Shao-Wen Cao

List of Publications by Year
in descending order

120 papers	21,052 citations	13068 68 h-index	18606 119 g-index
126 all docs	126 docs citations	126 times ranked	18653 citing authors

#	Article	IF	Citations
1	Polymeric Photocatalysts Based on Graphitic Carbon Nitride. Advanced Materials, 2015, 27, 2150-2176.	11.1	3,046
2	2D/2D Heterojunction of Ultrathin MXene/Bi₂WO₆ Nanosheets for Improved Photocatalytic CO₂ Reduction. Advanced Functional Materials, 2018, 28, 1800136.	7.8	1,157
3	g-C₃N₄-Based Photocatalysts for Hydrogen Generation. Journal of Physical Chemistry Letters, 2014, 5, 2101-2107.	2.1	1,107
4	Designing a 0D/2D Sâ€Scheme Heterojunction over Polymeric Carbon Nitride for Visibleâ€Light Photocatalytic Inactivation of Bacteria. Angewandte Chemie - International Edition, 2020, 59, 5218-5225.	7.2	822
5	Ultra-thin nanosheet assemblies of graphitic carbon nitride for enhanced photocatalytic CO₂ reduction. Journal of Materials Chemistry A, 2017, 5, 3230-3238.	5.2	621
6	Size- and shape-dependent catalytic performances of oxidation and reduction reactions on nanocatalysts. Chemical Society Reviews, 2016, 45, 4747-4765.	18.7	568
7	Two-dimensional layered composite photocatalysts. Chemical Communications, 2014, 50, 10768.	2.2	551
8	An Inorganic/Organic Sâ€Scheme Heterojunction H₂â€Production Photocatalyst and its Charge Transfer Mechanism. Advanced Materials, 2021, 33, e2100317.	11.1	528
9	Enhanced photocatalytic activity and stability of Z-scheme Ag2CrO4-GO composite photocatalysts for organic pollutant degradation. Applied Catalysis B: Environmental, 2015, 164, 380-388.	10.8	483
10	Recent advances in visible light Bi-based photocatalysts. Chinese Journal of Catalysis, 2014, 35, 989-1007.	6.9	481
11	Monodisperse Î±-Fe2O3 Mesoporous Microspheres: One-Step NaCl-Assisted Microwave-Solvothermal Preparation, Size Control and Photocatalytic Property. Nanoscale Research Letters, 2011, 6, 1.	3.1	452
12	Solar-to-fuels conversion over In2O3/g-C3N4 hybrid photocatalysts. Applied Catalysis B: Environmental, 2014, 147, 940-946.	10.8	398
13	Semiconductor-based photocatalytic CO₂ conversion. Materials Horizons, 2015, 2, 261-278.	6.4	380
14	In-situ growth of CdS quantum dots on g-C3N4 nanosheets for highly efficient photocatalytic hydrogen generation under visible light irradiation. International Journal of Hydrogen Energy, 2013, 38, 1258-1266.	3.8	339
15	Facet effect of Pd cocatalyst on photocatalytic CO 2 reduction over g-C 3 N 4. Journal of Catalysis, 2017, 349, 208-217.	3.1	332
16	Hierarchically Nanostructured Magnetic Hollow Spheres of Fe₃O₄ and Î³-Fe₂O₃:â€‰ Preparation and Potential Application in Drug Delivery. Journal of Physical Chemistry C, 2008, 112, 1851-1856.	1.5	328
17	TiO2 nanosheets with exposed {001} facets for photocatalytic applications. Nano Research, 2016, 9, 3-27.	5.8	327
18	Singleâ€Atom Engineering of Directional Charge Transfer Channels and Active Sites for Photocatalytic Hydrogen Evolution. Advanced Functional Materials, 2018, 28, 1802169.	7.8	287

#	Article	IF	Citations
19	Au/Pt Nanoparticle-Decorated TiO₂ Nanofibers with Plasmon-Enhanced Photocatalytic Activities for Solar-to-Fuel Conversion. Journal of Physical Chemistry C, 2013, 117, 25939-25947.	1.5	277
20	Hierarchically Nanostructured Î±-Fe₂O₃ Hollow Spheres:â€‰ Preparation, Growth Mechanism, Photocatalytic Property, and Application in Water Treatment. Journal of Physical Chemistry C, 2008, 112, 6253-6257.	1.5	272
