

# Photocatalysis with Reduced TiO<sub>2</sub>: From B Cocatalyst-Free Hydrogen Production

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Kinetic study and performance comparison of TiO <sub>2</sub> -mediated visible-light-responsive photocatalysts for the inactivation of <i>Aspergillus niger</i> . <i>Science of the Total Environment</i> , 2019, 692, 975-983.	3.9	20
2	Urea and Melamine Formaldehyde Resin-Derived Tubular g-C <sub>3</sub> N <sub>4</sub> with Highly Efficient Photocatalytic Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 27934-27943.	4.0	54
3	Plasmon-Enhanced Electron Harvesting in Robust Titanium Nitride Nanostructures. <i>Journal of Physical Chemistry C</i> , 2019, 123, 18521-18527.	1.5	23
4	Role of Ni <sup>2+</sup> ions in TiO <sub>2</sub> and Pt/TiO <sub>2</sub> photocatalysis for phenol degradation in aqueous suspensions. <i>Applied Catalysis B: Environmental</i> , 2019, 258, 117903.	10.8	34
5	Amorphous TiO <sub>2</sub> nanostructures: synthesis, fundamental properties and photocatalytic applications. <i>Catalysis Science and Technology</i> , 2019, 9, 4198-4215.	2.1	105
6	Titanium Hydroxide Secondary Building Units in Metal-Organic Frameworks Catalyze Hydrogen Evolution under Visible Light. <i>Journal of the American Chemical Society</i> , 2019, 141, 12219-12223.	6.6	86
7	Introducing catalysis in photocatalysis: What can be understood from surface science studies of alcohol photoreforming on TiO <sub>2</sub> . <i>Journal of Physics Condensed Matter</i> , 2019, 31, 473002.	0.7	19
8	Enhanced UV photoactivity of Ti <sup>3+</sup> self-doped anatase TiO <sub>2</sub> single crystals hydrothermally synthesized using Ti-H <sub>2</sub> O <sub>2</sub> -HF reactants. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 382, 111958.	2.0	7
9	Photoinduced Fabrication of Cu/TiO <sub>2</sub> Core-Shell Heterostructures Derived from Cu-MOF for Solar Hydrogen Generation: The Size of the Cu Nanoparticle Matters. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26073-26081.	1.5	26
10	MoS <sub>2</sub> Quantum Dots Modified Black Ti <sup>3+</sup> -TiO <sub>2</sub> /g-C <sub>3</sub> N <sub>4</sub> Hollow Nanosphere Heterojunction toward Photocatalytic Hydrogen Production Enhancement. <i>Solar Rrl</i> , 2019, 3, 1900337.	3.1	41
11	A 0.94 $\mu$ W 611 KHz In-Situ Logic Operation in Embedded DRAM Memory Arrays in 90 nm CMOS. <i>Electronics (Switzerland)</i> , 2019, 8, 865.	1.8	3
12	Oxygen-Deficient TiO <sub>2</sub> Synthesized from MIL-125 Metal-Organic Framework for Photocatalytic Dye Degradation. <i>Bulletin of the Chemical Society of Japan</i> , 2019, 92, 2012-2018.	2.0	7
13	Facile Synthesis of Layered Titanate/Rutile Heterojunction Photocatalysts. <i>Bulletin of the Chemical Society of Japan</i> , 2019, 92, 1801-1806.	2.0	3
14	Phase-Selective Disordered Anatase/Ordered Rutile Interface System for Visible-Light-Driven, Metal-Free CO <sub>2</sub> Reduction. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 35693-35701.	4.0	32
15	Piezophototronic effect in enhancing charge carrier separation and transfer in ZnO/BaTiO <sub>3</sub> heterostructures for high-efficiency catalytic oxidation. <i>Nano Energy</i> , 2019, 66, 104127.	8.2	163
16	Shallow Trap State-Induced Efficient Electron Transfer at the Interface of Heterojunction Photocatalysts: The Crucial Role of Vacancy Defects. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 40860-40867.	4.0	63
17	Functions of boric acid in fabricating TiO <sub>2</sub> for photocatalytic degradation of organic contaminants and hydrogen evolution. <i>Molecular Catalysis</i> , 2019, 479, 110614.	1.0	12
18	Room temperature Mg reduction of TiO <sub>2</sub> : formation mechanism and application in photocatalysis. <i>Chemical Communications</i> , 2019, 55, 7675-7678.	2.2	13

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19	Probing supramolecular assembly and charge carrier dynamics toward enhanced photocatalytic hydrogen evolution in 2D graphitic carbon nitride nanosheets. <i>Applied Catalysis B: Environmental</i> , 2019, 256, 117867.	10.8	137
20	Sulfur and Ti <sup>3+</sup> co-doping of TiO <sub>2</sub> Nanotubes Enhance Photocatalytic H <sub>2</sub> Evolution Without the Use of Any co-catalyst. <i>Chemistry - an Asian Journal</i> , 2019, 14, 2724-2730.	1.7	12
21	Highly Dispersed NiCo <sub>2</sub> O <sub>4</sub> Nanodots Decorated Three-Dimensional g-C <sub>3</sub> N <sub>4</sub> for Enhanced Photocatalytic H <sub>2</sub> Generation. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 12428-12438.	3.2	115
22	Electrostatically assembled construction of ternary TiO <sub>2</sub> -Cu@C hybrid with enhanced solar-to-hydrogen evolution employing amorphous carbon dots as electronic mediator. <i>Chemical Engineering Journal</i> , 2019, 375, 121902.	6.6	38
23	Strategies of Anode Materials Design towards Improved Photoelectrochemical Water Splitting Efficiency. <i>Coatings</i> , 2019, 9, 309.	1.2	13
24	Efficient H <sub>2</sub> production by photocatalytic water splitting under UV or solar light over variously modified TiO <sub>2</sub> -based catalysts. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 14796-14807.	3.8	38
25	Magn@li-Phases in Anatase Strongly Promote Cocatalyst-Free Photocatalytic Hydrogen Evolution. <i>ACS Catalysis</i> , 2019, 9, 3627-3632.	5.5	40
26	Self-Enhancing H <sub>2</sub> Evolution from TiO <sub>2</sub> Nanostructures under Illumination. <i>ChemSusChem</i> , 2019, 12, 1900-1905.	3.6	40
27	Excitation Wavelength- and Medium-Dependent Photoluminescence of Reduced Nanostructured TiO <sub>2</sub> Films. <i>Journal of Physical Chemistry C</i> , 2019, 123, 11292-11303.	1.5	21
28	Integrated Au/TiO <sub>2</sub> Nanostructured Photoanodes for Photoelectrochemical Organics Degradation. <i>Catalysts</i> , 2019, 9, 340.	1.6	18
29	Ag <sub>x</sub> H <sub>3</sub> xPMo <sub>12</sub> O <sub>40</sub> /Ag nanorods/g-C <sub>3</sub> N <sub>4</sub> 1D/2D Z-scheme heterojunction for highly efficient visible-light photocatalysis. <i>Dalton Transactions</i> , 2019, 48, 6484-6491.	1.6	32
30	An aqueous solution method towards Sb <sub>2</sub> S <sub>3</sub> thin films for photoanodes. <i>Chemical Communications</i> , 2019, 55, 14530-14533.	2.2	9
31	Magn@li Phases Doped with Pt for Photocatalytic Hydrogen Evolution. <i>ACS Applied Energy Materials</i> , 2019, 2, 8399-8404.	2.5	18
32	Photocatalytic Performance of SiO <sub>2</sub> /CNOs/TiO <sub>2</sub> to Accelerate the Degradation of Rhodamine B under Visible Light. <i>Nanomaterials</i> , 2019, 9, 1671.	1.9	24
33	MoS <sub>2</sub> Quantum Dots Modified Black Ti <sup>3+</sup> @TiO <sub>2</sub> /g-C <sub>3</sub> N <sub>4</sub> Hollow Nanosphere Heterojunction toward Photocatalytic Hydrogen Production Enhancement. <i>Solar Rrl</i> , 2019, 3, 1970123.	3.1	21
34	Facile and Large-scale Synthesis of Defective Black TiO <sub>2</sub> (B) Nanosheets for Efficient Visible-light-driven Photocatalytic Hydrogen Evolution. <i>Catalysts</i> , 2019, 9, 1048.	1.6	19
35	The photogenerated charge characteristics in Ni@NiO/CdS hybrids for increased photocatalytic H <sub>2</sub> generation. <i>RSC Advances</i> , 2019, 9, 39604-39610.	1.7	8
36	Electrochemically prepared copper/indium oxides photocathode for efficient photoelectrochemical hydrogen production. <i>Solar Energy Materials and Solar Cells</i> , 2020, 206, 110262.	3.0	9

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37	Z-scheme hierarchical Cu <sub>2</sub> S/Bi <sub>2</sub> WO <sub>6</sub> composites for improved photocatalytic activity of glyphosate degradation under visible light irradiation. Separation and Purification Technology, 2020, 236, 116243.	3.9	45
38	Ultrathin ZnIn <sub>2</sub> S <sub>4</sub> nanosheets with active (110) facet exposure and efficient charge separation for cocatalyst free photocatalytic hydrogen evolution. Applied Catalysis B: Environmental, 2020, 265, 118616.	10.8	132
39	Atomic-Scale Mapping of Impurities in Partially Reduced Hollow TiO <sub>2</sub> Nanowires. Angewandte Chemie - International Edition, 2020, 59, 5651-5655.	7.2	42
40	Rational design of oxygen deficient TiO <sub>2-x</sub> nanoparticles conjugated with chlorin e6 (Ce6) for photoacoustic imaging-guided photothermal/photodynamic dual therapy of cancer. Nanoscale, 2020, 12, 1707-1718.	2.8	23
41	Band alignment modulations of metal-semiconductor system for enhanced charge separation directly related to a photocatalytic performance. Catalysis Communications, 2020, 136, 105921.	1.6	2
42	Influence of Ti <sup>3+</sup> defect-type on heterogeneous photocatalytic H <sub>2</sub> evolution activity of TiO <sub>2</sub> . Journal of Materials Chemistry A, 2020, 8, 1432-1442.	5.2	89
43	A review on metal-organic frameworks for photoelectrocatalytic applications. Chinese Chemical Letters, 2020, 31, 1773-1781.	4.8	43
44	N-doped graphene-wrapped TiO <sub>2</sub> nanotubes with stable surface Ti <sup>3+</sup> for visible-light photocatalysis. Applied Surface Science, 2020, 512, 144549.	3.1	33
45	Ag-doped TiO <sub>2</sub> photocatalysts with effective charge transfer for highly efficient hydrogen production through water splitting. International Journal of Hydrogen Energy, 2020, 45, 2729-2744.	3.8	175
46	Anatase-rutile phase transformation and photocatalysis in peroxide gel route prepared TiO <sub>2</sub> nanocrystals: Role of defect states. Solid State Sciences, 2020, 108, 106392.	1.5	41
47	Exponentially self-promoted hydrogen evolution by uni-source photo-thermal synergism in concentrating photocatalysis on co-catalyst-free P25 TiO <sub>2</sub> . Journal of Catalysis, 2020, 392, 165-174.	3.1	26
48	Donors and polaronic absorption in rutile TiO <sub>2</sub> single crystals. Journal of Applied Physics, 2020, 128, 145701.	1.1	6
49	Bi-based photocatalysts for light-driven environmental and energy applications: Structural tuning, reaction mechanisms, and challenges. EcoMat, 2020, 2, e12047.	6.8	79
50	Efficient chemiluminescence harnessing via slow photons in sensitized TiO <sub>2</sub> nanotubes for the photoelectrochemical biosensing. Journal of Electroanalytical Chemistry, 2020, 878, 114676.	1.9	9
51	Boosting visible-light-driven catalytic hydrogen evolution via surface Ti <sup>3+</sup> and bulk oxygen vacancies in urchin-like hollow black TiO <sub>2</sub> decorated with RuO <sub>2</sub> and Pt dual cocatalysts. Catalysis Science and Technology, 2020, 10, 7914-7921.	2.1	18
52	Photo-Degradation Performance for RhB under Visible Light Irradiation. Integrated Ferroelectrics, 2020, 210, 48-57.	0.3	1
53	Long-Living Holes in Grey Anatase TiO <sub>2</sub> Enable Noble-Metal-Free and Sacrificial-Agent-Free Water Splitting. ChemSusChem, 2020, 13, 4937-4944.	3.6	18
54	Great Enhancement of Self-Powered Photoresponse Performance of C <sub>3</sub> H <sub>8</sub> NSi/TiO <sub>2</sub> NRAs/n-Si Heterojunction by Built-In and Built-Out Electric Field Jointly Promoting Carrier Separation. Advanced Electronic Materials, 2020, 6, 2000501.	2.6	10

