light illumination. 2016 , 6, 100115-100121	8
1312	$\text{Co}_3(\text{OH})_2(\text{HPO}_4)_2$ as a novel photocatalyst for O_2 evolution under visible-light irradiation. 2016 , 6, 8080-8088	23
1311	Synergetic effect of CoNPs and graphene as cocatalysts for enhanced electrocatalytic hydrogen evolution activity of MoS_2 . 2016 , 6, 95979-95986	21
1310	Why do Hydrogen and Oxygen Yields from Semiconductor-Based Photocatalyzed Water Splitting Remain Disappointingly Low? Intrinsic and Extrinsic Factors Impacting Surface Redox Reactions. 2016 , 1, 931-948	95
1309	Synthesis, surface structure and optical properties of double perovskite $\text{Sr}_2\text{NiMoO}_6$ nanoparticles. 2016 , 389, 849-857	12
1308	Studies on structural defects in bare, PVP capped and TPPO capped copper oxide nanoparticles by positron annihilation lifetime spectroscopy and their impact on photocatalytic degradation of rhodamine B. 2016 , 6, 74812-74821	22
1307	Structural and optical properties of carbon nitride polymorphs. 2016 , 68, 84-92	29
1306	Electronic Structure of the (Undoped and Fe-Doped) NiOOH O_2 Evolution Electrocatalyst. 2016 , 120, 18999-19010	40
1305	A solid-state approach to fabricate a CdS/CuS nano-heterojunction with promoted visible-light photocatalytic H_2 -evolution activity. 2016 , 6, 76269-76272	27

1304	In situ Integration of a Metallic 1T-MoS ₂ /CdS Heterostructure as a Means to Promote Visible-Light-Driven Photocatalytic Hydrogen Evolution. 2016 , 8, 2614-2619	80
1303	Facile one-pot solvothermal preparation of Mo-doped Bi ₂ WO ₆ biscuit-like microstructures for visible-light-driven photocatalytic water oxidation. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 13242-13250	75
1302	Hole-Accepting-Ligand-Modified CdSe QDs for Dramatic Enhancement of Photocatalytic and Photoelectrochemical Hydrogen Evolution by Solar Energy. 2016 , 3, 1500282	44
1301	Visible-light responsive plasmonic Ag ₂ O/Ag/g-C ₃ N ₄ nanosheets with enhanced photocatalytic degradation of Rhodamine B. 2016 , 31, 2252-2260	41
1300	Design and construction of the sandwich-like Z-scheme multicomponent CdS/Ag/Bi ₂ MoO ₆ heterostructure with enhanced photocatalytic performance in RhB photodegradation. 2016 , 40, 8614-8624	79
1299	CuGaS-ZnS p-n nanoheterostructures: a promising visible light photo-catalyst for water-splitting hydrogen production. 2016 , 8, 16670-16676	45
1298	Re-excitation of localized electrons in SnO ₂ quantum dots for enhanced water photolysis activity. 2016 , 6, 83848-83855	3
1297	Synthesis and their photocatalytic properties of Ni-doped ZnO hollow microspheres. 2016 , 31, 2317-2328	18
1296	Dye-Sensitized Solar Hydrogen Production: The Emerging Role of Metal-Free Organic Sensitizers. 2016 , 2016, 5194-5215	59
1295	Heterostructured Au NPs/CdS/LaBTC MOFs Photoanode for Efficient Photoelectrochemical Water Splitting: Stability Enhancement via CdSe QDs to 2D-CdS Nanosheets Transformation. 2016 , 8, 23049-59	34
1294	Synthesis and characterization of robust Ag ₂ S/Ag ₂ WO ₄ composite microrods with enhanced photocatalytic performance. 2016 , 31, 2598-2607	28
1293	Photocatalytic Production of Hydrogen with Earth-Abundant Metal Catalysts. 2016 , 1-11	
1292	Charge Transport in Two-Photon Semiconducting Structures for Solar Fuels. 2016 , 9, 2878-2904	33
1291	One-step synthesis of recycled 3D CeVO ₄ /rGO composite aerogels for efficient degradation of organic dyes. 2016 , 6, 85779-85786	12
1290	Ultrathin nanosheets of palladium in boosting its cocatalyst role and plasmonic effect towards enhanced photocatalytic hydrogen evolution. 2016 , 6, 56800-56806	18
1289	Synthesis of Pt/Zn(OH) ₂ /Cd _{0.3} Zn _{0.7} S for the Photocatalytic Hydrogen Evolution from Aqueous Solutions of Organic and Inorganic Electron Donors Under Visible Light. 2016 , 59, 1297-1304	26
1288	Photo-induced reactions in the CO ₂ -methane system on titanate nanotubes modified with Au and Rh nanoparticles. 2016 , 199, 473-484	87
1287	Solar Water Oxidation by Multicomponent TaON Photoanodes Functionalized with Nickel Oxide. 2016 , 81, 1107-1115	3

1286	Sn/Be Sequentially co-doped Hematite Photoanodes for Enhanced Photoelectrochemical Water Oxidation: Effect of Be(2+) as co-dopant. 2016 , 6, 23183	55
1285	Z-Scheme over all Water Splitting on Rh/K4Nb6O17 Nanosheets Photocatalyst. 2016 , 99, 3-8	
1284	Enhanced carrier collection efficiency in hierarchical nano-electrode for a high-performance photoelectrochemical cell. 2016 , 336, 367-375	7
1283	Conjugated porous polymers for photocatalytic applications. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 18677-18686	13 94
1282	Interface induce growth of intermediate layer for bandgap engineering insights into photoelectrochemical water splitting. 2016 , 6, 27241	23
1281	Hierarchical Sheet-on-Sheet ZnIn2S4/g-C3N4 Heterostructure with Highly Efficient Photocatalytic H2 production Based on Photoinduced Interfacial Charge Transfer. 2016 , 6, 19221	242
1280	Room-temperature synthesis of nanoporous 1D microrods of graphitic carbon nitride (g-C3N4) with highly enhanced photocatalytic activity and stability. 2016 , 6, 31147	122
1279	CO fixation by anaerobic non-photosynthetic mixotrophy for improved carbon conversion. 2016 , 7, 12800	86
1278	Graphene in Photocatalysis: A Review. 2016 , 12, 6640-6696	605
1277	Heterostructured TiO2 Nanorod@Nanobowl Arrays for Efficient Photoelectrochemical Water Splitting. 2016 , 12, 1469-78	126
1276	Enhanced photocatalytic activity for hydrogen evolution of SrZrO3 modified with earth abundant metal oxides (MO, M = Cu, Ni, Fe, Co). 2016 , 181, 670-679	38
1275	Efficient NiSe-Ni3Se2/Graphene Electrocatalyst in Dye-Sensitized Solar Cells: The Role of Hollow Hybrid Nanostructure. 2016 , 8, 17187-93	92
1274	Efficient Z-scheme photocatalyst from simultaneous decoration of In2S3 nanosheets and WO3 nanorods on graphene sheets. 2016 , 27, 285602	12
1273	Biotemplated synthesis of Au loaded Sn-doped TiO2 hierarchical nanorods using nanocrystalline cellulose and their applications in photocatalysis. 2016 , 31, 1383-1392	18
1272	ZIF-8 derived bimodal carbon modified ZnO photocatalysts with enhanced photocatalytic CO2 reduction performance. 2016 , 6, 59998-60006	51
1271	Mesoporous assembled structures of Cu2O and TiO2 nanoparticles for highly efficient photocatalytic hydrogen generation from water. 2016 , 6, 54848-54855	40
1270	Synthesis of novel metal nanoparticles/SnNb2O6 nanosheets plasmonic nanocomposite photocatalysts with enhanced visible-light photocatalytic activity and mechanism insight. 2016 , 685, 647-655	38
1269	In-situ grown molybdenum sulfide on TiO2 for dye-sensitized solar photocatalytic hydrogen generation. 2016 , 152, 35-44	17

1268	A novel Bi ₂ S ₃ nanowire @ TiO ₂ nanorod heterogeneous nanostructure for photoelectrochemical hydrogen generation. 2016 , 302, 717-724		63
1267	Hybrid Dot/Disk Au-CuInS ₂ Nanostructures as Active Photocathode for Efficient Evolution of Hydrogen from Water. 2016 , 28, 4358-4366		52
1266	Kinetics versus Charge Separation: Improving the Activity of Stoichiometric and Non-Stoichiometric Hematite Photoanodes Using a Molecular Iridium Water Oxidation Catalyst. 2016 , 120, 12999-13012		23
1265	Structural transformation of Bi _{1-x/3} V _{1-x} Mo _x O ₄ solid solutions for light-driven water oxidation. 2016 , 45, 3895-904		12
1264	Photocatalytic water splitting for solar hydrogen generation: fundamentals and recent advancements. 2016 , 35, 1-36		201
1263	Equilibrium and kinetic studies on MB adsorption by ultrathin 2D MoS ₂ nanosheets. 2016 , 6, 11631-11636		116
1262	Artificial photosynthesis using metal/nonmetal-nitride semiconductors: current status, prospects, and challenges. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2801-2820	13	95
1261	A non-noble metal MoS ₂ /Cd _{0.5} Zn _{0.5} S photocatalyst with efficient activity for high H ₂ evolution under visible light irradiation. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 193-199	13	88
1260	Synergetic effect of MoS ₂ and g-C ₃ N ₄ as cocatalysts for enhanced photocatalytic H ₂ production activity of TiO ₂ . 2016 , 76, 79-84		40
1259	Methyl formate synthesis from methanol on titania supported copper catalyst under UV irradiation at ambient condition: Performance and mechanism. 2016 , 333, 162-170		25
1258	Cu ₂ O NPs decorated BiPO ₄ photo-catalyst for enhanced organic contaminant degradation under visible light irradiation. 2016 , 6, 29202-29209		17
1257	Comprehensive Interfacial Study of Potentio-Dynamically Synthesized Copper Oxide Thin Films for Photoelectrochemical Applications. 2016 , 163, H426-H433		51
1256	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
1255	New understanding on the different photocatalytic activity of wurtzite and zinc-blende CdS. 2016 , 192, 101-107		159
1254	Preparation of heterostructured Ag@AgCl/La ₂ Ti ₂ O ₇ plasmonic photocatalysts with high visible light photocatalytic performance for the degradation of organic pollutants. 2016 , 6, 19223-19232		10
1253	Tuning photocatalytic activity of In ₂ S ₃ broadband spectrum photocatalyst based on morphology. 2016 , 368, 288-297		52
1252	Effect of phosphorus doping on electronic structure and photocatalytic performance of g-C ₃ N ₄ : Insights from hybrid density functional calculation. 2016 , 672, 271-276		89
1251	Rational design of semiconductor-based photocatalysts for advanced photocatalytic hydrogen production: the case of cadmium chalcogenides. 2016 , 3, 591-615		119

1250	Photocatalytic production of hydrogen from biomass-derived feedstocks. 2016 , 315, 1-66		238
1249	Co(dmgh) ₂ pyCl as a noble-metal-free co-catalyst for highly efficient photocatalytic hydrogen evolution over hexagonal ZnIn ₂ S ₄ . 2016 , 6, 6072-6076		20
1248	Enhanced charge separation of rutile TiO ₂ nanorods by trapping holes and transferring electrons for efficient cocatalyst-free photocatalytic conversion of CO ₂ to fuels. 2016 , 52, 5027-9		35
1247	Hydrogen-treated mesoporous WO ₃ as a reducing agent of CO ₂ to fuels (CH ₄ and CH ₃ OH) with enhanced photothermal catalytic performance. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 5314-5322	13	121
1246	Hierarchical photocatalysts. 2016 , 45, 2603-36		1216
1245	Novel photocatalysts Pt/Cd _{1-x} Zn _x S/ZnO/Zn(OH) ₂ : Activation during hydrogen evolution from aqueous solutions of ethanol under visible light. 2016 , 183, 197-205		44
1244	Synthesis and self-assembly of dumbbell shaped ZnO sub-micron structures using low temperature chemical bath deposition technique. 2016 , 169, 152-157		9
1243	Enhanced photocatalytic activity of hydrothermally grown BiFeO ₃ nanostructures and role of catalyst recyclability in photocatalysis based on magnetic framework. 2016 , 122, 1		22
1242	Omnidirectional enhancement of photocatalytic hydrogen evolution over hierarchical "auline leaf" nanoarchitectures. 2016 , 186, 88-96		104
1241	Facile electrosynthesis and photoelectric conversion of Ag nanodendrites wrapped with MoS ₂ nanosheets. 2016 , 188, 917-926		9
1240	New High-Pressure Gallium Borate Ga ₂ B ₃ O ₇ (OH) with Photocatalytic Activity. 2016 , 55, 676-81		33
1239	Graphene oxide-based nanomaterials for efficient photoenergy conversion. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2014-2048	13	61
1238	Water Splitting By Photocatalytic Reduction. 2016 , 175-210		1
1237	Enhancement of photocatalytic reduction of CO ₂ to CH ₄ over TiO ₂ nanosheets by modifying with sulfuric acid. 2016 , 364, 416-427		92
1236	Heterogeneous Photocatalysis. 2016 ,		42
1235	Design and fabrication of microsphere photocatalysts for environmental purification and energy conversion. 2016 , 287, 117-129		150
1234	Efficient one-pot microwave-assisted hydrothermal synthesis of M (M=Cr, Ni, Cu, Nb) and nitrogen co-doped TiO ₂ for hydrogen production by photocatalytic water splitting. 2016 , 411, 128-137		56
1233	Selective oxidation of aromatic alcohols to aromatic aldehydes by BN/metal sulfide with enhanced photocatalytic activity. 2016 , 182, 356-368		120

1232	Au/PtO nanoparticle-modified g-C ₃ N ₄ for plasmon-enhanced photocatalytic hydrogen evolution under visible light. 2016 , 461, 56-63		135
1231	Alkali metals incorporated ordered mesoporous tantalum oxide with enhanced photocatalytic activity for water splitting. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 3007-3017	13	29
1230	New insight into the enhanced photocatalytic activity of N-, C- and S-doped ZnO photocatalysts. 2016 , 181, 220-227		372
1229	A facile strategy to fabricate Au/TiO ₂ nanotubes photoelectrode with excellent photoelectrocatalytic properties. 2017 , 391, 345-352		43
1228	Bare TiO ₂ and graphene oxide TiO ₂ photocatalysts on the degradation of selected pesticides and influence of the water matrix. 2017 , 416, 1013-1021		121
1227	Two-dimensional graphitic carbon nitride nanosheets for biosensing applications. 2017 , 89, 212-223		89
1226	Effect of thermal annealing on the microstructures and photocatalytic performance of silver orthophosphate: The synergistic mechanism of Ag vacancies and metallic Ag. 2017 , 391, 592-600		17
1225	A review on g-C ₃ N ₄ -based photocatalysts. 2017 , 391, 72-123		1687
1224	Low-temperature solid-state preparation of ternary CdS/g-C ₃ N ₄ /CuS nanocomposites for enhanced visible-light photocatalytic H ₂ -production activity. 2017 , 391, 432-439		179
1223	Fabricating the Robust g-C ₃ N ₄ Nanosheets/Carbons/NiS Multiple Heterojunctions for Enhanced Photocatalytic H ₂ Generation: An Insight into the Trifunctional Roles of Nanocarbons. 2017 , 5, 2224-2236		180
1222	Predicting point defect equilibria across oxide hetero-interfaces: model system of ZrO/CrO. 2017 , 19, 3869-3883		21
1221	Fabrication of TiO ₂ hierarchical architecture assembled by nanowires with anatase/TiO ₂ (B) phase-junctions for efficient photocatalytic hydrogen production. 2017 , 403, 691-698		39
1220	Cobalt Phosphide Modified Titanium Oxide Nanophotocatalysts with Significantly Enhanced Photocatalytic Hydrogen Evolution from Water Splitting. 2017 , 13, 1603301		93
1219	Highly enhanced photocatalytic degradation of methylene blue over the indirect all-solid-state Z-scheme g-C ₃ N ₄ -RGO-TiO ₂ nanoheterojunctions. 2017 , 405, 60-70		276
1218	Structural and electronic properties of screen-printed Fe ₂ O ₃ /TiO ₂ thick films and their photoelectrochemical behavior. 2017 , 52, 5938-5953		5
1217	Solar water splitting on porous-alumina-assisted TiO ₂ -doped WO _x nanorod photoanodes: Paradoxes and challenges. 2017 , 33, 72-87		27
1216	Synthesis of Ternary and Quaternary Au and Pt Decorated CdSe/CdS Heteronanoplatelets with Controllable Morphology. 2017 , 27, 1604685		39
1215	A review of TiO ₂ nanostructured catalysts for sustainable H ₂ generation. 2017 , 42, 8418-8449		260

1214	Heterostructured WS ₂ -MoS ₂ Ultrathin Nanosheets Integrated on CdS Nanorods to Promote Charge Separation and Migration and Improve Solar-Driven Photocatalytic Hydrogen Evolution. 2017 , 10, 1563-1570		117
1213	Latest progress in hydrogen production from solar water splitting via photocatalysis, photoelectrochemical, and photovoltaic-photoelectrochemical solutions. 2017 , 38, 5-12		140
1212	Electrochemical and Photoelectrochemical Properties of Screen-Printed Nickel Oxide Thin Films Obtained from Precursor Pastes with Different Compositions. 2017 , 164, H137-H147		35
1211	Improved Solar-Driven Photocatalytic Performance of Highly Crystalline Hydrogenated TiO ₂ Nanofibers with Core-Shell Structure. 2017 , 7, 40896		34
1210	Enhanced visible light photocatalytic activity in SnO ₂ @g-C ₃ N ₄ core-shell structures. 2017 , 218, 23-30		50
1209	Epitaxial hetero-structure of CdSe/TiO ₂ nanotube arrays with PEDOT as a hole transfer layer for photoelectrochemical hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 6233-6244	13	20
1208	Morphology evolution and visible light driven photocatalysis study of Ti ³⁺ self-doped TiO ₂ nanocrystals. 2017 , 32, 1563-1572		16
1207	Protecting hydrogenation-generated oxygen vacancies in BiVO ₄ photoanode for enhanced water oxidation with conformal ultrathin amorphous TiO ₂ layer. 2017 , 403, 389-395		26
1206	One-step exfoliation and fluorination of g-C ₃ N ₄ nanosheets with enhanced photocatalytic activities. 2017 , 41, 3061-3067		37
1205	Construction of g-C ₃ N ₄ /CeO ₂ /ZnO ternary photocatalysts with enhanced photocatalytic performance. 2017 , 106, 1-9		83
1204	Degradation in photoelectrochemical devices: review with an illustrative case study. 2017 , 50, 124002		49
1203	Measuring and interpreting quantum efficiency for hydrogen photo-production using Pt-titania catalysts. 2017 , 347, 157-169		53
1202	Slow Photons for Photocatalysis and Photovoltaics. 2017 , 29, 1605349		91
1201	Earth-abundant WC nanoparticles as an active noble-metal-free co-catalyst for the highly boosted photocatalytic H ₂ production over g-C ₃ N ₄ nanosheets under visible light. 2017 , 7, 1193-1202		92
1200	Interfacial Charge Transfer in Photoelectrochemical Processes. 2017 , 4, 1600981		30
1199	Modifying photocatalysts for solar hydrogen evolution based on the electron behavior. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 5235-5259	13	32
1198	Enhanced photocatalytic hydrogen production from glucose aqueous matrices on Ru-doped LaFeO ₃ . 2017 , 207, 182-194		67
1197	Starburst Triarylamine Donor-Based Metal-Free Photosensitizers for Photocatalytic Hydrogen Production from Water. 2017 , 19, 1048-1051		32

1196	A Nonmetal Plasmonic Z-Scheme Photocatalyst with UV- to NIR-Driven Photocatalytic Protons Reduction. 2017 , 29, 1606688	275
1195	Fabrication and photocatalytic activity of magnetic core@shell ZnFe ₂ O ₄ @Ag ₃ PO ₄ heterojunction. 2017 , 63, 261-268	12
1194	Defects enhanced photocatalytic performances in SrTiO ₃ using laser-melting treatment. 2017 , 32, 748-756	20
1193	Photoanodes based on TiO ₂ and Fe ₂ O ₃ for solar water splitting - superior role of 1D nanoarchitectures and of combined heterostructures. 2017 , 46, 3716-3769	385
1192	In Situ Gold-Loaded Fluorinated Titania Inverse Opal Photocatalysts for Enhanced Solar-Light-Driven Hydrogen Production. 2017 , 3, 503-510	14
1191	Hetero-structural NiTiO ₃ /TiO ₂ nanotubes for efficient photocatalytic hydrogen generation. 2017 , 111, 410-415	30
1190	Effect of gold underlayer on copper(I) oxide photocathode performance. 2017 , 32, 1656-1664	5
1189	A Review of Direct Z-Scheme Photocatalysts. 2017 , 1, 1700080	663
1188	Electrically tuned photoelectrochemical properties of ferroelectric nanostructure NaNbO ₃ films. 2017 , 110, 152902	14
1187	Coupling of piezoelectric, semiconducting and photoexcitation properties in NaNbO ₃ nanostructures for controlling electrical transport: Realizing an efficient piezo-photoanode and piezo-photocatalyst. 2017 , 38, 335-341	118
1186	Crumpled Cu ₂ O-g-C ₃ N ₄ nanosheets for hydrogen evolution catalysis. 2017 , 527, 34-41	35
1185	Fabrication of nanoplate-like g-C ₃ N ₄ /Bi ₂ TiO ₂₀ heterojunction with enhanced visible-light photocatalytic activity. 2017 , 93, 91-101	22
1184	Nanocarbon based composite electrodes and their application in microbial fuel cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 12673-12698	13 59
1183	Vibrational and optical characterization of s-triazine derivatives. 2017 , 183, 348-355	10
1182	ZnO/CdS nanorod arrays decorated by layered double hydroxides for efficient solar water oxidation. 2017 , 41, 1781-1789	9
1181	Ab initio assessment of BiRECuOS (RE = La, Gd, Y, Lu) solid solutions as a semiconductor for photochemical water splitting. 2017 , 19, 12321-12330	19
1180	Molybdenum Sulfide for Hydrogen Evolution Reaction: The Importance of Solution Dynamic Wetting Behavior in The Drying Process. 2017 , 33, 4638-4646	5
1179	A novel architecture of dandelion-like Mo ₂ C/TiO ₂ heterojunction photocatalysts towards high-performance photocatalytic hydrogen production from water splitting. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 10591-10598	13 83

1178	Ir-phosphate cocatalyst for photoelectrochemical water oxidation using $\beta\text{-Fe}_2\text{O}_3$. 2017 , 7, 21430-21438	8
1177	Nano-engineering of p-n CuFeO-ZnO heterojunction photoanode with improved light absorption and charge collection for photoelectrochemical water oxidation. 2017 , 28, 325401	23
1176	Mesoporous silica beads encapsulated with functionalized palladium nanocrystallites: Novel catalyst for selective hydrogen evolution. 2017 , 32, 3574-3584	12
1175	Novel Fabrication and Enhanced Photocatalytic MB Degradation of Hierarchical Porous Monoliths of MoO Nanoplates. 2017 , 7, 1845	47
1174	CdS -coated TiO nanotube layers: downscaling tube diameter towards efficient heterostructured photoelectrochemical conversion. 2017 , 9, 7755-7759	37
1173	Photocatalytic H_2 production from glycerol/water mixtures over $\text{Ni}/\text{Al}_2\text{O}_3$ and TiO_2 composite systems. 2017 , 42, 15031-15043	13
1172	Monolithic Photoassisted Water Splitting Device Using Anodized Ni-Fe Oxygen Evolution Catalytic Substrate. 2017 , 7, 1700659	22
1171	Fabrication of 3D quasi-hierarchical Z-scheme $\text{RGO-Fe}_2\text{O}_3\text{-MoS}_2$ nanoheterostructures for highly enhanced visible-light-driven photocatalytic degradation. 2017 , 420, 669-680	53
1170	Spatial charge separation of one-dimensional $\text{Ni}_2\text{P-Cd}_0.9\text{Zn}_0.1\text{S/g-C}_3\text{N}_4$ heterostructure for high-quantum-yield photocatalytic hydrogen production. 2017 , 217, 551-559	93
1169	Fabrication of two-dimensional porous CdS nanoplates decorated with C_3N_4 nanosheets for highly efficient photocatalytic hydrogen production from water splitting. 2017 , 99, 79-82	29
1168	UV and visible light driven H_2 photo-production using Nb-doped TiO_2 : Comparing Pt and Pd co-catalysts. 2017 , 437, 1-10	25
1167	Anchoring ultrafine metallic and oxidized Pt nanoclusters on yolk-shell TiO_2 for unprecedentedly high photocatalytic hydrogen production. 2017 , 38, 118-126	75
1166	UV and visible hydrogen photo-production using Pt promoted Nb-doped TiO_2 photo-catalysts: Interpreting quantum efficiency. 2017 , 216, 133-145	35
1165	Boosting the catalytic performance of MoS_x cocatalysts over CdS nanoparticles for photocatalytic H_2 evolution by Co doping via a facile photochemical route. 2017 , 420, 456-464	66
1164	III-nitride nanowires for solar light harvesting: A review. 2017 , 79, 1002-1015	27
1163	Rational design of photoelectron-trapped/accumulated site and transportation path for superior photocatalyst. 2017 , 38, 271-280	33
1162	Activation of amorphous bismuth oxide via plasmonic Bi metal for efficient visible-light photocatalysis. 2017 , 352, 102-112	103
1161	Laccase-Catalyzed Bioelectrochemical Oxidation of Water Assisted with Visible Light. 2017 , 7, 4881-4889	15

1160	Recent Advances in Bismuth-Based Nanomaterials for Photoelectrochemical Water Splitting. 2017 , 10, 3001-3018	77
1159	Photodeposited-metal/CdS/ZnO heterostructures for solar photocatalytic hydrogen production under different conditions. 2017 , 42, 11356-11363	30
1158	Constructing Multifunctional Metallic Ni Interface Layers in the g-CN Nanosheets/Amorphous NiS Heterojunctions for Efficient Photocatalytic H Generation. 2017 , 9, 14031-14042	256
1157	Facile synthesis of tunable carbon modified mesoporous TiO ₂ for visible light photocatalytic application. 2017 , 412, 357-365	23
1156	Photocatalysis with TiO ₂ Nanotubes: Colorful Reactivity and Designing Site-Specific Photocatalytic Centers into TiO ₂ Nanotubes. 2017 , 7, 3210-3235	180
1155	Semiconductor-Based Nanomaterials for Photocatalytic Hydrogen Generation. 2017 , 487-543	
1154	Self-template synthesis of CdS/NiS heterostructured nanohybrids for efficient photocatalytic hydrogen evolution. 2017 , 46, 10650-10656	18
1153	The fabrication and photoelectrocatalytic study of composite ZnSe/Au/TiO ₂ nanotube films. 2017 , 50, 185102	1
1152	Copper-Decorated Microsized Nanoporous Titanium Dioxide Photocatalysts for Carbon Dioxide Reduction by Water. 2017 , 9, 3054-3062	38
1151	Photosensitization of TiO nanofibers by AgS with the synergistic effect of excess surface Ti states for enhanced photocatalytic activity under simulated sunlight. 2017 , 7, 255	39
1150	Insertion of nanostructured titanates into the pores of an anodised TiO ₂ nanotube array by mechanically stimulated electrophoretic deposition. 2017 , 5, 3955-3961	10
1149	Enhanced visible light photocatalytic H ₂ production over Z-scheme g-C ₃ N ₄ nanosheets/WO ₃ nanorods nanocomposites loaded with Ni(OH) ₂ cocatalysts. 2017 , 38, 240-252	211
1148	Hydrazine-assisted formation of ultrathin MoS ₂ nanosheets for enhancing their co-catalytic activity in photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 6981-6991	13 97
1147	Synthesis of efficient silica supported TiO ₂ /Ag ₂ O heterostructured catalyst with enhanced photocatalytic performance. 2017 , 410, 454-463	53
1146	Plasmonic Au-TiO ₂ /ZnO Core/Shell Nanorod Array Photoanode for Visible-Light-Driven Photoelectrochemical Water Splitting. 2017 , 5, 1599-1605	10
1145	Carbonyl-Grafted g-C ₃ N ₄ Porous Nanosheets for Efficient Photocatalytic Hydrogen Evolution. 2017 , 12, 515-523	26
1144	Markedly enhanced visible-light photocatalytic H ₂ generation over g-CN nanosheets decorated by robust nickel phosphide (Ni ₃ P) cocatalysts. 2017 , 46, 1794-1802	102
1143	Synergetic effect of Ni(OH) ₂ cocatalyst and CNT for high hydrogen generation on CdS quantum dot sensitized TiO ₂ photocatalyst. 2017 , 204, 577-583	72