21	Preparation of Au-BiVO₄ Heterogeneous Nanostructures as Highly Efficient Visible-Light Photocatalysts. ACS Applied Materials & Interfaces, 2012, 4, 418-423.	4.0	259
22	Designing Defective Crystalline Carbon Nitride to Enable Selective CO₂ Photoreduction in the Gas Phase. Advanced Functional Materials, 2019, 29, 1900093.	7.8	254
23	Improving photocatalytic hydrogen production of metalâ€“organic framework UiO-66 octahedrons by dye-sensitization. Applied Catalysis B: Environmental, 2015, 168-169, 572-576.	10.8	252
24	Carbon-based H2-production photocatalytic materials. Journal of Photochemistry and Photobiology C: Photochemistry Reviews, 2016, 27, 72-99.	5.6	252
25	A comparison study of alkali metal-doped g-C3N4 for visible-light photocatalytic hydrogen evolution. Chinese Journal of Catalysis, 2017, 38, 1981-1989.	6.9	244
26	g-C3N4 modified TiO2 nanosheets with enhanced photoelectric conversion efficiency in dye-sensitized solar cells. Journal of Power Sources, 2015, 274, 77-84.	4.0	241
27	Efficient photocatalytic reduction of CO2 by amine-functionalized g-C3N4. Applied Surface Science, 2015, 358, 350-355.	3.1	229
28	Red phosphor/g-C3N4 heterojunction with enhanced photocatalytic activities for solar fuels production. Applied Catalysis B: Environmental, 2013, 140-141, 164-168.	10.8	219
29	Structure effect of graphene on the photocatalytic performance of plasmonic Ag/Ag2CO3-rGO for photocatalytic elimination of pollutants. Applied Catalysis B: Environmental, 2016, 181, 71-78.	10.8	219
30	Trace-level phosphorus and sodium co-doping of g-C 3 N 4 for enhanced photocatalytic H 2 production. Journal of Power Sources, 2017, 351, 151-159.	4.0	205
31	Shape-dependent photocatalytic hydrogen evolution activity over a Pt nanoparticle coupled g-C₃N₄ photocatalyst. Physical Chemistry Chemical Physics, 2016, 18, 19457-19463.	1.3	190
32	Highly Selective CO2 Capture and Its Direct Photochemical Conversion on Ordered 2D/1D Heterojunctions. Joule, 2019, 3, 2792-2805.	11.7	189
33	Advances in designing heterojunction photocatalytic materials. Chinese Journal of Catalysis, 2021, 42, 710-730.	6.9	182
34	Au@TiO₂â€“CdS Ternary Nanostructures for Efficient Visible-Light-Driven Hydrogen Generation. ACS Applied Materials & Interfaces, 2013, 5, 8088-8092.	4.0	177
35	Noble-metal-free g-C3N4/Ni(dmgH)2 composite for efficient photocatalytic hydrogen evolution under visible light irradiation. Applied Surface Science, 2014, 319, 344-349.	3.1	169
36	Au/PtO nanoparticle-modified g-C 3 N 4 for plasmon-enhanced photocatalytic hydrogen evolution under visible light. Journal of Colloid and Interface Science, 2016, 461, 56-63.	5.0	169

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37	Nanostructured porous hollow ellipsoidal capsules of hydroxyapatite and calcium silicate: preparation and application in drug delivery. Journal of Materials Chemistry, 2008, 18, 2722.	6.7	166
38	Microwave-assisted heating synthesis: a general and rapid strategy for large-scale production of highly crystalline g-C₃N₄ with enhanced photocatalytic H₂ production. Green Chemistry, 2014, 16, 4663-4668.	4.6	166
39	A Single Cu-Center Containing Enzyme-Mimic Enabling Full Photosynthesis under CO₂ Reduction. ACS Nano, 2020, 14, 8584-8593.	7.3	166
40	Mesoporous plasmonic Auâ€“TiO2 nanocomposites for efficient visible-light-driven photocatalytic water reduction. International Journal of Hydrogen Energy, 2012, 37, 17853-17861.	3.8	151