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55	Lattice disorders of TiO <sub>2</sub> and their significance in the photocatalytic conversion of CO <sub>2</sub> . <i>Advances in Catalysis</i> , 2020, , 109-233.	0.1	7
56	Mesoporous TiO <sub>2</sub> anatase films for enhanced photocatalytic activity under UV and visible light. <i>RSC Advances</i> , 2020, 10, 38233-38243.	1.7	5
57	Role of Rare Earth Elements and Entropy on the Anatase-To-Rutile Phase Transformation of TiO <sub>2</sub> Thin Films Deposited by Ion Beam Sputtering. <i>ACS Omega</i> , 2020, 5, 28027-28036.	1.6	12
58	Visible light responsive TiO <sub>2</sub> photocatalysts for degradation of indoor acetaldehyde. <i>RSC Advances</i> , 2020, 10, 41393-41402.	1.7	4
59	Photocatalytic active silver organic framework: Ag(I)-MOF and its hybrids with silver cyanamide. <i>Applied Organometallic Chemistry</i> , 2020, 34, e5972.	1.7	10
60	Dewetting of PtCu Nanoalloys on TiO <sub>2</sub> Nanocavities Provides a Synergistic Photocatalytic Enhancement for Efficient H <sub>2</sub> Evolution. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 38211-38221.	4.0	40
61	Two-dimensional MoS <sub>2</sub> nanosheet-modified oxygen defect-rich TiO <sub>2</sub> nanoparticles for light emission and photocatalytic applications. <i>New Journal of Chemistry</i> , 2020, 44, 14936-14946.	1.4	32
62	Mesoporous black TiO <sub>2</sub> phase junction@Ni nanosheets: A highly integrated photocatalyst system. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2020, 114, 284-290.	2.7	8
63	State-of-the-art advancements in photo-assisted CO <sub>2</sub> hydrogenation: recent progress in catalyst development and reaction mechanisms. <i>Journal of Materials Chemistry A</i> , 2020, 8, 24868-24894.	5.2	40
64	Tunable Synthesis of N,C-Codoped Ti <sup>3+</sup> -Enriched Titanium Oxide Support for Highly Durable PEMFC Cathode. <i>ACS Catalysis</i> , 2020, 10, 12080-12090.	5.5	39
65	Hot Carrier Transfer-Induced Photodegradation at a Thiolated Au/TiO <sub>2</sub> Interface under X-ray Irradiation. <i>Journal of Physical Chemistry C</i> , 2020, 124, 22212-22220.	1.5	4
66	Mechanochemical Synthesis of Red-Light-Active Green TiO <sub>2</sub> Photocatalysts with Disorder: Defect-Rich, with Polymorphs, and No Metal Loading. <i>Chemistry of Materials</i> , 2020, 32, 9190-9200.	3.2	26
67	Light-induced In-situ Ti <sup>3+</sup> Formation in TiO <sub>2</sub> Nanosheets for Photocatalytic Hydrogen Evolution. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 908, 012001.	0.3	3
68	Polycyclic Aromatic Hydrocarbons and Dust Particle Surface Interactions: Catalytic Hydrogenation of Polycyclic Aromatic Hydrocarbon Molecules under Vacuum Conditions. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 1730-1742.	1.2	5
69	Electronic Metal-Support Interactions in the Activation of CO Oxidation over a Cu/TiO <sub>2</sub> Aerogel Catalyst. <i>Journal of Physical Chemistry C</i> , 2020, 124, 21491-21501.	1.5	21
70	Sunlight-Operated TiO <sub>2</sub> -Based Photocatalysts. <i>Molecules</i> , 2020, 25, 4008.	1.7	23
71	Electronic structure and optical properties of C-Pt codoped anatase TiO <sub>2</sub> by first principles. <i>Optik</i> , 2020, 223, 165588.	1.4	5
72	Black TiO <sub>2</sub> Synthesis by Chemical Reduction Methods for Photocatalysis Applications. <i>Frontiers in Chemistry</i> , 2020, 8, 565489.	1.8	47

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73	Efficient visible light photocatalysis enabled by the interaction between dual cooperative defect sites. Applied Catalysis B: Environmental, 2020, 274, 119099.	10.8	34
74	Triple layered Ga <sub>2</sub> O <sub>3</sub> /Cu <sub>2</sub> O/Au photoanodes with enhanced photoactivity and stability prepared using iron nickel oxide catalysts. Journal of Materials Chemistry A, 2020, 8, 10966-10972.	5.2	5
75	Mesoporous dark brown TiO <sub>2</sub> spheres for pollutant removal and energy storage applications. Applied Surface Science, 2020, 527, 146796.	3.1	40
76	Fabrication of hydroxyl group-enriched mixed-phase TiO <sub>2</sub> nanoflowers consisting of nanoflakes for efficient photocatalytic activity. Journal of Materials Science: Materials in Electronics, 2020, 31, 12546-12560.	1.1	13
77	Visible photocatalysis of Cr(VI) at g/L level in Si/N-TiO <sub>2</sub> nanocrystals synthesized by one-step co-hydrolysis method. Chemical Engineering Journal, 2020, 398, 125641.	6.6	21
78	Competing Activation and Deactivation Mechanisms in Photodoped Bismuth Oxybromide Nanoplates Probed by Single-Molecule Fluorescence Imaging. Journal of Physical Chemistry Letters, 2020, 11, 5219-5227.	2.1	11
79	Oxygen vacancies and phase tuning of self-supported black TiO <sub>2</sub> -X nanotube arrays for enhanced sodium storage. Chemical Engineering Journal, 2020, 400, 125784.	6.6	43
80	Photoelectrochemical water splitting with black Ni/Si-doped TiO <sub>2</sub> nanostructures. International Journal of Hydrogen Energy, 2020, 45, 20983-20992.	3.8	23
81	Black ZrO <sub>2</sub> synthesized by molten lithium reduction strategy for photocatalytic hydrogen generation. Journal of the American Ceramic Society, 2020, 103, 4035-4042.	1.9	17
82	Alkali Metal Cation Incorporation in Conductive TiO <sub>2</sub> Nanoflakes with Improved Photoelectrochemical H <sub>2</sub> Generation. ChemElectroChem, 2020, 7, 1699-1706.	1.7	9
83	Oxygen Vacancy Engineering in Photocatalysis. Solar Rrl, 2020, 4, 2000037.	3.1	196
84	Establishing High Photocatalytic H <sub>2</sub> Evolution from Multiwalled Titanate Nanotubes. ChemCatChem, 2020, 12, 2951-2956.	1.8	15
85	Photocatalytic properties of hybrid materials based on a multicharged polymer matrix with encored TiO <sub>2</sub> and noble metal (Pt, Pd or Au) nanoparticles. New Journal of Chemistry, 2020, 44, 7169-7174.	1.4	5
86	Cu-Ni Bimetal Integrated TiO <sub>2</sub> Thin Film for Enhanced Solar Hydrogen Generation. Solar Rrl, 2020, 4, 1900557.	3.1	30
87	How to make use of methanol in green catalytic hydrogen production?. Nano Select, 2020, 1, 12-29.	1.9	60
88	On the use of DFT+U to describe the electronic structure of TiO <sub>2</sub> nanoparticles: (TiO <sub>2</sub> ) <sub>35</sub> as a case study. Journal of Chemical Physics, 2020, 152, 244107.	1.2	7
89	Synthesis of hollow donut-like carbon nitride for the visible light-driven highly efficient photocatalytic production of hydrogen and degradation of pollutants. New Journal of Chemistry, 2020, 44, 12247-12255.	1.4	4
90	Photocatalytic hydrogen production over Rh-loaded TiO <sub>2</sub> : What is the origin of hydrogen and how to achieve hydrogen production from water?. Applied Catalysis B: Environmental, 2020, 278, 119316.	10.8	73