1142	Novel ternary heterojunction photocatalyst of Ag nanoparticles and g-C ₃ N ₄ nanosheets co-modified BiVO ₄ for wider spectrum visible-light photocatalytic degradation of refractory pollutant. 2017 , 205, 133-147		254
1141	Cu ₂ (OH) ₂ CO ₃ clusters: Novel noble-metal-free cocatalysts for efficient photocatalytic hydrogen production from water splitting. 2017 , 205, 104-111		119
1140	The high surface energy of NiO {110} facets incorporated into TiO ₂ hollow microspheres by etching Ti plate for enhanced photocatalytic and photoelectrochemical activity. 2017 , 396, 1539-1545		18
1139	Bi ₂ O ₃ cocatalyst improving photocatalytic hydrogen evolution performance of TiO ₂ . 2017 , 400, 530-536		100
1138	Structure-Activity relationship in Ti phosphate-derived photocatalysts for H ₂ evolution. 2017 , 26, 295-301		3
1137	The Role of Interfaces in Heterostructures. 2017 , 82, 42-59		23
1136	Enhanced photocatalytic activity for hydrogen evolution from water by Zn _{0.5} Cd _{0.5} S/WS ₂ heterostructure. 2017 , 59, 68-75		30
1135	The effect of directed photogenerated carrier separation on photocatalytic hydrogen production. 2017 , 41, 488-493		41
1134	Surface and Interface Engineering for Photoelectrochemical Water Oxidation. 2017 , 1, 290-305		101
1133	Photoelectrochemistry of colloidal Cu ₂ O nanocrystal layers: the role of interfacial chemistry. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 22255-22264	13	4
1132	Hollow ZnCdS dodecahedral cages for highly efficient visible-light-driven hydrogen generation. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 24116-24125	13	132
1131	In situ etching-induced self-assembly of metal cluster decorated one-dimensional semiconductors for solar-powered water splitting: unraveling cooperative synergy by photoelectrochemical investigations. 2017 , 9, 17118-17132		68
1130	Graphitic carbon nitride (g-C ₃ N ₄)-based photocatalysts for solar hydrogen generation: recent advances and future development directions. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 23406-23433	13	358
1129	Photocatalytic water splitting for hydrogen production. 2017 , 5, 56-62		64
1128	Structures, electron density and characterization of novel photocatalysts, (BaTaON)(SrWON) solid solutions. 2017 , 46, 14947-14956		10
1127	Formation of heterostructures via direct growth CN on h-BN porous nanosheets for metal-free photocatalysis. 2017 , 42, 58-68		108
1126	Ni _x S _y /NiSe ₂ Hybrid Catalyst Grown In Situ on Conductive Glass Substrate as Efficient Counter Electrode for Dye-Sensitized Solar Cells. 2017 , 250, 244-250		10
1125	Syntheses of Exceptionally Stable Aluminum(III) Metal-Organic Frameworks: How to Grow High-Quality, Large, Single Crystals. 2017 , 23, 15518-15528		38

1124	Efficient Photocatalytic Hydrogen Evolution on Band Structure Tuned Polytriazine/Heptazine Based Carbon Nitride Heterojunctions with Ordered Needle-like Morphology Achieved by an In Situ Molten Salt Method. 2017 , 121, 21497-21509	45
1123	Noble-metal-free nickel phosphide modified CdS/CN nanorods for dramatically enhanced photocatalytic hydrogen evolution under visible light irradiation. 2017 , 46, 13793-13801	103
1122	Bismuth Silver Oxysulfide for Photoconversion Applications: Structural and Optoelectronic Properties. 2017 , 29, 8679-8689	18
1121	Influence of different aluminum salts on the photocatalytic properties of Al doped TiO nanoparticles towards the degradation of AO7 dye. 2017 , 7, 8108	7
1120	Enhanced photocatalytic hydrogen evolution from aqueous solutions on Ag ₂ S/Ag heteronanostructure. 2017 , 42, 25258-25266	33
1119	Distinctly Improved Photocurrent and Stability in TiO ₂ Nanotube Arrays by Ladder Band Structure. 2017 , 121, 20605-20612	21
1118	Rational in situ tuning of a supramolecular photocatalyst for hydrogen evolution. 2017 , 1, 2066-2070	7
1117	Efficient photo-catalytic oxidative degradation of organic dyes using CuInSe ₂ /TiO ₂ hybrid hetero-nanostructures. 2017 , 349, 73-90	16
1116	A novel p-n heterojunction Mn _{0.25} Cd _{0.75} S/Co ₃ O ₄ for highly efficient photocatalytic H ₂ evolution under visible light irradiation. 2017 , 80, 570-577	33
1115	Micelle-Directing Synthesis of Ag-Doped WO and MoO Composites for Photocatalytic Water Oxidation and Organic-Dye Adsorption. 2017 , 12, 2597-2603	18
1114	Polytype 1T/2H MoS ₂ heterostructures for efficient photoelectrocatalytic hydrogen evolution. 2017 , 330, 102-108	73
1113	Kinetics of Photoelectrochemical Oxidation of Methanol on Hematite Photoanodes. 2017 , 139, 11537-11543	76
1112	Harnessing Hot Electrons from Near IR Light for Hydrogen Production Using Pt-End-Capped-AuNRs. 2017 , 9, 25962-25969	27
1111	Novel EC ₃ N ₄ /CuO nanoflakes: facile synthesis and unique photocatalytic performance. 2017 , 50, 355501	9
1110	Bi metal-modified Bi ₄ O ₅ I ₂ hierarchical microspheres with oxygen vacancies for improved photocatalytic performance and mechanism insights. 2017 , 7, 3580-3590	50
1109	Photoreduction preparation of Cu ₂ O@polydopamine nanospheres with enhanced photocatalytic activity under visible light irradiation. 2017 , 254, 55-61	25
1108	Effects of exposed facets on photocatalytic properties of WO ₃ . 2017 , 28, 2549-2555	14
1107	What Controls Photocatalytic Water Oxidation on Rutile TiO(110) under Ultra-High-Vacuum Conditions?. 2017 , 139, 11845-11856	30

1106	Reduced Cu/Pt@Ca ₂ Ta ₃ O ₁₀ Perovskite Nanosheets for Sunlight-Driven Conversion of CO ₂ into Valuable Fuels. 2017 , 1, 1700048		10
1105	Particulate photocatalysts for overall water splitting. 2017 , 2,		902
1104	Ti ³⁺ self-doped mesoporous black TiO ₂ /SiO ₂ nanocomposite as remarkable visible light photocatalyst. 2017 , 426, 734-744		49
1103	Photochemical and magnetic activities of FeTiO ₃ nanoparticles by electro-spinning synthesis. 2017 , 78, 431-437		17
1102	Hierarchical Ti _{1-x} Zr _x O ₂ nanocrystals with exposed high energy facets showing co-catalyst free solar light driven water splitting and improved light to energy conversion efficiency. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 17341-17351	13	12
1101	Facile fabrication of silicon nanowires as photocathode for visible-light induced photoelectrochemical water splitting. 2017 , 42, 22671-22676		17
1100	A new Ag/Bi ₇ Ta ₃ O ₁₈ plasmonic photocatalyst with a visible-light-driven photocatalytic activity. 2017 , 32, 3650-3659		6
1099	Photocatalysis: Basic Principles, Diverse Forms of Implementations and Emerging Scientific Opportunities. 2017 , 7, 1700841		298
1098	Incorporating a molecular co-catalyst with a heterogeneous semiconductor heterojunction photocatalyst: Novel mechanism with two electron-transfer pathways for enhanced solar hydrogen production. 2017 , 353, 274-285		27
1097	Nanoheterostructured photocatalysts for improving photocatalytic hydrogen production. 2017 , 38, 1295-1306	70	
1096	A bifunctional NiCoP-based core/shell cocatalyst to promote separate photocatalytic hydrogen and oxygen generation over graphitic carbon nitride. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 19025-19035	13	117
1095	Photothermal effect of infrared light to enhance solar catalytic hydrogen generation. 2017 , 102, 13-16		22
1094	Direct Z-scheme g-C ₃ N ₄ /WO ₃ photocatalyst with atomically defined junction for H ₂ production. 2017 , 219, 693-704		511
1093	Surface modification of layered perovskite SrTiO ₃ for improved CO photoreduction with HO to CH ₄ . 2017 , 7, 16370		11
1092	High Photocatalytic Activity of Heptazine-Based g-C ₃ N ₄ /SnS ₂ Heterojunction and Its Origin: Insights from Hybrid DFT. 2017 , 121, 25827-25835		94
1091	Metal Phosphides as Co-Catalysts for Photocatalytic and Photoelectrocatalytic Water Splitting. 2017 , 10, 4306-4323		111
1090	Photocatalytic hydrogen evolution from aqueous solutions on nanostructured Ag ₂ S and Ag ₂ S/Ag. 2017 , 100, 178-182		26
1089	Facile fabrication of pseudo-microspherical ZnO/CdS core-shell photocatalysts for solar hydrogen production by water splitting. 2017 , 43, 13493-13499		30

1088	Improved H ₂ evolution under visible light in heterostructured SiC/CdS photocatalyst: Effect of lattice match. 2017 , 42, 14409-14417	16
1087	Oxygen-rich carbon-nitrogen quantum dots as cocatalysts for enhanced photocatalytic H ₂ production activity of TiO ₂ nanofibers. 2017 , 27, 333-337	14
1086	Photoelectrochemical Performance of the Ag(III)-Based Oxygen-Evolving Catalyst. 2017 , 9, 23800-23809	13
1085	Photocatalytic Properties of Layered K ₃ H ₃ Nb ₁₀ O ₃₀ in the Hydrogen Evolution Reaction from Aqueous Solutions of Alcohols. 2017 , 53, 100-105	4
1084	Plasmonic Ag ₂ MoO ₄ /AgBr/Ag composite: Excellent photocatalytic performance and possible photocatalytic mechanism. 2017 , 396, 791-798	93
1083	Post-Calcined Carbon Nitride Nanosheets as an Efficient Photocatalyst for Hydrogen Production under Visible Light Irradiation. 2017 , 5, 213-220	71
1082	Photochemistry and photocatalysis. 2017 , 28, 125-142	25
1081	Novel Au/CaIn ₂ S ₄ nanocomposites with plasmon-enhanced photocatalytic performance under visible light irradiation. 2017 , 396, 430-437	20
1080	Ternary Ag/AgCl-(BiO) ₂ CO ₃ composites as high-performance visible-light plasmonic photocatalysts. 2017 , 284, 67-76	25
1079	Effects of vanadium doping on microstructures and optical properties of TiO ₂ . 2017 , 43, 1558-1564	11
1078	Electrospinning direct synthesis of magnetic ZnFe ₂ O ₄ /ZnO multi-porous nanotubes with enhanced photocatalytic activity. 2017 , 396, 780-790	74
1077	Photocatalytic and photoelectrochemical properties of hierarchical mesoporous TiO ₂ microspheres produced using a crown template. 2017 , 334, 26-35	8
1076	Hydrogen evolution from aqueous-phase photocatalytic reforming of ethylene glycol over Pt/TiO ₂ catalysts: Role of Pt and product distribution. 2017 , 391, 251-258	37
1075	Constructing 2D layered hybrid CdS nanosheets/MoS ₂ heterojunctions for enhanced visible-light photocatalytic H ₂ generation. 2017 , 391, 580-591	245
1074	Comparison of photocatalytic reaction-induced selective corrosion with photocorrosion: Impact on morphology and stability of Ag-ZnO. 2017 , 201, 348-358	55
1073	Noble-metal-free cobalt phosphide modified carbon nitride: An efficient photocatalyst for hydrogen generation. 2017 , 200, 477-483	301
1072	Facile synthesis of flake-like TiO ₂ /C nano-composites for photocatalytic H ₂ evolution under visible-light irradiation. 2017 , 392, 889-896	32
1071	Co-modification of amorphous-Ti(IV) hole cocatalyst and Ni(OH) ₂ electron cocatalyst for enhanced photocatalytic H ₂ -production performance of TiO ₂ . 2017 , 391, 259-266	88

1070	Comparison of modification strategies towards enhanced charge carrier separation and photocatalytic degradation activity of metal oxide semiconductors (TiO ₂ , WO ₃ and ZnO). 2017 , 391, 124-148	493
1069	Enhanced visible light photocatalytic H ₂ evolution of metal-free g-C ₃ N ₄ /SiC heterostructured photocatalysts. 2017 , 391, 449-456	116
1068	Improved photocatalytic efficiency and stability of CdS/ZnO shell/core nanoarrays with high coverage and enhanced interface combination. 2017 , 42, 848-857	22
1067	Non-noble metal Bi deposition by utilizing Bi ₂ WO ₆ as the self-sacrificing template for enhancing visible light photocatalytic activity. 2017 , 391, 491-498	78
1066	Passivation of defect states in anatase TiO ₂ hollow spheres with Mg doping: Realizing efficient photocatalytic overall water splitting. 2017 , 202, 127-133	96
1065	Enhancement of visible-light-driven photocatalytic reduction of aqueous Cr(VI) with flower-like In ³⁺ -doped SnS ₂ . 2017 , 45, 206-214	40
1064	One-dimensional TiO Nanotube Photocatalysts for Solar Water Splitting. 2017 , 4, 1600152	295
1063	Doping induced grain size reduction and photocatalytic performance enhancement of SrMoO ₄ :Bi ³⁺ . 2017 , 392, 649-657	22
1062	Improved visible-light photocatalytic H ₂ generation over CdS nanosheets decorated by NiS ₂ and metallic carbon black as dual earth-abundant cocatalysts. 2017 , 38, 1970-1980	111
1061	Passively Q-switched Ho,Pr:LiLuF laser with graphitic carbon nitride nanosheet film. 2017 , 25, 12796-12803	25
1060	SnS _x (x = 1, 2) Nanocrystals as Effective Catalysts for Photoelectrochemical Water Splitting. 2017 , 7, 252	26
1059	Atomically Dispersed Metal Sites in MOF-Based Materials for Electrocatalytic and Photocatalytic Energy Conversion. 2018 , 57, 9604-9633	324
1058	Photoredox catalysis over graphene aerogel-supported composites. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 4590-4604	13 149
1057	Effect of oxygen vacancies in electrodeposited NiO towards the oxygen evolution reaction: Role of Ni-Glycine complexes. 2018 , 268, 49-58	37
1056	Self-assembled MoS ₂ -GO Framework as an Efficient Cocatalyst of CuInZnS for Visible-Light Driven Hydrogen Evolution. 2018 , 6, 4671-4679	31
1055	One stone, two birds: silica nanospheres significantly increase photocatalytic activity and colloidal stability of photocatalysts. 2018 , 2, 015003	8
1054	Atomar dispergierte Metallzentren in Metall-organischen Gerüststrukturen für die elektrokatalytische und photokatalytische Energieumwandlung. 2018 , 130, 9750-9780	49
1053	Au ₂₅ -Loaded BaLa ₄ Ti ₄ O ₁₅ Water-Splitting Photocatalyst with Enhanced Activity and Durability Produced Using New Chromium Oxide Shell Formation Method. 2018 , 122, 13669-13681	45

1052	Flower-like SnO ₂ /g-C ₃ N ₄ heterojunctions: The face-to-face contact interface and improved photocatalytic properties. 2018 , 29, 1153-1157		20
1051	Heterostructured WO ₃ @CoWO ₄ bilayer nanosheets for enhanced visible-light photo, electro and photoelectro-chemical oxidation of water. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 6265-6272	13	50
1050	Well-controlled SrTiO ₃ @Mo ₂ C core-shell nanofiber photocatalyst: Boosted photo-generated charge carriers transportation and enhanced catalytic performance for water reduction. 2018 , 47, 463-473		106
1049	Bridging the g-C ₃ N ₄ Nanosheets and Robust CuS Cocatalysts by Metallic Acetylene Black Interface Mediators for Active and Durable Photocatalytic H ₂ Production. 2018 , 1, 2232-2241		64
1048	Solar Photochemical Splitting of Water. 2018 , 365-391		
1047	Enhanced visible light activated hydrogen evolution activity over cadmium sulfide nanorods by the synergetic effect of a thin carbon layer and noble metal-free nickel phosphide cocatalyst. 2018 , 525, 107-114		31
1046	Two-step electrodeposition to fabricate the p-n heterojunction of a CuO/BiVO photoanode for the enhancement of photoelectrochemical water splitting. 2018 , 47, 6763-6771		62
1045	Hydrogen evolution in the photocatalytic reaction between methane and water in the presence of CO ₂ on titanate and titania supported Rh and Au catalysts. 2018 , 61, 875-888		14
1044	Observation of oxo-bridged yttrium in TiO ₂ nanostructures and their enhanced photocatalytic hydrogen generation under UV/Visible light irradiations. 2018 , 104, 212-219		16
1043	Ti ³⁺ defect mediated g-C ₃ N ₄ /TiO ₂ Z-scheme system for enhanced photocatalytic redox performance. 2018 , 448, 288-296		63
1042	Laminated Hybrid Junction of Sulfur-Doped TiO and a Carbon Substrate Derived from TiC MXenes: Toward Highly Visible Light-Driven Photocatalytic Hydrogen Evolution. 2018 , 5, 1700870		108
1041	Recent advancements in semiconductor materials for photoelectrochemical water splitting for hydrogen production using visible light. 2018 , 89, 228-248		97
1040	Construction of Ag/g-C ₃ N ₄ photocatalysts with visible-light photocatalytic activity for sulfamethoxazole degradation. 2018 , 341, 547-555		103
1039	PtNi Alloy Cocatalyst Modification of Eosin Y-Sensitized g-CN/GO Hybrid for Efficient Visible-Light Photocatalytic Hydrogen Evolution. 2018 , 13, 33		17
1038	Photonic crystal-assisted visible light activated TiO ₂ photocatalysis. 2018 , 230, 269-303		125
1037	Noble-metal-free Ni ₃ C cocatalysts decorated CdS nanosheets for high-efficiency visible-light-driven photocatalytic H ₂ evolution. 2018 , 227, 218-228		190
1036	Sn modification of TiO ₂ anatase and rutile type phases: 2-Propanol photo-oxidation under UV and visible light. 2018 , 228, 130-141		15
1035	Au and Pt selectively deposited on {0 0 1}-faceted TiO ₂ toward SPR enhanced photocatalytic Cr(VI) reduction: The influence of excitation wavelength. 2018 , 439, 430-438		35

1034	Bulk oxygen vacancies enriched TiO ₂ and its enhanced visible photocatalytic performance. 2018 , 441, 150-155	19
1033	Optical absorption and multivalent characteristics of ferrotitanate semiconductor FeNaTi ₃ O ₈ . 2018 , 534, 120-124	1
1032	. 2018 , 6, 3049-3059	28
1031	Regionalized and vectorial charges transferring of CdZnS twin nanocrystal homojunctions for visible-light driven photocatalytic applications. 2018 , 518, 156-164	31
1030	Review on the criteria anticipated for the fabrication of highly efficient ZnO-based visible-light-driven photocatalysts. 2018 , 62, 1-25	576
1029	Comparative study of the photocatalytic activity for hydrogen evolution of MFe ₂ O ₄ (M = Cu, Ni) prepared by three different methods. 2018 , 357, 20-29	25
1028	Z-schematic water splitting by the synergistic effect of a type-II heterostructure and a highly efficient oxygen evolution catalyst. 2018 , 441, 61-68	16
1027	Evidencing opposite charge-transfer processes at TiO ₂ /graphene-related materials interface through a combined EPR, photoluminescence and photocatalysis assessment. 2018 , 315, 19-30	25
1026	Hierarchical TiO ₂ nanowire/microflower photoanode modified with Au nanoparticles for efficient photoelectrochemical water splitting. 2018 , 8, 1395-1403	23
1025	3D flowerlike TiO ₂ /GO and TiO ₂ /MoS ₂ heterostructures with enhanced photoelectrochemical water splitting. 2018 , 53, 7609-7620	15
1024	Phase-controllable synthesis of MOF-templated maghemite/carbonaceous composites for efficient photocatalytic hydrogen production. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 3571-3582	13 34
1023	Bifunctional Cu ₃ P Decorated g-C ₃ N ₄ Nanosheets as a Highly Active and Robust Visible-Light Photocatalyst for H ₂ Production. 2018 , 6, 4026-4036	189
1022	Surface and Interface Engineering in Ag ₂ S@MoS ₂ Core/Shell Nanowire Heterojunctions for Enhanced Visible Photocatalytic Hydrogen Production. 2018 , 10, 2107-2114	39
1021	High performance photocatalytic activity of pure and Ni doped SnO ₂ nanoparticles by a facile wet chemical route. 2018 , 29, 6308-6315	4
1020	Remarkable positive effect of Cd(OH) ₂ on CdS semiconductor for visible-light photocatalytic H ₂ production. 2018 , 229, 8-14	56
1019	Influence of carbon content on photocatalytic performance of C@ZnO hollow nanospheres. 2018 , 5, 025001	4
1018	In Situ Generation of Copper Species Nanocrystals in TiO ₂ Electrospun Nanofibers: A Multi-hetero-junction Photocatalyst for Highly Efficient Water Reduction. 2018 , 6, 1934-1940	20
1017	Magnetically separable g-C ₃ N ₄ hybrid nanocomposite: Highly efficient and eco-friendly recyclable catalyst for one-pot synthesis of α-aminonitriles. 2018 , 32, e4188	9

1016	Comparative study of Fe_2O_3 films prepared by electrodeposition and spray pyrolysis methods as photoanode. 2018 , 29, 4975-4980	3
1015	Enhanced photocatalytic degradation of Rhodamine B by reduced graphene oxides modified Bi_2TiO_5 under visible light. 2018 , 29, 4668-4674	6
1014	Facile Synthesis of Multi-shelled ZnS-CdS Cages with Enhanced Photoelectrochemical Performance for Solar Energy Conversion. 2018 , 4, 162-173	170
1013	Strategies for Plasmonic Hot-Electron-Driven Photoelectrochemical Water Splitting. 2018 , 2, 161-182	35
1012	Construction of Z-Scheme System for Enhanced Photocatalytic H_2 Evolution Based on CdS Quantum Dots/ CeO_2 Nanorods Heterojunction. 2018 , 6, 2552-2562	73
1011	Hydrogen-interstitial CuWO_4 nanomesh: A single-component full spectrum-active photocatalyst for hydrogen evolution. 2018 , 227, 35-43	31
1010	Influence of Ce^{3+} doping on the optical and photocatalytic properties of $\text{Zn}_0.8\text{Cd}_0.2\text{S}$ -ethylenediamine hybrid nanosheets. 2018 , 356, 355-363	3
1009	Recent Advances in Sensitized Photocathodes: From Molecular Dyes to Semiconducting Quantum Dots. 2018 , 5, 1700684	49
1008	H_2 photo-production from methanol, ethanol and 2-propanol: Pt-(Nb) TiO_2 performance under UV and visible light. 2018 , 446, 88-97	24
1007	Hierarchical cobalt oxide-functionalized silicon carbide nanowire array for efficient and robust oxygen evolution electro-catalysis. 2018 , 7, 37-43	7
1006	Significant Enhancement of Hydrogen Production in $\text{MoS}_2/\text{Cu}_2\text{ZnSnS}_4$ Nanoparticles. 2018 , 35, 1700472	2
1005	Low field magneto-tunable photocurrent in CoFeO nanostructure films for enhanced photoelectrochemical properties. 2018 , 8, 6522	14
1004	Synergetic combination of 1D-2D g-C $_3\text{N}_4$ heterojunction nanophotocatalyst for hydrogen production via water splitting under visible light irradiation. 2018 , 127, 433-443	37
1003	Carbon quantum dot sensitized integrated Fe_2O_3 @g-C $_3\text{N}_4$ core-shell nanoarray photoanode towards highly efficient water oxidation. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 9839-9845	13 77
1002	Non-noble metal Cu as a cocatalyst on TiO_2 nanorod for highly efficient photocatalytic hydrogen production. 2018 , 445, 527-534	79
1001	Activation of amorphous Bi_2WO_6 with synchronous Bi metal and Bi_2O_3 coupling: Photocatalysis mechanism and reaction pathway. 2018 , 232, 340-347	130
1000	Enhanced photocatalytic hydrogen production of AgMO_3 (M = Ta, Nb, V) perovskite materials using CdS and NiO as co-catalysts. 2018 , 358, 167-176	10
999	Exploratory Study of Zn PbO Photoelectrodes for Unassisted Overall Solar Water Splitting. 2018 , 10, 10918-10926	6