41	ZnFe2O4 nanoparticles: Microwave-hydrothermal ionic liquid synthesis and photocatalytic property over phenol. Journal of Hazardous Materials, 2009, 171, 431-435.	6.5	149
42	Direct evidence of plasmon enhancement on photocatalytic hydrogen generation over Au/Pt-decorated TiO₂nanofibers. Nanoscale, 2014, 6, 5217-5222.	2.8	143
43	Hierachically Nanostructured Mesoporous Spheres of Calcium Silicate Hydrate: Surfactantâ€Free Sonochemical Synthesis and Drugâ€Delivery System with Ultrahigh Drugâ€Loading Capacity. Advanced Materials, 2010, 22, 749-753.	11.1	142
44	Cu2(OH)2CO3 clusters: Novel noble-metal-free cocatalysts for efficient photocatalytic hydrogen production from water splitting. Applied Catalysis B: Environmental, 2017, 205, 104-111.	10.8	137
45	Enhanced visible-light-driven photocatalytic hydrogen generation over g-C3N4 through loading the noble metal-free NiS2 cocatalyst. RSC Advances, 2014, 4, 6127.	1.7	136
46	Surfactant-Free Preparation and Drug Release Property of Magnetic Hollow Core/Shell Hierarchical Nanostructures. Journal of Physical Chemistry C, 2008, 112, 12149-12156.	1.5	118
47	Gold Coating of Silver Nanoprisms. Advanced Functional Materials, 2012, 22, 849-854.	7.8	116
48	Selective photocatalytic decomposition of formic acid over AuPd nanoparticle-decorated TiO 2 nanofibers toward high-yield hydrogen production. Applied Catalysis B: Environmental, 2015, 162, 204-209.	10.8	107
49	Enhanced photocatalytic CO2-reduction activity of electrospun mesoporous TiO2 nanofibers by solvothermal treatment. Dalton Transactions, 2014, 43, 9158.	1.6	105
50	Iron oxide hollow spheres: Microwaveâ€“hydrothermal ionic liquid preparation, formation mechanism, crystal phase and morphology control and properties. Acta Materialia, 2009, 57, 2154-2165.	3.8	104
51	Large impact of heating time on physical properties and photocatalytic H2 production of g-C3N4 nanosheets synthesized through urea polymerization in Ar atmosphere. International Journal of Hydrogen Energy, 2013, 38, 13159-13163.	3.8	103
52	Artificial photosynthetic hydrogen evolution over g-C3N4 nanosheets coupled with cobaloxime. Physical Chemistry Chemical Physics, 2013, 15, 18363.	1.3	101
53	Microwave-assisted solvothermal synthesis of Bi4O5I2 hierarchical architectures with high photocatalytic performance. Catalysis Today, 2016, 264, 221-228.	2.2	100
54	Hierarchical hollow cages of Mn-Co layered double hydroxide as supercapacitor electrode materials. Applied Surface Science, 2017, 413, 35-40.	3.1	98

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55	Efficient CO₂ Capture and Photoreduction by Amineâ€Functionalized TiO₂. Chemistry - A European Journal, 2014, 20, 10220-10222.	1.7	95
56	Promoting intramolecular charge transfer of graphitic carbon nitride by donorâ€“acceptor modulation for visibleâ€light photocatalytic H₂ evolution. , 2022, 1, 294-308.		92
57	From Millimeter to Subnanometer: Vaporâ€“Solid Deposition of Carbon Nitride Hierarchical Nanostructures Directed by Supramolecular Assembly. Angewandte Chemie - International Edition, 2017, 56, 8426-8430.	7.2	90
58	Supramolecular Chemistry in Molten Sulfur: Preorganization Effects Leading to Marked Enhancement of Carbon Nitride Photoelectrochemistry. Advanced Functional Materials, 2015, 25, 6265-6271.	7.8	89