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91	Recent advances in visible-light-driven conversion of CO <sub>2</sub> by photocatalysts into fuels or value-added chemicals. Carbon Resources Conversion, 2020, 3, 46-59.	3.2	64
92	Recent Advancements in the Understanding of the Surface Chemistry in TiO <sub>2</sub> Photocatalysis. Surfaces, 2020, 3, 72-92.	1.0	18
93	Black TiO <sub>2</sub> : What are exact functions of disorder layer. , 2020, 2, 44-53.		48
94	Different behaviors between interband and intraband transitions generated hot carriers on g-C <sub>3</sub> N <sub>4</sub> /Au for photocatalytic H <sub>2</sub> production. Applied Surface Science, 2020, 513, 145830.	3.1	26
95	Preparation of underwater superoleophobic membranes via TiO <sub>2</sub> electrostatic self-assembly for separation of stratified oil/water mixtures and emulsions. Journal of Membrane Science, 2020, 602, 117976.	4.1	63
96	On the Controlled Loading of Single Platinum Atoms as a Co-catalyst on TiO <sub>2</sub> Anatase for Optimized Photocatalytic H <sub>2</sub> Generation. Advanced Materials, 2020, 32, e1908505.	11.1	189
97	Engineering surface defects on two-dimensional ultrathin mesoporous anatase TiO <sub>2</sub> nanosheets for efficient charge separation and exceptional solar-driven photocatalytic hydrogen evolution. Journal of Materials Chemistry C, 2020, 8, 3476-3482.	2.7	34
98	Light management in TiO <sub>2</sub> thin films integrated with Au plasmonic nanoparticles. Semiconductor Science and Technology, 2020, 35, 035016.	1.0	11
99	Photo-stimulated desorption of trimethyl acetic acid on cross-linked (1- $\beta$ -TiO <sub>2</sub> (1- $\beta$ -O) probed by scanning tunneling microscopy. Applied Surface Science, 2020, 511, 145553.	3.1	3
100	Understanding the potential band position and e <sup>-</sup> /h <sup>+</sup> separation lifetime for Z-scheme and type-II heterojunction mechanisms for effective micropollutant mineralization: Comparative experimental and DFT studies. Applied Catalysis B: Environmental, 2020, 273, 119034.	10.8	41
101	Synchronous construction of oxygen vacancies and phase junction in TiO <sub>2</sub> hierarchical structure for enhancement of visible light photocatalytic activity. Journal of Alloys and Compounds, 2020, 830, 154649.	2.8	20
102	Unprecedented porosity transformation of hierarchically porous TiO <sub>2</sub> derived from Ti-Oxo clusters. Microporous and Mesoporous Materials, 2020, 300, 110153.	2.2	7
103	Photocatalytic hydrogen evolution by co-catalyst-free TiO <sub>2</sub> /C bulk heterostructures synthesized under mild conditions. RSC Advances, 2020, 10, 12519-12534.	1.7	25
104	Reduced Ti-MOFs encapsulated black phosphorus with high stability and enhanced photocatalytic activity. Journal of Energy Chemistry, 2021, 53, 185-191.	7.1	21
105	Oxygen Vacancy Engineering in Titanium Dioxide for Sodium Storage. Chemistry - an Asian Journal, 2021, 16, 3-19.	1.7	27
106	Single-crystal-like black Zr-TiO <sub>2</sub> nanotube array film: An efficient photocatalyst for fast reduction of Cr(VI). Chemical Engineering Journal, 2021, 403, 126331.	6.6	30
107	Carbon quantum dots-TiO <sub>2</sub> nanocomposite as an efficient photocatalyst for the photodegradation of aromatic ring-containing mixed VOCs: An experimental and DFT studies of adsorption and electronic structure of the interface. Journal of Hazardous Materials, 2021, 401, 123402.	6.5	75
108	Interface engineering of hierarchical photocatalyst for enhancing photoinduced charge transfers. Applied Catalysis B: Environmental, 2021, 283, 119632.	10.8	23

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109	Nitrogen doping-mediated oxygen vacancies enhancing co-catalyst-free solar photocatalytic H <sub>2</sub> production activity in anatase TiO <sub>2</sub> nanosheet assembly. <i>Applied Catalysis B: Environmental</i> , 2021, 285, 119755.	10.8	86
110	Electrochemical reduction induced self-doping of oxygen vacancies into TiO <sub>2</sub> nanotubes as efficient photoanode for boosted photoelectrochemical water splitting. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 3554-3564.	3.8	18
111	Surface engineering of mesoporous anatase titanium dioxide nanotubes for rapid spatial charge separation on horizontal-vertical dimensions and efficient solar-driven photocatalytic hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2021, 586, 75-83.	5.0	25
112	Fabrication and Characterization of Type-II Heterostructure n-In <sub>2</sub> O <sub>3</sub> /p-TiO <sub>2</sub> for Enhanced Photocatalytic Activity. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000441.	0.7	7
113	Photocatalytic water oxidation with a Prussian blue modified brown TiO <sub>2</sub> . <i>Chemical Communications</i> , 2021, 57, 508-511.	2.2	16
114	Flame Synthesized Blue TiO <sub>2</sub> with Tunable Oxygen Vacancies from Surface to Grain Boundary to Bulk. <i>Small Methods</i> , 2021, 5, e2000928.	4.6	28
115	A novel N-doped graphene oxide enfolded reduced titania for highly stable and selective gas-phase photocatalytic CO <sub>2</sub> reduction into CH <sub>4</sub> : An in-depth study on the interfacial charge transfer mechanism. <i>Chemical Engineering Journal</i> , 2021, 416, 127978.	6.6	56
116	Reduced grey brookite for noble metal free photocatalytic H <sub>2</sub> evolution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1168-1179.	5.2	26
117	Built-in piezoelectric field improved photocatalytic performance of nanoflower-like Bi <sub>2</sub> WO <sub>6</sub> using low-power white LEDs. <i>Chinese Chemical Letters</i> , 2021, 32, 2317-2321.	4.8	53
118	Defective domain control of TiO <sub>2</sub> support in Pt/TiO <sub>2</sub> for room temperature formaldehyde (HCHO) remediation. <i>Applied Surface Science</i> , 2021, 538, 147504.	3.1	33
119	Electrochemical preparation of defect-engineered titania: Bulk doping versus surface contamination. <i>Applied Surface Science</i> , 2021, 539, 148136.	3.1	5
120	Surface functionalized N-C-TiO <sub>2</sub> /C nanocomposites derived from metal-organic framework in water vapour for enhanced photocatalytic H <sub>2</sub> generation. <i>Journal of Energy Chemistry</i> , 2021, 57, 485-495.	7.1	38
121	Aerobic oxidation of methane to formaldehyde mediated by crystal-O over gold modified tungsten trioxide via photocatalysis. <i>Applied Catalysis B: Environmental</i> , 2021, 283, 119661.	10.8	38
122	Synergetic enhancement of surface reactions and charge separation over holey C <sub>3</sub> N <sub>4</sub> /TiO <sub>2</sub> 2D heterojunctions. <i>Science Bulletin</i> , 2021, 66, 275-283.	4.3	61
123	Ti-based metal-organic frameworks for visible light photocatalysis. , 2021, , 561-573.		0
124	Surface oxygen vacancies of TiO <sub>2</sub> nanorods by electron beam irradiation for efficient photoelectrochemical water splitting. <i>CrystEngComm</i> , 2021, 23, 2952-2960.	1.3	6
125	Band restructuring of ordered/disordered blue TiO <sub>2</sub> for visible light photocatalysis. <i>Journal of Materials Chemistry A</i> , 2021, 9, 4822-4830.	5.2	17
126	LED-driven controlled deposition of Ni onto TiO <sub>2</sub> for visible-light expanded conversion of carbon dioxide into C <sub>1</sub> -C <sub>2</sub> alkanes. <i>Nanoscale Advances</i> , 2021, 3, 3788-3798.	2.2	6



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127	The origins of charge separation in anisotropic facet photocatalysts investigated through first-principles calculations. RSC Advances, 2021, 11, 18500-18508.	1.7	5
128	Defective TiO <sub>2</sub> for photocatalytic CO <sub>2</sub> conversion to fuels and chemicals. Chemical Science, 2021, 12, 4267-4299.	3.7	77
129	Nanomaterials for Photocatalytic Energy Conversion. Materials Horizons, 2021, , 43-84.	0.3	0
130	Phase-selective active sites on ordered/disordered titanium dioxide enable exceptional photocatalytic ammonia synthesis. Chemical Science, 2021, 12, 9619-9629.	3.7	25
131	Design of photocatalysts for the decontamination of emerging pharmaceutical pollutants in water. , 2021, , 475-502.		0
132	Rich oxygen vacancies, mesoporous TiO <sub>2</sub> derived from MIL-125 for highly efficient photocatalytic hydrogen evolution. Chemical Communications, 2021, 57, 9704-9707.	2.2	36
133	Design of photoreactor with high sunlight concentration for improved photocatalytic degradation of dye pollutant. IOP Conference Series: Earth and Environmental Science, 2021, 646, 012012.	0.2	0
134	Efficient visible-light photocatalytic H <sub>2</sub> evolution with heterostructured Ag <sub>2</sub> S modified CdS nanowires. RSC Advances, 2021, 11, 28211-28222.	1.7	7
135	Defect-mediated electron transfer in photocatalysts. Chemical Communications, 2021, 57, 3532-3542.	2.2	19
136	Hydrogenation of TiO <sub>2</sub> nanosheets and nanoparticles: typical reduction stages and orientation-related anisotropic disorder. Journal of Materials Chemistry A, 2021, 9, 22603-22614.	5.2	5
137	Conduction Band Discontinuity in n-type Si/TiO <sub>2</sub> Heterojunction Interfaces. ECS Journal of Solid State Science and Technology, 2021, 10, 015005.	0.9	4
138	Reversible optical control of the metal-insulator transition across the epitaxial heterointerface of a VO <sub>2</sub> /Nb:TiO <sub>2</sub> junction. Science China Materials, 2021, 64, 1687-1702.	3.5	4
139	Biphasic Titania Derivatives of Titanium Metal-Organic Framework Nanoplates for High-Efficiency Photoreduction of Diluted CO <sub>2</sub> to Methane. ChemCatChem, 2021, 13, 2215-2221.	1.8	13
140	Unexpected discovery of superoxide radical generation by oxygen vacancies containing biomass derived granular activated carbon. Water Research, 2021, 190, 116757.	5.3	17
141	Charge Carrier Processes and Optical Properties in TiO <sub>2</sub> and TiO <sub>2</sub> -Based Heterojunction Photocatalysts: A Review. Materials, 2021, 14, 1645.	1.3	118
142	The effect of X-ray induced oxygen defects on the photocatalytic properties of titanium dioxide nanoparticles. Journal of Photochemistry and Photobiology A: Chemistry, 2021, 409, 113138.	2.0	6
143	Grey facet-controlled anatase nanosheets for photocatalytic H <sub>2</sub> evolution without co-catalyst. JPhys Energy, 2021, 3, 034003.	2.3	6
144	Intrinsically Ru-Doped Suboxide TiO <sub>2</sub> Nanotubes for Enhanced Photoelectrocatalytic H <sub>2</sub> Generation. Journal of Physical Chemistry C, 2021, 125, 6116-6127.	1.5	21