998	Electrochemical Synthesis of Co ₃ O ₄ -xFilms for Their Application as Oxygen Evolution Reaction Electrocatalysts: Role of Oxygen Vacancies. 2018 , 165, H3178-H3186	20
997	A 2D/1D TiO ₂ nanosheet/CdS nanorods heterostructure with enhanced photocatalytic water splitting performance for H ₂ evolution. 2018 , 43, 7388-7396	57
996	P-doped ZnxCd1-xS solid solutions as photocatalysts for hydrogen evolution from water splitting coupled with photocatalytic oxidation of 5-hydroxymethylfurfural. 2018 , 233, 70-79	123
995	Recent progress on the photocatalysis of carbon dots: Classification, mechanism and applications. 2018 , 19, 201-218	353
994	Conceptual design and feasibility assessment of photoreactors for solar energy storage. 2018 , 172, 225-231	10
993	A facile dissolution strategy facilitated by H ₂ SO ₄ to fabricate a 2D metal-free g-C ₃ N ₄ /rGO heterojunction for efficient photocatalytic H ₂ production. 2018 , 43, 7007-7019	34
992	A new method for the fabrication of a bilayer WO ₃ /Fe ₂ O ₃ photoelectrode for enhanced photoelectrochemical performance. 2018 , 98, 47-52	25
991	One-step growth of nanosheet-assembled BiOCl/BiOBr microspheres for highly efficient visible photocatalytic performance. 2018 , 430, 639-646	97
990	Facile synthesis of Z-scheme BiVO ₄ /porous graphite carbon nitride heterojunction for enhanced visible-light-driven photocatalyst. 2018 , 430, 595-602	132
989	A study of constructing heterojunction between two-dimensional transition metal sulfides (MoS ₂ and WS ₂) and (101), (001) faces of TiO ₂ . 2018 , 430, 424-437	41
988	Toward designing semiconductor-semiconductor heterojunctions for photocatalytic applications. 2018 , 430, 2-17	141
987	Hydrogen Generation on Metal/Mesoporous Oxides: The Effects of Hierarchical Structure, Doping, and Co-catalysts. 2018 , 6, 459-469	22
986	Double Z-scheme ZnO/ZnS/g-C ₃ N ₄ ternary structure for efficient photocatalytic H ₂ production. 2018 , 430, 293-300	138
985	NiS and MoS ₂ nanosheet co-modified graphitic CN ternary heterostructure for high efficient visible light photodegradation of antibiotic. 2018 , 341, 10-19	138
984	In situ photodeposition of amorphous CoS _x on the TiO ₂ towards hydrogen evolution. 2018 , 430, 448-456	59
983	Enhanced photo-assisted electrocatalysis of anodization TiO ₂ nanotubes via surrounded surface decoration with MoS ₂ for hydrogen evolution reaction. 2018 , 433, 197-205	12
982	One-pot synthesis of in situ carbon-decorated Cu ₃ P particles with enhanced electrocatalytic hydrogen evolution performance. 2018 , 33, 546-555	18
981	Construction of RGO/CdIn ₂ S ₄ /g-C ₃ N ₄ ternary hybrid with enhanced photocatalytic activity for the degradation of tetracycline hydrochloride. 2018 , 433, 388-397	59

980	Enhanced photocatalytic activity of graphitic carbon nitride/carbon nanotube/BiWO ternary Z-scheme heterojunction with carbon nanotube as efficient electron mediator. 2018 , 512, 693-700	76
979	Preparation and characterization of metals supported on nanostructured TiO ₂ hollow spheres for production of hydrogen via photocatalytic reforming of glycerol. 2018 , 222, 133-145	56
978	Photocatalytic Water Splitting by Suspended Semiconductor Particles. 2018 , 107-140	6
977	Efficient visible-light-driven photocatalytic hydrogen production from water by using Eosin Y-sensitized novel g-C ₃ N ₄ /Pt/GO composites. 2018 , 53, 774-786	39
976	Graphene-based heterojunction photocatalysts. 2018 , 430, 53-107	293
975	Ternary GO/Ag ₃ PO ₄ /AgBr composite as an efficient visible-light-driven photocatalyst. 2018 , 97, 189-194	25
974	Graphene and g-C ₃ N ₄ based photocatalysts for NO _x removal: A review. 2018 , 430, 18-52	121
973	Photocatalytic hydrogen evolution of palladium nanoparticles decorated black TiO ₂ calcined in argon atmosphere. 2018 , 430, 407-414	30
972	In situ one-pot fabrication of g-C ₃ N ₄ nanosheets/NiS cocatalyst heterojunction with intimate interfaces for efficient visible light photocatalytic H ₂ generation. 2018 , 430, 208-217	172
971	Single-Crystalline Nanomesh Tantalum Nitride Photocatalyst with Improved Hydrogen-Evolving Performance. 2018 , 8, 1701605	63
970	Enhanced Solar Fuel H ₂ Generation over g-C ₃ N ₄ Nanosheet Photocatalysts by the Synergetic Effect of Noble Metal-Free Co ₂ P Cocatalyst and the Environmental Phosphorylation Strategy. 2018 , 6, 816-826	170
969	SEMICONDUCTING PHOTOCATALYSIS FOR SOLAR HYDROGEN CONVERSION. 2018 , 63-108	
968	Promoting the interfacial H ₂ -evolution reaction of metallic Ag by Ag ₂ S cocatalyst: A case study of TiO ₂ /Ag-Ag ₂ S photocatalyst. 2018 , 225, 415-423	127
967	Combination of ultrasound-treated 2D g-CN with Ag/black TiO nanostructure for improved photocatalysis. 2018 , 42, 517-525	17
966	Preparation of Mo- and W-doped BiVO ₄ fine particles prepared by an aqueous route for photocatalytic and photoelectrochemical O ₂ evolution. 2018 , 353, 284-291	27
965	An in situ mediator-free route to fabricate Cu ₂ O/g-C ₃ N ₄ type-II heterojunctions for enhanced visible-light photocatalytic H ₂ generation. 2018 , 434, 1224-1231	71
964	Synthesis of Cd _x Zn _{1-x} S@Fe ₃ S ₄ magnetic photocatalyst nanoparticles for the photodegradation of methylene blue. 2018 , 735, 1955-1961	12
963	Enhanced solar-light-driven photocatalytic performance by the synergistic effects of Fe-doped and Ag loaded SrTiO ₃ cubic nanoparticles. 2018 , 692, 94-101	9

962	Alignment of Redox Levels at Semiconductor/Water Interfaces. 2018 , 30, 94-111	56
961	Noble metal-free NiS/P-S codoped g-C ₃ N ₄ photocatalysts with strong visible light absorbance and enhanced H ₂ evolution activity. 2018 , 106, 55-59	23
960	Regulations of silver halide nanostructure and composites on photocatalysis. 2018 , 1, 269-299	17
959	In-situ fabrication of diketopyrrolopyrrole-carbazole-based conjugated polymer/TiO ₂ heterojunction for enhanced visible light photocatalysis. 2018 , 434, 796-805	26
958	One-pot synthesis of MoS ₂ /In ₂ S ₃ ultrathin nanoflakes with mesh-shaped structure on indium tin oxide as photocathode for enhanced photo-and electrochemical hydrogen evolution reaction. 2018 , 435, 822-831	15
957	Coupling copper and hydrogenated TiO ₂ to bare TiO ₂ structures for improved photocatalytic performance. 2018 , 101, 1479-1487	3
956	A microwave-assisted thermolysis route to single-step preparation of MoS ₂ /CdS composite photocatalysts for active hydrogen generation. 2018 , 2, 430-435	26
955	Review on magnetically separable graphitic carbon nitride-based nanocomposites as promising visible-light-driven photocatalysts. 2018 , 29, 1719-1747	402
954	Facet and morphology dependent photocatalytic hydrogen evolution with CdS nanoflowers using a novel mixed solvothermal strategy. 2018 , 513, 222-230	38
953	Screening Commercial Semiconductors for Visible Light Driven Asymmetric Catalysis. 2018 , 35, 1700280	9
952	Remarkably enhanced photocatalytic hydrogen evolution over MoS ₂ nanosheets loaded on uniform CdS nanospheres. 2018 , 430, 523-530	86
951	Insights into the Recent Progress and Advanced Materials for Photocatalytic Nitrogen Fixation for Ammonia (NH ₃) Production. 2018 , 8, 621	36
950	Direct Z-scheme Cs ₂ O/Bi ₂ O ₃ /ZnO heterostructures for photocatalytic overall water splitting. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 21379-21388	13 64
949	Highly efficient colloidal MnxCd _{1-x} S nanorod solid solution for photocatalytic hydrogen generation. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 23683-23689	13 32
948	Preparation of core-shell nanostructured black nano-TiO ₂ by sol-gel method combined with Mg reduction. 2018 , 33, 4173-4181	3
947	Highly efficient visible-light-assisted photocatalytic hydrogen generation from water splitting catalyzed by Zn _{0.5} Cd _{0.5} /Ni ₂ P heterostructures. 2018 , 43, 22917-22928	18
946	Integration of Lanthanide-Transition-Metal Clusters onto CdS Surfaces for Photocatalytic Hydrogen Evolution. 2018 , 130, 17038-17042	5
945	Photocatalysis: From Fundamental Principles to Materials and Applications. 2018 , 1, 6657-6693	168

944	Monolayer Attachment of Metallic MoS ₂ on Restacked Titania Nanosheets for Efficient Photocatalytic Hydrogen Generation. 2018 , 1, 6912-6918	12
943	Facile synthesis of hierarchical BiOCl _x Br _{1-x} solid solution with enhanced photocatalytic activity. 2018 , 25, 1619-1627	5
942	Direct -Scheme CsO-BiO-ZnO Heterostructures as Efficient Sunlight-Driven Photocatalysts. 2018 , 3, 12260-12269	9
941	Correlations among morphology, composition, and photoelectrochemical water splitting properties of InGaN nanorods grown by molecular beam epitaxy. 2018 , 29, 475603	11
940	Mechanistic Insight on the Formation of GaN:ZnO Solid Solution from Zn-Ga Layered Double Hydroxide Using Urea as the Nitriding Agent. 2018 , 57, 13953-13962	13
939	Integration of Lanthanide-Transition-Metal Clusters onto CdS Surfaces for Photocatalytic Hydrogen Evolution. 2018 , 57, 16796-16800	75
938	Selective growth of vertically aligned two-dimensional MoS ₂ /WS ₂ nanosheets with decoration of Bi ₂ S ₃ nanorods by microwave-assisted hydrothermal synthesis: Enhanced photo-and electrochemical performance for hydrogen evolution reaction. 2018 , 43, 21290-21298	20
937	Fabrication of Bi ₂ MoO ₆ /BiOI heterojunction photocatalysts for enhanced photodegradation of RhB. 2018 , 33, 3928-3935	7
936	Controllable Interface-Induced Co-Assembly toward Highly Ordered Mesoporous Pt@TiO ₂ /g-C ₃ N ₄ Heterojunctions with Enhanced Photocatalytic Performance. 2018 , 28, 1806214	68
935	Localized NiS ₂ Quantum Dots on g-C ₃ N ₄ Nanosheets for Efficient Photocatalytic Hydrogen Production from Water. 2018 , 10, 5441-5448	33
934	Universality of electronic characteristics and photocatalyst applications in the two-dimensional Janus transition metal dichalcogenides. 2018 , 98,	128
933	Fabrication of Hollow Mesoporous @Au Microspheres with High Photocatalytic Activity for Hydrogen Evolution from Water under Visible Light. 2018 , 6, 13766-13777	32
932	Visible-Light-Responsive 2D Cadmium-Organic Framework Single Crystals with Dual Functions of Water Reduction and Oxidation. 2018 , 30, e1803401	90
931	Composite Ferroelectric and Plasmonic Particles for Hot Charge Separation and Photocatalytic Hydrogen Gas Production. 2018 , 1, 4606-4616	9
930	Uncovering the Mechanism for the Formation of Copper Thioantimonate (SbV) Nanoparticles and Its Transition to Thioantimonide (SbIII). 2018 , 18, 6521-6527	8
929	Ordered-Disordered BaZrO Hollow Nanosphere/Carbon Dot Hybrid Nanocomposite: A New Visible-Light-Driven Efficient Composite Photocatalyst for Hydrogen Production and Dye Degradation. 2018 , 3, 10980-10991	10
928	TiO ₂ /CeO ₂ composite catalysts: synthesis, characterization and mechanism analysis. 2018 , 124, 1	3
927	Au-TiO-Loaded Cubic g-CN Nanohybrids for Photocatalytic and Volatile Organic Amine Sensing Applications. 2018 , 10, 34087-34097	102

926	Efficient Noble-Metal-Free Co-NG/TiO ₂ Photocatalyst for H ₂ Evolution: Synergistic Effect between Single-Atom Co and N-Doped Graphene for Enhanced Photocatalytic Activity. 2018 , 6, 12766-12775	45
925	Enhanced photocatalytic hydrogen evolution over a heterojunction composed of silver cyanamide and graphitic carbon nitride. 2018 , 42, 16005-16012	8
924	Fabricating sandwich-shelled ZnCdS/ZnO/ZnCdS dodecahedral cages with one stone as Z-scheme photocatalysts for highly efficient hydrogen production. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 19631-19642	69
923	A ternary Z-scheme WO ₃ /Pt/CdS composite for improved visible-light photocatalytic H ₂ production activity. 2018 , 20, 1	6
922	Low-Cost Ni ₃ B/Ni(OH) ₂ as an Ecofriendly Hybrid Cocatalyst for Remarkably Boosting Photocatalytic H ₂ Production over g-C ₃ N ₄ Nanosheets. 2018 , 6, 13140-13150	101
921	Fabrication of TiO on porous g-CN by ALD for improved solar-driven hydrogen evolution.. 2018 , 8, 30642-30651	7
920	Temperature dependence of photoinduced hydrogen production and simultaneous separation in TiO ₂ nanotubes/palladium bilayer membrane. 2018 , 36, 04H101	3
919	Synergistic effect of opposite polar substituents on selected properties of disperse yellow 119 dye. 2018 , 704, 55-61	2
918	Three-Dimensional CdS/Au Butterfly Wing Scales with Hierarchical Rib Structures for Plasmon-Enhanced Photocatalytic Hydrogen Production. 2018 , 10, 19649-19655	32
917	Ag modified Fe-doping TiO ₂ nanoparticles and nanowires with enhanced photocatalytic activities for hydrogen production and volatile organic pollutant degradation. 2018 , 29, 10504-10516	8
916	Plasmonic Au Nanoparticles/KCa ₂ Nb ₃ O ₁₀ nanosheets 0D/2D heterojunctions with enhanced photocatalytic activity towards the degradation of tetracycline hydrochloride. 2018 , 762, 38-45	14
915	Multi-functional Ni ₃ C cocatalyst/g-C ₃ N ₄ nanoheterojunctions for robust photocatalytic H ₂ evolution under visible light. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 13110-13122	13 190
914	Electrophoretic behavior of solvothermal synthesized anion replaced Cu ₂ ZnSn(S _x Se _{1-x}) ₄ films for photoelectrochemical water splitting. 2018 , 43, 11990-12001	11
913	Mn-Doped g-C ₃ N ₄ Nanoribbon for Efficient Visible-Light Photocatalytic Water Splitting Coupling with Methylene Blue Degradation. 2018 , 6, 8754-8761	57
912	Decoration of mesoporous graphite-like C ₃ N ₄ nanosheets by NiS nanoparticle-driven visible light for hydrogen evolution. 2018 , 8, 1587-1596	21
911	The Combination of Hydrogen and Methanol Production through Artificial Photosynthesis-Are We Ready Yet?. 2018 , 11, 2654-2672	6
910	2D graphene-assisted low-cost metal (Ag, Cu, Fe, or Ni)-doped TiO ₂ nanowire architectures for enhanced hydrogen generation. 2018 , 765, 106-112	13
909	Photocatalytic hydrogen evolution and bacterial inactivation utilizing sonochemical-synthesized g-C ₃ N ₄ /red phosphorus hybrid nanosheets as a wide-spectral-responsive photocatalyst: The role of type I band alignment. 2018 , 238, 126-135	147

908	Plasmon-driven water splitting enhancement on plasmonic metal-insulator-semiconductor hetero-nanostructures: unraveling the crucial role of interfacial engineering. 2018 , 10, 14290-14297	23
907	Amorphous FeCoPOx nanowires coupled to g-C3N4 nanosheets with enhanced interfacial electronic transfer for boosting photocatalytic hydrogen production. 2018 , 238, 161-167	41
906	Highly enhanced photocatalytic performance of TiO2 nanosheets through constructing TiO2/TiO2 quantum dots homojunction. 2018 , 459, 9-15	44
905	Electrospinning preparation of Sn4+-doped BiFeO3 nanofibers as efficient visible-light-driven photocatalyst for O2 evolution. 2018 , 766, 274-283	28
904	Oxide Nanomaterials for Photoelectrochemical Hydrogen Energy Sources. 2018 , 145-183	5
903	Synthesis of Ag/TiO nanocomposite via plasma liquid interactions: Improved performance as photoanode in dye-sensitized solar cell. 2018 , 529, 538-546	23
902	Boosting interfacial charge transfer for efficient water-splitting photoelectrodes: progress in bismuth vanadate photoanodes using various strategies. 2018 , 8, 809-822	8
901	Surface and interface design for photocatalytic water splitting. 2018 , 47, 12035-12040	13
900	Nonequilibrium Deposition in Epitaxial BiVO4 Thin Film Photoanodes for Improving Solar Water Oxidation Performance. 2018 , 30, 5673-5681	15
899	Fabrication of CdSe/CaTiO3 nanocomposites in aqueous solution for improved photocatalytic hydrogen production. 2018 , 459, 520-526	32
898	Sonochemical-Assisted In Situ Electrochemical Synthesis of Ag/Fe2O3/TiO2 Nanoarrays to Harness Energy from Photoelectrochemical Water Splitting. 2018 , 6, 11235-11245	38
897	Spatial charge separation on strongly coupled 2D-hybrid of rGO/La2Ti2O7/NiFe-LDH heterostructures for highly efficient noble metal free photocatalytic hydrogen generation. 2018 , 239, 178-186	73
896	Non-noble-metal bismuth nanoparticle-decorated bismuth vanadate nanoarray photoanode for efficient water splitting. 2018 , 2, 1799-1804	12
895	Insight into sulfamethoxazole degradation, mechanism, and pathways by AgBr-BaMoO4 composite photocatalyst. 2018 , 364, 686-695	42
894	CdSe modified TiO2 nanotube arrays with Ag nanoparticles as electron transfer channel and plasmonic photosensitizer for enhanced photoelectrochemical water splitting. 2018 , 51, 305106	11
893	Electrochemical deposition synthesis of ZnO-NA/Cu2O-NPs type-II hierarchical heterojunction for enhanced photoelectrochemical degradation of methyl orange (MO). 2018 , 364, 657-670	12
892	Titanium dioxide nanostructures for photoelectrochemical applications. 2018 , 98, 299-385	148
891	Titanium dioxide (TiO2)-decorated silver indium diselenide (AgInSe2): novel nano-photocatalyst for oxidative dye degradation. 2018 , 5, 2242-2256	12

890	Multidimensional TiO ₂ nanostructured catalysts for sustainable H ₂ generation. 2018 , 237-288	
889	Synergistic Amplification of Water Oxidation Catalysis on Pt by a Thin-Film Conducting Polymer Composite. 2018 , 1, 4235-4246	8
888	Applications Perspectives of Nanodispersed Chalcogenides of Transition Metals in Photocatalysis. 2018 , 99-113	1
887	Bimetallic Pt-Pd co-catalyst Nb-doped TiO ₂ materials for H ₂ photo-production under UV and Visible light illumination. 2018 , 238, 533-545	51
886	Control on the homogeneity and crystallinity of Zn _{0.5} Cd _{0.5} S nanocomposite by different reaction conditions with high photocatalytic activity for hydrogen production from water. 2018 , 144, 57-65	10
885	Charge Carrier Activity on Single-Particle Photo(electro)catalysts: Toward Function in Solar Energy Conversion. 2018 , 140, 6729-6740	35
884	Decomposition of an aqueous ammonia solution as a photon energy conversion reaction using a Ru-loaded ZnS photocatalyst. 2018 , 54, 6117-6119	10
883	Carbon quantum dots (CQDs) and Co(dmgh) ₂ PyCl synergistically promote photocatalytic hydrogen evolution over hexagonal ZnIn ₂ S ₄ . 2018 , 462, 255-262	29
882	Silver-loaded ZnO/ZnFe ₂ O ₄ mesoporous hollow spheres with enhanced photocatalytic activity for 2,4-dichlorophenol degradation under visible light irradiation. 2018 , 107, 339-346	8
881	Well-regulated nickel nanoparticles functional modified ZIF-67 (Co) derived Co ₃ O ₄ /CdS p-n heterojunction for efficient photocatalytic hydrogen evolution. 2018 , 462, 213-225	89
880	Visible-Light Photocatalytic H ₂ Production Activity of Ni(OH) ₂ -Modified CdS Mesoporous Nanoheterojunction Networks. 2018 , 8, 8726-8738	71
879	Changes in cell parameters and improvement in photocatalytic activity of KNbO ₃ and NaNbO ₃ crystals via polarization. 2018 , 158, 5-18	11
878	High Performance Photocatalytic Based on Ce Doped CoWO ₄ : Controllable Synthesis and Enhanced Photocatalytic Activity. 2018 , 148, 3205-3213	21
877	In Situ Growth of g-C ₃ N ₄ on Hexagonal Flowerlike FeWO ₄ Microcrystals: Highly Efficient Catalyst and the Crucial Roles of Fe ³⁺ /Fe ²⁺ Couple in the Photoassisted Oxidation and Reduction Reactions. 2018 , 122, 12900-12912	23
876	Constructing Highly Uniform Onion-Ring-like Graphitic Carbon Nitride for Efficient Visible-Light-Driven Photocatalytic Hydrogen Evolution. 2018 , 12, 5551-5558	161
875	Preparation of magnetic g-C ₃ N ₄ /Fe ₃ O ₄ /TiO ₂ photocatalyst for visible light photocatalytic application. 2018 , 763, 844-853	23
874	Au@TiO ₂ Core-Shell Composites for the Photocatalytic Reduction of CO. 2018 , 24, 12416-12425	38
873	Aluminum-incorporated p-CuO/n-ZnO photocathode coated with nanocrystal-engineered TiO ₂ protective layer for photoelectrochemical water splitting and hydrogen generation. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 11951-11965	13 43

872	Synergistic properties of graphitic carbon nitride/cerium molybdate nanocomposites for enhanced photocatalytic activity. 2018 ,	4
871	Enhanced visible light catalytic activity of MoS ₂ /TiO ₂ /Ti photocathode by hybrid-junction. 2018 , 237, 416-423	16
870	Upgraded organic vapor treatment and hydrogen generation using low-cost metal/1D black titania nanocomposites under simulated solar irradiation. 2018 , 66, 318-324	1
869	Role of Surface Oxygen Vacancies and Lanthanide Contraction Phenomenon of Ln(OH) (Ln = La, Pr, and Nd) in Sulfide-Mediated Photoelectrochemical Water Splitting. 2018 , 3, 6267-6278	29
868	Fully solution-processable Cu ₂ O/BiVO ₄ photoelectrochemical cells for bias-free solar water splitting. 2018 , 20, 3732-3742	37
867	Panchromatic Sensitization with Zn Porphyrin-Based Photosensitizers for Light-Driven Hydrogen Production. 2018 , 11, 2517-2528	20
866	Fabrication of noble-metal-free CdS nanorods-carbon layer-cobalt phosphide multiple heterojunctions for efficient and robust photocatalyst hydrogen evolution under visible light irradiation. 2019 , 131, 180-186	31
865	CuSZnS decorated Fe ₃ O ₄ nanoparticles as magnetically separable composite photocatalysts with excellent hydrogen production activity. 2019 , 44, 20872-20880	6
864	Facile preparation of BiVO ₄ /FeVO ₄ heterostructure for efficient water-splitting applications. 2019 , 44, 23046-23053	15
863	MoS ₂ with structure tuned photocatalytic ability for degradation of methylene blue. 2019 , 300, 052021	3
862	Photoelectrocatalytic Oxidation of Formic Acid in the Visible Spectral Region on Films of Nanocrystalline Titanium Oxide Doped by Bismuth. 2019 , 55, 637-645	3
861	Optoelectronic and solar cell applications of Janus monolayers and their van der Waals heterostructures. 2019 , 21, 18612-18621	77
860	g-C ₃ N ₄ /TiO ₂ composite catalysts for the photo-oxidation of toluene: Chemical and charge handling effects. 2019 , 378, 122228	27
859	Enhanced Visible-Light-Driven H ₂ Production via UiO-66 Nanospheres Attached to Flower-Shaped ZnIn ₂ S ₄ Microspheres. 2019 , 92, 1047-1052	7
858	Efficient photoelectrochemical water-splitting over carbon membrane linked Au and TiO nanotube arrays film based on multiple carriers transport paths. 2019 , 30, 435403	6
857	Impact of TiO ₂ -II phase stabilized in anatase matrix by high-pressure torsion on electrocatalytic hydrogen production. 2019 , 7, 334-339	15
856	Photoelectrochemical Activity of Nanosized Titania, Doped with Bismuth and Lead, in Visible Light Region. 2019 , 55, 55-64	3
855	Immobilization of Co, Mn, Ni and Fe oxide co-catalysts on TiO ₂ for photocatalytic water splitting reactions. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 18568-18579	13 45

854	Integration of Plasmonic Metal and Cocatalyst: An Efficient Strategy for Boosting the Visible and Broad-Spectrum Photocatalytic H ₂ Evolution. 2019 , 6, 1900775	17
853	Boosting Photocatalytic Hydrogen Evolution Achieved by NiS _x Coupled with g-C ₃ N ₄ @ZIF-67 Heterojunction. 2019 , 123, 18248-18263	36
852	In-situ synthesis of ternary metal phosphides Ni _x Co _{1-x} P decorated Zn _{0.5} Cd _{0.5} S nanorods with significantly enhanced photocatalytic hydrogen production activity. 2019 , 378, 122220	42
851	Contemporary Achievements of Visible Light-Driven Nanocatalysts for the Environmental Applications. 2019 , 69-129	
850	Enhanced photoelectrocatalytic hydrogen production via Bi/BiVO ₄ photoanode under visible light irradiation. 2019 , 258, 117954	29
849	The investigation of novel D-πA type dyes (MK-3 and MK-4) for visible light driven photochemical hydrogen evolution. 2019 , 171, 107710	12
848	Fabrication of NH ₂ -MIL-125(Ti) incorporated TiO ₂ nanotube arrays composite anodes for highly efficient PEC water splitting. 2019 , 228, 115764	33
847	Energy-band-controlled Zn _x Cd _{1-x} In ₂ S ₄ solid solution coupled with g-C ₃ N ₄ nanosheets as 2D/2D heterostructure toward efficient photocatalytic H ₂ evolution. 2019 , 378, 122192	65
846	A two-anode reduction technique to monitor the defect and dope the surface of TiO ₂ nanotube array as photo-anode for water splitting. 2019 , 258, 117949	9
845	Modulation of HCHO, H ₂ O and H adsorption on AgPd cocatalyst by optimizing of selective exposed facet to enhancing the efficiency of conversion toxic formaldehyde into hydrogen driven by visible light. 2019 , 375, 493-506	7
844	Less is more: Enhancement of photocatalytic activity of g-C ₃ N ₄ nanosheets by site-selective atomic layer deposition of TiO ₂ . 2019 , 494, 508-518	14
843	Amino-functionalised conjugated porous polymers for improved photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 19087-19093	13 27
842	Influence of surface modification of mercapto compounds on photocatalytic hydrogen production performance of amorphous MoS ₃ . 2019 , 6, 105031	
841	Constructing of Z-scheme 3D g-C ₃ N ₄ -ZnO@graphene aerogel heterojunctions for high-efficient adsorption and photodegradation of organic pollutants. 2019 , 492, 808-817	39
840	2D/1D ZnCdS p-n heterogeneous junction enhanced with NiWO for efficient photocatalytic hydrogen evolution. 2019 , 554, 113-124	38
839	Iodine-vacancy BiOI _{1-x} ultrathin sheets for improved visible-light photooxidation activities. 2019 , 493, 657-664	7
838	Oxygen vacancy engineered SrTiO ₃ nanofibers for enhanced photocatalytic H ₂ production. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 17974-17980	13 44
837	Harnessing Plasmon-Induced Hot Carriers at the Interfaces With Ferroelectrics. 2019 , 7, 299	15