59	Fe3O4 polyhedral nanoparticles with a high magnetization synthesized in mixed solvent ethylene glycolâ€“water system. New Journal of Chemistry, 2008, 32, 1526.	1.4	86
60	Dual Z-scheme charge transfer in TiO2â€“Agâ€“Cu2O composite for enhanced photocatalytic hydrogen generation. Journal of Materiomics, 2015, 1, 124-133.	2.8	86
61	Recent Advances in Morphology Control and Surface Modification of Bi-Based Photocatalysts. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2016, 32, 2841-2870.	2.2	85
62	Controlling defects in crystalline carbon nitride to optimize photocatalytic CO₂ reduction. Chemical Communications, 2020, 56, 5641-5644.	2.2	83
63	Nanoparticle heterojunctions in ZnSâ€“ZnO hybrid nanowires for visible-light-driven photocatalytic hydrogen generation. CrystEngComm, 2013, 15, 5688.	1.3	77
64	NiS2 Co-catalyst decoration on CdLa2S4 nanocrystals for efficient photocatalytic hydrogen generation under visible light irradiation. International Journal of Hydrogen Energy, 2013, 38, 7218-7223.	3.8	76
65	Effects of the preparation method on the structure and the visible-light photocatalytic activity of Ag₂CrO₄. Beilstein Journal of Nanotechnology, 2014, 5, 658-666.	1.5	76
66	3D BiOIâ€“GO composite with enhanced photocatalytic performance for phenol degradation under visible-light. Ceramics International, 2015, 41, 3511-3517.	2.3	74
67	Room-temperature synthesis of BiOI with tailorable (0 0 1) facets and enhanced photocatalytic activity. Journal of Colloid and Interface Science, 2016, 478, 201-208.	5.0	74
68	Ni-P cluster modified carbon nitride toward efficient photocatalytic hydrogen production. Chinese Journal of Catalysis, 2019, 40, 867-874.	6.9	73
69	Molecule-Based Water-Oxidation Catalysts (WOCs): Cluster-Size-Dependent Dye-Sensitized Polyoxometalates for Visible-Light-Driven O2 Evolution. Scientific Reports, 2013, 3, 1853.	1.6	69
70	Surfactantâ€Free Subâ€2 nm Ultrathin Triangular Gold Nanoframes. Small, 2013, 9, 2880-2886.	5.2	66
71	Synthesis of Organized Layered Carbon by Selfâ€Templating of Dithiooxamide. Advanced Materials, 2016, 28, 6727-6733.	11.1	59
72	Improving Artificial Photosynthesis over Carbon Nitride by Gasâ€“Liquidâ€“Solid Interface Management for Full Lightâ€Induced CO₂Reduction to C₁and C₂Fuels and O₂. ChemSusChem, 2020, 13, 1730-1734.	3.6	59

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73	Vectorial doping-promoting charge transfer in anatase TiO2 {001} surface. Applied Surface Science, 2014, 319, 167-172.	3.1	55
74	Enhanced photochemical CO₂reduction in the gas phase by graphdiyne. Journal of Materials Chemistry A, 2020, 8, 7671-7676.	5.2	52
75	A strategy for in-situ synthesis of well-defined coreâ€“shell Au@TiO2 hollow spheres for enhanced photocatalytic hydrogen evolution. Chemical Engineering Journal, 2014, 257, 112-121.	6.6	51
76	In situ growth of Au nanoparticles on Fe2O3 nanocrystals for catalytic applications. CrystEngComm, 2012, 14, 7229.	1.3	48
77	Calcium phosphate drug nanocarriers with ultrahigh and adjustable drug-loading capacity: One-step synthesis, in situ drug loading and prolonged drug release. Nanomedicine: Nanotechnology, Biology, and Medicine, 2011, 7, 428-434.	1.7	47
78	Ionâ€Induced Synthesis of Uniform Singleâ€Crystalline Sulphideâ€Based Quaternaryâ€Alloy Hexagonal Nanorings for Highly Efficient Photocatalytic Hydrogen Evolution. Advanced Materials, 2013, 25, 2567-2572.	11.1	45
79	Dependence of Exposed Facet of Pd on Photocatalytic H₂-Production Activity. ACS Sustainable Chemistry and Engineering, 2018, 6, 6478-6487.	3.2	41