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145	Constructing direct Z-scheme photocatalysts with black Nâ€“TiO <sub>2</sub> -x/C and Cd <sub>0.5</sub> Zn <sub>0.5</sub> S for efficient H <sub>2</sub> production. International Journal of Hydrogen Energy, 2021, 46, 14236-14246.	3.8	11
146	Self-Doping Surface Oxygen Vacancy-Induced Lattice Strains for Enhancing Visible Light-Driven Photocatalytic H <sub>2</sub> Evolution over Black TiO <sub>2</sub> . ACS Applied Materials & Interfaces, 2021, 13, 18758-18771.	4.0	127
147	An Inorganic/Organic Sâ€“Scheme Heterojunction H <sub>2</sub> Production Photocatalyst and its Charge Transfer Mechanism. Advanced Materials, 2021, 33, e2100317.	11.1	528
148	Label-Free Antifouling Photoelectrochemical Sensing Strategy for Detecting Breast Tumor Cells Based on Ligandâ€“Receptor Interactions. ACS Applied Bio Materials, 2021, 4, 4479-4485.	2.3	9
149	Usage of natural leaf as a bio-template to inorganic leaf: Leaf structure black TiO <sub>2</sub> /CdS heterostructure for efficient photocatalytic hydrogen evolution. International Journal of Hydrogen Energy, 2021, 46, 14369-14383.	3.8	33
150	Advanced Photocatalysts: Pinning Single Atom Coâ€“Catalysts on Titania Nanotubes. Advanced Functional Materials, 2021, 31, 2102843.	7.8	44
151	Structural and spectroscopic characterizations of boron doped TiO <sub>2</sub> â€“CeO <sub>2</sub> nanocomposite synthesized by solution combustion technique for photocatalytic applications. Journal of Molecular Structure, 2021, 1231, 129892.	1.8	5
152	Insight into the synergy of amine-modified S-scheme Cd <sub>0.5</sub> Zn <sub>0.5</sub> Se/porous g-C <sub>3</sub> N <sub>4</sub> and noble-metal-free Ni <sub>2</sub> P for boosting photocatalytic hydrogen generation. Ceramics International, 2021, 47, 13488-13499.	2.3	18
153	Black TiO <sub>2</sub> Nanoparticles Decorated with Ni Nanoparticles and Trace Amounts of Pt Nanoparticles for Photocatalytic Hydrogen Generation. ACS Applied Nano Materials, 2021, 4, 4441-4451.	2.4	12
154	Robust photocatalytic hydrogen production on metal-organic layers of Al-TCPP with ultrahigh turnover numbers. Chinese Chemical Letters, 2021, 32, 3833-3836.	4.8	17
155	Graphene coupled TiO <sub>2</sub> photocatalysts for environmental applications: A review. Chemosphere, 2021, 271, 129506.	4.2	132
156	Titanium dioxide thin films as vacuum ultraviolet photoconductive detectors with enhanced photoconductivity by gamma-ray irradiation. Thin Solid Films, 2021, 726, 138637.	0.8	8
157	Defect Engineering of Photocatalysts towards Elevated CO <sub>2</sub> Reduction Performance. ChemSusChem, 2021, 14, 2635-2654.	3.6	19
158	Fabrication of high efficiency anatase TiO <sub>2</sub> photocatalysts using electrospinning with ultra violet treatment. Journal of the American Ceramic Society, 2021, 104, 4398-4407.	1.9	6
159	Ultrathin carbon-coated Zr <sup>3+</sup> -ZrO <sub>2</sub> nanostructures for efficient visible light photocatalytic antibiotic elimination. Chemical Engineering Journal, 2021, 412, 128621.	6.6	56
160	Elaboration and studies of physical and photo-electrochemical properties of La <sub>2</sub> NiO <sub>4</sub> and its use with SnO <sub>2</sub> in photo-evolution of hydrogen under visible light irradiation. Optik, 2021, 236, 166654.	1.4	14
161	Ultra-thin dark amorphous TiO <sub>x</sub> hollow nanotubes for full spectrum solar energy harvesting and conversion. Nano Energy, 2021, 84, 105872.	8.2	21
162	One-step synthesis of black TiO <sub>2-x</sub> microspheres by ultrasonic spray pyrolysis process and their visible-light-driven photocatalytic activities. Ultrasonics Sonochemistry, 2021, 74, 105557.	3.8	26

#	ARTICLE	IF	CITATIONS
163	Mesoporous TiO <sub>2</sub> from Metal-Organic Frameworks for Photoluminescence-Based Optical Sensing of Oxygen. <i>Catalysts</i> , 2021, 11, 795.	1.6	13
164	Excellent photocatalytic performance of hydrogenated dark purple Ag/TiO <sub>2</sub> catalyst. <i>Journal of Chemical Technology and Biotechnology</i> , 2021, 96, 2775-2781.	1.6	3
165	Direct Electrochemical Protonation of Metal Oxide Particles. <i>Journal of the American Chemical Society</i> , 2021, 143, 9236-9243.	6.6	25
166	Uncovering the origin of full-spectrum visible-light-responsive polypyrrole supramolecular photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2021, 287, 119926.	10.8	59
167	Interfacial Electron Transfer through Ultrathin ALD TiO <sub>2</sub> Layers: A Comparative Study of TiO <sub>2</sub> /TiO <sub>x</sub> and SnO <sub>2</sub> /TiO <sub>x</sub> Core/Shell Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2021, 125, 12937-12959.	1.5	4
168	Prospects of Synthesized Magnetic TiO <sub>2</sub> -Based Membranes for Wastewater Treatment: A Review. <i>Materials</i> , 2021, 14, 3524.	1.3	24
169	Role of Oxygen Vacancy Formation Energy and Insulating Behavior in Darkening of White Amorphous TiO <sub>2</sub> . <i>Journal of Physical Chemistry C</i> , 2021, 125, 16136-16146.	1.5	9
170	Disordered TiO <sub>x</sub> SiO <sub>x</sub> Nanocatalysts Using Bioinspired Synthetic Routes. <i>ACS Applied Energy Materials</i> , 2021, 4, 7691-7701.	2.5	5
171	Enhanced photocatalytic CO <sub>2</sub> hydrogenation with wide-spectrum utilization over black TiO <sub>2</sub> supported catalyst. <i>Chinese Chemical Letters</i> , 2022, 33, 812-816.	4.8	18
172	Visible Light-Responsive N-Doped TiO <sub>2</sub> Photocatalysis: Synthesis, Characterizations, and Applications. <i>Transactions of Tianjin University</i> , 2022, 28, 33-52.	3.3	40
173	Single-Molecule Colocalization of Redox Reactions on Semiconductor Photocatalysts Connects Surface Heterogeneity and Charge-Carrier Separation in Bismuth Oxybromide. <i>Journal of the American Chemical Society</i> , 2021, 143, 11393-11403.	6.6	24
174	Highly efficient Ti <sup>3+</sup> self-doped TiO <sub>2</sub> co-modified with carbon dots and palladium nanocomposites for disinfection of bacterial and fungi. <i>Journal of Hazardous Materials</i> , 2021, 413, 125318.	6.5	31
175	Hydrogel photocatalysts for efficient energy conversion and environmental treatment. <i>Frontiers in Energy</i> , 2021, 15, 577-595.	1.2	14
176	Construction of N-Doped Carbon Dots/Macroporous TiO <sub>2</sub> Composites (N-CDs/m-TiO <sub>2</sub> ) with Dramatically Enhanced Photocatalytic Activity. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 11954-11963.	1.8	3
177	Metal-doped KNbO <sub>3</sub> for visible light photocatalytic water splitting: A first principles investigation. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	15
178	WS <sub>2</sub> /Bi/BiOBr Nanostructures for Photoelectrochemical Sensing of 5-Formyluracil-2'-deoxyuridine-5'-triphosphate through Hemin/G-Quadruplex Double Signal Amplification. <i>ACS Applied Nano Materials</i> , 2021, 4, 8998-9007.	2.4	5
179	Light-Induced Migration of Spin Defects in TiO <sub>2</sub> Nanosystems and their Contribution to the H <sub>2</sub> Evolution Catalysis from Water. <i>ChemSusChem</i> , 2021, 14, 4408-4414.	3.6	8
180	As a single atom Pd outperforms Pt as the most active co-catalyst for photocatalytic H <sub>2</sub> evolution. <i>IScience</i> , 2021, 24, 102938.	1.9	33

#	ARTICLE	IF	CITATIONS
181	Defective Dopant-Free TiO <sub>2</sub> as an Efficient Visible Light-Active Photocatalyst. <i>Catalysts</i> , 2021, 11, 978.	1.6	30
182	The Mystery of Black TiO <sub>2</sub> : Insights from Combined Surface Science and In Situ Electrochemical Methods. <i>ACS Materials Au</i> , 2021, 1, 157-168.	2.6	9
183	The effective strategies of preparing black F-TiIII-codoping TiO <sub>2</sub> anchored on sepiolite for enhanced photodegradation. <i>Applied Clay Science</i> , 2021, 209, 106116.	2.6	9
184	Plasmonic semiconductor photocatalyst: Non-stoichiometric tungsten oxide. <i>Environmental Research</i> , 2021, 199, 111259.	3.7	13
185	Manipulating the Low-Energy Photons by an Upconversion Fluorescent Hybrid Photocatalyst for Water Oxidation. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 11171-11178.	3.2	3
186	Polaron-Assisted Charge Transport in Li-Ion Battery Anode Materials. <i>ACS Applied Energy Materials</i> , 2021, 4, 8583-8591.	2.5	4
187	Ultra-fine Cu clusters decorated hydrangea-like titanium dioxide for photocatalytic hydrogen production. <i>Rare Metals</i> , 2022, 41, 385-395.	3.6	31
188	The synergistic effect of Co/CoO hybrid structure combined with biomass materials promotes photocatalytic hydrogen evolution. <i>Chemical Engineering Journal</i> , 2021, 420, 130372.	6.6	21
189	Interfacial defective Ti <sup>3+</sup> on Ti/TiO <sub>2</sub> as visible-light responsive sites with promoted charge transfer and photocatalytic performance. <i>Journal of Materials Science and Technology</i> , 2022, 106, 139-146.	5.6	26
190	Interfacial charge transfer and photocatalytic activity in a reverse designed Bi <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub> core-shell. <i>Frontiers in Energy</i> , 2021, 15, 732.	1.2	2
191	NIR-Responsive Hydrogel as an Angiogenesis Inhibition Agent for Tumor Microenvironment Reprogramming. <i>Small</i> , 2021, 17, e2103003.	5.2	24
192	Enhanced solar driven hydrogen evolution rate by integrating dual co-catalysts (MoS <sub>2</sub> , SeS <sub>2</sub> ) on CdS nanorods. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 625, 126852.	2.3	9
193	TiO <sub>2</sub> @MOF Photocatalyst for the Synergetic Oxidation of Microcystin-LR and Reduction of Cr(VI) in Aqueous Media. <i>Catalysts</i> , 2021, 11, 1186.	1.6	10
194	Metal-free tellurene cocatalyst with tunable bandgap for enhanced photocatalytic hydrogen production. <i>Materials Today Energy</i> , 2021, 21, 100720.	2.5	18
195	The Role of Oxygen Vacancy and Other Defects for Activity Enhancement. <i>Green Chemistry and Sustainable Technology</i> , 2022, , 337-355.	0.4	0
196	Facile Vacuum Annealing-Induced Modification of TiO <sub>2</sub> with an Enhanced Photocatalytic Performance. <i>ACS Omega</i> , 2021, 6, 27121-27128.	1.6	5
197	Amorphous High-Entropy Hydroxides of Tunable Wide Solar Absorption for Solar Water Evaporation. <i>Particle and Particle Systems Characterization</i> , 2021, 38, 2100094.	1.2	3
198	In situ Blue titania via band shape engineering for exceptional solar H <sub>2</sub> production in rutile TiO <sub>2</sub> . <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120380.	10.8	53