- 836 Semiconductor Quantum Dots: An Emerging Candidate for CO Photoreduction. **2019**, 31, e1900709 177
- 835 Atomic layer deposited photocatalysts: comprehensive review on viable fabrication routes and reactor design approaches for photo-mediated redox reactions. *Journal of Materials Chemistry A*, **2019**, 7, 17703-17734 13 19
- 834 Which phase of iron oxyhydroxides (FeOOH) is more competent in overall water splitting as a photocatalyst, goethite, akaganeite or lepidocrocite? A DFT-based investigation. **2019**, 169, 109110 17
- 833 rGO/Bi₂O₃/SrFe₂O₉ magnetic photocatalyst: facile synthesis and its photocatalytic activity. **2019**, 6, 115912
- 832 Highly photoactive TiO₂ microspheres for photocatalytic production of hydrogen. **2019**, 44, 24653-24666 12
- 831 Ultrafine WC_{1-x} Nanocrystals: An Efficient Cocatalyst for the Significant Enhancement of Photocatalytic Hydrogen Evolution on g-C₃N₄. **2019**, 123, 26136-26144 24
- 830 Modified Graphitic Carbon Nitride Nanosheets for Efficient Photocatalytic Hydrogen Evolution. **2019**, 12, 4996-5006 33
- 829 In Situ Growth of Nanostructured BiVO₄-BiO Mixed-Phase via Nonequilibrium Deposition Involving Metal Exsolution for Enhanced Photoelectrochemical Water Splitting. **2019**, 11, 44069-44076 12
- 828 Improved photocatalytic hydrogen evolution by facet engineering of core-shell structural CdS@ZnO. **2019**, 44, 25599-25606 12
- 827 Recent Advances in Graphene-Based Materials for Photocatalytic H₂ Evolution. **2019**, 415-433
- 826 Experimental and Theoretical Study of Photochemical Hydrogen Evolution Catalyzed by Paddlewheel-Type Dirhodium Complexes with Electron Withdrawing Carboxylate Ligands. **2019**, 11, 6218-6226 8
- 825 Designing WO₃/CdInS type-II heterojunction with both efficient light absorption and charge separation for enhanced photoelectrochemical water splitting. **2019**, 30, 495402 11
- 824 Ternary Monolithic ZnS/CdS/rGO Photomembrane with Desirable Charge Separation/Transfer Routes for Effective Photocatalytic and Photoelectrochemical Hydrogen Generation. **2019**, 14, 3431-3441 9
- 823 Construction of direct Z-scheme system for enhanced visible light photocatalytic activity based on ZnCdS/FeWO₄ heterojunction. **2019**, 30, 475704 10
- 822 Construction of CoP/B doped g-C₃N₄ nanodots/g-C₃N₄ nanosheets ternary catalysts for enhanced photocatalytic hydrogen production performance. **2019**, 496, 143738 25
- 821 Toward the Green Production of H₂: Binary PtRu Promoted Nb-TiO₂ Based Photocatalysts. **2019**, 7, 15671-15683 15
- 820 Photocatalytic Applications of Heterostructure Graphitic Carbon Nitride: Pollutant Degradation, Hydrogen Gas Production (water splitting), and CO Reduction. **2019**, 14, 234 47
- 819 Designing CdS-Based Ternary Heterostructures Consisting of Co-Metal and CoO Cocatalysts for Photocatalytic H₂ Evolution under Visible Light. **2019**, 58, 12325-12333 19

818	Nanostructured heterogeneous photo-catalysts for hydrogen production and water splitting: A comprehensive insight. 2019 , 17, 159-182		30
817	A stable iron-containing polyoxometalate coupled with semiconductor for efficient photocatalytic water oxidation under acidic condition. 2019 , 55, 11778-11781		12
816	Orthorhombic WP co-catalyst coupled with electron transfer bridge UiO-66 for efficient visible-light-driven H evolution. 2019 , 556, 689-703		22
815	Influence of MoS ₂ on Activity and Stability of Carbon Nitride in Photocatalytic Hydrogen Production. 2019 , 9, 695		10
814	Preparation of concentrated multilayer graphene dispersions and TiO ₂ -graphene composites for enhanced hydrogen production. 2019 , 98, 107516		0
813	Mesoporous double-perovskite LaAMnNiO ₆ (A = La, Pr, Sm) photothermal synergistic degradation of gaseous toluene. 2019 , 34, 3439-3449		3
812	Fabrication of a NiCo ₂ O ₄ /Zn _{0.1} Cd _{0.9} S p-n heterojunction photocatalyst with improved separation of charge carriers for highly efficient visible light photocatalytic H ₂ evolution. 2019 , 809, 151855		46
811	Solution quenched in-situ growth of hierarchical flower-like NiFe ₂ O ₄ /Fe ₂ O ₃ heterojunction for wide-range light absorption. 2019 , 440, 227120		9
810	Matrix-induced pre-strain and mineralization-dependent interfibrillar shear transfer enable 3D fibrillar deformation in a biogenic armour. 2019 , 100, 18-28		2
809	Constructing gold-sensitized ZnIn ₂ S ₄ microarchitectures for efficient visible light-driven photochemical oxidation and sensing of micropollutants. 2019 , 498, 143840		14
808	Vertical 1T/2H-WS nanoflakes grown on 2D-CN: Multiple charge transfer channels designed for enhanced photocatalytic activity. 2019 , 556, 224-231		19
807	CdS@Ni ₃ S ₂ core-shell nanorod arrays on nickel foam: a multifunctional catalyst for efficient electrochemical catalytic, photoelectrochemical and photocatalytic H ₂ production reaction. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 2560-2574	13	56
806	GaP ₂ /ZnS Multilayer Films: Visible-Light Photoelectrodes by Interface Engineering. 2019 , 123, 3336-3342		6
805	Sustainable technologies for water purification from heavy metals: review and analysis. 2019 , 48, 463-487		561
804	Growth of BiVO ₄ nanoparticles on a WO ₃ porous scaffold: improved water-splitting by high band-edge light harvesting. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 4480-4485	13	8
803	Microwave-assisted synthesis of AuNPs/CdS composite nanorods for enhanced photocatalytic hydrogen evolution. 2019 , 54, 6930-6942		20
802	Recent progresses in the design of BiVO ₄ -based photocatalysts for efficient solar water splitting. 2019 , 335, 31-38		25
801	TiO ₂ nanotube arrays modified with nanoparticles of platinum group metals (Pt, Pd, Ru): enhancement on photoelectrochemical performance. 2019 , 21, 1		12

800	Synthesis of $\text{MnxCd}_{1-x}\text{S}$ nanorods and modification with CuS for extraordinarily superior photocatalytic H_2 production. 2019 , 9, 1427-1436		29
799	Combined theoretical and experimental characterizations of semiconductors for photoelectrocatalytic applications. 2019 , 40, 212-233		19
798	An Al-doped SrTiO photocatalyst maintaining sunlight-driven overall water splitting activity for over 1000 h of constant illumination. 2019 , 10, 3196-3201		96
797	Incorporation of an Au-rGO Layer to Enhance the Photocatalytic Application of Optimized CdS Thin Film. 2019 , 166, H3112-H3118		9
796	Realizing high thermoelectric performance in Cu ₂ Te alloyed Cu _{1.15} In _{2.29} Te ₄ . <i>Journal of Materials Chemistry A</i> , 2019 , 7, 2360-2367	13	12
795	Rationally designed 2D/2D SiC/g-C ₃ N ₄ photocatalysts for hydrogen production. 2019 , 9, 3896-3906		22
794	Highly effective ruthenium-doped TiO ₂ nanoparticles photocatalyst for visible-light-driven photocatalytic hydrogen production. 2019 , 43, 9596-9605		53
793	Recent advances in 3D g-C ₃ N ₄ composite photocatalysts for photocatalytic water splitting, degradation of pollutants and CO ₂ reduction. 2019 , 802, 196-209		151
792	Utilizing the Space-Charge Region of the FeNi-LDH/CoP p-n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. 2019 , 58, 11903-11909		163
791	Utilizing the Space-Charge Region of the FeNi-LDH/CoP p-n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. 2019 , 131, 12029-12035		13
790	Zn _{0.3} Cd _{0.7} S nanorods loaded with noble-metal-free Ni ₃ C co-catalyst enhancing photocatalytic hydrogen evolution. 2019 , 582, 117115		27
789	Synthesis, structures and applications of single component core-shell structured TiO ₂ : A review. 2019 , 375, 122029		37
788	Zn-doped tri-s-triazine crystalline carbon nitrides for efficient hydrogen evolution photocatalysis. 2019 , 582, 117118		20
787	Sol-gel auto-combustion synthesis of Ca ₂ Fe ₂ O ₅ brownmillerite nanopowders and thin films for advanced oxidation photoelectrochemical water treatment in visible light. 2019 , 7, 103224		7
786	Novel phosphidated MoS ₂ nanosheets modified CdS semiconductor for an efficient photocatalytic H_2 evolution. 2019 , 375, 122053		61
785	Recent development in graphitic carbon nitride based photocatalysis for hydrogen generation. 2019 , 257, 117855		144
784	Tungsten oxide nanostructures and nanocomposites for photoelectrochemical water splitting. 2019 , 11, 18968-18994		95
783	Electron-transfer cascade from CdSe@ZnSe core-shell quantum dot accelerates photoelectrochemical H_2 evolution on TiO ₂ nanotube arrays. 2019 , 375, 81-94		36

782	2D Nanomaterials for Photocatalytic Hydrogen Production. 2019 , 4, 1687-1709	212
781	Side-chain-tuned Extended porous polymers for visible light-activated hydrogen evolution. 2019 , 10, 3758-3763	19
780	Toward efficient photocatalytic pure water splitting for simultaneous H ₂ and H ₂ O ₂ production. 2019 , 62, 823-831	78
779	Hydrothermal growth, electronic structure, optical and photocatalytic properties of LiBiO ₂ nanosheets. 2019 , 214, 116523	5
778	Metal-Organic Framework Templated Synthesis of g-C ₃ N ₄ /Fe ₂ O ₃ @FeP Composites for Enhanced Hydrogen Production. 2019 , 11, 3465-3473	16
777	Application of mixture experimental design for photocatalytic ammonia degradation by sunlight-driven WO ₃ -Ag ₃ PO ₄ -ZnO ternary photocatalysts. 2019 , 43, 4879-4897	7
776	Spatially separated CdS hollow spheres with interfacial charge transfer and cocatalyst for enhancing photocatalytic hydrogen evolution. 2019 , 474, 110418	8
775	Hydrothermal synthesis of a two-dimensional g-C ₃ N ₄ /MoS ₂ /MnOOH composite material and its potential application as photocatalyst. 2019 , 94, 3447-3456	8
774	Facile Synthesis of Oriented Feather-like TiO ₂ Bundle Catalysts for Efficient Photocatalytic Water Splitting. 2019 , 19, 3584-3591	11
773	Review on heterophase/homophase junctions for efficient photocatalysis: The case of phase transition construction. 2019 , 40, 796-818	65
772	Critical Aspects and Recent Advances in Structural Engineering of Photocatalysts for Sunlight-Driven Photocatalytic Reduction of CO ₂ into Fuels. 2019 , 29, 1901825	173
771	G-C ₃ N ₄ Nanosheets Coupled with TiO ₂ Nanosheets as 2D/2D Heterojunction Photocatalysts Toward High Photocatalytic Activity for Hydrogen Production. 2019 , 149, 2930-2939	18
770	Synthesis, structure, and photocatalytic activity of PANI/BiOCl nanocomposites. 2019 , 6, 0850c1	3
769	Novel photocatalyst incorporating Ni-Co layered double hydroxides with P-doped CdS for enhancing photocatalytic activity towards hydrogen evolution. 2019 , 254, 145-155	128
768	Photocatalytic Hydrogen Production over CdS Nanomaterials: An Interdisciplinary Experiment for Introducing Undergraduate Students to Photocatalysis and Analytical Chemistry. 2019 , 96, 1224-1229	21
767	Atomic-Level Understanding of the Effect of Heteroatom Doping of the Cocatalyst on Water-Splitting Activity in AuPd or AuPt Alloy Cluster-Loaded BaLa ₄ Ti ₄ O ₁₅ . 2019 , 2, 4175-4187	37
766	Engineering surface oxygen defects on tungsten oxide to boost photocatalytic oxygen evolution from water splitting. 2019 , 55, 6265-6268	22
765	Hierarchical NiO@N-Doped Carbon Microspheres with Ultrathin Nanosheet Subunits as Excellent Photocatalysts for Hydrogen Evolution. 2019 , 15, e1901024	54

764	Magn ²⁺ -Phases in Anatase Strongly Promote Cocatalyst-Free Photocatalytic Hydrogen Evolution. 2019 , 9, 3627-3632	27
763	Effective electron-hole separation over a controllably constructed WP/UiO-66/CdS heterojunction to achieve efficiently improved visible-light-driven photocatalytic hydrogen evolution. 2019 , 21, 8326-8341	62
762	First principles study on Zn doped MgO using Hubbard U correction. 2019 , 6, 094012	3
761	Synergistic effect of metal-nonmetal substitution on oxygen activation in Pd/C- and Pd/N-substituted TiO ₂ . 2019 , 162, 349-358	3
760	Fabrication of magnetically recoverable Ag/CuNb ₂ O ₆ /CuFe ₂ O ₄ ternary heterojunction composite for highly efficient photocatalytic degradation of pollutants. 2019 , 220, 78-88	36
759	Photo-deposition of cobalt-phosphate group modified hematite for efficient water splitting. 2019 , 195, 241-249	8
758	Electrospun Nanomaterials for Energy Applications: Recent Advances. 2019 , 9, 1049	36
757	Ni-based photocatalytic H ₂ -production cocatalysts ² . 2019 , 40, 240-288	173
756	Carbon quantum dots bridged TiO ₂ and Cd _{0.5} Zn _{0.5} S film as solid-state Z-scheme photocatalyst with enhanced H ₂ evolution activity. 2019 , 97, 316-325	26
755	Visible-Light-Induced Nanoparticle Assembly for Effective Hydrogen Photogeneration. 2019 , 7, 7286-7293	7
754	Aqueous synthesis of core/shell/shell CdSe/CdS/ZnS quantum dots for photocatalytic hydrogen generation. 2019 , 54, 8571-8580	19
753	Two-dimensional amorphous CoO photocatalyst for efficient overall water splitting with high stability. 2019 , 372, 299-310	38
752	CdSe Quantum Dots Doped WS ₂ Nanoflowers for Enhanced Solar Hydrogen Production. 2019 , 216, 1800853	12
751	Boosting photocatalytic oxidation on graphitic carbon nitride for efficient photocatalysis by heterojunction with graphitic carbon units. 2019 , 370, 875-884	18
750	Tungsten Trioxide Nanostructures for Photoelectrochemical Water Splitting: Material Engineering and Charge Carrier Dynamic Manipulation. 2019 , 29, 1809036	80
749	Enhanced photocatalytic H ₂ production over dual-cocatalyst-modified g-C ₃ N ₄ heterojunctions. 2019 , 40, 434-445	100
748	Reaction systems for solar hydrogen production via water splitting with particulate semiconductor photocatalysts. 2019 , 2, 387-399	539
747	Accelerated charge transfer via a nickel tungstate modulated cadmium sulfide p ⁿ heterojunction for photocatalytic hydrogen evolution. 2019 , 9, 1944-1960	44

746	Engineering MPx (M = Fe, Co or Ni) interface electron transfer channels for boosting photocatalytic H ₂ evolution over g-C ₃ N ₄ /MoS ₂ layered heterojunctions. 2019 , 252, 250-259		112
745	Applications of MOFs: Recent advances in photocatalytic hydrogen production from water. 2019 , 390, 50-75		130
744	Rational nanostructure design of graphitic carbon nitride for photocatalytic applications. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 11584-11612	13	109
743	Reduced graphene oxide-loaded-magnetite: A Fenton-like heterogeneous catalyst for photocatalytic degradation of 2-methylisoborneol. 2019 , 370, 855-865		25
742	Two-dimensional mesoporous g-C ₃ N ₄ nanosheets coupled with nonstoichiometric Zn-Cu-In-S nanocrystals for enhancing activity of photocatalytic water splitting. 2019 , 6, 045514		3
741	Midgap-state-mediated two-step photoexcitation in nitrogen defect-modified g-C ₃ N ₄ atomic layers for superior photocatalytic CO ₂ reduction. 2019 , 9, 2335-2343		42
740	Soluble Supertetrahedral Chalcogenido T ₄ Clusters: High Stability and Enhanced Hydrogen Evolution Activities. 2019 , 58, 5126-5133		27
739	Synthesis of Alpha-Fe ₂ O ₃ nanospheres and its dark-degradation for organic dye pollutions. 2019 , 38, 13176		2
738	Carbon Nanomaterials for Energy and Biorelated Catalysis: Recent Advances and Looking Forward. 2019 , 5, 389-408		50
737	Two Bulky Conjugated 4'-(4-Hydroxyphenyl)-4,2':6',4''-terpyridine-based Layered Complexes: Synthesis, Structure, and Photocatalytic Hydrogen Evolution Activity. 2019 , 645, 516-522		4
736	Cocatalysts for Selective Photoreduction of CO into Solar Fuels. 2019 , 119, 3962-4179		965
735	TiO Nanosheet Arrays with Layered SnS and CoO Nanoparticles for Efficient Photoelectrochemical Water Splitting. 2019 , 14, 342		13
734	MoS ₂ supported on hydrogenated TiO ₂ heterostructure film as photocathode for photoelectrochemical hydrogen production. 2019 , 44, 31008-31019		11
733	Fabrication of a Cu _{2-x} Se/rGO heterojunction photocatalyst to achieve efficient photocatalytic H ₂ generation. 2019 , 44, 32042-32053		14
732	Synthesis of Z-scheme Mn-CdS/MoS ₂ /TiO ₂ ternary photocatalysts for high-efficiency sunlight-driven photocatalysis. 2019 , 28, 2633366X1989502		12
731	Light-confining semiconductor nanoporous anodic alumina optical microcavities for photocatalysis. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 22514-22529	13	13
730	The mechanical, electronic and optical properties of two-dimensional transition metal chalcogenides MX ₂ and M ₂ X ₃ (M = Ni, Pd; X = S, Se, Te) with hexagonal and orthorhombic structures. 2019 , 7, 13518-13525		25
729	Multicomponent Plasmonic Nanoparticles: From Heterostructured Nanoparticles to Colloidal Composite Nanostructures. 2019 , 119, 12208-12278		153

728	Improved in Situ Synthesis of Heterostructured 2D/2D BiOCl/g-CN with Enhanced Dye Photodegradation under Visible-Light Illumination. 2019 , 4, 22187-22196	13
727	Nitrogen-Doped Carbon-Coated CuO-In ₂ O ₃ p-n Heterojunction for Remarkable Photocatalytic Hydrogen Evolution. 2019 , 9, 1902839	71
726	MoS decorated CdS hybrid heterojunction for enhanced photoelectrocatalytic performance under visible light irradiation. 2019 , 533, 561-568	24
725	NH ₂ -MIL-101(Fe)/Ni(OH) ₂ -derived C,N-codoped Fe ₂ P/Ni ₂ P cocatalyst modified g-C ₃ N ₄ for enhanced photocatalytic hydrogen evolution from water splitting. 2019 , 241, 178-186	115
724	Facet engineering on the interface of BiOCl-PbS heterostructures for enhanced broad-spectrum photocatalytic H ₂ production. 2019 , 362, 1-11	25
723	Recent advancements in engineering approach towards design of photo-reactors for selective photocatalytic CO ₂ reduction to renewable fuels. 2019 , 29, 205-239	105
722	Constructing the Band Alignment of Graphitic Carbon Nitride (g-C ₃ N ₄)/Copper(I) Oxide (Cu ₂ O) Composites by Adjusting the Contact Facet for Superior Photocatalytic Activity. 2019 , 2, 1803-1811	15
721	The synergistic effect of non-metal doping or defect engineering and interface coupling on the photocatalytic property of g-C ₃ N ₄ : First-principle investigations. 2019 , 473, 386-392	39
720	Microwave-Assisted Hydrothermal Synthesis of SrTiO ₃ :Rh for Photocatalytic Z-scheme Overall Water Splitting. 2019 , 9, 55	7
719	Shaped Fe ₂ O ₃ nanoparticles Synthesis and enhanced photocatalytic degradation towards RhB. 2019 , 476, 342-352	55
718	Carbon nanosheet facilitated charge separation and transfer between molybdenum carbide and graphitic carbon nitride toward efficient photocatalytic H ₂ production. 2019 , 473, 91-101	38
717	Key Strategies to Advance the Photoelectrochemical Water Splitting Performance of Fe ₂ O ₃ Photoanode. 2019 , 11, 157-179	71
716	Toluene and styrene photo-oxidation quantum efficiency: Comparison between doped and composite tungsten-containing anatase-based catalysts. 2019 , 245, 49-61	17
715	Titanium based composite-graphene nanofibers as high-performance photocatalyst for formaldehyde gas purification. 2019 , 45, 5617-5626	10
714	Energy diagram analysis of photoelectrochemical water splitting process. 2019 , 57, 660-669	12
713	Semiconductor Photocatalysis for Water Purification. 2019 , 689-705	8
712	Highly porous SnO ₂ nanosheet arrays sandwiched within TiO ₂ and CdS quantum dots for efficient photoelectrochemical water splitting. 2019 , 470, 800-806	29
711	Microwave-assisted preparation and enhanced photocatalytic activity of Bi ₂ WO ₆ /BiOI heterojunction for organic pollutants degradation under visible-light irradiation. 2019 , 87, 101-109	27

710	A comparative study on the photocatalytic hydrogen production of ATiO ₃ (A = Zn, Cd and Pb) perovskites and their photoelectrochemical properties. 2019 , 371, 98-108	15
709	Ultrathin Ti/TiO ₂ /BiVO ₄ nanosheet heterojunction arrays for photoelectrochemical water oxidation. 2019 , 777, 1152-1158	12
708	Surface and interface engineering of hierarchical photocatalysts. 2019 , 471, 43-87	135
707	Au/CdSe hybrid nanoflowers: a high photocurrent generating photoelectrochemical cells. 2019 , 52, 1-7	3
706	In situ derived Ni ₂ P/Ni encapsulated in carbon/g-C ₃ N ₄ hybrids from metal-organic frameworks/g-C ₃ N ₄ for efficient photocatalytic hydrogen evolution. 2019 , 246, 72-81	90
705	New and stable g-C ₃ N ₄ /HAp composites as highly efficient photocatalysts for tetracycline fast degradation. 2019 , 245, 662-671	75
704	Multiple photocatalytic applications of non-precious Cu-loaded g-C ₃ N ₄ /hydrogenated black TiO ₂ nanofiber heterostructure. 2019 , 473, 761-769	15
703	A review on plasmonic Au-ZnO heterojunction photocatalysts: Preparation, modifications and related charge carrier dynamics. 2019 , 93, 59-91	56
702	Inorganic Photochemistry and Solar Energy Harvesting: Current Developments and Challenges to Solar Fuel Production. 2019 , 2019, 1-23	25
701	Revealing the role of kapok fibre as bio-template for In-situ construction of C-doped g-C ₃ N ₄ @C, N co-doped TiO ₂ core-shell heterojunction photocatalyst and its photocatalytic hydrogen production performance. 2019 , 476, 205-220	46
700	Fabrication and photocatalytic activity of core@shell Ag ₃ PO ₄ @Cu ₂ O heterojunction. 2019 , 238, 116-120	9
699	Review of Anodic Catalysts for SO ₂ Depolarized Electrolysis for Green Hydrogen Production. 2019 , 9, 63	28
698	Transport of photo-generated electrons and holes in TiO ₂ /CdS/CdSe core-shell nanorod structure toward high performance photoelectrochemical cell electrode. 2019 , 295, 710-718	22
697	Facile synthesis of Bi ₂ S ₃ nanosheet/Zr:Fe ₂ O ₃ nanorod heterojunction: Effect of Ag interlayer on the charge transport and photoelectrochemical stability. 2019 , 70, 311-321	7
696	Amorphous Co ₃ O ₄ anchored on CdSe/TiO ₂ nanowire arrays for efficient photoelectrochemical hydrogen production. 2019 , 54, 3284-3293	10
695	Ag nanoparticles decorated WO ₃ /g-C ₃ N ₄ 2D/2D heterostructure with enhanced photocatalytic activity for organic pollutants degradation. 2019 , 467-468, 1000-1010	32
694	Application of a photostable silver-assisted Z-scheme NiTiO ₃ nanorod/g-C ₃ N ₄ nanocomposite for efficient hydrogen generation. 2019 , 44, 801-808	18
693	Fabrication of heterogeneous photocatalysts for insight role of carbon nanofibre in hierarchical WO ₃ /MoSe ₂ composite for enhanced photocatalytic hydrogen generation. 2019 , 45, 5547-5552	60

692	Combined Experimental and Theoretical Insights into the Synergistic Effect of Cerium Doping and Oxygen Vacancies in BaZrO ₃ Hollow Nanospheres for Efficient Photocatalytic Hydrogen Production. 2019 , 123, 233-249	6
691	Co _{1.4} Ni _{0.6} P cocatalysts modified metallic carbon black/g-C ₃ N ₄ nanosheet Schottky heterojunctions for active and durable photocatalytic H ₂ production. 2019 , 466, 393-400	94
690	High sub-band gap response of TiO ₂ nanorod arrays for visible photoelectrochemical water oxidation. 2019 , 465, 192-200	17
689	Enhanced photocatalytic hydrogen production by CdS nanofibers modified with graphene oxide and nickel nanoparticles under visible light. 2019 , 237, 227-235	36
688	A New and stable Mo-Mo ₂ C modified g-C ₃ N ₄ photocatalyst for efficient visible light photocatalytic H ₂ production. 2019 , 243, 27-35	110
687	Construction of In ₂ Se ₃ /MoS ₂ heterojunction as photoanode toward efficient photoelectrochemical water splitting. 2019 , 358, 752-758	26
686	Effect of alkaline treatment on photochemical activity and stability of Zn _{0.3} Cd _{0.7} S. 2019 , 465, 459-469	27
685	Fabrication of BiVO ₄ /BiOBr composite with enhanced photocatalytic activity by a CTAB-assisted polyol method. 2019 , 368, 153-161	30
684	Facile synthesis of N/B-double-doped MnO and WO nanoparticles for dye degradation under visible light. 2020 , 41, 2372-2381	21
683	Synergistic improvement of Cr(VI) reduction and RhB degradation using RP/g-C ₃ N ₄ photocatalyst under visible light irradiation. 2020 , 13, 3836-3848	19
682	Light-assisted preparation of heterostructured g-C ₃ N ₄ /ZnO nanorods arrays for enhanced photocatalytic hydrogen performance. 2020 , 355, 932-936	11
681	Tuning the aqueous solubility, chemical reactivity and absorption wavelength of azo dye through systematic adjustment of molecular charge density: a DFT study. 2020 , 118, e1626508	3
680	CuO@NiO core-shell nanoparticles decorated anatase TiO ₂ nanospheres for enhanced photocatalytic hydrogen production. 2020 , 45, 7517-7529	36
679	Bio-inspired multilayered graphene-directed assembly of monolithic photo-membrane for full-visible light response and efficient charge separation. 2020 , 263, 117587	19
678	A novel SiC/Zn _{0.5} Cd _{0.5} S solid-state Z-scheme system and its enhanced hydrogen production activity. 2020 , 500, 144009	8
677	5 nm NiCoP nanoparticles coupled with g-C ₃ N ₄ as high-performance photocatalyst for hydrogen evolution. 2020 , 63, 258-266	34
676	Structural, electronic and photocatalytic properties of g-C ₃ N ₄ with intrinsic defects: A first-principles hybrid functional investigation. 2020 , 499, 143994	11
675	Fabrication of TiO ₂ -BiOBr _x 1-x heterojunctions with adjustable band structure for enhanced visible light photocatalytic activity. 2020 , 825, 152047	7