80	Plasmon-Enhanced Hydrogen Evolution on Au-InVO4 Hybrid Microspheres. RSC Advances, 2012, 2, 5513.	1.7	40
81	Preparation and Sustained-Release Property of Triblock Copolymer/Calcium Phosphate Nanocomposite as Nanocarrier for Hydrophobic Drug. Nanoscale Research Letters, 2010, 5, 781-785.	3.1	38
82	Rapid microwave-assisted synthesis and characterization of cellulose-hydroxyapatite nanocomposites in N,N-dimethylacetamide solvent. Carbohydrate Research, 2010, 345, 1046-1050.	1.1	38
83	Nanocages of Polymeric Carbon Nitride from Lowâ€Temperature Supramolecular Preorganization for Photocatalytic CO₂ Reduction. Solar Rrl, 2020, 4, 1900469.	3.1	38
84	Porous nanocomposites of PEG-PLA/calcium phosphate: room-temperature synthesis and its application in drug delivery. Dalton Transactions, 2010, 39, 4435.	1.6	37
85	Solar-Driven Glucose Isomerization into Fructose via Transient Lewis Acidâ€“Base Active Sites. ACS Catalysis, 2021, 11, 12170-12178.	5.5	36
86	Preparation and photocatalytic property of Î±-Fe2O3 hollow core/shell hierarchical nanostructures. Journal of Physics and Chemistry of Solids, 2010, 71, 1680-1683.	1.9	33
87	Effect of sacrificial agents on the dispersion of metal cocatalysts for photocatalytic hydrogen evolution. Applied Surface Science, 2018, 442, 361-367.	3.1	33
88	â€œEnvironmental phosphorylationâ€•boosting photocatalytic CO2 reduction over polymeric carbon nitride grown on carbon paper at air-liquid-solid joint interfaces. Chinese Journal of Catalysis, 2021, 42, 1667-1676.	6.9	33
89	Formation of Î³-Fe2O3 hierarchical nanostructures at 500Â°C in a high magnetic field. Journal of Magnetism and Magnetic Materials, 2009, 321, 3057-3060.	1.0	31
90	Ultra-Thin Carbon-Doped Bi2WO6 Nanosheets for Enhanced Photocatalytic CO2 Reduction. Transactions of Tianjin University, 2021, 27, 338-347.	3.3	29

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91	Light-driven directional ion transport for enhanced osmotic energy harvesting. National Science Review, 2021, 8, nwaa231.	4.6	24
92	Ultrathin 2D/2D Graphdiyne/Bi₂WO₆ Heterojunction for Gas-Phase CO₂ Photoreduction. ACS Applied Energy Materials, 2021, 4, 8734-8738.	2.5	23
93	Rational Synthesis of Triangular Auâ€“Ag₂S Hybrid Nanoframes with Effective Photoresponses. Chemistry - A European Journal, 2014, 20, 2742-2745.	1.7	22
94	A â€œuniformâ€•heterogeneous photocatalyst: integrated pâ€“n type CuInS₂/NaInS₂ nanosheets by partial ion exchange reaction for efficient H₂ evolution. Chemical Communications, 2015, 51, 9381-9384.	2.2	22
95	Calcium phosphate/block copolymer hybrid porous nanospheres: Preparation and application in drug delivery. Materials Letters, 2010, 64, 2299-2301.	1.3	21
96	A New Conducting Polymer with Exceptional Visibleâ€Light Photocatalytic Activity Derived from Barbituric Acid Polycondensation. Advanced Materials, 2020, 32, e1907702.	11.1	20
97	All-organic Z-scheme photoreduction of CO2 with water as the donor of electrons and protons. Applied Catalysis B: Environmental, 2021, 285, 119773.	10.8	19
98	Dye-sensitized Pt@TiO₂ coreâ€“shell nanostructures for the efficient photocatalytic generation of hydrogen. Beilstein Journal of Nanotechnology, 2014, 5, 360-364.	1.5	18
99	Potassium/oxygen co-doped polymeric carbon nitride for enhanced photocatalytic CO2 reduction. Applied Surface Science, 2021, 563, 150310.	3.1	18