#	ARTICLE	IF	CITATIONS
199	Solar photocatalytic H <sub>2</sub> production over CeO <sub>2</sub> -based catalysts: Influence of chemical and structural modifications. <i>Catalysis Today</i> , 2021, 380, 187-198.	2.2	18
200	Ethanol-assisted molten salt synthesis of Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> /Bi <sub>2</sub> Ti <sub>2</sub> O <sub>7</sub> with enhanced visible light photocatalytic performance. <i>Inorganic Chemistry Communication</i> , 2021, 133, 108867.	1.8	6
201	Photocatalysis of Methyl Orange using free standing TiO <sub>2</sub> nanotubes under solar light. <i>Environmental Nanotechnology, Monitoring and Management</i> , 2021, 16, 100479.	1.7	7
202	Enhanced photocatalytic properties of band structure engineered Pd/TiO <sub>2</sub> via sequential doping. <i>Applied Surface Science</i> , 2021, 570, 151255.	3.1	9
203	Factors influencing phase formation and band gap studies of a novel multicomponent high entropy (Co,Cu,Mg,Ni,Zn) <sub>2</sub> TiO <sub>4</sub> orthotitanate spinel. <i>Journal of Alloys and Compounds</i> , 2021, 888, 161390.	2.8	15
204	Efficient photocatalytic reduction of CO <sub>2</sub> by a rhenium-doped TiO <sub>2-x</sub> /SnO <sub>2</sub> inverse opal S-scheme heterostructure assisted by the slow-phonon effect. <i>Separation and Purification Technology</i> , 2021, 277, 119431.	3.9	24
205	NiO nanoparticles dotted TiO <sub>2</sub> nanosheets assembled nanotubes P-N heterojunctions for efficient interface charge separation and photocatalytic hydrogen evolution. <i>Applied Surface Science</i> , 2021, 568, 150981.	3.1	30
206	A Ti-OH bond breaking route for creating oxygen vacancy in titania towards efficient CO <sub>2</sub> photoreduction. <i>Chemical Engineering Journal</i> , 2021, 425, 131513.	6.6	23
207	First-principles study of configurations, electronic and photocatalytic properties of carbon-doped anatase TiO <sub>2</sub> . <i>Physica B: Condensed Matter</i> , 2022, 624, 413443.	1.3	4
208	Visible-light degradation of antibiotics catalyzed by titania/zirconia/graphitic carbon nitride ternary nanocomposites: a combined experimental and theoretical study. <i>Applied Catalysis B: Environmental</i> , 2022, 300, 120633.	10.8	82
209	Interfacial active-site-rich 0D Co <sub>3</sub> O <sub>4</sub> /1D TiO <sub>2</sub> p-n heterojunction for enhanced photocatalytic hydrogen evolution. <i>Chemical Engineering Journal</i> , 2022, 428, 131338.	6.6	133
210	Self-assembly of a Ni(I)-photocatalyst for plain water splitting without sacrificial agents. <i>Electrochemistry Communications</i> , 2021, 122, 106909.	2.3	5
211	Preparation of ZnO/two-layer self-doped black TiO <sub>2</sub> nanotube arrays and their enhanced photochemical properties. <i>RSC Advances</i> , 2021, 11, 2307-2314.	1.7	9
212	Extending photocatalysis to the visible and NIR: the molecular strategy. <i>Nanoscale</i> , 2021, 13, 9147-9159.	2.8	26
213	TiO <sub>2</sub> -based devices for energy-related applications. , 2021, , 241-265.		4
214	Efficient visible-light-driven hydrogen production by Zn-porphyrin based photocatalyst with engineered active donor-acceptor sites. <i>Materials Advances</i> , 2021, 2, 4762-4771.	2.6	13
215	Subtle structure matters: boosting surface-directed photoelectron transfer via the introduction of specific monovalent oxygen vacancies in TiO <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 19854-19861.	1.3	6
216	Superior photothermal black TiO <sub>2</sub> with random size distribution as flexible film for efficient solar steam generation. <i>Applied Materials Today</i> , 2020, 20, 100669.	2.3	27

#	ARTICLE	IF	CITATIONS
217	Insight of the Influence of Magnetic-Field Direction on Magneto-Plasmonic Interfaces for Tuning Photocatalytic Performance of Semiconductors. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9931-9937.	2.1	20
218	Electronic and optical properties of metal-doped TiO <sub>2</sub> nanotubes: spintronic and photocatalytic applications. <i>New Journal of Physics</i> , 2020, 22, 093028.	1.2	11
219	Structural Design of TiO <sub>2</sub> /Si Hybrid Photoelectrode and Pt-Free Counter Photoelectrodes for Charge Carrier Separation in Water-Splitting Reactions. <i>ECS Journal of Solid State Science and Technology</i> , 2021, 10, 103015.	0.9	2
220	Impact of TiO <sub>2</sub> Surface Defects on the Mechanism of Acetaldehyde Decomposition under Irradiation of a Fluorescent Lamp. <i>Catalysts</i> , 2021, 11, 1281.	1.6	5
221	Defect Engineering of Pt/TiO <sub>2</sub> Photocatalysts via Reduction Treatment Assisted by Hydrogen Spillover. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 48669-48678.	4.0	21
222	Hydrogenated Amorphous TiO <sub>2</sub> and Its High Visible Light Photoactivity. <i>Nanomaterials</i> , 2021, 11, 2801.	1.9	2
223	Enhancing Photoelectrochemical Energy Storage by Large-Area CdS-Coated Nickel Nanoantenna Arrays. <i>ACS Applied Energy Materials</i> , 2021, 4, 11367-11376.	2.5	10
224	Metallic nanoparticle-on-mirror: Multiple-band light harvesting and efficient photocurrent generation under visible light irradiation. <i>Nano Energy</i> , 2021, 90, 106609.	8.2	8
225	Enhanced photoelectrochemical performances in photocatalytic pollutant degradation and water splitting by direct Z-scheme Bi <sub>2</sub> Sn <sub>2</sub> O <sub>7</sub> /TiO <sub>2</sub> NTAs. <i>Ceramics International</i> , 2022, 48, 3941-3953.	2.3	8
227	Highly selective oxidation of methane to formaldehyde on tungsten trioxide by lattice oxygen. <i>Catalysis Communications</i> , 2021, 161, 106365.	1.6	11
228	Constructing Pd/ferroelectric Bi <sub>4</sub> Ti <sub>3</sub> O <sub>12</sub> nanoflake interfaces for O <sub>2</sub> activation and boosting NO photo-oxidation. <i>Applied Catalysis B: Environmental</i> , 2022, 302, 120876.	10.8	19
229	A promoted photocatalysis system trade-off between thermodynamic and kinetic via hierarchical distribution dual-defects for efficient H <sub>2</sub> evolution. <i>Chemical Engineering Journal</i> , 2022, 431, 133281.	6.6	41
230	Role of Photocatalysis in Green Energy Production. , 2022, , 590-596.		1
231	Hydrogenated anatase TiO <sub>2</sub> single crystals: defects formation and structural changes as microscopic origin of co-catalyst free photocatalytic H <sub>2</sub> evolution activity. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24932-24942.	5.2	7
232	Photocatalytically recovering hydrogen energy from wastewater treatment using MoS <sub>2</sub> @TiO <sub>2</sub> with sulfur/oxygen dual-defect. <i>Applied Catalysis B: Environmental</i> , 2022, 303, 120878.	10.8	70
233	Recent advancements of layered double hydroxide heterojunction composites with engineering approach towards photocatalytic hydrogen production: A review. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 862-901.	3.8	39
234	Surfactant-free one-pot synthesis of Au-TiO <sub>2</sub> core-shell nanostars by inter-cation redox reaction for photoelectrochemical water splitting. <i>Energy Conversion and Management</i> , 2022, 252, 115038.	4.4	16
235	Wet-chemistry hydrogen doped TiO <sub>2</sub> with switchable defects control for photocatalytic hydrogen evolution. <i>Matter</i> , 2022, 5, 206-218.	5.0	66

#	ARTICLE	IF	CITATIONS
236	Phase control and stabilization of 1T-MoS <sub>2</sub> via black TiO <sub>2</sub> nanotube arrays supporting for electrocatalytic hydrogen evolution. <i>Journal of Energy Chemistry</i> , 2022, 68, 71-77.	7.1	18
237	Synthetic Fuels from Biomass: Photocatalytic Hydrodecarboxylation of Octanoic Acid by Ni Nanoparticles Deposited on TiO <sub>2</sub> . <i>ChemSusChem</i> , 2022, 15, .	3.6	7
238	Metallization of TiO <sub>2</sub> (110) with Gold and Lithium. <i>Journal of Physical Chemistry C</i> , 2021, 125, 26744-26754.	1.5	3
239	Recent Advances in Photocatalysis Based on Bioinspired Superwettabilities. <i>ACS Catalysis</i> , 2021, 11, 14751-14771.	5.5	59
240	Boosting Photocatalytic Activity Using Carbon Nitride Based 2D/2D van der Waals Heterojunctions. <i>Chemistry of Materials</i> , 2021, 33, 9012-9092.	3.2	88
241	Microwave-assisted synthesis of RuTe <sub>2</sub> /black TiO <sub>2</sub> photocatalyst for enhanced diclofenac degradation: Performance, mechanistic investigation and intermediates analysis. <i>Separation and Purification Technology</i> , 2022, 283, 120214.	3.9	19
242	Photoelectrocatalytic C-H halogenation over an oxygen vacancy-rich TiO <sub>2</sub> photoanode. <i>Nature Communications</i> , 2021, 12, 6698.	5.8	68
243	Novel OD/2D ZnSe/SnSe heterojunction photocatalysts exhibiting enhanced photocatalytic and photoelectrochemical activities. <i>Journal of Alloys and Compounds</i> , 2022, 897, 163123.	2.8	15
244	Structure modulation of g-C <sub>3</sub> N <sub>4</sub> in TiO <sub>2</sub> {001}/g-C <sub>3</sub> N <sub>4</sub> hetero-structures for boosting photocatalytic hydrogen evolution. <i>RSC Advances</i> , 2021, 11, 37089-37102.	1.7	11
245	Mechanistic understanding of the increased photoactivity of TiO <sub>2</sub> nanosheets upon tantalum doping. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 995-1006.	1.3	5
246	Preparation of Sn <sub>3</sub> O <sub>4</sub> Modified Ti/Black TiO <sub>2</sub> Electrode with Enhanced Photoelectrocatalytic Performance for Water Remediation. <i>International Journal of Electrochemical Science</i> , 2022, 17, 220233.	0.5	2
247	A factorial experimental design approach to obtain defect-rich black TiO <sub>2</sub> for photocatalytic dye degradation. <i>Journal of Water Process Engineering</i> , 2022, 45, 102495.	2.6	10
248	Nature of paramagnetic defects in black titanium dioxide nanotubes. <i>Materials Chemistry and Physics</i> , 2022, 278, 125703.	2.0	4
249	Green synthesis of microalgae-based carbon dots for decoration of TiO <sub>2</sub> nanoparticles in enhancement of organic dye photodegradation. <i>Environmental Research</i> , 2022, 206, 112631.	3.7	26
250	Electrochemical fabrication and reductive doping of electrochemically reduced graphene oxide decorated with TiO <sub>2</sub> electrode with highly enhanced photoresponse under visible light. <i>Applied Surface Science</i> , 2022, 581, 152150.	3.1	8
251	Novel Syntheses of Modified Black TiO <sub>2</sub> /C <sub>3</sub> N <sub>4</sub> and Their Efficient Behaviour Toward Water Splitting Under Neutral Conditions. <i>SSRN Electronic Journal</i> , 0, .	0.4	0
252	Photocatalytic destruction of volatile aromatic compounds by platinumized titanium dioxide in relation to the relative effect of the number of methyl groups on the benzene ring. <i>Science of the Total Environment</i> , 2022, 822, 153605.	3.9	20
253	In-Situ Preparation of Black TiO <sub>2</sub> /Cu <sub>2</sub> O/Cu Composites as an Efficient Photocatalyst for Degradation Pollutants and Hydrogen Production. <i>Catalysis Letters</i> , 2022, 152, 3272-3283.	1.4	5