674	A current perspective for photocatalysis towards the hydrogen production from biomass-derived organic substances and water. 2020 , 45, 18144-18159	47
673	Co-doped Mo-Mo ₂ C cocatalyst for enhanced g-C ₃ N ₄ photocatalytic H ₂ evolution. 2020 , 260, 118220	64
672	An overview of graphene oxide supported semiconductors based photocatalysts: Properties, synthesis and photocatalytic applications. 2020 , 297, 111826	43
671	Potassium-doped-C ₃ N ₄ /Cd _{0.5} Zn _{0.5} S photocatalysts toward the enhancement of photocatalytic activity under visible-light. 2020 , 816, 152654	9
670	Hydrothermal synthesis of ZnSnO ₃ nanoparticles decorated on g-C ₃ N ₄ nanosheets for accelerated photocatalytic degradation of tetracycline under the visible-light irradiation. 2020 , 230, 115854	38
669	One-dimensional core-shell Zn _{0.1} Cd _{0.9} S/SnIn ₄ S ₈ heterojunction for enhanced visible light photocatalytic degradation. 2020 , 230, 115896	74
668	Emerging Photocatalysts for Hydrogen Evolution. 2020 , 2, 57-70	66
667	Engineering oxygen vacancies by one-step growth of distributed homojunctions to enhance charge separation for efficient photoelectrochemical water splitting. 2020 , 379, 122266	13
666	Enhanced photocarrier separation in conjugated polymer engineered CdS for direct Z-scheme photocatalytic hydrogen evolution. 2020 , 260, 118131	111
665	In situ fabrication of 1D CdS nanorod/2D Ti ₃ C ₂ MXene nanosheet Schottky heterojunction toward enhanced photocatalytic hydrogen evolution. 2020 , 268, 118382	219
664	In Situ Fabrication of Robust Cocatalyst-Free CdS/g-C ₃ N ₄ 2D/2D Step-Scheme Heterojunctions for Highly Active H ₂ Evolution. 2020 , 4, 1900423	102
663	Application of QD-MOF composites for photocatalysis: Energy production and environmental remediation. 2020 , 403, 213097	137
662	Mesoporous SiO ₂ -derived g-C ₃ N ₄ @CdS core-shell heteronanostructure for efficient and stable photocatalytic H ₂ production. 2020 , 46, 2384-2391	9
661	Effect of preparation method on structural, morphological, optical properties and photocatalytic activities of visible light active semiconductor PbBi ₂ Nb ₂ O ₉ for various organic pollutant dyes. 2020 , 106, 104773	2
660	Construction of WS ₂ /MoSe ₂ heterojunction for efficient photoelectrocatalytic hydrogen evolution. 2020 , 107, 104822	9
659	Insights on the impact of doping levels in oxygen-doped gC ₃ N ₄ and its effects on photocatalytic activity. 2020 , 504, 144427	35
658	Visible light response and heterostructure of composite CdS@ZnS/nO to enhance its photocatalytic activity. 2020 , 813, 152190	33
657	Integrating 2D/2D CdS/Fe ₂ O ₃ ultrathin bilayer Z-scheme heterojunction with metallic ENiS nanosheet-based ohmic-junction for efficient photocatalytic H ₂ evolution. 2020 , 266, 118619	114

656	Facile preparation of nanosized MoP as cocatalyst coupled with g-C3N4 by surface bonding state for enhanced photocatalytic hydrogen production. 2020 , 265, 118620	84
655	Graphitic carbon nitride and polymers: a mutual combination for advanced properties. 2020 , 7, 762-786	76
654	Interfacial engineering of a zinc blende/wurtzite homojunction photocatalyst through hybridization with a cobalt phosphide co-catalyst for enhanced visible-light-driven photocatalytic H ₂ evolution. 2020 , 4, 1822-1827	3
653	Rapid visible light catalytic reduction of Cr(VI) over amorphous g-C3N4 modified palygorskite composite via a charge-transfer-surface complex-mediated pathway. 2020 , 20, 100153	3
652	Optimization of the facet structure of cobalt oxide catalysts for enhanced hydrogen evolution reaction. 2020 , 10, 1040-1047	12
651	In situ decorated Ni ₂ P nanocrystal co-catalysts on g-C3N4 for efficient and stable photocatalytic hydrogen evolution via a facile co-heating method. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 2995-3004 ¹³	41
650	Facet engineering of WO ₃ arrays toward highly efficient and stable photoelectrochemical hydrogen generation from natural seawater. 2020 , 264, 118540	30
649	Exfoliated Mo ₂ C nanosheets hybridized on CdS with fast electron transfer for efficient photocatalytic H ₂ production under visible light irradiation. 2020 , 264, 118541	48
648	Porous Bi ₂ O ₃ with multiple vacancy associates on highly exposed active {220} facets for enhanced photocatalytic activity. 2020 , 265, 118563	29
647	ZnCr-CO ₃ LDH/ruptured tubular g-C3N4 composite with increased specific surface area for enhanced photoelectrochemical water splitting. 2020 , 508, 145100	25
646	Direct Z-scheme hierarchical WO ₃ /BiOBr with enhanced photocatalytic degradation performance under visible light. 2020 , 509, 145201	43
645	Enhanced solar-driven water splitting of 1D core-shell Si/TiO ₂ /ZnO nanopillars. 2020 , 45, 26426-26433	21
644	Hydrogen sulfide conversion: How to capture hydrogen and sulfur by photocatalysis. 2020 , 42, 100339	22
643	Visible-Light-Driven Selective Oxidation of Toluene into Benzaldehyde over Nitrogen-Modified Nb ₂ O ₅ Nanomeshes. 2020 , 10, 1324-1333	37
642	Recent Advances in First-Row Transition Metal Clusters for Photocatalytic Water Splitting. 2020 , 4, 157-167	9
641	Promoting the spatial charge separation by building porous ZrO@TiO heterostructure toward photocatalytic hydrogen evolution. 2020 , 561, 568-575	12
640	Synthesis and characterization of Pt on novel catalyst supports for the H ₂ production in the Westinghouse cycle. 2020 , 45, 25672-25680	7
639	Graphitic Carbon Nitride-Based Low-Dimensional Heterostructures for Photocatalytic Applications. 2020 , 4, 1900435	40

638	Methods for Electrocatalysis. 2020,	0
637	A Z-scheme ZnIn ₂ S ₄ /Nb ₂ O ₅ nanocomposite: constructed and used as an efficient bifunctional photocatalyst for H ₂ evolution and oxidation of 5-hydroxymethylfurfural. 2020, 7, 437-446	34
636	Facile Fabrication of Octahedral CdS@ZnS by Cation Exchange for Photocatalytic Toluene Selective Oxidation. 2020, 8, 1302-1310	32
635	Sunlight active g-C ₃ N ₄ -based Mn ⁺ (M Cu, Ni, Zn, Mn) promoted catalysts: Sharing of nitrogen atoms as a door for optimizing photo-activity. 2020, 484, 110725	2
634	High-efficiency carrier separation heterostructure improve the photocatalytic hydrogen production of sulfide. 2020, 817, 153242	9
633	Activating ZnWO ₄ nanorods for efficient electroanalysis of bisphenol A via the strategy of In doping induced band gap change. 2020, 856, 113613	6
632	Enhanced antifouling property of fluorocarbon resin coating (PEVE) by the modification of g-C ₃ N ₄ /Ag ₂ WO ₄ composite step-scheme photocatalyst. 2020, 506, 144934	31
631	Rational Design of 3D Hierarchical Ternary SnO/TiO/BiVO Arrays Photoanode toward Efficient Photoelectrochemical Performance. 2020, 7, 1902235	38
630	Hydrogen photogeneration using ternary CuGaS ₂ -TiO ₂ -Pt nanocomposites. 2020, 45, 1510-1520	14
629	Carbon nanotube@silicon carbide coaxial heterojunction nanotubes as metal-free photocatalysts for enhanced hydrogen evolution. 2020, 41, 62-71	18
628	2D Graphene oxide (GO) doped p-n type BiOI/BiWO as a novel composite for photodegradation of bisphenol A (BPA) in aqueous solutions under UV-vis irradiation. 2020, 108, 110420	32
627	Precursor-Engineering Coupled Microwave Molten-Salt Strategy Enhances Photocatalytic Hydrogen Evolution Performance of g-C ₃ N ₄ Nanostructures. 2020, 13, 827-837	26
626	Highly mesoporous carbon nitride photocatalysts for efficient and stable overall water splitting. 2020, 509, 144706	7
625	Recent Advances in Photocatalysis over Metal-Organic Frameworks-Based Materials. 2020, 4, 1900438	11
624	Nanoassembly of perovskite-based photocatalysts in a nanoconfined system for photocatalytic H ₂ production under visible light. 2020, 483, 110719	4
623	Enhancement of photocatalytic H ₂ evolution from water splitting by construction of two dimensional gC ₃ N ₄ /NiAl layered double hydroxides. 2020, 509, 144656	30
622	Nanostructured CdS for efficient photocatalytic H ₂ evolution: A review. 2020, 63, 2153-2188	131
621	A new triazine-based conjugated polymer from simple monomers with stable photocatalytic hydrogen evolution under visible light. 2020, 211, 123079	6

620	Efficient photocatalytic degradation of crystal violet by using graphene oxide/nickel sulphide nanocomposites. 2020 , 43, 1	7
619	Laser-assisted synthesis of Z-scheme TiO ₂ /rGO/g-C ₃ N ₄ nanocomposites for highly enhanced photocatalytic hydrogen evolution. 2020 , 534, 147578	22
618	Nanohybrid Crystals with Heteroepitaxial Junctions for Solar-to-Chemical Transformations. 2020 , 124, 25657-25666	5
617	Engineering of a high-efficiency water splitting photoanode by synergistic effects of doping, compositing, and coupling on TiO ₂ nanoparticles. 2020 , 362, 137149	6
616	Emerging Chemical Functionalization of g-CN: Covalent/Noncovalent Modifications and Applications. 2020 , 14, 12390-12469	88
615	Surface defect engineering of mesoporous Cu/ZnS nanocrystal-linked networks for improved visible-light photocatalytic hydrogen production. 2020 , 7, 4687-4700	2
614	0CoP-Doped nickel aluminum double hydroxide as superior electrode for boosting pseudocapacitive storage. 2020 , 361, 137092	1
613	In situ photo-derived MnOOH collaborating with Mn ₂ Co ₂ C@C dual co-catalysts boost photocatalytic overall water splitting. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 17120-17127	13 12
612	Reversible photochromism for the enhancement of carrier separation in Zn ₁ -Cu S. 2020 , 844, 155880	4
611	Design of efficient photocatalysts through band gap engineering. 2020 , 1-18	1
610	Building heterogeneous nanostructures for photocatalytic ammonia decomposition. 2020 , 2, 3610-3623	10
609	Synthesis and Characterization of N-Doped SiC Powder with Enhanced Photocatalytic and Photoelectrochemical Performance. 2020 , 10, 769	6
608	P5W ₃₀ /g-C ₃ N ₄ heterojunction thin film with improved photoelectrochemical performance for solar water splitting. 2020 , 44, 20470-20478	15
607	The individual role of active sites in bimetallic oxygen evolution reaction catalysts. 2020 , 49, 17505-17510	7
606	Design of a Fe ₂ O ₃ /SiC heterojunction to improve photocatalytic performance through a Z-scheme electronic transfer. 2020 , 1-10	2
605	Crystal Facet-Dependent CO Photoreduction over Porous ZnO Nanocatalysts. 2020 , 12, 56039-56048	14
604	Photocatalytic nanomaterials for hydrogen evolution from water splitting. 2020 , 139-158	0
603	Construction of the Ni ₂ P/MoP Heterostructure as a High-Performance Cocatalyst for Visible-Light-Driven Hydrogen Production. 2020 , 3, 10910-10919	14

602	Photocatalytic active silver organic framework: Ag(I)-MOF and its hybrids with silver cyanamide. 2020 , 34, e5972		4
601	Microwave-assisted hydrothermal synthesis of MoS-AgPO nanocomposites as visible light photocatalyst for the degradation of tetracycline hydrochloride. 2020 , 1-14		2
600	Heterostructured g-CN/TiO Photocatalysts Prepared by Thermolysis of g-CN/MIL-125(Ti) Composites for Efficient Pollutant Degradation and Hydrogen Production. 2020 , 10,		9
599	Construction of Nano-Fe ₂ O ₃ -Decorated Flower-Like MoS ₂ with FeS Bonds for Efficient Photoreduction of CO ₂ under Visible-Light Irradiation. 2020 , 8, 12603-12611		14
598	Megamerger of MOFs and g-C ₃ N ₄ for energy and environment applications: upgrading the framework stability and performance. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 17883-17906	13	19
597	Enhanced production of H ₂ under visible light via co-deposited Pt and Ir species on g-C ₃ N ₄ . 2020 , 10, 6378-6386		2
596	Fe ₃ C/CdS as noble-metal-free composite photocatalyst for highly enhanced photocatalytic H ₂ production under visible light. 2020 , 603, 117768		18
595	A review on graphitic carbon nitride (g-C ₃ N ₄) based nanocomposites: Synthesis, categories, and their application in photocatalysis. 2020 , 846, 156446		128
594	Controlled colloidal metal nanoparticles and nanoclusters: recent applications as cocatalysts for improving photocatalytic water-splitting activity. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 16081-16113 ¹³		33
593	Qualitative Approaches Towards Useful Photocatalytic Materials. 2020 , 8, 817		2
592	Interfacial charge transfer via 2D-NiO and 2D-graphene nanosheets combination for significant visible photocatalysis. 2020 , 291, 121606		10
591	Ternary ZnCdSO composite photocatalyst for efficient dye degradation under visible light retaining Z-scheme of migration pathways for the photogenerated charge carriers. 2020 , 217, 110674		10
590	1D/2D Heterostructured Photocatalysts: From Design and Unique Properties to Their Environmental Applications. 2020 , 16, e2005051		38
589	Development of advanced materials for cleaner energy generation through fuel cells. 2020 , 44, 19977-19995		5
588	The InSe/SiH type-II van der Waals heterostructure as a promising water splitting photocatalyst: a first-principles study. 2020 , 22, 21436-21444		13
587	Unraveling the synergy between metal-organic frameworks and co-catalysts in photocatalytic water splitting. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 20493-20502	13	5
586	Visible-light-driven photocatalytic hydrogen production coupled with selective oxidation of benzyl alcohol over CdS@MoS ₂ heterostructures. 2020 , 63, 2239-2250		24
585	A sea-urchin-structured NiCoO decorated MnCdS p-n heterojunction for enhanced photocatalytic hydrogen evolution. 2020 , 49, 13393-13405		21

- 584 Enhancing photoelectrochemical performance of the BiMoO photoanode by ferroelectric polarization regulation. **2020**, 12, 18446-18454 9
- 583 Highly efficient visible-light-driven reduction of Cr(VI) from water by porphyrin-based metal-organic frameworks: effect of band gap engineering on the photocatalytic activity. **2020**, 10, 7724-7733 19
- 582 van der Waals heterostructures based on MSSe (M = Mo, W) and graphene-like GaN: enhanced optoelectronic and photocatalytic properties for water splitting. **2020**, 22, 20704-20711 11
- 581 Improved photoelectrode performance of chemical solution-derived BiO crystals manipulation of crystal characterization.. **2020**, 10, 45042-45058 5
- 580 p-n Heterojunction Photocatalyst MnCdS/CuCoS for Highly Efficient Visible Light-Driven H₂ Production. **2020**, 5, 32715-32723 5
- 579 Structural, Optical and Photocatalytic Characterization of Zn_xCd_{1-x}S Solid Solutions Synthesized Using a Simple Ultrasonic Radiation Method. **2020**, 13, 5603 1
- 578 Ag S-CdS p-n Nanojunction-Enhanced Photocatalytic Oxidation of Alcohols to Aldehydes. **2020**, 16, e2001529 28
- 577 Exploring the role of electronic structure on photo-catalytic behavior of carbon-nitride polymorphs. **2020**, 168, 125-134 11
- 576 BiVO₄, Bi₂WO₆ and Bi₂MoO₆ photocatalysis: A brief review. **2020**, 56, 45-68 78
- 575 Enhancing photocatalytic H₂ evolution on InS/mesoporous TiO₂ nanocomposites via one-pot microwave-assisted synthesis using an ionic liquid. **2020**, 12, 12336-12345 8
- 574 Facile Synthesis of Cu Quantum Dots-TiO₂ Nanosheets Schottky Junction and Improved Photocatalytic Degradation Activity. **2020**, 5, 5693-5700 1
- 573 A size tunable bimetallic nickel-zinc nitride as a multi-functional co-catalyst on nitrogen doped titania boosts solar energy conversion. **2020**, 49, 4887-4895 1
- 572 Three-dimensional graphene oxide cross-linked by benzidine as an efficient metal-free photocatalyst for hydrogen evolution.. **2020**, 10, 14725-14732 5
- 571 CoS/ZnWO₄ composite with band gap matching: simple impregnation synthesis, efficient dye sensitization system for hydrogen production. **2020**, 22, 1 6
- 570 Boosting Pt/TiO₂ hydrogen photoproduction through Zr doping of the anatase structure: A spectroscopic and mechanistic study. **2020**, 398, 125665 9
- 569 Effect of TiO₂ sol on the conversion efficiency of TiO₂ based dye-sensitized solar cell. **2020**, 95, 439-446 5
- 568 Recent development in band engineering of binary semiconductor materials for solar driven photocatalytic hydrogen production. **2020**, 45, 15985-16038 91
- 567 A novel hybrid electrode of zeolitic imidazolate framework-derived carbon encapsulated in reduced-TiO₂ nanotube arrays: Fabrication and photoelectrocatalytic activity. **2020**, 34, e5791 4

566	Formation of Mo ₂ C/hollow tubular g-C ₃ N ₄ hybrids with favorable charge transfer channels for excellent visible-light-photocatalytic performance. 2020 , 527, 146757	28
565	Boosted photo-electro-catalytic hydrogen evolution over the MoS ₂ /MoO ₂ Schottky heterojunction by accelerating photo-generated charge kinetics. 2020 , 832, 154970	5
564	Plasma Treatment: a Novel Approach to Improve the Photoelectroactivity of Sb ₂ S ₃ Thin Films to Water Splitting. 2020 , 7, 2325-2329	4
563	Dramatic enhancement of photocatalytic H ₂ evolution over hydrolyzed MOF-5 coupled ZnCdS heterojunction. 2020 , 577, 233-241	7
562	CdZnS nanorods with rich sulphur vacancies for highly efficient photocatalytic hydrogen production. 2020 , 56, 7765-7768	25
561	Photocatalytic toluene degradation: braiding physico-chemical and intrinsic kinetic analyses. 2020 , 5, 1429-1440	0
560	Investigation of magnetic composites using as photocatalyst and antibacterial application. 2020 , 119, 108031	1
559	TiO ₂ as an interfacial-charge-transfer-bridge to construct eosin Y-mediated direct Z-scheme electron transfer over a Co ₉ S ₈ quantum dot/TiO ₂ photocatalyst. 2020 , 10, 5267-5280	23
558	Synthesis and characterization of metal organic frameworks based on nickel and perylene dyes as water splitting photocatalyst. 2020 ,	2
557	Tuning the electronic band structure of graphitic carbon nitride by breaking intramolecular bonds: A simple and effective approach for enhanced photocatalytic hydrogen production. 2020 , 529, 146600	3
556	Photoredox catalysis of As(III) by constructed CSnS bonds: Using biomass as templates leads to bio-carbon/SnS nanosheets capable of the efficient photocatalytic conversion of As(III) and calcium arsenate capture. 2020 , 732, 138963	11
555	A review on 2D MoS ₂ cocatalysts in photocatalytic H ₂ production. 2020 , 56, 89-121	182
554	Fabrication of ZnS/CdS Heterojunction by Using Bimetallic MOFs Template for Photocatalytic Hydrogen Generation. 2020 , 36, 1032-1038	12
553	Use of synergistic effects of the co-catalyst, p-n heterojunction, and porous structure for improvement of visible-light photocatalytic H ₂ evolution in porous Ni ₂ O ₃ /Mn _{0.2} Cd _{0.8} S/Cu ₃ P@Cu ₂ S. 2020 , 845, 155569	61
552	One-pot preparation of hierarchical CuO hollow spheres for improved visible-light photocatalytic properties.. 2020 , 10, 22387-22396	6
551	Promoting H ₂ photoproduction of TiO ₂ -based materials by surface decoration with Pt nanoparticles and SnS ₂ nanoplatelets. 2020 , 277, 119246	22
550	Fabrication and high photoelectrocatalytic activity of scaly BiOBr nanosheet arrays. 2020 , 578, 326-337	9
549	Bi electrodeposition on WO ₃ photoanode to improve the photoactivity of the WO ₃ /BiVO ₄ heterostructure to water splitting. 2020 , 399, 125836	22

- 548 Visible-Light Photocurrent in Nanostructured High-Pressure TiO₂-II (Columbite) Phase. **2020**, 124, 13930-13935
- 547 CuO nanoparticles sensitize TiO/CdS nanowire arrays to prolong charge carrier lifetime and highly enhance unassisted photoelectrochemical hydrogen generation with 4.3% efficiency. **2020**, 49, 9282-9293 4
- 546 Graphene Quantum Dots-Based Advanced Electrode Materials: Design, Synthesis and Their Applications in Electrochemical Energy Storage and Electrocatalysis. **2020**, 10, 2001275 52
- 545 Graphitic carbon nitride bedecked with CuO/ZnO hetero-interface microflower towards high photocatalytic performance. **2020**, 159, 786-800 16
- 544 High-density ZnSnO₃ nanowire arrays fabricated using single-step hydrothermal synthesis. **2020**, 103, 4129-4139
- 543 The Evolution from a Typical Type-I CdS/ZnS to Type-II and Z-Scheme Hybrid Structure for Efficient and Stable Hydrogen Production under Visible Light. **2020**, 8, 4537-4546 30
- 542 Enhanced photocatalytic hydrogen production activity of CdS coated with Zn-anchored carbon layer. **2020**, 393, 124751 39
- 541 An efficient ternary Mn_{0.2}Cd_{0.8}S/MoS₂/Co₃O₄ heterojunction for visible-light-driven photocatalytic H₂ evolution. **2020**, 45, 10764-10774 15
- 540 Porous g-C₃N₄/WO₃ photocatalyst prepared by simple calcination for efficient hydrogen generation under visible light. **2020**, 594, 124653 28
- 539 Retorting Photocorrosion and Enhanced Charge Carrier Separation at CdSe Nanocapsules by Chemically Synthesized TiO₂ Shell for Photocatalytic Hydrogen Fuel Generation. **2020**, 12, 3139-3152 10
- 538 Revealing the initial steps in homogeneous photocatalysis by time-resolved spectroscopy. **2020**, 32, 153001 9
- 537 Synergistic RGO/Black TiO₂/2D-ZIF-8 Ternary Heterogeneous Composite with Highly Efficient Photocatalytic Activity. **2020**, 5, 3746-3755 8
- 536 Interface Engineering of MoS₂-Modified Graphitic Carbon Nitride Nano-photocatalysts for an Efficient Hydrogen Evolution Reaction. **2020**, 85, 1379-1388 11
- 535 Hydrothermal synthesis and photo-Fenton degradation of magnetic MnFe₂O₄/rGO nanocomposites. **2020**, 31, 5176-5186 11
- 534 Iridium nanoparticles anchored WO₃ nanocubes as an efficient photocatalyst for removal of refractory contaminants (crystal violet and methylene blue). **2020**, 745, 137285 11
- 533 Characteristic Lengths of Interlayer Charge Transfer in Correlated Oxide Heterostructures. **2020**, 20, 2493-2499 4
- 532 Recent advances in homojunction-based photocatalysis for sustainable environmental remediation and clean energy generation. **2020**, 20, 100741 10
- 531 Hydrogen for aircraft power and propulsion. **2020**, 45, 20740-20764 19

530	Multi-Leg TiO ₂ Nanotube Photoelectrodes Modified by Platinized Cyanographene with Enhanced Photoelectrochemical Performance. 2020 , 10, 717	4
529	A review of renewable energy generation using modified titania for photocatalytic water splitting. 2020 , 10, 070701	10
528	Solar-driven tandem photoredox nickel-catalysed cross-coupling using modified carbon nitride. 2020 , 11, 7456-7461	20
527	Recent progress in structural development and band engineering of perovskites materials for photocatalytic solar hydrogen production: A review. 2020 , 45, 19078-19111	30
526	Effect of morphology on the photoelectrochemical performance of nanostructured CuO photocathodes. 2021 , 32,	1
525	Photocatalytic degradation of atrazine in aqueous solution using hyperbranched polyethyleneimine templated morphologies of BiVO ₄ fused with Bi ₂ O ₃ . 2020 , 8, 104215	10
524	Ni(acac) ₂ /Mo-MOF-derived difunctional MoNi@MoO ₂ cocatalyst to enhance the photocatalytic H ₂ evolution activity of g-C ₃ N ₄ . 2020 , 268, 118739	19
523	Interfacial properties of pure and doped CdS/graphene composites: CdS(0001)/graphene and a CdS/graphene bilayer. 2020 , 177, 109537	4
522	Unveiling Catalytic Sites in a Typical Hydrogen Photogeneration System Consisting of Semiconductor Quantum Dots and 3d-Metal Ions. 2020 , 142, 4680-4689	27
521	Bridge engineering in photocatalysis and photoelectrocatalysis. 2020 , 12, 5764-5791	51
520	Rational design of a novel p-n heterojunction based on 3D layered nanoflower MoS supported CoWO nanoparticles for superior photocatalytic hydrogen generation. 2020 , 569, 34-49	35
519	Magnetic yolk-shell structure of ZnFe ₂ O ₄ nanoparticles for enhanced visible light photo-Fenton degradation towards antibiotics and mechanism study. 2020 , 513, 145820	45
518	Strongly coupled 2D-2D nanojunctions between P-doped Ni ₂ S (Ni ₂ SP) cocatalysts and CdS nanosheets for efficient photocatalytic H ₂ evolution. 2020 , 390, 124496	115
517	TiO ₂ -Based homojunction photo-electrode for solar-driven water splitting. 2020 , 45, 9386-9396	10
516	Morphology engineering of photoelectrodes for efficient photoelectrochemical water splitting. 2020 , 72, 104648	46
515	Effect of aspect ratios of rutile TiO nanorods on overall photocatalytic water splitting performance. 2020 , 12, 4895-4902	26
514	Band Modulation and Interfacial Engineering to Generate Efficient Visible-Light-Induced Bifunctional Photocatalysts. 2020 , 8, 2919-2930	14
513	Contributions of morphological and structural parameters at different hierarchical morphology levels to photocatalytic activity of mesoporous nanostructured ZnO. 2020 , 513, 145773	9