100	Iron hydroxyl phosphate microspheres: Microwave-solvothermal ionic liquid synthesis, morphology control, and photoluminescent properties. Journal of Solid State Chemistry, 2010, 183, 1704-1709.	1.4	16
101	From Millimeter to Subnanometer: Vaporâ€“Solid Deposition of Carbon Nitride Hierarchical Nanostructures Directed by Supramolecular Assembly. Angewandte Chemie, 2017, 129, 8546-8550.	1.6	16
102	MnCo Oxides Supported on Carbon Fibers for High-Performance Supercapacitors. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, 36, 1907072-0.	2.2	16
103	Dual synergetic catalytic effects boost hydrogen electric oxidation performance of Pd/W18O49. Nano Research, 2021, 14, 2441-2450.	5.8	15
104	An electrochemically reconstructed WC/WO₂â€“WO₃ heterostructure as a highly efficient hydrogen oxidation electrocatalyst. Journal of Materials Chemistry A, 2022, 10, 622-631.	5.2	15
105	Hydrothermal synthesis of relatively uniform CePO4@LaPO4 one-dimensional nanostructures with highly improved luminescence. Journal of Alloys and Compounds, 2010, 492, 559-563.	2.8	14
106	Two-dimensional gersiloxenes with tunable band gap as new photocatalysts. Rare Metals, 2020, 39, 610-612.	3.6	14
107	Designing a 0D/2D Sâ€Scheme Heterojunction over Polymeric Carbon Nitride for Visibleâ€Light Photocatalytic Inactivation of Bacteria. Angewandte Chemie, 2020, 132, 5256-5263.	1.6	14
108	A 3D Hierarchical Ti₃C₂T_x/TiO₂ Heterojunction for Enhanced Photocatalytic CO₂ Reduction. ChemNanoMat, 2021, 7, 910-915.	1.5	14

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109	Donorâ€“Acceptor Modification of Carbon Nitride for Enhanced Photocatalytic Hydrogen Evolution. Advanced Sustainable Systems, 2023, 7, .	2.7	14
110	Corrosion mechanism of E-glass of chemical resistance glass fiber in acid environment. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 872-876.	0.4	13
111	Preparation and Drug Release Properties of Nanostructured CaCO₃ Porous Hollow Microspheres. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2009, 24, 166-170.	0.6	10
112	2D/2D FeNi-LDH/g-C₃N₄ Hybrid Photocatalyst for Enhanced CO₂ Photoreduction. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, .	2.2	10
113	Development and Fabrication of Advanced Materials for Energy and Environment Applications. Journal of Nanomaterials, 2013, 2013, 1-2.	1.5	8
114	CsPbBr3 perovskite based tandem device for CO2 photoreduction. Chemical Engineering Journal, 2022, 443, 136447.	6.6	8
115	SnO2 and ZnO Nanostructured Spheres Self-assembled by Nanocrystals: Microwave-assisted Preparation and Enhancement of Photocatalytic Activity. Chemistry Letters, 2008, 37, 1002-1003.	0.7	7
116	Photocatalysis: Single-Atom Engineering of Directional Charge Transfer Channels and Active Sites for Photocatalytic Hydrogen Evolution (Adv. Funct. Mater. 32/2018). Advanced Functional Materials, 2018, 28, 1870224.	7.8	6
117	Preparation, Characterization and Application of Hollow Microspheres Assembled with Nanocrystals of Iron Oxides. Wuji Cailiao Xuebao/Journal of Inorganic Materials, 2011, 26, 458-466.	0.6	2
118	Photocatalysts based on polymeric carbon nitride for solar-to-fuel conversion. Interface Science and Technology, 2020, 31, 475-507.	1.6	2
119	Spectroscopy Applied to Engineering Materials. Journal of Spectroscopy, 2015, 2015, 1-2.	0.6	1
120	Development and Fabrication of Advanced Materials for Energy and Environment Applications 2014. Journal of Nanomaterials, 2014, 2014, 1-2.	1.5	0