#	ARTICLE	IF	CITATIONS
254	Enhancing the photocatalytic activity of defective titania for carbon dioxide photoreduction via surface functionalization. <i>Catalysis Science and Technology</i> , 2022, 12, 509-518.	2.1	15
255	Visible photoresponse of TiO <sub>2</sub> nanotubes in comparison to that of nanoparticles and anodic thin film. <i>Catalysis Today</i> , 2022, 403, 39-46.	2.2	10
256	Suppressed charge carrier trap states and double photon absorption in substitutional Ta-doped TiO <sub>2</sub> -NT array. <i>Nano Today</i> , 2022, 43, 101407.	6.2	3
257	Fabrication of stable substoichiometric WO <sub>x</sub> films with high SERS sensitivity by thermal treatment. <i>Vacuum</i> , 2022, 198, 110884.	1.6	4
258	Simulation of the Physicochemical Properties of Anatase TiO <sub>2</sub> with Oxygen Vacancies and Doping of Different Elements for Photocatalysis Processes. <i>Lecture Notes in Networks and Systems</i> , 2022, , 238-249.	0.5	0
259	TiO <sub>2</sub> -Based Nanostructures, Composites and Hybrid Photocatalysts. <i>Materials</i> , 2022, 15, 1271.	1.3	6
260	Carbon-based titanium dioxide materials for hydrogen production in water-methanol reforming: A review. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107326.	3.3	10
261	Synthesis, modification and application of titanium dioxide nanoparticles: a review. <i>Nanoscale</i> , 2022, 14, 6709-6734.	2.8	79
262	Type II heterojunction promotes photoinduced effects of TiO <sub>2</sub> for enhancing photocatalytic performance. <i>Journal of Materials Chemistry C</i> , 2022, 10, 6341-6347.	2.7	11
263	TiO <sub>2</sub> -X Mesoporous Nanospheres/Bioi Nanosheets S-Scheme Heterojunction for High Efficiency, Stable and Unbiased Photocatalytic Hydrogen Production. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
264	S-Scheme Heterojunction of Black TiO <sub>2</sub> and Covalent-Organic Framework for Enhanced Photocatalytic Hydrogen Evolution. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
265	Enhancing Solar-Driven Photoelectrocatalytic Efficiency of Au Nanoparticles with Defect-Rich Hydrogenated TiO <sub>2</sub> Toward Ethanol Oxidation. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
266	A two-dimensional Bi-based porphyrin metal-organic framework photocatalyst for white light-driven selective oxidation of sulfides. <i>Catalysis Science and Technology</i> , 2022, 12, 3254-3260.	2.1	9
267	Phototactic micromotor assemblies in dynamic line formations for wide-range micromanipulations. <i>Journal of Materials Chemistry C</i> , 2022, 10, 5079-5087.	2.7	12
268	Revealing the Role of Electronic Doping for Developing Cocatalyst-Free Semiconducting Photocatalysts. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2039-2045.	2.1	6
269	Highly-efficient photocatalytic activity of TiO <sub>2</sub> -AC nanocomposites for hydrogen production from sulphide wastewater. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 40275-40285.	3.8	21
270	Heterogeneous Advanced Oxidation Processes: Current Approaches for Wastewater Treatment. <i>Catalysts</i> , 2022, 12, 344.	1.6	35
271	One-dimensional suboxide TiO <sub>2</sub> nanotubes for electrocatalysis applications. <i>Electrochemistry Communications</i> , 2022, 136, 107246.	2.3	7



#	ARTICLE	IF	CITATIONS
272	Photothermal enhancement of highly efficient photocatalysis with bioinspired thermal radiation balance characteristics. <i>Applied Surface Science</i> , 2022, 592, 153304.	3.1	18
273	A facile "dark" deposition approach for Pt single-atom trapping on faceted anatase TiO <sub>2</sub> nanoflakes and use in photocatalytic H <sub>2</sub> generation. <i>Electrochimica Acta</i> , 2022, 412, 140129.	2.6	17
274	A robust photocatalyst using silver quantum clusters grafted in titanium dioxide nanotubes. <i>Surfaces and Interfaces</i> , 2022, 30, 101941.	1.5	2
275	Novel syntheses of modified black TiO <sub>2</sub> /C <sub>3</sub> N <sub>4</sub> and their efficient behavior toward water splitting under neutral conditions. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107418.	3.3	5
276	Transition-metal doped titanate nanowire photocatalysts boosted by selective ion-exchange induced defect engineering. <i>Applied Surface Science</i> , 2022, 591, 153116.	3.1	10
277	Engineering crystalline CoMP-decorated (M = Mn, Fe, Ni, Cu, Zn) amorphous CoM LDH for high-rate alkaline water splitting. <i>Chemical Engineering Journal</i> , 2022, 441, 136031.	6.6	28
278	Crystal Facet Engineering and Hydrogen Spillover-Assisted Synthesis of Defective Pt/TiO <sub>2</sub> Nanorods with Enhanced Visible Light-Driven Photocatalytic Activity. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 2291-2300.	4.0	16
279	Defect-Rich TiO <sub>2</sub> In Situ Evolved from MXene for the Enhanced Oxidative Dehydrogenation of Ethane to Ethylene. <i>ACS Catalysis</i> , 2021, 11, 15223-15233.	5.5	20
280	Defect engineering over anisotropic brookite toward substrate-specific photo-oxidation of alcohols. <i>Chem Catalysis</i> , 2022, 2, 1177-1190.	2.9	15
281	Investigation of the key parameters for gas sensing through comparison of electrospun and sol-gel semiconducting oxides. <i>Ceramics International</i> , 2022, 48, 20948-20960.	2.3	7
282	Facile synthesis of black N-TiO <sub>2</sub> /N-RGO nanocomposite for hydrogen generation and electrochemical applications: New insights into the structure-performance relationship. <i>Applied Surface Science Advances</i> , 2022, 9, 100249.	2.9	10
283	Facile Synthesis of Nitrogen-Doped TiO <sub>2</sub> Microspheres Containing Oxygen Vacancies with Excellent Photocatalytic H <sub>2</sub> Evolution Activity. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
284	Efficient Sunlight Promoted Nitrogen Fixation from Air Under Room Temperature and Ambient Pressure Via Ti/Mocomposites. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
285	Deactivation and Stabilization Mechanism of Photothermal CO <sub>2</sub> Hydrogenation over Black TiO <sub>2</sub> . <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6382-6388.	3.2	16
286	Enhancing solar-driven photoelectrocatalytic efficiency of Au nanoparticles with defect-rich hydrogenated TiO <sub>2</sub> toward ethanol oxidation. <i>Chemical Engineering Journal</i> , 2022, 445, 136562.	6.6	6
287	High-performance photocatalytic nonoxidative conversion of methane to ethane and hydrogen by heteroatoms-engineered TiO <sub>2</sub> . <i>Nature Communications</i> , 2022, 13, 2806.	5.8	89
288	TiO <sub>2</sub> -X mesoporous nanospheres/BiOI nanosheets S-scheme heterostructure for high efficiency, stable and unbiased photocatalytic hydrogen production. <i>Chemical Engineering Journal</i> , 2022, 446, 137138.	6.6	17
289	S-scheme heterojunction of black TiO <sub>2</sub> and covalent-organic framework for enhanced photocatalytic hydrogen evolution. <i>Chemical Engineering Journal</i> , 2022, 446, 137213.	6.6	49

#	ARTICLE	IF	CITATIONS
290	Single Atom Catalysts for Selective Methane Oxidation to Oxygenates. ACS Nano, 2022, 16, 8557-8618.	7.3	48
291	Recent Progress on Carbonâ€Nanotubeâ€Based Materials for Photocatalytic Applications: A Review. Solar Rrl, 2022, 6, .	3.1	15
292	Combined heterostructures between Bi2S3 nanosheets and H2-treated TiO2 nanorods for enhanced photoelectrochemical water splitting. Applied Surface Science, 2022, 598, 153850.	3.1	10
293	The Role of Vacancies in a Ti<sub>2</sub>CT<sub>x</sub> MXeneâ€Derived Catalyst for Butane Oxidative Dehydrogenation. ChemCatChem, 2022, 14, .	1.8	1
294	Singleâ€Atom Catalysts for Hydrogen Generation: Rational Design, Recent Advances, and Perspectives. Advanced Energy Materials, 2022, 12, .	10.2	42
295	Photoelectrochemical immunosensor for the sensitive detection of neuron-specific enolase based on the effect of Z-scheme WO3/NiCo2O4 nanoarrays p-n heterojunction. Biosensors and Bioelectronics, 2022, 213, 114452.	5.3	13
296	Precisely modifying Co2P/black TiO2 S-scheme heterojunction by in situ formed P and C dopants for enhanced photocatalytic H2 production. Applied Catalysis B: Environmental, 2022, 315, 121546.	10.8	80
297	Structural and Photoelectrochemical Dynamics of In-Situ Hydrogenated Anatase Tio2 Thin Films Grown by Dc Reactive Magnetron Sputtering. SSRN Electronic Journal, 0, , .	0.4	0
298	Intermetallic PdZn nanoparticles loaded on deficient TiO<sub>2</sub> nanosheets as a support: a bifunctional electrocatalyst for oxygen reduction in PEMFCs and the glycerol oxidation reactions. Journal of Materials Chemistry A, 2022, 10, 13987-13997.	5.2	14
299	Boosting the catalytic performance of single-atom catalysts by tuning surface lattice expanding confinement. Chemical Communications, 0, , .	2.2	1
300	Room-temperature MXene-derived Ti3+ and rich oxygen vacancies in carbon-doped amorphous TiOx nanosheets for enhanced photocatalytic activity. Journal of Alloys and Compounds, 2022, 920, 165979.	2.8	8
301	Fabrication of Electrospun Xylan-g-PMMA/TiO2 Nanofibers and Photocatalytic Degradation of Methylene Blue. Polymers, 2022, 14, 2489.	2.0	5
302	Effect of asymmetric power distribution in bipolar reactive sputtering on the optoelectronic and microstructure properties of titanium dioxide for solar water splitting. Vacuum, 2022, , 111290.	1.6	3
303	Oxygen vacancies role in thermally driven and photon driven catalytic reactions. Chem Catalysis, 2022, 2, 1549-1560.	2.9	8
304	Synthesis and Photocatalysis of Metal Oxide Aerogels: A Review. Energy & Fuels, 2022, 36, 11359-11379.	2.5	11
305	Efficient electron extraction by CoS<sub>2</sub> loaded onto anatase TiO<sub>2</sub> for improved photocatalytic hydrogen evolution. Journal of Physics Condensed Matter, 2022, 34, 344005.	0.7	2
306	Construction of Spindle-Shaped Ti3+ Self-Doped TiO2 Photocatalysts Using Triethanolamine-Aqueous as the Medium and Its Photoelectrochemical Properties. Nanomaterials, 2022, 12, 2298.	1.9	1
307	Construction of p-n heterostructured BiOI/TiO2 nanosheets arrays for improved photoelectrochemical water splitting performance. Applied Surface Science, 2022, 601, 154277.	3.1	15