512	A graphene oxide-molecular Cu porphyrin-integrated BiVO ₄ photoanode for improved photoelectrochemical water oxidation performance. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 4062-4072 ¹³	33
511	Metal Chalcogenides Based Heterojunctions and Novel Nanostructures for Photocatalytic Hydrogen Evolution. 2020 , 10, 89	23
510	Based on amorphous carbon C@ZnxCd1-xS/Co ₃ O ₄ composite for efficient photocatalytic hydrogen evolution. 2020 , 45, 8405-8417	16
509	Minimizing electron-hole pair recombination through band-gap engineering in novel ZnO-CeO-rGO ternary nanocomposite for photoelectrochemical and photocatalytic applications. 2020 , 27, 25042-25056	28
508	Understanding the role of interface in advanced semiconductor nanostructure and its interplay with wave function overlap. 2020 , 13, 1536-1543	4
507	Principle and surface science of photocatalysis. 2020 , 31, 1-38	7
506	Hierarchical porous photocatalysts. 2020 , 63-102	2
505	Carbon membrane bridged ZnSe and TiO ₂ nanotube arrays: Fabrication and promising application in photoelectrochemical water splitting. 2020 , 45, 9635-9647	15
504	ZnCdS nanoparticles dispersed on CoAl-layered double hydroxide in 2D heterostructure for enhanced photocatalytic hydrogen evolution. 2020 , 572, 62-73	36
503	Green fabrication of AuNPs/CMTKP/g-C ₃ N ₄ nanocomposites with enhanced photocatalytic activity for the removal of nitric oxide under visible-light irradiation. 2020 , 256, 120257	9
502	A review on TiO ₂ /g-C ₃ N ₄ visible-light- responsive photocatalysts for sustainable energy generation and environmental remediation. 2020 , 8, 103896	97
501	Easy Synthesis of BiVO for Photocatalytic Overall Water Splitting. 2020 , 5, 8927-8933	29
500	Photosensitizing ruthenium(II)-dye multilayers: photoinduced charge separation and back electron transfer suppression. 2020 , 4, 3450-3457	3
499	Ti(IV)-containing aluminophosphate material TAPO-25 for photoelectrochemical water oxidation. 2020 , 486, 110876	1
498	Nitridation of CoWO/CdS Nanocomposite Formed Metal Nitrides Assisting Efficiently Photocatalytic Hydrogen Evolution. 2020 , 5, 9969-9976	2
497	Electronic properties and enhanced photocatalytic performance of van der Waals heterostructures of ZnO and Janus transition metal dichalcogenides. 2020 , 22, 10351-10359	26
496	Bio-inspired honeycomb-like graphitic carbon nitride for enhanced visible light photocatalytic CO reduction activity. 2020 , 27, 22604-22618	12
495	Design and fabrication of direct Z-scheme photocatalysts. 2020 , 31, 193-229	1

494	Prominent co-catalytic effect of CoP nanoparticles anchored on high-crystalline g-C ₃ N ₄ nanosheets for enhanced visible-light photocatalytic degradation of tetracycline in wastewater. 2020 , 395, 125118	105
493	Enabling Efficient Charge Separation for Optoelectronic Conversion via an Energy-Dependent Z-Scheme n-Semiconductor-Metal-p-Semiconductor Schottky Heterojunction. 2020 , 11, 3313-3319	7
492	Photodeposited Construction of Pt-CdS/g-CN-MnO Composite Photocatalyst for Efficient Visible-Light-Driven Overall Water Splitting. 2020 , 12, 20579-20588	55
491	Recent developments of doped g-C ₃ N ₄ photocatalysts for the degradation of organic pollutants. 2021 , 51, 751-790	153
490	Constructing low-cost Ni ₃ C/twin-crystal Zn _{0.5} Cd _{0.5} S heterojunction/homojunction nanohybrids for efficient photocatalytic H ₂ evolution. 2021 , 42, 25-36	126
489	Facile Synthesis of Zn Doped g-C ₃ N ₄ for Enhanced Visible Light Driven Photocatalytic Hydrogen Production. 2021 , 64, 65-72	6
488	Photo-electrochemical water splitting behavior of CdSeQDs sensitized ferroelectric BaTiO ₃ perovskite heterostructure. 2021 , 37, 1248-1253	2
487	One-pot synthesis of array-like sulfur-doped carbon nitride with covalently crosslinked ultrathin MoS ₂ cocatalyst for drastically enhanced photocatalytic hydrogen evolution. 2021 , 75, 59-67	7
486	Promoting photocatalytic hydrogen evolution by introducing hot islands: SnSe nanoparticles on ZnIn ₂ S ₄ monolayer. 2021 , 404, 126477	17
485	Rational defect and anion chemistries in Co ₃ O ₄ for enhanced oxygen evolution reaction. 2021 , 281, 119535	45
484	Efficient photocatalytic removal of phthalates easily implemented over a bi-functional {001}TiO surface. 2021 , 263, 128257	8
483	Comprehensive adsorption and irradiation modelling of LED driven photoreactor for H ₂ production. 2021 , 406, 126860	2
482	Periodical oscillation of particle-laden laminar flow within a tubular photocatalytic hydrogen production reactor predicted by discrete element method. 2021 , 46, 9653-9665	1
481	Rational Design of Metal Oxide-Based Heterostructure for Efficient Photocatalytic and Photoelectrochemical Systems. 2021 , 31, 2008247	24
480	CsPbCl _{1.5} Br _{1.5} perovskite nanocrystals glasses powder optimized by Zn ²⁺ for photocatalytic hydrogen production. 2021 , 499, 111305	1
479	Constructing robust MoO ₂ /Au/Mn _{0.5} Cd _{0.5} S multiple heterojunctions for improved photocatalytic hydrogen evolution: An insight into the synergetic effect of MoO ₂ and Au cocatalysts. 2021 , 541, 148582	7
478	A novel materials manganese cadmium sulfide/cobalt nitride for efficiently photocatalytic hydrogen evolution. 2021 , 585, 217-228	17
477	Hexagonal boron nitride composite photocatalysts for hydrogen production. 2021 , 864, 158153	8

476	Room-temperature ionic-liquid-assisted hydrothermal synthesis of Ag-In-Zn-S quantum dots for WLEDs. 2021 , 858, 158084	5
475	Heterojunction Cr ₂ O ₃ -Ag ₂ O nanocomposite decorated porous polymer monoliths a new class of visible light fast responsive heterogeneous photocatalysts for pollutant clean-up. 2021 , 9, 104846	4
474	Interface engineering: NiAl-LDH in-situ derived NiP ₂ quantum dots and Cu ₃ P nanoparticles ingeniously constructed p-n heterojunction for photocatalytic hydrogen evolution. 2021 , 420, 127682	27
473	Preparation of PEO-based Cu ₂ O/Bi ₂ O ₂ CO ₃ electrospun fibrous membrane toward enhanced photocatalytic degradation of chloramphenicol. 2021 , 56, 4599-4614	4
472	The application of Zeolitic imidazolate frameworks (ZIFs) and their derivatives based materials for photocatalytic hydrogen evolution and pollutants treatment. 2021 , 417, 127914	30
471	Enhanced photocatalytic degradation of glyphosate over 2D CoS/BiOBr heterojunctions under visible light irradiation. 2021 , 407, 124798	37
470	Regular octahedron Cu-MOFs modifies Mn _{0.05} Cd _{0.95} S nanoparticles to form a S-scheme heterojunction for photocatalytic hydrogen evolution. 2021 , 46, 7230-7240	26
469	A simple and excellent protocol for the synthesis of CdSe QDs sensitized SmCoO ₃ perovskite nanoparticles. 2021 , 37, 1778-1783	1
468	Creation of active water-splitting photocatalysts by controlling cocatalysts using atomically precise metal nanoclusters. 2021 , 57, 417-440	13
467	Defect-induced visible-light-driven photocatalytic and photoelectrochemical performance of ZnO/TiO ₂ nanoheterojunctions. 2021 , 858, 157730	22
466	In-situ photodeposition of MoS ₂ onto CdS quantum dots for efficient photocatalytic H ₂ evolution. 2021 , 539, 148234	31
465	Photophysical characteristics and photosensitizing abilities of thieno[3,2-b]thiophene-Based photosensitizers for photovoltaic and photocatalytic applications. 2021 , 406, 112979	0
464	A critical review on modulation of NiMoO-based materials for photocatalytic applications. 2021 , 278, 111562	8
463	Characterization and Evaluation of Copper Slag as a Bifunctional Photocatalyst for Alcohols Degradation and Hydrogen Production. 2021 , 64, 131-141	1
462	Surface and interface effects: properties of nanostructured ZnO. 2021 , 253-287	
461	Enhanced effect of CdS on amorphous Mo ₁₅ S ₁₉ for photocatalytic hydrogen evolution. 2021 , 45, 3920-3931	6
460	Size Control of LaNbO ₄ Particles for Enhanced Photocatalytic Water Oxidation Under Visible Light Irradiation. 2021 , 42, 571-576	5
459	Au/CdS Core-Shell Sensitized Actinomorphic Flower-Like ZnO Nanorods for Enhanced Photocatalytic Water Splitting Performance. 2021 , 11,	4

458	Self-defective ZnS mediated charge transfer for bran-new inter-step mode with boosted photoactivity and enhanced photostability. 2021 , 46, 2103-2116	4
457	The fate of oxygen on graphene-catalyst in the photocatalytic water splitting reaction.	0
456	Layer-dependent photocatalysts of GaN/SiC-based multilayer van der Waals heterojunctions for hydrogen evolution. 2021 , 11, 3059-3069	5
455	Atomic and electronic structure of direct Z-scheme photocatalyst: from fundamentals to applications. 2021 , 39-108	
454	Rutile TiO single crystals delivering enhanced photocatalytic oxygen evolution performance. 2021 , 13, 8591-8599	2
453	Lithium-Assisted Exfoliation of Palladium Thiophosphate Nanosheets for Photoelectrocatalytic Water Splitting. 2021 , 4, 441-448	3
452	Bridging Structural Inhomogeneity to Functionality: Pair Distribution Function Methods for Functional Materials Development. 2021 , 8, 2003534	14
451	Semiconductor photocatalysts and mechanisms of the carbon dioxide reduction and molecular nitrogen fixation under UV- and visible light irradiation. 2021 , 90,	0
450	State-of-the-art developments in carbon-based metal nanocomposites as a catalyst: photocatalysis. 2021 , 3, 1887-1900	14
449	Facile modulation of different vacancies in ZnS nanoplates for efficient solar fuel production. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 7977-7990	13 9
448	Nanomaterials for Photocatalytic Energy Conversion. 2021 , 43-84	
447	Categorization of Quantum Dots, Clusters, Nanoclusters, and Nanodots. 2021 , 98, 703-709	5
446	CuS co-catalyst modified hydrogenated SrTiO nanoparticles as an efficient photocatalyst for H evolution. 2021 , 50, 7768-7775	5
445	MOF-derived hexagonal In ₂ O ₃ microrods decorated with g-C ₃ N ₄ ultrathin nanosheets for efficient photocatalytic hydrogen production. 2021 , 9, 5343-5348	12
444	Photoelectrochemical Hydrogen Evolution Using Dye-Sensitised NiO. 2021 ,	
443	A new allotrope of carbon-graphdiyne, synthesis and application in photocatalytic hydrogen evolution with surface plasmon resonance enhancement. 2021 , 5, 4690-4700	2
442	One-step microwave hydrothermal preparation of Cd/Zr-bimetallic metal-organic frameworks for enhanced photochemical properties. 2021 , 4, 150-161	37
441	Advancing photoreforming of organics: highlights on photocatalyst and system designs for selective oxidation reactions. 2021 , 14, 1140-1175	33

440	Tailoring Strategies to Enhance the Photoelectrocatalytic Activity of Perovskite Oxide Surfaces ABO ₃ for Efficient Renewable Energy Generation. 2021 , 137-164		
439	Elucidating the formation and active state of Cu co-catalysts for photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 21958-21971	13	3
438	MOF-Based Hybrids for Solar Fuel Production. 2021 , 11, 2003052		25
437	The synergistic effect of phosphomolybdic acid on rhodium-based metal-organic frameworks for the efficient selective photocatalytic reduction of CO ₂ to CO. 2021 , 45, 7344-7352		0
436	Photocatalytic hydrogen generation using Z-scheme heterostructures through water reduction. 2021 , 109-130		1
435	Z-scheme-based heterostructure photocatalysts for organic pollutant degradation. 2021 , 177-217		1
434	Wavelength-Dependent Water Oxidation on Rutile TiO ₂ (110). 2021 , 12, 1066-1072		2
433	Co ₃ C as a promising cocatalyst for superior photocatalytic H ₂ production based on swift electron transfer processes. 2021 , 9, 3145-3154		9
432	Photocatalytic Abatement of Emerging Micropollutants in Water and Wastewater. 2021 , 671-684		
431	Probing the Defect-Driven Tunable Photo(electro)catalytic Water-Splitting Behavior of Pulsed-Laser-Deposited Titania. 2021 , 35, 4512-4523		
430	Pt nanoparticles embedded spine-like g-CN nanostructures with superior photocatalytic activity for H ₂ generation and CO reduction. 2021 , 32, 175401		9
429	Accelerated decomposition of BiS nanorods in water under an electron beam: a liquid phase transmission electron microscopy study. 2021 , 32, 195702		1
428	Single-Atom-Based Heterojunction Coupling with Ion-Exchange Reaction for Sensitive Photoelectrochemical Immunoassay. 2021 , 21, 1879-1887		31
427	Quasi-1D Aligned Nanostructures for Solar-Driven Water Splitting Applications: Challenges, Promises, and Perspectives. 2021 , 5, 2000741		4
426	Pentagonal transition-metal (group X) chalcogenide monolayers: Intrinsic semiconductors for photocatalysis. 2021 , 46, 9371-9379		8
425	pH-controlled mechanism of photocatalytic RhB degradation over g-CN under sunlight irradiation. 2021 , 20, 303-313		8
424	2D materials and their heterostructures for photocatalytic water splitting and conversion of CO ₂ to value chemicals and fuels. 2021 , 3, 022003		9
423	Fabrication of Bi-BiOCl/MgIn ₂ S ₄ heterostructure with step-scheme mechanism for carbon dioxide photoreduction into methane. 2021 , 45, 101453		15

422	Understanding the synergistic role of Pt-mediated MoO ₃ photoanode with self-photorechargeability during illuminated and non-illuminated conditions: A combined experimental and density functional theory study. 2021 , 120, 381-390	0
421	Hollow Co ₉ S ₈ /CdS Nanocages as Efficient Photocatalysts for Hydrogen Evolution. 2021 , 4, 2743-2751	9
420	rGO-Bi ₂ MoO ₆ heterostructure: synthesis, characterization and utilization as a visible light active photocatalyst for the degradation of tetracycline. 2021 , 32, 9822-9840	
419	Theoretical progress on direct Z-scheme photocatalysis of two-dimensional heterostructures. 2021 , 16, 1	7
418	Designed Construction of SrTiO ₃ /SrSO ₄ /Pt Heterojunctions with Boosted Photocatalytic H Evolution Activity. 2021 , 27, 7300-7306	2
417	In situ growth of nickel phosphide nanoparticles on inner wall of graphitic carbon nitride tubes for efficient photocatalytic hydrogen evolution. 2021 , 46, 10346-10355	3
416	Conjugated Polymer-Based Nanocomposites as Photocatalysts. 2021 , 267-296	2
415	Emerging polymeric carbon nitride Z-scheme systems for photocatalysis. 2021 , 2, 100355	46
414	Preparation and application of defective graphite phase carbon nitride photocatalysts. 2021 ,	
413	Nanozyme-Activated Synergistic Amplification for Ultrasensitive Photoelectrochemical Immunoassay. 2021 , 93, 6881-6888	21
412	Understanding the role of soft linkers in designing heptazine-based polymeric frameworks as heterogeneous (photo)catalyst. 2021 , 588, 138-146	2
411	An Overview of the Recent Progress in Polymeric Carbon Nitride Based Photocatalysis. 2021 , 21, 1811-1844	15
410	Interplay between Valence Band Tuning and Redox Stability in SnTiO ₃ : Implications for Directed Design of Photocatalysts. 2021 , 33, 2824-2836	5
409	Recent Advances in Transition Metal Nitride-Based Materials for Photocatalytic Applications. 2021 , 31, 2100553	16
408	Bilayer MoTe ₂ /XS ₂ (X = Hf, Sn, Zr) heterostructures with efficient carrier separation and light absorption for photocatalytic water splitting into hydrogen. 2021 , 544, 148842	8
407	Photoelectrochemical Activity of Layered Metal Phosphorous Trichalcogenides for Water Oxidation. 2021 , 8, 2100294	5
406	Simultaneous realization of direct photodeposition and high H ₂ -production activity of amorphous cobalt sulfide nanodot-modified rGO/TiO ₂ photocatalyst. 2021 , 40, 3125	20
405	Black Trumpet Mushroom-like ZnS incorporated with CuP: Noble metal free photocatalyst for superior photocatalytic H production. 2021 , 590, 82-93	10

404	Constructing Heterogeneous Direct Z-Scheme Photocatalysts Based on Metal-Organic Cages and Graphitic-CN for High-Efficiency Photocatalytic Water Splitting. 2021 , 13, 25960-25971	10
403	Defect-engineered 2D/2D hBN/g-C3N4 Z-scheme heterojunctions with full visible-light absorption: Efficient metal-free photocatalysts for hydrogen evolution. 2021 , 547, 149207	23
402	Enhanced photocatalytic activation of peroxymonosulfate by CeO2 incorporated ZnCo layered double hydroxide toward organic pollutants removal. 2021 , 263, 118413	9
401	Tracking S-Scheme Charge Transfer Pathways in Mo2C/CdS H2-Evolution Photocatalysts. 2021 , 5, 2100177	46
400	BiOBr/PBCD-B-D dual-function catalyst with oxygen vacancies for Acid Orange 7 removal: Evaluation of adsorption-photocatalysis performance and synergy mechanism. 2021 , 411, 128456	14
399	Atomic-Precision Tailoring of Au@Ag Core@Shell Composite Nanoparticles for Direct Electrochemical-Plasmonic Hydrogen Evolution in Water Splitting. 2021 , 31, 2102517	7
398	A review on recent developments in solar photoreactors for carbon dioxide conversion to fuels. 2021 , 47, 101515	17
397	Graphene coupled TiO photocatalysts for environmental applications: A review. 2021 , 271, 129506	38
396	Ligand-free Au nanoclusters/g-C3N4 ultra-thin nanosheets composite photocatalysts for efficient visible-light-driven photocatalytic H2 generation. 2021 , 56, 13736-13751	0
395	ZnCdS Hollow Spheres with a Highly Dispersed Ni Dopant for Boosting Photocatalytic Hydrogen Generation. 2021 , 6, 13544-13553	2
394	Enhanced faradic activity by construction of p-n junction within reduced graphene oxide@cobalt nickel sulfide@nickel cobalt layered double hydroxide composite electrode for charge storage in hybrid supercapacitor. 2021 , 590, 114-124	13
393	Tandem Photocatalysis Protocol for Hydrogen Generation/Olefin Hydrogenation Using Pd-g-CN-Imine/TiO Nanoparticles. 2021 , 60, 9484-9495	4
392	Efficient photocatalytic generation of hydrogen by twin Zn Cd S nanorods decorated with noble metal-free co-catalyst and reduction of 4-nitrophenol in water. 2021 , 550, 149367	10
391	Synthesis of a Visible-Light-Responsive Perovskite SmTiO N Bifunctional Photocatalyst via an Evaporation-Assisted Layered-Precursor Strategy. 2021 , 33, e2101883	5
390	Co-implanting of TiO2 and liquid-phase-delaminated g-C3N4 on multi-functional graphene nanobridges for enhancing photocatalytic degradation of acetaminophen. 2021 , 414, 128618	23
389	Influence of exposed facets, morphology and hetero-interfaces of BiVO4 on photocatalytic water oxidation: A review. 2021 , 46, 21866-21888	9
388	Copper vacancy activated plasmonic Cu3SnS4 for highly efficient photocatalytic hydrogen generation: Broad solar absorption, efficient charge separation and decreased HER overpotential. 2021 , 14, 3358-3364	4
387	2D CoP supported 0D WO3 constructed S-scheme for efficient photocatalytic hydrogen evolution. 2021 , 46, 20560-20572	21

386	Properly aligned band structures in B-TiO ₂ /MIL53(Fe)/g-C ₃ N ₄ ternary nanocomposite can drastically improve its photocatalytic activity for H ₂ evolution: Investigations based on the experimental results. 2021 , 46, 21912-21923	7
385	Promotion of the excited electron transfer over MoO ₃ @Cu ₃ P p-n heterojunction for photocatalytic hydrogen production under visible light irradiation. 2021 , 510, 111691	6
384	Cube Cu ₂ O modified CoAL-LDH p-n heterojunction for photocatalytic hydrogen evolution.	2
383	Radiative analysis of luminescence in photoreactive systems: Application to photosensitizers for solar fuel production. 2021 , 16, e0255002	
382	Graphitic carbon nitride-based materials for photocatalytic antibacterial application. 2021 , 145, 100610	55
381	Improving Photoelectrochemical Activity of ZnO/TiO ₂ Core/Shell Nanostructure through Ag Nanoparticle Integration. 2021 , 11, 911	2
380	Porous Silicon Carbide (SiC): A Chance for Improving Catalysts or Just Another Active-Phase Carrier?. 2021 , 121, 10559-10665	12
379	Synergy of semiconductor components of non-covalent functionalized (PdS doped)-G CdS NPs composite provide efficient photocatalytic water reduction under visible light. 2021 , 554, 149646	1
378	Cu ₂ S/BiVO ₄ Heterostructure Photoanode with Extended Wavelength Range for Efficient Water Splitting. 2021 , 125, 15890-15898	3
377	Au nanoparticles decorated brookite-anatase nanowires for efficient photo-oxidation of aqueous resorcinol. 2021 , 32, 19764-19777	7
376	Hydrothermal fabrication and photocatalytic study of delafossite (CuFeO ₂) thin films on fluorine-doped tin oxide substrates. 2021 , 267, 124620	1
375	Boosting Visible-Light-Driven Photocatalytic Hydrogen Production through Sensitizing TiO via Novel Nanoclusters. 2021 , 13, 40562-40570	2
374	3D mesoporous ultra-thin g-C ₃ N ₄ coupled with monoclinic AgVO ₃ as p-n heterojunction for photocatalytic hydrogen evolution. 2021 , 513, 111828	0
373	Electron transfer via a carbon channel for efficient Z-scheme solar hydrogen production. 2021 , 46, 28098-28109	
372	Ab Initio Studies of Bimetallic-Doped {0001} Hematite Surface for Enhanced Photoelectrochemical Water Splitting. 2021 , 11, 940	1
371	ReS ₂ /ZnIn ₂ S ₄ heterojunctions with enhanced visible-light-driven hydrogen evolution performance for water splitting. 2021 , 873, 159850	5
370	Strategies for the enhanced water splitting activity over metal-organic frameworks-based electrocatalysts and photocatalysts. 2021 , 15, 100124	8
369	In-situ construction of metallic Ni ₃ C@Ni core-shell cocatalysts over g-C ₃ N ₄ nanosheets for shell-thickness-dependent photocatalytic H ₂ production. 2021 , 291, 120104	96

368	Surface-Engineered Ni(OH) ₂ /PtNi Nanocubes as Cocatalysts for Photocatalytic Hydrogen Production. 2021 , 4, 8390-8398	3
367	Sustained CO-photoreduction activity and high selectivity over Mn, C-codoped ZnO core-triple shell hollow spheres. 2021 , 12, 4936	48
366	Engineering an Interfacial Facet of S-Scheme Heterojunction for Improved Photocatalytic Hydrogen Evolution by Modulating the Internal Electric Field. 2021 , 13, 39491-39500	28
365	Enhanced photocatalytic activity and optical response mechanism of porous graphitic carbon nitride (g-C ₃ N ₄) nanosheets. 2021 , 140, 111263	7
364	Layered graphitic carbon nitride: nano-heterostructures, photo/electro-chemical performance and trends. 1	1
363	A review of graphene-TiO and graphene-ZnO nanocomposite photocatalysts for wastewater treatment. 2021 , 93, 2414-2460	7
362	Tetragonal Silicene and Germanene Quantum Dots: Candidates for Enhanced Nonlinear Optical and Photocatalytic Activity.	3
361	2D MoS ₂ : structure, mechanisms, and photocatalytic applications. 2021 , 13, 100073	15
360	Photo-thermal synergy for boosting photo-Fenton activity with rGO-ZnFe ₂ O ₄ : Novel photo-activation process and mechanism toward environment remediation. 2021 , 292, 120198	21
359	The Role of Heterogeneous Catalytic Processes in the Green Hydrogen Economy. 2021 , 11, 1185	
358	Full-spectrum-responsive Bi ₂ S ₃ @CdS S-scheme heterostructure with intimate ultrathin RGO toward photocatalytic Cr(VI) reduction and H ₂ O ₂ production: Experimental and DFT studies. 2021 , 419, 129530	25
357	Co-catalyst boosted photocatalytic hydrogen production driven by visible-light over g-C ₃ N ₄ : The synergistic effect between Ag and Ag ₂ S. 2021 , 875, 160032	7
356	Graphitic carbon nitride heterojunction photocatalysts for solar hydrogen production. 2021 ,	5
355	Selective biomass photoreforming for valuable chemicals and fuels: A critical review. 2021 , 148, 111266	14
354	Instant formation of excellent oxygen evolution catalyst film via controlled spray pyrolysis for electrocatalytic and photoelectrochemical water splitting. 2021 ,	0
353	A new noble-metal-free co-catalyst V ₈ C ₇ on g-C ₃ N ₄ with enhanced photocatalytic H ₂ evolution activity. 2021 , 625, 118341	2
352	Artificial photosynthesis: photoanodes based on polyquinoid dyes onto mesoporous tin oxide surface. 2021 , 20, 1243-1255	1
351	Bandgap Engineering of Heterostructures for Visible Light-Driven Water Splitting. 2022 , 701-722	0

350	Photocatalytic CO ₂ Reduction. 2022 , 605-646	
349	Fabrication of Z-scheme Bi ₂ WO ₆ /CNT/TiO ₂ heterostructure with enhanced cephalixin photodegradation: Optimization and reaction mechanism. 2021 , 339, 116728	10
348	Facile synthesis of MgS/Ag ₂ MoO ₄ nanohybrid heterojunction: Outstanding visible light harvesting for boosted photocatalytic degradation of MB and its anti-microbial applications. 2021 , 627, 127097	10
347	One-step synthesis of heterojunction Cr ₂ O ₃ nanoparticles decorated Bi ₂ S ₃ nanorods with enhanced photocatalytic activity for mineralization of organic pollutants. 2021 , 419, 113468	4
346	Mechanism investigation of PtPd decorated Zn _{0.5} Cd _{0.5} S nanorods with efficient photocatalytic hydrogen production combining with kinetics and thermodynamics. 2021 , 42, 1677-1688	6
345	Minimized external electric field on asymmetric monolayer maximizes charge separation for photocatalysis. 2021 , 295, 120266	3
344	Porous g-C ₃ N ₄ and FeOOH bridged by carbon dots as synergetic visible-light-driven photo-fenton catalysts for contaminated water remediation. 2021 , 183, 628-640	10
343	Experimental and modelling studies on the photocatalytic generation of hydrogen during water-splitting over a commercial TiO ₂ photocatalyst P25. 2021 , 245, 114582	2
342	Pt/B-g-C ₃ N ₄ catalysts for hydrogen photo-production: Activity interpretation through a spectroscopic and intrinsic kinetic analysis. 2021 , 9, 106073	2
341	FeO nanorods/CuO nanoparticles p-n heterojunction photoanode: Effective charge separation and enhanced photoelectrochemical properties. 2021 , 602, 32-42	8
340	Mesoporous SmMnO ₃ /CuMnO catalyst for photothermal synergistic degradation of gaseous toluene. 2021 , 47, 31485-31496	2
339	Rational design of direct Z-scheme heterostructure NiCoP/ZIS for highly efficient photocatalytic hydrogen evolution under visible light irradiation. 2021 , 275, 119153	0
338	Layered double hydroxide photocatalysts for solar fuel production. 2021 , 42, 1944-1975	6
337	Cauliflower-like MnxCd _{1-x} S modified with Ni ₂ P for enhanced photocatalytic H ₂ evolution. 2021 , 567, 150465	1
336	Synthesis of metal-free functionalized g-C ₃ N ₄ nanosheets for enhanced photocatalytic activity. 2021 , 9, 106389	0
335	Enhanced overall water splitting under visible light of MoS ₂ /WSSe heterojunction by lateral interfacial engineering. 2021 , 404, 18-31	2
334	Sustainable synthesis of low-cost nitrogen-doped-carbon coated Co ₃ W ₃ C@g-C ₃ N ₄ composite photocatalyst for efficient hydrogen evolution. 2021 , 426, 131208	8
333	The Facile Synthesis of Cu ₂ O-Cu hybrid cubes as efficient visible-light-driven photocatalysts for water remediation processes. 2021 , 394, 1111-1120	6

332	Plasmonic metal/semiconductor hybrid nanomaterials for solar to chemical energy conversion. 2021 , 63, 40-53	1
331	A review of photocatalytic characterization, and environmental cleaning, of metal oxide nanostructured materials. 2021 , 30, e00343	4
330	ZnO/CdS/CuS heterostructure: A suitable candidate for applications in visible-light photocatalysis. 2022 , 160, 110344	8
329	Monodisperse Cu ₃ P nanoplates in situ grown on reduced graphene oxide via hydrophobic interaction for water splitting. 2022 , 306, 130947	0
328	High-loading single-atom tungsten anchored on graphitic carbon nitride (melon) for efficient oxidation of emerging contaminants. 2022 , 427, 131973	3
327	Constructing electrostatic self-assembled ultrathin porous red 2D g-CN/FeN Schottky catalyst for high-efficiency tetracycline removal in photo-Fenton-like processes. 2022 , 607, 1527-1539	3
326	Targeting cooling for quantum dots by 57.3°C with air-bubbles-assembled three-dimensional hexagonal boron nitride heat dissipation networks. 2022 , 427, 130958	4
325	Unique ternary Ni-MOF-74/NiP/MoS composite for efficient photocatalytic hydrogen production: Role of NiP for accelerating separation of photogenerated carriers. 2022 , 605, 385-397	16
324	Recent developments in photothermal reactors with understanding on the role of light/heat for CO ₂ hydrogenation to fuels: A review. 2022 , 427, 131617	24
323	Metal organic framework-derived Co ₃ O ₄ /NiCo ₂ O ₄ hollow double-shell polyhedrons for effective photocatalytic hydrogen generation. 2022 , 571, 151288	5
322	Microwave awakening the n-π electronic transition in highly crystalline polymeric carbon nitride nanosheets for photocatalytic hydrogen generation. 2022 , 65, 541-547	12
321	TiO ₂ based Z-scheme photocatalysts for energy and environmental applications. 2021 , 257-282	
320	NiCo LDH in situ derived NiCoP 3D nanoflowers coupled with a CuP p-n heterojunction for efficient hydrogen evolution. 2021 , 13, 13858-13872	8
319	The synthesis of novel FeS ₂ /g-C ₃ N ₄ nanocomposites for the removal of tetracycline under visible-light irradiation. 2021 , 7, 1430-1442	3
318	Functionalized Cd _{0.5} Zn _{0.5} S Chalcogenide Nanotwins Enabling Z-Scheme Photocatalytic Water Splitting. 2021 , 4, 759-768	8
317	Effect of layers on the photocatalytic hydrogen evolution in Dion-Jacobson layered-tantalum perovskites. 2021 , 50, 16076-16083	0
316	Integration of an aminopyridine derived cobalt based homogenous cocatalyst with a composite photocatalyst to promote H ₂ evolution from water. 2021 , 45, 5561-5567	4
315	Heterogeneous photocatalysis: Z-scheme based heterostructures. 2021 , 1-38	

314	Construction of novel polyethylenimine-g-C ₃ N ₄ /BiOCl heterojunctions for the efficient photocatalytic degradation of nitro explosives. 2021 , 45, 14655-14664	1
313	A review on vertical and lateral heterostructures of semiconducting 2D-MoS with other 2D materials: a feasible perspective for energy conversion. 2021 , 13, 9908-9944	17
312	Heterojunction-based photocatalyst. 2021 , 85-130	1
311	Recent advancements and opportunities of decorated graphitic carbon nitride toward solar fuel production and beyond. 2021 , 5, 4457-4511	8
310	Schottky Junctions with Bi Cocatalyst for Taming Aqueous Phase N Reduction toward Enhanced Solar Ammonia Production. 2021 , 8, 2003626	25
309	Electrocatalysts for Photochemical Water-Splitting. 2020 , 171-199	1
308	Graphene-based 3D lightweight cellular structures: Synthesis and applications. 2020 , 37, 189-208	7
307	Insight into the effect of boron doping on electronic structure, photocatalytic and adsorption performance of g-C ₃ N ₄ by first-principles study. 2020 , 511, 145549	24
306	Heat treatment effect of a hybrid consisting of SnO ₂ nanorod and rutile TiO ₂ with heteroepitaxial junction on the photocatalytic activity. 2020 , 147, 106148	4
305	0D NiS ₂ quantum dots modified 2D g-C ₃ N ₄ for efficient photocatalytic CO ₂ reduction. 2020 , 600, 124912	29
304	Recent advances on TiO ₂ -based photocatalytic CO ₂ reduction. 2020 , 2, 100044	19
303	Optimization strategy for CdSe@CdS core-shell nanorod structures toward high performance water splitting photoelectrodes. 2020 , 129, 110914	5
302	Selective Photocatalytic Oxidation of Benzyl Alcohol at Ambient Conditions using Spray-Dried g-C ₃ N ₄ /TiO ₂ Granules. 2020 , 490, 110927	11
301	BiVO ₄ -Based Photoanodes for Photoelectrochemical Water Splitting. 2020 , 137-167	3
300	Rational design of multinary copper chalcogenide nanocrystals for photocatalytic hydrogen evolution. 2020 , 41, 091706	3
299	Silicon based photoelectrodes for photoelectrochemical water splitting. 2019 , 27, A51-A80	41
298	Photocatalytic Activity for Hydrogen Evolution of Heteroatom-Doped SrTiO ₃ Prepared Using a Graphitic-Carbon Nitride Nanosheet. 2020 , 3, 22-30	4
297	Advanced Nano-Structured Materials for Photocatalytic Water Splitting. 2016 , 7, 1-12	20

296	Photoactivities of Nanostructured β -Fe ₂ O ₃ Anodes Prepared by Pulsed Electrodeposition. 2016 , 53, 400-405	4
295	Solution-Processed Metal Oxide Thin Film Nanostructures for Water Splitting Photoelectrodes: A Review. 2018 , 55, 185-202	27
294	Advanced Nano-Structured Materials for Photocatalytic Water Splitting. 2016 , 7, 1-12	15
293	Hierarchical Nanostructures for Photocatalytic Applications. 2021 , 65-84	
292	Recent advances in Co-based co-catalysts for efficient photocatalytic hydrogen generation. 2021 , 608, 1553-1575	2
291	A perspective on possible amendments in semiconductors for enhanced photocatalytic hydrogen generation by water splitting. 2021 ,	10
290	2D/2D Heterojunction systems for the removal of organic pollutants: A review. 2021 , 297, 102540	10
289	Solar Fuel Photocatalysts. 2015 ,	
288	Photo-catalytic Properties of TiO ₂ Nanotube Arrays Sensitized with In ₂ S ₃ under Visible-light Irradiation. 2015 , 52, 221-223	
287	Photocurrent Properties of TiO ₂ Nanorods Grown on FTO by Hydrothermal Method. 2015 , 52, 531-534	
286	Synthesis of Magneli Phases and Application to the Photoelectrochemical Electrode. 2018 , 28, 261-267	0
285	Chapter 11: Plasmonic Photocatalysts for Environmental Applications. 2019 , 309-328	
284	Synthesis and Characterization of Single-Phased BiFeO ₃ Nanostructures for Photocatalytic Applications: Hydrothermal Approach. 2020 , 295-315	
283	Preparation and Physical/Electrochemical Characterization of the Hetero-System 10% NiO/Al ₂ O ₃ . 2021 , 331-337	
282	Photocatalysis: Fundamentals. 2021 , 1-36	3
281	Recent development in sustainable technologies for clean hydrogen evolution: Current scenario and future perspectives. 2022 , 97-130	1
280	Multiple catalytic sites of Fe-N _x and Fe-N-C single atoms embedded N-doped carbon heterostructures for high-efficiency removal of malachite green. 2022 , 430, 132933	8
279	Nanotechnology for Water and Wastewater Treatment Using Graphene Semiconductor Composite Materials. 2020 , 1-34	1

278	Enhancement of photoconversion efficiency and light harvesting ability of TiO ₂ nanotube-arrays with Cu ₂ ZnSnS ₄ . 2021 ,	
277	Design and Fabrication of ZnO/CdS Heterostructured Nanocomposites for Enhanced Hydrogen Evolution from Solar Water Splitting. 2021 , 134, 109056	2
276	Host/Guest Nanostructured Photoanodes Integrated with Targeted Enhancement Strategies for Photoelectrochemical Water Splitting. 2021 , e2103744	6
275	Uniform H-CdS@NiCoP core-shell nanosphere for highly efficient visible-light-driven photocatalytic H evolution. 2021 ,	1
274	Visible light photocatalytic abatement of tetracycline over unique Z-scheme ZnS/PI composites. 2021 , 575, 151798	1
273	Carbon Nitride/Metal Oxide Hybrids for Visible Light Harvesting and Water Remediation. 2021 , 53-79	2
272	Nanomaterials for the Photoremediation of Pollutants. 2021 , 283-319	
271	Constructing supramolecular self-assembled porous g-C ₃ N ₄ nanosheets containing thiophene-groups for excellent photocatalytic performance under visible light. 2022 , 578, 152064	6
270	Efficient strategies for boosting the performance of 2D graphitic carbon nitride nanomaterials during photoreduction of carbon dioxide to energy-rich chemicals. 2022 , 23, 100605	2
269	Electrospun Ceramic Nanofibers for Photocatalysis.. 2021 , 11,	2
268	Highly efficient thiomolybdate [Mo ₂ S ₁₂] ²⁻ nanocluster cocatalyst decorated on TiO ₂ to boost photocatalytic hydrogen evolution. 2021 ,	0
267	Enhanced photoelectrochemical activity of magnetically modified TiO ₂ prepared by a simple ex-situ route. 2022 , 26, 245	
266	Layered g-C ₃ N ₄ /TiO ₂ nanocomposites for efficient photocatalytic water splitting and CO ₂ reduction: A review. 2021 , 23, 100904	7
265	In situ construction of 0D CoWO modified 1D MnCdS for boosted visible-light photocatalytic H activity and photostability. 2021 ,	0
264	Graphitic Carbon Nitride as a Sustainable Photocatalyst Material for Pollutants Removal. State-of-the Art, Preliminary Tests and Application Perspectives. 2021 , 14,	1
263	Interface engineering: Synergism between S-scheme heterojunctions and Mo-O bonds for promote photocatalytic hydrogen evolution.. 2022 , 609, 212-223	6
262	Advancing Photoelectrochemical Energy Conversion through Atomic Design of Catalysts. 2021 , e2104363	8
261	Synthesis of Photocorrosion-Resistant VS ₄ -MoS ₂ -rGO based Nanocomposite with Efficient Photoelectrochemical Water-Splitting Activity. e202100429	3

260	Recent progress on the design and development of diaminotriazine based molecular catalysts for light-driven hydrogen production. 2022 , 456, 214375	3
259	Fe ₂ O ₃ /FePO ₄ /FeOOH ternary stepped energy band heterojunction photoanode with cascade-driven charges transfer property and enhanced photoelectrochemical performance.. 2022 ,	0
258	Novel CuBr-assisted graphdiyne synthesis strategy and application for efficient photocatalytic hydrogen evolution.	2
257	Copper phosphide decorated g-CN catalysts for highly efficient photocatalytic H evolution.. 2021 , 610, 126-135	2
256	In situ growth of 2D/3D Bi ₂ MoO ₆ /CeO ₂ heterostructures toward enhanced photodegradation and Cr(VI) reduction. 2022 , 285, 120312	2
255	From one to three: how to achieve well-steered spatial charge separation in Janus-like asymmetrically graphene oxide films for high photocatalytic performance. 2022 , 580, 152282	
254	Switching from two-electron to four-electron photocatalytic pure water splitting via band bending engineering with boosted activity. 2022 , 305, 121054	0
253	In-Situ Partial Cation Exchange-Derived Zn ₂ S ₄ Nanoparticles Hybridized 1D MIL-68/In ₂ S ₃ Microtubes for Highly Efficient Visible-Light Induced Water Splitting.	
252	Z-Scheme g-C ₃ N ₄ /Fe ₂ O ₃ Heterojunction Porous Nanocomposites for Photocatalytic Degradation of Gaseous Isopropanol Property.	
251	Insight into the Function of Noble-Metal Free Cu ₃ P Decorated Zn _{0.5} Cd _{0.5} S for Enhanced Photocatalytic Hydrogen Evolution Under Visible Light Irradiation ---- Mechanism for Continuous Increasing Activity.	
250	Carbon Dots: Synthesis, Properties and Applications.. 2021 , 11,	17
249	Graphitic Carbon Nitride-Based Photocatalyst for Environmental Remediation of Organic Pollutants. 2022 , 18,	1
248	Enhanced Performance and Stability for Photocatalytic Hydrogen Production of Cubic CdS by Combining with MoS ₂ and g-C ₃ N ₄ .	1
247	An Overview of Graphene-Based 2D/3D Nanostructures for Photocatalytic Applications. 1	0
246	Solar Hydrogen Production Using III-Nitride Nanowire Photoelectrode. 2022 , 275-295	
245	Cocatalyst free nickel sulphide nanostructure for enhanced photocatalytic hydrogen evolution. 2022 , 47, 5307-5318	3
244	A rational design of Ni ₃ CoyP@C cocatalyst for enhanced overall water splitting based on g-C ₃ N ₄ photocatalyst the synergy of carbon-shell modification and bimetal modulation. 2022 , 12, 935-946	0
243	A critical review on surface-modified nano-catalyst application for the photocatalytic degradation of volatile organic compounds. 2022 , 9, 61-80	5

242	Synergistic effect of the MoO/CeO S-scheme heterojunction on carbon rods for enhanced photocatalytic hydrogen evolution.. 2022 ,	1
241	Edge Rich Ultrathin Layered MoS Nanostructures for Superior Visible Light Photocatalytic Activity.. 2022 ,	1
240	ZnO-based heterostructures as photocatalysts for hydrogen generation and depollution: a review. 2022 , 20, 1047	6
239	Efficient Dye Contaminant Elimination and Simultaneously Electricity Production via a Bi-Doped TiO Photocatalytic Fuel Cell.. 2022 , 12,	1
238	Solar-powered chemistry: Engineering low-dimensional carbon nitride-based nanostructures for selective CO ₂ conversion to C ₁ ?C ₂ products. 2022 , 4,	4
237	Metal-nanocluster science and technology: my personal history and outlook.. 2022 ,	2
236	Phosphorus Modified Ni-MOF ₇ 4/BiVO ₄ S-scheme Heterojunction for Enhanced Photocatalytic Hydrogen Evolution. 2022 , 121166	7
235	Copper-doped zinc sulfide nanoframes with three-dimensional photocatalytic surfaces for enhanced solar driven H ₂ production. 2022 , 43, 782-792	0
234	Construction of SnO ₂ /g-C ₃ N ₄ composite photocatalyst with enhanced interfacial charge separation and high efficiency for hydrogen production and Rhodamine B degradation. 2022 , 638, 128288	4
233	In-situ partial cation exchange-derived ZnIn ₂ S ₄ nanoparticles hybridized 1D MIL-68/In ₂ S ₃ microtubes for highly efficient visible-light induced photocatalytic H ₂ production. 2022 , 287, 120585	1
232	One-pot loading of cadmium sulfide onto tungsten carbide for efficient photocatalytic H ₂ evolution under visible light irradiation. 2022 , 434, 134689	4
231	Lanthanide-containing clusters for catalytic water splitting and CO ₂ conversion. 2022 , 457, 214419	5
230	Electron-induced enhanced interfacial interaction of the CuO/BiOCl heterostructure for boosted CO ₂ photoreduction performance under simulated sunlight. 2022 , 583, 152463	0
229	Rational Design of a Novel S-Scheme Heterojunction based on ZIF-67-Supported Ni-Fe Layered Double Hydroxide for Efficient Photocatalytic Hydrogen Generation.	3
228	Recent Advancement of the Current Aspects of g-C ₃ N ₄ for its Photocatalytic Applications in Sustainable Energy System.. 2022 , e202100310	3
227	Boosting CdS Photocatalytic Activity for Hydrogen Evolution in Formic Acid Solution by P Doping and MoS Photodeposition.. 2022 , 12,	0
226	Efficient Electrocatalytic Upgradation of Furan-Based Biomass: Key Roles of a Two-Dimensional Mesoporous Poly(m-phenylenediamine)-Graphene Heterostructure and a Ternary Electrolyte.	2
225	Manipulating a TiO ₂ -graphene-Ta ₃ N ₅ heterojunction for efficient Z-scheme photocatalytic pure water splitting. 2022 , 150, 111782	1

224	Electrospun-Semiconductor-Based Nano-Heterostructures for Photocatalytic Energy Conversion and Environmental Remediation: Opportunities and Challenges.	6
223	Graphdiyne (g-C ₄ H ₂ N ₂) Coupled with Co ₃ O ₄ Formed a Zero-Dimensional/Two-Dimensional p-n Heterojunction for Efficient Hydrogen Evolution. 2021 , 60, 18397-18407	3
222	Construction and Performance of Cds/Moo2@Mo2c-Mxene Photocatalyst for H2 Production.	
221	A novel nano-sized red phosphorus decorated borocarbonitride heterojunction with enhanced photocatalytic performance for tetracycline degradation.	0
220	Boosting the photocatalytic H evolution activity of type-II g-GaN/ScCO van der Waals heterostructure using applied biaxial strain and external electric field.. 2022 , 12, 7391-7402	1
219	Single-atom catalysts for high-efficiency photocatalytic and photoelectrochemical water splitting: distinctive roles, unique fabrication methods and specific design strategies. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 6835-6871	13 6
218	Metal-Organic Framework as a Photocatalyst: Recent Growth in Environmental Applications. 2022 , 595-644	
217	NiCoP modified lead-free double perovskite Cs2AgBiBr6 for efficient photocatalytic hydrogen generation.	1
216	One-Dimensional Rod-Shaped Ag2mo2o7/Bioi N-N Junctions for Efficient Photodegradation of Tetracycline Under Visible Light.	
215	Bridging Effect of S-C Bond for Boosting Electron Transfer over Cubic Hollow CoS/g-CN Heterojunction toward Photocatalytic Hydrogen Production.. 2022 ,	5
214	Photocatalysis of TiO Sensitized with Graphitic Carbon Nitride and Electrodeposited Aryl Diazonium on Screen-Printed Electrodes to Detect Prostate Specific Antigen under Visible Light.. 2022 ,	0
213	Piezotronic effect boosted photocatalytic performance of NiO@PbTiO3 p-n heterojunction. 2022 ,	0
212	Shining light on ZnIn 2 S 4 photocatalysts: Promotional effects of surface and heterostructure engineering toward artificial photosynthesis.	2
211	Preparation and Photocatalytic Characterization of Modified Nano TiO/Nd/Rice Husk Ash Material for Rifampicin Removal in Aqueous Solution.. 2022 , 2022, 2084906	0
210	A visible-light active p-n heterojunction ZnO/Co3O4 composites supported on Ni foam as photoanode for enhanced photoelectrocatalytic removal of methylene blue. 1	2
209	Manganese cadmium sulfide nanoparticles solid solution on cobalt acid nickel nanoflakes: A robust photocatalyst for hydrogen evolution.. 2022 ,	0
208	Dimensionality-Dependent MoS2 toward Efficient Photocatalytic Hydrogen Evolution: From Synthesis to Modifications in Doping, Surface and Heterojunction Engineering. 2022 , 100191	0
207	A Triad Photoanode for Visible Light-Driven Water Oxidation via Immobilization of Molecular Polyoxometalate on Polymeric Carbon Nitride. 2100473	0

206	Two-dimensional g-C6N6/SiP-GaS van der Waals heterojunction for overall water splitting under visible light. 2022,	0
205	Review Strategic Design of Layered Double Hydroxides and Graphitic Carbon Nitride Heterostructures for Photoelectrocatalytic Water Splitting Applications.	0
204	Excellent piezo-photocatalytic performance of Bi4Ti3O12 nanoplates synthesized by molten-salt method. 2022, 107247	4
203	Highly enhanced photocatalytic property dominantly owing to the synergic effects of much negative Ecb and S-scheme heterojunctions in composite g-C3N4/Mo-doped WO3. 2022, 642, 128682	0
202	Construction of a novel p-n heterojunction CdS QDs/LaMnO3 composite for photodegradation of oxytetracycline. 2022, 144, 106568	2
201	Potential of graphene based photocatalyst for antiviral activity with emphasis on COVID-19: A review.. 2022, 10, 107527	3
200	Metal-free carboxyl modified g-C3N4 for enhancing photocatalytic degradation activity of organic pollutants through peroxymonosulfate activation in wastewater under solar radiation. 2022, 310, 123053	0
199	Electron-coupled enhanced interfacial interaction of Ce-MOF/Bi2MoO6 heterostructure for boosted photoreduction CO2. 2022, 10, 107461	2
198	Facile formation of Mo-vacancy defective MoS2/CdS nanoparticles enhanced efficient hydrogen production. 2022, 643, 128743	0
197	Synthesis of hollow Cu@Cu3P core-shell nanostructure as dual-functional catalyst with copper vacancy for enhancing chemical reduction and photocatalytic performance. 2022, 589, 153031	0
196	A Mini-Review on Nanostructured g-C3N4 Photocatalysts for Solar Fuel Production. 2021, 12,	
195	Temperature-Driven Morphology Control on CdSe Nanofractals and Its Influence over the Augmented Rate of H2 Evolution: Charge Separation via the S-Scheme Mechanism with Incorporated Cu3P. 2021, 4, 13983-13996	1
194	Stable and Efficient Photoinduced Charge Transfer of MnFe2O4/Polyaniline Photoelectrode in Highly Acidic Solution. 2022, 6, 1	
193	Improved photocatalytic performance of gradient reduced TiO2 ceramics with aligned pore channels. 2021,	6
192	Unlocking bimetallic active sites via a desalination strategy for photocatalytic reduction of atmospheric carbon dioxide.. 2022, 13, 2146	3
191	Non-Noble Plasmonic Metal-Based Photocatalysts.. 2022,	20
190	Graphdiyne (G-Cnh2n-2) Based Co3s4 Anchoring and Edge-Covalently Modification Coupled with Carbon-Defects G-C3n4 for Photocatalytic Hydrogen Production.	
189	Prism-like integrated BiWO3 with Ag-CuBiO on carbon nanotubes (CNTs) as an efficient and robust S-scheme interfacial charge transfer photocatalyst for the removal of organic pollutants from wastewater.. 2022, 1	2

188	One-dimensional rod-shaped Ag ₂ Mo ₂ O ₇ /BiOI n-n junctions for efficient photodegradation of tetracycline and rhodamine B under visible light. 2022 , 912, 165184	4
187	Synergy of nitrogen vacancies and intercalation of carbon species for enhancing sunlight photocatalytic hydrogen production of carbon nitride. 2022 , 314, 121497	1
186	Direct Z-scheme MoSe/TiO heterostructure with improved piezoelectric and piezo-photocatalytic performance.. 2022 , 622, 637-651	1
185	Scope and prospect of transition metal-based cocatalysts for visible light-driven photocatalytic hydrogen evolution with graphitic carbon nitride. 2022 , 465, 214516	1
184	Phenyl-incorporated carbon nitride photocatalyst with extended visible-light-absorption for enhanced hydrogen production from water splitting.. 2022 , 622, 494-502	0
183	Insight into the function of noble-metal free Cu ₃ P decorated Zn _{0.5} Cd _{0.5} S for enhanced photocatalytic hydrogen evolution under visible light irradiation-- mechanism for continuous increasing activity. 2022 , 153660	0
182	Interstitally O-doped CdxZn1-xS solid solution derived from chalcogenide molecular clusters for photocatalytic hydrogen evolution.	0
181	NiB as a Substitute for the Pt Cocatalyst in CdS with Enhanced Visible-Light Photocatalytic H ₂ Production.	0
180	CdS/SiI ₂ : A promising two-dimensional materials for photocatalytic water splitting. 2022 , 38, 105636	0
179	Environmentally-friendly carbon nanomaterials for photocatalytic hydrogen production. 2022 , 43, 1719-1748	1
178	Effects of coexistence of Mo and Zn vacancies with different valence states and interstitial H on the magneto-optical properties of ZnO: First-principles calculations. 2022 , 560, 111589	0
177	Disordered Spinel Cobalt Oxide Electrocatalyst for Highly Enhanced HER Activity in Alkaline Medium.	0
176	BiFeO ₃ -Based Materials For Augmented Photoactivity. 2022 , 167-216	0
175	Constructing Quantum dots sensitized TiO ₂ Nanotube p-n Heterojunction for Photoelectrochemical Hydrogen Generation. 2022 , 137312	1
174	Rate of Photocatalytic Hydrogen Evolution and Photovoltaic Characteristics as a Function of the Nature and Concentration of the Electrolyte. 2022 , 96, 1093-1098	0
173	Photodeposition of NiS Cocatalysts on g-C ₃ N ₄ with Edge Grafting of 4-(1H-Imidazol-2-yl) Benzoic Acid for Highly Elevated Photocatalytic H ₂ Evolution. 2200143	1
172	Enhanced photocatalytic degradation of tetracycline over magnetic La _{0.7} Sr _{0.3} MnO ₃ /g-C ₃ N ₄ p/n heterojunction arising from the synergistic effects of oxygen vacancy defects and high-potential photogenerated electrons. 2022 , 165699	1
171	Efficient photothermal catalytic hydrogen production via plasma-induced photothermal effect of Cu/TiO ₂ nanoparticles. 2022 ,	0

170	Constructing 3D flower-like hierarchical ZnO/SnS ₂ heterojunction by decorating SnS ₂ nanosheets with ZnO nanoclusters as synergistic photocatalyst.	1
169	Beyond T-graphene: Two-dimensional tetragonal allotropes and their potential applications. 2022 , 9, 021314	1
168	Stable Ti ³⁺ in B-TiO ₂ /BN based hybrids for efficient photocatalytic reduction. 2022 , 11, 100333	1
167	First-principles study on the effect of biaxial strain on the carrier lifetime and absorption spectrum redshift of (S, Se, Te) double-doped ZnO. 2022 , 211, 111552	
166	Enhancement of SO ₂ high temperature depolarized electrolysis by means of graphene oxide composite polybenzimidazole membranes. 2022 , 363, 132372	0
165	Photofunctional molecular assembly for artificial photosynthesis: Beyond a simple dye sensitization strategy. 2022 , 467, 214624	2
164	Getting the details right: optical, dielectric, and vibrational outcomes of structural phase transition in one-dimensional pyrrolidinium lead iodide and the role of defects.	0
163	Controllable sensitization of Zr-MOFs by CdS and its application for photoelectrochemical detection of alkaline phosphatase.	0
162	Charge Carrier Management in Semiconductors: Modeling Charge Transport and Recombination. 2022 , 365-398	1
161	Recent development in solar-driven photocatalytic hydrogen production utilizing g-C ₃ N ₄ .	1
160	Classification and catalytic mechanisms of heterojunction photocatalysts and the application of titanium dioxide (TiO ₂)-based heterojunctions in environmental remediation. 2022 , 10, 108077	0
159	Molecular Engineering of Robust Starburst-Based Organic Photosensitizers for Highly Efficient Photocatalytic Hydrogen Generation from Water.	1
158	Oxygen Vacancy-Induced Construction of CoO/h-TiO ₂ Z-Scheme Heterostructures for Enhanced Photocatalytic Hydrogen Evolution.	4
157	A review on synthesis, modification method, and challenges of light-driven H ₂ evolution using g-C ₃ N ₄ -based photocatalyst. 2022 , 102722	0
156	Robust S-scheme hierarchical Au-ZnIn ₂ S ₄ /NaTaO ₃ : Facile synthesis, superior photocatalytic H ₂ production and its charge transfer mechanism. 2022 ,	0
155	Long-Lived Internal Charge-Separated State in Two-Dimensional Metal-Organic Frameworks Improving Photocatalytic Performance. 2323-2330	2
154	Optical Metasurfaces for Energy Conversion.	4
153	Effects of hydroxyl groups on the surface of zinc stannate on the photocatalytic inactivation of marine microorganisms.	