#	ARTICLE	IF	CITATIONS
308	Visible-Light-Active Black TiO <sub>2</sub> Nanoparticles with Efficient Photocatalytic Performance for Degradation of Pharmaceuticals. <i>Nanomaterials</i> , 2022, 12, 2563.	1.9	6
309	Catalytic Metasurfaces Empowered by Bound States in the Continuum. <i>ACS Nano</i> , 2022, 16, 13057-13068.	7.3	17
310	Microwave-Assisted Photocatalytic Degradation of Organic Pollutants via CNTs/TiO <sub>2</sub> . <i>Catalysts</i> , 2022, 12, 940.	1.6	9
311	Enhanced Metal-Semiconductor Interaction for Photocatalytic Hydrogen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	2
312	Single-Atom-Based Catalysts for Photocatalytic Water Splitting on TiO <sub>2</sub> Nanostructures. <i>Catalysts</i> , 2022, 12, 905.	1.6	10
313	Flame synthesis of tungsten-doped titanium dioxide nanoparticles using novel precursor combination of liquid titanium tetraisopropoxide and solid tungsten mesh. <i>AIChE Journal</i> , 2022, 68, .	1.8	1
314	Natural Diatomite Supported Zirconium-Doped TiO <sub>2</sub> with Tailoring Band Structure for Enhanced Visible-Light Photocatalytic Properties. <i>Nanomaterials</i> , 2022, 12, 2827.	1.9	3
315	Enzymatic biomass hydrolysis assisted photocatalytic H <sub>2</sub> production from water employing porous carbon doped brookite/anatase heterophase titania photocatalyst. <i>Renewable Energy</i> , 2022, 197, 151-160.	4.3	6
316	Hydrophilic regulated photocatalytic converting phenol selectively over S-scheme CuWO <sub>4</sub> /TiO <sub>2</sub> . <i>Journal of Cleaner Production</i> , 2022, 369, 133099.	4.6	12
317	Facile synthesis of nitrogen-doped TiO <sub>2</sub> microspheres containing oxygen vacancies with excellent photocatalytic H <sub>2</sub> evolution activity. <i>Journal of Physics and Chemistry of Solids</i> , 2022, 170, 110930.	1.9	7
318	Enhanced photocatalytic hydrogen evolution under visible-light using C, N co-doped mesoporous TiO <sub>2</sub> nanocrystals templated by ionic liquids. <i>Chemical Engineering Journal</i> , 2023, 451, 138670.	6.6	23
319	Efficient sunlight promoted nitrogen fixation from air under room temperature and ambient pressure via Ti/Mo composites. <i>Chemical Engineering Journal</i> , 2023, 451, 138592.	6.6	3
320	S-scheme heterojunction of polyfluorene derivatives coupled with ZnxCd1-xS nanoparticles for efficient and stable photocatalytic hydrogen evolution. <i>Applied Materials Today</i> , 2022, 29, 101637.	2.3	1
321	Structural and photoelectrochemical dynamics of in-situ hydrogenated anatase TiO <sub>2</sub> thin films grown by DC reactive magnetron sputtering. <i>Applied Surface Science</i> , 2023, 607, 155023.	3.1	3
322	NiS/Pt loaded on electrospun TiO <sub>2</sub> nanofiber with enhanced visible-light-driven photocatalytic hydrogen production. <i>Materials Research Bulletin</i> , 2023, 157, 112041.	2.7	10
323	Understanding the Pulsed Laser-Induced Modification Processes of TiO <sub>2</sub> Nanomaterials in Aqueous Solution. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
324	TiO <sub>2</sub> -based photocatalysts for CO <sub>2</sub> reduction and solar fuel generation. <i>Chinese Journal of Catalysis</i> , 2022, 43, 2500-2529.	6.9	31
325	Mechanistic and kinetic studies of benzyl alcohol photocatalytic oxidation by nanostructured titanium (hydro)oxides: Do we know the entire story?. <i>Applied Catalysis B: Environmental</i> , 2023, 320, 121939.	10.8	24

#	ARTICLE	IF	CITATIONS
326	Recent Advances in Ferroelectric Materials-Based Photoelectrochemical Reaction. <i>Nanomaterials</i> , 2022, 12, 3026.	1.9	5
327	A Review on the Progress and Future of TiO <sub>2</sub> /Graphene Photocatalysts. <i>Energies</i> , 2022, 15, 6248.	1.6	18
328	Advances in preparation, application in contaminant removal, and environmental risks of biochar-based catalysts: a review. <i>Biochar</i> , 2022, 4, .	6.2	19
329	Visible-light-driven non-oxidative dehydrogenation of alkanes at ambient conditions. <i>Nature Energy</i> , 2022, 7, 1042-1051.	19.8	31
330	Facile Vacuum Annealing of TiO <sub>2</sub> with Ethanol-Induced Enhancement of Its Photocatalytic Performance under Visible Light. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 14455-14461.	1.8	2
331	Alcohol Plasma Processed Surface Amorphization for Photocatalysis. <i>ACS Catalysis</i> , 2022, 12, 12206-12216.	5.5	17
332	Control of monomeric Vo <sup>TM</sup> s versus Vo clusters in ZrO <sub>2</sub> for solar-light H <sub>2</sub> production from H <sub>2</sub> O at high-yield (millimoles <sup>gr</sup> 1 <sup>h</sup> 1). <i>Scientific Reports</i> , 2022, 12, .	1.6	7
333	Critical factors for photoelectrochemical and photocatalytic H <sub>2</sub> evolution from gray anatase (001) nanosheets. <i>JPhys Energy</i> , 2022, 4, 044004.	2.3	2
334	Synthesis and Applications of TiO <sub>2</sub> -based Nanostructures as Photocatalytic Materials. <i>Chemistry - an Asian Journal</i> , 2022, 17, .	1.7	12
335	Kinetic analysis of p-rGO/n-TiO <sub>2</sub> nanocomposite generated by hydrothermal technique for simultaneous photocatalytic water splitting and degradation of methylene blue dye. <i>Environmental Science and Pollution Research</i> , 2023, 30, 18181-18198.	2.7	7
336	Step-scheme perylenediimide supramolecular nanosheet and TiO <sub>2</sub> nanoparticle composites for boosted water splitting performance. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 39486-39498.	3.8	3
337	Enhanced photocatalytic overall water splitting by tuning the relative concentration ratio of bulk defects to surface defects in SrTiO <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , 2023, 48, 1360-1369.	3.8	3
338	On the Use of Polymer-Based Composites for the Creation of Optical Sensors: A Review. <i>Polymers</i> , 2022, 14, 4448.	2.0	16
339	Novel RuSe <sub>2</sub> /Black-TiO <sub>2</sub> photocatalysts for boosted photocatalytic degradation of rhodamine B: Preparation, performance and mechanistic investigation. <i>Optical Materials</i> , 2022, 134, 113182.	1.7	1
340	Regulation of surface oxygen species to boost charge steering for solar water oxidation. <i>Applied Surface Science</i> , 2023, 609, 155241.	3.1	3
341	Highly durable photocatalytic titanium suboxide <sup>TM</sup> polymer nanocomposite films with visible light-triggered antibiofilm activity. <i>Chemical Engineering Journal</i> , 2023, 454, 139971.	6.6	7
342	Phase-controlled 1T/2H-MoS <sub>2</sub> interaction with reduced TiO <sub>2</sub> for highly stable photocatalytic CO <sub>2</sub> reduction into CO. <i>Journal of CO<sub>2</sub> Utilization</i> , 2023, 67, 102324.	3.3	9
343	Role of oxygen vacancy in metal oxides for photocatalytic CO <sub>2</sub> reduction. <i>Applied Catalysis B: Environmental</i> , 2023, 321, 122079.	10.8	80

#	ARTICLE	IF	CITATIONS
344	Photocatalytic hydrogen generation using TiO <sub>2</sub> : a state-of-the-art review. Zeitschrift Fur Physikalische Chemie, 2022, 236, 1697-1728.	1.4	2
345	Bifunctional intermetallic PdZn nanoparticle-loaded deficient TiO <sub>2</sub> nanosheet electrocatalyst for electrochemical water splitting. Materials Advances, 2023, 4, 561-569.	2.6	14
346	Construction of surface oxygen vacancies by bimetallic doping combined with ellagic acid modification to enhance the photocatalytic degradation of ethinyl estradiol by TiO <sub>2</sub> . Chemical Engineering Journal, 2023, 455, 140929.	6.6	10
347	Structure-sensitive epoxidation of dicyclopentadiene over TiO <sub>2</sub> catalysts. Chemical Communications, 2023, 59, 756-759.	2.2	4
348	Photoactivation of titanium-oxo cluster [Ti <sub>6</sub> O <sub>6</sub> (OR) <sub>6</sub> (O <sub>2</sub> C <sup>i</sup> Bu) <sub>6</sub> ]: mechanism, photoactivated structures, and onward reactivity with O <sub>2</sub> to a peroxide complex. Chemical Science, 2023, 14, 675-683.	3.7	3
349	Engineering carrier density at TiO <sub>2</sub> nanotube metasurface with hole reservoir for Enhanced Photo-electrocatalysis. Applied Surface Science, 2023, 613, 155974.	3.1	4
350	Simultaneous tuning of particle size and phase composition of TiO <sub>2</sub> - nanoparticles by a simple liquid immiscibility strategy. Journal of Materials Science and Technology, 2023, 145, 1-6.	5.6	3
351	Construction of TiO <sub>2</sub> (B)/Anatase Heterophase Junctions via a Water-Induced Phase Transformation Strategy for Enhanced Photocatalytic Hydrogen Production. Langmuir, 2022, 38, 15282-15293.	1.6	1
352	Effect of Thermal Treatment of Symmetric TiO <sub>2</sub> Nanotube Arrays in Argon on Photocatalytic CO <sub>2</sub> Conversion. Symmetry, 2022, 14, 2678.	1.1	2
353	Light-Induced Defect Formation and Pt Single Atoms Synergistically Boost Photocatalytic H <sub>2</sub> Production in 2D TiO <sub>2</sub> -Bronze Nanosheets. ACS Sustainable Chemistry and Engineering, 2022, 10, 17286-17296.	3.2	14
354	In Situ Grown Hierarchical Electrospun Nanofiber Skeletons with Embedded Vanadium Nitride Nanograins for Ultra-Fast and Super-Long Cycle Life Aqueous Zn-Ion Batteries. Advanced Energy Materials, 2023, 13, .	10.2	20
355	Adhesion of Polymer to TiO <sub>2</sub> Particles Decreases Photocatalytic Activity of Polyelectrolyte Hydrogel Photocatalyst. ChemistrySelect, 2022, 7, .	0.7	0
356	Hydrogen evolution on the reduced TiO <sub>2</sub> under simulated solar lamp. Catalysis Today, 2023, 423, 113989.	2.2	1
357	Effects of Solvent Treatment on the Formation of Oxygen Vacancy in TiO <sub>2</sub> via Vacuum Annealing. Journal of Physical Chemistry C, 2022, 126, 21751-21758.	1.5	2
358	Fluorine Aided Stabilization of Pt Single Atoms on TiO <sub>2</sub> Nanosheets and Strongly Enhanced Photocatalytic H <sub>2</sub> Evolution. ACS Catalysis, 2023, 13, 33-41.	5.5	20
359	Enhanced photocatalytic activity of TiO <sub>2</sub> nanotubes decorated with Ag nanoparticles by simultaneous electrochemical deposition and reduction processes. Applied Surface Science, 2023, 615, 156332.	3.1	20
360	Selective photoelectrochemical oxidation of glucose to glucaric acid by single atom Pt decorated defective TiO <sub>2</sub> . Nature Communications, 2023, 14, .	5.8	44
361	Pt Atomically Dispersed in Black TiO <sub>2</sub> /Cu <sub>2</sub> O with Chiral-Like Nanostructure for Visible-Light H <sub>2</sub> Generation. Solar Rrl, 0, , 2200929.	3.1	3

#	ARTICLE	IF	CITATIONS
362	Chitosan-derived carbon supported CoO combined with CdS facilitates visible light catalytic hydrogen evolution. <i>Catalysis Science and Technology</i> , 2023, 13, 1128-1139.	2.1	4
363	Modulation of the Work Function of TiO <sub>2</sub> Nanotubes by Nitrogen Doping: Implications for the Photocatalytic Degradation of Dyes. <i>ACS Applied Nano Materials</i> , 2023, 6, 50-60.	2.4	10
364	Differentiating between Acidic and Basic Surface Hydroxyls on Metal Oxides by Fluoride Substitution: A Case Study on Blue TiO <sub>2</sub> from Laser Defect Engineering. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	4
365	Differentiating between Acidic and Basic Surface Hydroxyls on Metal Oxides by Fluoride Substitution: A Case Study on Blue TiO <sub>2</sub> from Laser Defect Engineering. <i>Angewandte Chemie</i> , 0, , .	1.6	0
366	Chemical Kinetics of Serial Processes for Photogenerated Charges at Semiconductor Surface: A Classical Theoretical Calculation. <i>Catalysis Letters</i> , 0, , .	1.4	0
367	Plasma surface treatment facilitated visible light-driven H <sub>2</sub> production over TiO <sub>2</sub> . <i>Surfaces and Interfaces</i> , 2023, 36, 102626.	1.5	1
368	Oxygen Vacancy Defect Engineering of Heterophase Junction TiO <sub>2</sub> : Interfacial/Surface Oxygen Vacancies Coadjust the Photocatalytic ROS Production. <i>ACS Applied Energy Materials</i> , 2023, 6, 1025-1036.	2.5	13
369	Facile Synthesis of Gram-Scale Mesoporous Ag/TiO <sub>2</sub> Photocatalysts for Pharmaceutical Water Pollutant Removal and Green Hydrogen Generation. <i>ACS Omega</i> , 2023, 8, 1249-1261.	1.6	5
370	Modification of In <sub>2</sub> O <sub>3</sub> by electronic promoters to regulate electron transfer behavior of CO <sub>2</sub> /H <sub>2</sub> O adsorption and the selectivity of photocatalytic CO <sub>2</sub> reduction. <i>Catalysis Science and Technology</i> , 2023, 13, 1830-1845.	2.1	1
371	Photocatalyzed alkoxy carbonylmethylation of pyridines with $\hat{\pm}$ -diazoacetates. <i>Organic Chemistry Frontiers</i> , 0, , .	2.3	0
372	Investigation of Advanced Oxidation Process in the Presence of TiO <sub>2</sub> Semiconductor as Photocatalyst: Property, Principle, Kinetic Analysis, and Photocatalytic Activity. <i>Catalysts</i> , 2023, 13, 232.	1.6	26
373	Structure, materials, and preparation of photoelectrodes. , 2023, , 83-174.		1
374	Black titania: Turning the surface chemistry toward visible-light absorption, (photo) remediation of hazardous organics and H <sub>2</sub> production. , 2023, , 361-398.		0
375	Rational design of defect metal oxide/covalent organic frameworks Z-scheme heterojunction for photoreduction CO <sub>2</sub> to CO. <i>Applied Catalysis B: Environmental</i> , 2023, 327, 122419.	10.8	12
376	Aluminium doped ZnO nanostructures for efficient photodegradation of indigo carmine and azo carmine G in solar irradiation. <i>Applied Nanoscience (Switzerland)</i> , 2023, 13, 5777-5793.	1.6	8
377	Precise Electronic Structures of Amorphous Solids: Unraveling the Color Origin and Photocatalysis of Black Titania. <i>Journal of Physical Chemistry C</i> , 2023, 127, 7268-7274.	1.5	2
378	Red anatase TiO <sub>2</sub> microspheres with exposed major {0 0 1} facets and boron-stabilized hydrogen-occupied oxygen vacancies for visible-light-responsive water oxidation. <i>Journal of Colloid and Interface Science</i> , 2023, 640, 211-219.	5.0	2
379	Electrochemical reconstitution of Prussian blue analogue for coupling furfural electro-oxidation with photo-assisted hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , 2023, 465, 142865.	6.6	4

#	ARTICLE	IF	CITATIONS
380	Engineering of direct Z-scheme ZnIn <sub>2</sub> S <sub>4</sub> /NiWO <sub>4</sub> heterojunction with boosted photocatalytic hydrogen production. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2023, 666, 131384.	2.3	14
381	Boosting electrocatalytic performance and durability of Pt nanoparticles by conductive MO <sub>2</sub> <sup>x</sup> (M = Tj ETQq1 1 0,784314 rgBT /Overlock	10.8	13
382	Enabling Internal Electric Fields to Enhance Energy and Environmental Catalysis. <i>Advanced Energy Materials</i> , 2023, 13, .	10.2	34
383	Enhancing photoelectrochemical properties of titania nanotubes via rapid thermal annealing in hydrogen atmosphere. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2023, 290, 116324.	1.7	1
384	Reduced TiO <sub>2</sub> with prolonged electron lifetime for improving photocatalytic water reduction activity. <i>Journal of Physics Condensed Matter</i> , 2023, 35, 134001.	0.7	1
385	Electronic structure analysis of light-element-doped anatase TiO <sub>2</sub> using all-electron GW approach. <i>Computational Materials Science</i> , 2023, 220, 112059.	1.4	2
386	Single-Atom Sn-Loaded Exfoliated Layered Titanate Revealing Enhanced Photocatalytic Activity in Hydrogen Generation. <i>ACS Sustainable Chemistry and Engineering</i> , 2023, 11, 3306-3315.	3.2	7
388	Promotion of dual-reaction pathway in CO <sub>2</sub> reduction over Pt <sub>0</sub> /SrTiO <sub>3</sub> : Experimental and theoretical verification. <i>Chinese Journal of Catalysis</i> , 2023, 46, 113-124.	6.9	9
389	Bismuth vanadate: A versatile heterogeneous catalyst for photocatalytic functionalization of C(sp <sup>2</sup> )-H bonds. <i>Chinese Journal of Catalysis</i> , 2023, 46, 157-166.	6.9	5
390	Cutting-edge technological advancements in biomass-derived hydrogen production. <i>Reviews in Environmental Science and Biotechnology</i> , 2023, 22, 397-426.	3.9	3
391	Fabrication and Application of Ag, Black TiO <sub>2</sub> and Nitrogen-Doped 3D Reduced Graphene Oxide (3D Black) Tj ETQq0,0 0 rgBT /Overlock	1.6	0
392	Development of photocatalytic nanostructured TiO <sub>2</sub> and NiO/TiO <sub>2</sub> coatings by DC magnetron sputtering for photocatalytic applications. <i>Ceramics International</i> , 2023, 49, 19309-19317.	2.3	6
393	A Review on Nano Ti-Based Oxides for Dark and Photocatalysis: From Photoinduced Processes to Bioimplant Applications. <i>Nanomaterials</i> , 2023, 13, 982.	1.9	7
394	Adsorption-Induced In-situ Construction of TiO <sub>2</sub> Hollow Sphere/UiO <sub>66</sub> -NH <sub>2</sub> Heterostructures with Boosted Photocatalytic Activity toward Cr(VI) Reduction. <i>ChemNanoMat</i> , 2023, 9, .	1.5	1
395	Surface Defect Engineering in Colored TiO <sub>2</sub> Hollow Spheres Toward Efficient Photocatalysis. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	29
396	Efficient adsorption and photodegradation of various organic dyes over B-doped TiO <sub>2-x</sub> . <i>Catalysis Communications</i> , 2023, 177, 106651.	1.6	3
397	Fabrication and Characterization of Lanthanide-TiO <sub>2</sub> Nanotube Composites. <i>Open Journal of Physical Chemistry</i> , 2023, 13, 13-28.	0.1	0
398	Modification of Anodic Titanium Oxide Bandgap Energy by Incorporation of Tungsten, Molybdenum, and Manganese In Situ during Anodization. <i>Materials</i> , 2023, 16, 2707.	1.3	1

#	ARTICLE	IF	CITATIONS
399	Methyl Group-Promoted Generation of Oxygen Vacancies in an Aerobically Annealed TiO <sub>2</sub> Nanostructure for Photocatalytic H <sub>2</sub> Production. ACS Applied Nano Materials, 2023, 6, 6076-6085.	2.4	4
400	Understanding the pulsed laser-induced modification processes of TiO <sub>2</sub> nanomaterials in aqueous solution. Bulletin of the Korean Chemical Society, 2023, 44, 634-644.	1.0	1
401	White and black anodic TiO <sub>2</sub> nanotubes: Comparison of biological effects in A549 and SH-SY5Y cells. Surface and Coatings Technology, 2023, 462, 129504.	2.2	2
402	Engineering defects in TiO <sub>2</sub> for the simultaneous production of hydrogen and organic products. Applied Catalysis B: Environmental, 2023, 333, 122765.	10.8	18
407	Synthesis of Magnetic Ferrite and TiO <sub>2</sub> -Based Nanomaterials for Photocatalytic Water Splitting Applications. Composites Science and Technology, 2023, , 293-329.	0.4	0
411	Homogeneous interfacial electron transfer promotes photoinduced hole extraction for phenol mineralization. Catalysis Science and Technology, 2023, 13, 3495-3498.	2.1	3
438	Photo-assisted rechargeable batteries: principles, performance, and development. Journal of Materials Chemistry A, 2023, 11, 18605-18625.	5.2	3