152	Development of new thiocyanate-free Ruthenium(II) dyes bearing isoquinoline chromophores for hydrogen production via water splitting. 2022 , 205, 110508	1
151	Enhancing microbial fuel cell performance by carbon nitride-based nanocomposites. 2022 , 63-79	
150	Facilitating charge transfer through an atomic coherent interface of a novel direct Z-scheme BiVO ₄ @Cu ₃ SnS ₄ heterojunction for boosting photocatalytic performance.	1
149	Effect of the Graphitic Carbon Nitride Synthesis Atmosphere on its Activity in the Photocatalytic Generation of Hydrogen Peroxide. 2022 , 67, 715-720	0
148	CuS nanosheet-induced local hot spots on g-C ₃ N ₄ boost photocatalytic hydrogen evolution. 2022 ,	0
147	Covalent organic frameworks: Fundamentals, mechanisms, modification, and applications in photocatalysis. 2022 ,	3
146	The 3D Hierarchical Structure of ZnO@CdS Core-Shell Nanorods on WO ₃ Nanoplates for High-Performance Hydrogen Production. 2022 , 11, 073001	0
145	Photocatalyst-Mediator Interface Modification by Surface-Metal Cations of a Dye-Sensitized H ₂ Evolution Photocatalyst.	0
144	Boosting Hydrogen Evolution Electrocatalysis via Regulating the Electronic Structure in a Crystalline-Amorphous CoP/CeO _x p-n Heterojunction.	2
143	Synthesis of a Novel Double Z-Scheme TiO ₂ /Bi ₂ O ₃ -g-C ₃ N ₄ Photocatalyst with Enhanced Photocatalytic Performance to Rhodamine B Under Sunlight.	0
142	A review: g-C ₃ N ₄ as a new membrane material. 2022 , 10, 108189	2
141	Nanostructured materials based on g-C ₃ N ₄ for enhanced photocatalytic activity and potentials application: A review. 2022 , 15, 104070	0
140	Graphdiyne (g-C _n H _{2n-2}) based Co ₃ S ₄ anchoring and edge-covalently modification coupled with carbon-defects g-C ₃ N ₄ for photocatalytic hydrogen production. 2022 , 298, 121564	5
139	Facile synthesis of porous isotype heterojunction g-C ₃ N ₄ for enhanced photocatalytic degradation of RhB under visible light. 2022 , 128, 109227	2
138	Expediting photocarrier separation in Ta ₃ N ₅ @CaTaO ₂ N heterostructures with seamless interfaces for photocatalytic water oxidation under visible light. 2022 , 317, 121712	1
137	The interfacial ionic transport of two-dimensional ZnAl-mixed metal oxides nanocomposite. 2022 , 921, 166118	0
136	Oxygen vacancies and surface reconstruction on NiFe LDH@Ni(OH) ₂ heterojunction synergistically triggering oxygen evolution and urea oxidation reaction. 2022 , 921, 166145	2
135	CoV-LDH-Derived CoP 2 Active Sites and Zn x Cd 1k S Solid-Solution Ingeniously Constructed S-Scheme Heterojunction for Photocatalytic Hydrogen Evolution. 2200189	2

134	Noble-Metal-Free Chalcogenide Nanotwins for Efficient and Stable Photocatalytic Pure Water Splitting by Surface Phosphorization and Cocatalyst Modification.	
133	Effects of uniaxial/biaxial/triaxial strain on carrier lifetime and photocatalytic performance of ZnO: SBe system. 2022 , 57, 14918-14935	
132	Engineering Noble Metal-like Bi onto Hierarchical SrWO ₄ for the Enhancement of Photocatalytic Activity. 2022 , 12, 787	0
131	Construction and performance of CdS/MoO ₂ @Mo ₂ C-MXene photocatalyst for H ₂ production.	2
130	One-step synthesis of C quantum dots/C doped g-C ₃ N ₄ photocatalysts for visible-light-driven H ₂ production from water splitting.	0
129	Two birds with one stone: Engineering polymeric carbon nitride with n-π electronic transition for extended light absorption and reduced charge recombination. 2022 , 100077	0
128	Boosting Hydrogen Evolution Performance of a CdS-Based Photocatalyst: In Situ Transition from Type I to Type II Heterojunction during Photocatalysis. 2022 , 12, 10115-10126	3
127	Hollow nest-like Bi/Bi ₂ WO ₆ photocatalyst with coupled active effects of SPR and defective oxygen. 2022 , 33, 19447-19461	0
126	Review Combining Experimental and Engineering Aspects of Catalyst Design for Photoelectrochemical Water Splitting. 2022 , 1, 030501	1
125	Enhanced photocatalytic hydrogen evolution from reduced graphene oxide-defect rich TiO ₂ -x nanocomposites. 2022 ,	0
124	Hydrothermally decorated robust bimetallic sulfides with heterojunction interfaces for efficient hydrogen generation. 2022 ,	0
123	Photodeposition Synthesis of CdS@Ni ₂ P Composites for Efficacious Photocatalytic Hydrogen Evolution. 2022 , 5, 10207-10215	1
122	Visible light active IrO ₂ /TiO ₂ films for oxygen evolution from photocatalytic water splitting in an optofluidic planar microreactor. 2022 , 197, 902-910	0
121	Recent progress in perovskite transition metal oxide-based photocatalyst and photoelectrode materials for solar-driven water splitting. 2022 , 10, 108429	1
120	Three-dimensional BNT/PVDF composite foam with a hierarchical pore structure for efficient piezo-photocatalysis. 2022 , 10, 108399	0
119	Nanoscale p-n junction integration via the synergetic hybridization of facet-controlled Cu ₂ O and defect-modulated g-C ₃ N ₄ -x atomic layers for enhanced photocatalytic water splitting. 2022 , 29, 101102	0
118	Deconvoluting Photoelectrochemical Activity in Monoclinic Scheelite BiVO ₄ Facet Selected Thin Films.	0
117	Tailoring of efficient electron-extracting system: S-scheme g-C ₃ N ₄ /CoTiO ₃ heterojunction modified with Co ₃ O ₄ quantum dots for photocatalytic hydrogen evolution. 2022 , 922, 116749	1

- 116 Self-assembled spherical In₂O₃/BiOI heterojunctions for enhanced photocatalytic CO₂ reduction activity. **2022**, 65, 102220 0
- 115 Recent trends in MXenes hybrids as efficient 2D materials for photo- and electrocatalysis hydrogen production. **2022**, 26, 101108 0
- 114 Electron transfer via homogeneous phosphorus bridges enabling boosted photocatalytic generation of H₂ and H₂O₂ from pure water with stoichiometric ratio. **2022**, 103, 107799 0
- 113 All-organic covalent organic frameworks/perylene diimide urea polymer S-scheme photocatalyst for boosted H₂ generation. **2022**, 43, 2581-2591 1
- 112 A review on recent advances in selective and sensitive detection of heavy toxic metal ions in water using g-C₃N₄-based heterostructured composites. **2022**, 6, 2610-2650 0
- 111 A mechanochemically prepared graphdiyne (C_nH_{2n}) based Cu₃P@GDY pB heterojunction for efficient photocatalytic hydrogen evolution. **2022**, 6, 4506-4519 0
- 110 Atomically thin 2D photocatalysts for boosted H₂ production from the perspective of transient absorption spectroscopy. **2022**, 24, 19121-19143 0
- 109 Boosting the Photocatalytic Activity of G-C₃N₄/ZnO Heterojunctions Through Optimal Control of Mass Ratio. 0
- 108 Electrospun 1D-NiO hollow nanowires on glass support for the sunlight-driven photodegradation of methylene blue. **2022**, 12, 27948-27962 0
- 107 Synthesis a Clay Based Photocatalyst for the Removal of Eosin Yellow in Aqueous Solution. **2022**, 83-93 0
- 106 MgIn₂S₄@In₂O₃ hierarchical tubular heterostructures with expedited photocarrier separation for efficient visible-light-driven antimicrobial activity. **2023**, 452, 139559 0
- 105 Enhanced photocatalytic hydrogen evolution of CdS@CuS core-shell nanorods under visible light. **2023**, 153, 107105 0
- 104 The direct Z-scheme g-C₆N₆/WTe₂ van der Waals heterojunction as photocatalyst over water splitting in the visible light: Designing strategy from first principles. **2023**, 435, 114263 0
- 103 Photocatalytic H₂ O-to-H₂ O₂ and -H₂ affected by Pd-TiO₂/TiO₂. 1
- 102 Co_{0.9}Co_{0.1}S Nanorods with an Internal Electric Field and Photothermal Effect Synergistically for Boosting Photocatalytic H₂ Evolution. **2022**, 23, 9756 0
- 101 Discovery of Efficient Visible-light Driven Oxygen Evolution Photocatalysts: Automated High-Throughput Computational Screening of MA₂Z₄. 2207415 4
- 100 Metal carbide-based cocatalysts for photocatalytic solar-to-fuel conversion. 3
- 99 Outstanding cooperation of all-inorganic CsPbI₃ perovskite with TiO₂ forming composites and heterostructures for photodegradation. **2022**, 57, 17363-17379 0

98	Optimizing the Reaction Pathway by Active Site Regulation in the CdS/Fe ₂ O ₃ Z-Scheme Heterojunction System for Highly Selective Photocatalytic Benzylamine Oxidation Integrated with H ₂ Production. 2022 , 12, 12386-12397	2
97	Hybrid Materials for CO ₂ Reduction and H ₂ Generation. 2022 , 147-168	0
96	Regulating Electron-transfer over ZnIn ₂ S ₄ by Sn(II)/Sn(IV) Co-Doping for Efficient Photocatalytic Hydrogen Production.	0
95	Critical factors for photoelectrochemical and photocatalytic H ₂ evolution from gray anatase (001) nanosheets. 2022 , 4, 044004	1
94	Single-Layer and Bilayer MoS ₂ for Photocatalytic Water Splitting: Role of Optical Absorption Correction and Band Edge Distribution. 2022 , 106033	0
93	Hierarchical porous TiO ₂ with a uniform distribution of anchored gold nanoparticles for enhanced photocatalytic efficiency and accelerated charge separation for the degradation of antibiotics.	0
92	Enhancement in photocatalytic H ₂ evolution utilizing the synergistic effect between dual cocatalysts and heterojunctions. 2022 ,	0
91	Z-scheme heterojunction WO ₃ /BiOBr supported-single Fe atom for ciprofloxacin degradation via visible-light photocatalysis. 2022 , 10, 108693	0
90	The emerging role of biochar in the carbon materials family for hydrogen production. 2022 , 188, 209-228	0
89	Emerging Copper-Based Semiconducting Materials for Photocathodic Applications in Solar Driven Water Splitting. 2022 , 12, 1198	2
88	Tailoring Structure: Current Design Strategies and Emerging Trends to Hierarchical Catalysts. 2022 , 12, 1152	0
87	Selective Enhancement of Photo-Piezocatalytic Performance in BaTiO ₃ Via heterovalent Ion Doping. 2209365	3
86	Title: A nearly complete decomposition of MO, TC and OFX over a direct Z-scheme p-n heterojunction g-C ₃ N ₄ /La-Bi ₂ O ₃ composite. 2022 , 167554	1
85	Recent Advances in Semiconductor Heterojunctions and Z-Schemes for Photocatalytic Hydrogen Generation. 2022 , 380,	1
84	Noble-metal-free Chalcogenide Nanotwins for Efficient and Stable Photocatalytic Pure Water Splitting by Surface Phosphorization and Cocatalyst Modification. 2022 , 101180	1
83	A Review on Photocatalytic Glass Ceramics: Fundamentals, Preparation, Performance Enhancement and Future Development. 2022 , 12, 1235	0
82	Ternary Dumbbell Nanowires for Photocatalytic Hydrogen Production.	0
81	Synergic Effect of type-II ZnO/BiVO ₄ Magnetic Heterostructures for Visible-Light-Driven Degradation of Bisphenol A and Methyl Violet.	0

- 80 In situ synthesis of Cu₃P/P-doped g-C₃N₄ tight 2D / 2D heterojunction boosting photocatalytic H₂ evolution. 0
- 79 Synergetic Effects of Random Copolymerization/Backbone Fluorination and Heterojunction of Terpolymer/g-C₃N₄ Enhance Photocatalytic Hydrogen Evolution. 2200664 0
- 78 Rationally designed 1D CdS/TiO₂@Ti₃C₂ multi-components nanocomposites for enhanced visible light photocatalytic hydrogen production. **2022**, 809, 140150 0
- 77 Tailoring the optoelectronic properties of g-C₆N₆/GaTe vdW heterojunction by biaxial strain. **2022**, 130, 109511 0
- 76 Reduced nickel on cobalt sulphide with carbon supported (Ni-CoS/C) composite material as a low-cost and efficient electrocatalyst for hydrogen evolution reaction. **2022**, 435, 141437 1
- 75 Quantum-dot sensitized hierarchical NiO/pB heterojunction for effective photocatalytic performance. **2022**, 12, 32459-32470 0
- 74 In-situ sulfidation to fabricate Ni_x modified g-C₃N₄/NiO composite for efficient photocatalytic hydrogen production under visible-light. **2023**, 610, 155570 0
- 73 Ti₃C₂T_x MXene framework materials: Preparation, properties and applications in energy and environment. **2022**, 0
- 72 Recent trends in photoelectrochemical water splitting: the role of cocatalysts. **2022**, 14, 2
- 71 Quantum dots, passivation layer and cocatalysts for enhanced photoelectrochemical hydrogen production. 0
- 70 In situ-fabricated p-Co₃O₄@n-ZnO surface heterojunction photocatalyst for solar-to-fuel conversion of CO₂. 0
- 69 Recent advances of cobalt-based nitride catalysts in solar energy conversion. 0
- 68 Multichannel electron transmission and multiple light scattering in CoCo PBA/CoSn(OH)₆/Pt photocatalyst for effective conversion of simulated flue gas. **2023**, 334, 126747 0
- 67 Design and synthesis of Fe₂O₃/MIL-53(Fe) composite as a photo-Fenton catalyst for efficient degradation of tetracycline hydrochloride. **2023**, 659, 130822 1
- 66 Nanomaterials design for photoelectrochemical water oxidation. **2022**, 0
- 65 Synthesis and Photocatalytic Applications of Functionalized Carbon Quantum Dots. **2022**, 95, 1638-1679 2
- 64 More than One Century of History for Photocatalysis, from Past, Present and Future Perspectives. **2022**, 12, 1572 0
- 63 Structure-Dependent Surface Molecule-Modified Semiconductor Photocatalysts: Recent Progress and Future Challenges. **2022**, 10, 16476-16502 1

62	MetalOrganic Frameworks as Photocatalysts for Solar-Driven Overall Water Splitting.	3
61	In Situ Fabrication of N-Doped ZnS/ZnO Composition for Enhanced Visible-Light Photocatalytic H ₂ Evolution Activity. 2022 , 27, 8544	1
60	Molecular-level Insights on NIR-Driven Photocatalytic H ₂ Generation with Ultrathin Porous S-doped g-C ₃ N ₄ Nanosheets. 2022 , 122292	0
59	Nitrogen doped graphene supported mixed metal sulfide photocatalyst for high production of hydrogen using natural solar light. 2022 ,	0
58	Bibliometric review and recent advances in total scattering pair distribution function analysis: 21 years in retrospect. 1-35	0
57	Silicon nanowires as an efficient material for hydrogen evolution through catalysis: A review. 2022 ,	0
56	The effects of terminal groups on the structure and photocatalytic performance of imine-linked conjugated polymers. 2022 , 114481	0
55	g-C ₃ N ₄ -wrapped nickel doped zinc oxide/carbon core-double shell microspheres for high-performance photocatalytic hydrogen production. 2022 ,	1
54	Solar-to-hydrogen efficiency of more than 9% in photocatalytic water splitting. 2023 , 613, 66-70	6
53	Band gap and defect engineering of bismuth vanadate using La, Ce, Zr dopant to obtain an photoelectrochemical system for ultra-sensitive detection of glucose in blood serum.	0
52	2D Transition Metal Dichalcogenides for Photocatalysis.	0
51	2D Transition Metal Dichalcogenides for Photocatalysis.	0
50	Preparation of doped TiO ₂ nanomaterials and their applications in photocatalysis. 2023 , 46,	0
49	Applications of Fluorescent Carbon Dots as Photocatalysts: A Review. 2023 , 13, 179	1
48	Cocatalyst Engineering with Robust Tunable Carbon-Encapsulated Mo-Rich Mo/Mo ₂ C Heterostructure Nanoparticle for Efficient Photocatalytic Hydrogen Evolution. 2212746	0
47	Advances in Photochemical Splitting of Seawater over Semiconductor Nano-Catalysts for Hydrogen Production: A Critical Review. 2023 ,	2
46	A comprehensive study on rational biocatalysts and individual components of photobiocatalytic H ₂ production systems. 2023 , 651, 119019	0
45	Dual-Z-scheme Co ₃ O ₄ /CoO-CNNS heterojunction for facilitating charge transport toward improving photocatalytic hydrogen generation. 2023 , 939, 168807	0

- 44 Non-metal doping induced dual p-n charge properties in a single ZnIn₂S₄ crystal structure provoking charge transfer behaviors and boosting photocatalytic hydrogen generation. **2023**, 325, 122372 ○
- 43 An Insight into Carbon Nanomaterial-Based Photocatalytic Water Splitting for Green Hydrogen Production. **2023**, 13, 66 2
- 42 Structural Engineering of BiVO₄/CoFe MOF Heterostructures Boosting Charge Transfer for Efficient Photoelectrochemical Water Splitting. 2205246 ○
- 41 Future Applications of Photocatalysis. **2016**, 232-252 ○
- 40 Construction of g-C₃N₄ nanoparticles modified TiO₂ nanotube arrays with Z-scheme heterojunction for enhanced photoelectrochemical properties. **2023**, 58, 2676-2688 ○
- 39 Cost-Effective Preparation of Layered Tantalum Oxynitrides for Visible Light-driven Photocatalysis. ○
- 38 Semiconductor Nanomaterial Photocatalysts for Water-Splitting Hydrogen Production: The Holy Grail of Converting Solar Energy to Fuel. **2023**, 13, 546 1
- 37 Fabrication of Ag/AgBr/LaAl_{0.5}Cr_{0.5}O₃ composite with enhanced photocatalytic performance for the degradation of methylene blue and 4-chlorophenol. ○
- 36 Monolayer BP: A Promising Photocatalyst for Water Splitting with High Carrier Mobility. ○
- 35 Plasmonic Zn_{0.5}Cd_{0.5}S/NaxMoO₃ composites with excellent full-spectrum driven photocatalytic hydrogen activity. **2023**, 617, 156460 ○
- 34 MXene-based materials for removal of antibiotics and heavy metals from wastewater: A review. **2023**, 29, 100202 ○
- 33 Recent advances on g-C₃N₄-based Z-scheme photocatalysts for organic pollutant removal. ○
- 32 A new visible-light driven photocatalytic PVDF-MoS₂@WO₃ membrane for clean water recovery from natural rubber wastewater. **2023**, 52, 103522 ○
- 31 Hollow Spherical Pd/CdS/NiS with Carrier Spatial Separation for Photocatalytic Hydrogen Generation. **2023**, 13, 1326 ○
- 30 Photocatalytic degradation of methylene blue and rhodamine B using one-pot synthesized nickel oxide grafted glycine (NiO @GLY) nanostructured: Oxygen vacancies effect. **2023**, 439, 114622 ○
- 29 Mechanistic insights into the origin of MnO_x co-catalysts for the improved photoelectrochemical properties of Fe₂O₃. **2023**, 440, 114649 ○
- 28 Cerium-cobalt bimetallic metal-organic frameworks with the mixed ligands for photocatalytic degradation of methylene blue. **2023**, 152, 110664 ○
- 27 A review on 2D transition metal nitrides: Structural and morphological impacts on energy storage and photocatalytic applications. **2023**, 950, 169888 ○

- 26 A novel photoelectrochemical sensor based on three-dimensional rGO@Au-sensitized cauliflower-like CdS heterojunction for the effective and sensitive detection of copper (II) in pool water. **2023**, 190, 108643 ○
- 25 State-of-the-art progress in Ag₃PO₄-based photocatalysts: Rational design, regulation and perspective. **2023**, 31, 101742 1
- 24 Recent advances in the hybridization of cellulose and semiconductors: Design, fabrication and emerging multidimensional applications: A review. **2023**, 233, 123551 ○
- 23 Heterogeneous Photocatalysis by Graphitic Carbon Nitride for Effective Hydrogen Production. **2023**, 397-415 ○
- 22 Boosting photocatalytic performance of Cd_xZn_{1-x}S for H₂ production by Mo₂C MXene with large interlayer distance. **2023**, 11, 5851-5863 ○
- 21 Boosting photocatalytic performances of lamellar BiVO₄ by constructing S-scheme heterojunctions with AgBr for efficient charge transfer. **2023**, 34, 215703 ○
- 20 Boosting the photocatalytic activity of g-C₃N₄/ZnO heterojunctions through optimal control of mass ratio. **2023**, 138, 107128 ○
- 19 Hydrothermal Synthesis of Bimetallic (Zn, Co) Co-Doped Tungstate Nanocomposite with Direct Z-Scheme for Enhanced Photodegradation of Xylenol Orange. **2023**, 13, 404 ○
- 18 GaN nanowires/Si photocathodes for CO₂ reduction towards solar fuels and chemicals: advances, challenges, and prospects. ○
- 17 Bi₂S₃ incorporated mesoporous ZrO₂ networks as an effective photocatalyst for photocatalytic oxidation of thiophene. **2023**, 151, 110584 ○
- 16 Crystallinity-defect matching relationship of g-C₃N₄: Experimental and theoretical perspectives. **2023**, ○
- 15 Carbonaceous Nanostructures-Based Photocatalysts for Sustainable H₂ Production. **2023**, 257-283 ○
- 14 Semiconductor Quantum Dots for Water Splitting and CO₂ Photoreduction. **2023**, 275-307 ○
- 13 Computational Approaches to Materials Design for Enhanced Photocatalytic Activity. **2023**, 308-330 ○
- 12 Development of Aldehyde Functionalized Iridium(III) Complexes Photosensitizers with Strong Visible-Light Absorption for Photocatalytic Hydrogen Generation from Water. **2023**, 11, 110 ○
- 11 Interfacial Coordinational Bond Triggered Photoreduction Membrane for Continuous Light-Driven Precious Metals Recovery. **2023**, 23, 2219-2227 ○
- 10 Research Progress of Tungsten Oxide-Based Catalysts in Photocatalytic Reactions. **2023**, 13, 579 ○
- 9 Heteroatom P filling activates intrinsic S atomic sites of few-layered ZnIn₂S₄ via modulation of H₂ adsorption kinetics for sacrificial agent-free photocatalytic hydrogen evolution from pure water and seawater. ○

- 8 Graphitic carbon nitride (g-C₃N₄) based heterogeneous single atom catalysts: synthesis, characterisation and catalytic applications. ○
- 7 Role of molecular modelling in the development of metal-organic framework for gas adsorption applications. **2023**, 135, ○
- 6 Sb-Substituted Cs₂AgBiBr₆/g-C₃N₄ Composite for Photocatalytic C(sp³)-H Bond Activation in Toluene. ○
- 5 Interface-Engineered Ni-Coated CdTe Heterojunction Photocathode for Enhanced Photoelectrochemical Hydrogen Evolution. ○
- 4 Rapid Synthesis of Ultrathin Ni:FeOOH with In Situ-Induced Oxygen Vacancies for Enhanced Water Oxidation Activity and Stability of BiVO₄ Photoanodes. ○
- 3 Design of hybrid g-C₃N₄/GO/MCE photocatalytic membranes with enhanced separation performance under visible-light irradiation. **2023**, 143164 ○
- 2 Enhanced charge separation and O₂ activation over an anion-rich photocatalyst Ba₃(BO₃)(CO₃)F for metronidazole removal in water. **2023**, 318, 123986 ○
- 1 Recent Developments in MOFs Materials for the Photocatalytic H₂ Production by Water Splitting. **2023**, 439-448 ○