Song Bai

List of Publications by Citations

86 papers	6,952 citations	42 h-index	83 g-index
91 ext. papers	8,077 ext. citations	10.5 avg, IF	6.42 L-index

#	Paper	IF	Citations
86	Steering charge kinetics in photocatalysis: intersection of materials syntheses, characterization techniques and theoretical simulations. *Chemical Society Reviews*, **2015**, 44, 2893-939	58.5	732
85	Graphene□horganic nanocomposites. *RSC Advances*, **2012**, 2, 64-98	3.7	507
84	Defect engineering in photocatalytic materials. *Nano Energy*, **2018**, 53, 296-336	17.1	417
83	Surface polarization matters: enhancing the hydrogen-evolution reaction by shrinking Pt shells in Pt-Pd-graphene stack structures. *Angewandte Chemie - International Edition*, **2014**, 53, 12120-4	16.4	380
82	Chemically exfoliated metallic MoS2 nanosheets: A promising supporting co-catalyst for enhancing the photocatalytic performance of TiO2 nanocrystals. *Nano Research*, **2015**, 8, 175-183	10	298
81	Toward Enhanced Photocatalytic Oxygen Evolution: Synergetic Utilization of Plasmonic Effect and Schottky Junction via Interfacing Facet Selection. *Advanced Materials*, **2015**, 27, 3444-52	24	295
80	One-pot solvothermal preparation of magnetic reduced graphene oxide-ferrite hybrids for organic dye removal. *Carbon*, **2012**, 50, 2337-2346	10.4	295
79	Facet-Engineered Surface and Interface Design of Photocatalytic Materials. *Advanced Science*, **2017**, 4, 1600216	13.6	223
78	Two-dimensional g-C(3)N(4): an ideal platform for examining facet selectivity of metal co-catalysts in photocatalysis. *Chemical Communications*, **2014**, 50, 6094-7	5.8	190
77	Embedding Metal in the Interface of a p-n Heterojunction with a Stack Design for Superior Z-Scheme Photocatalytic Hydrogen Evolution. *ACS Applied Materials & Interfaces*, **2016**, 8, 23133-42	9.5	170
76	Designing p-type semiconductor-metal hybrid structures for improved photocatalysis. *Angewandte Chemie - International Edition*, **2014**, 53, 5107-11	16.4	148
75	Surface and interface design in cocatalysts for photocatalytic water splitting and CO2 reduction. *RSC Advances*, **2016**, 6, 57446-57463	3.7	147
74	In situ growth of Ni(x)Co(100-x) nanoparticles on reduced graphene oxide nanosheets and their magnetic and catalytic properties. *ACS Applied Materials & Interfaces*, **2012**, 4, 2378-86	9.5	136
73	Tunable oxygen activation for catalytic organic oxidation: Schottky junction versus plasmonic effects. *Angewandte Chemie - International Edition*, **2014**, 53, 3205-9	16.4	121
72	Boosting Photocatalytic Water Splitting: Interfacial Charge Polarization in Atomically Controlled Core-Shell Cocatalysts. *Angewandte Chemie - International Edition*, **2015**, 54, 14810-4	16.4	119
71	A unique semiconductor-metal-graphene stack design to harness charge flow for photocatalysis. *Advanced Materials*, **2014**, 26, 5689-95	24	116
70	One-pot solvothermal syntheses and magnetic properties of graphene-based magnetic nanocomposites. *Journal of Alloys and Compounds*, **2010**, 506, 136-140	5.7	111

69	Integration of Multiple Plasmonic and Co-Catalyst Nanostructures on TiO2 Nanosheets for Visible-Near-Infrared Photocatalytic Hydrogen Evolution. *Small*, **2016**, 12, 1640-8	11	111
68	Preparation and characterization of graphene/CdS nanocomposites. *Applied Surface Science*, **2010**, 257, 747-751	6.7	109
67	Surface and Interface Engineering in Photocatalysis. *ChemNanoMat*, **2015**, 1, 223-239	3.5	101
66	Some recent developments in surface and interface design for photocatalytic and electrocatalytic hybrid structures. *Chemical Communications*, **2015**, 51, 10261-71	5.8	80
65	Depositing CdS nanoclusters on carbon-modified NaYF4:Yb,Tm upconversion nanocrystals for NIR-light enhanced photocatalysis. *Nanoscale*, **2016**, 8, 553-62	7.7	78
64	Plasmonic molybdenum oxide nanosheets supported silver nanocubes for enhanced near-infrared antibacterial activity: Synergism of photothermal effect, silver release and photocatalytic reactions. *Applied Catalysis B: Environmental*, **2018**, 224, 671-680	21.8	76
63	Hydriding Pd cocatalysts: An approach to giant enhancement on photocatalytic CO2 reduction into CH4. *Nano Research*, **2017**, 10, 3396-3406	10	72
62	Nanocomposites of hematite (□Fe2O3) nanospindles with crumpled reduced graphene oxide nanosheets as high-performance anode material for lithium-ion batteries. *RSC Advances*, **2012**, 2, 10977	3.7	72
61	High-index facet engineering of PtCu cocatalysts for superior photocatalytic reduction of CO2 to CH4. *Journal of Materials Chemistry A*, **2017**, 5, 6686-6694	13	70
60	Graphene □bridge□in transferring hot electrons from plasmonic Ag nanocubes to TiO2 nanosheets for enhanced visible light photocatalytic hydrogen evolution. *Applied Catalysis B: Environmental*, **2018**, 220, 182-190	21.8	70
59	The influence of wrinkling in reduced graphene oxide on their adsorption and catalytic properties. *Carbon*, **2013**, 60, 157-168	10.4	69
58	Hybrid cocatalysts in semiconductor-based photocatalysis and photoelectrocatalysis. *Journal of Materials Chemistry A*, **2020**, 8, 14863-14894	13	66
57	Crystal phase engineering on photocatalytic materials for energy and environmental applications. *Nano Research*, **2019**, 12, 2031-2054	10	66
56	Assembly of Ag3PO4 nanocrystals on graphene-based nanosheets with enhanced photocatalytic performance. *Journal of Colloid and Interface Science*, **2013**, 405, 1-9	9.3	57
55	Grain boundary engineered metal nanowire cocatalysts for enhanced photocatalytic reduction of carbon dioxide. *Applied Catalysis B: Environmental*, **2017**, 206, 282-292	21.8	55
54	Designing p-Type Semiconductor□Metal Hybrid Structures for Improved Photocatalysis. *Angewandte Chemie*, **2014**, 126, 5207-5211	3.6	55
53	Towards full-spectrum photocatalysis: Achieving a Z-scheme between Ag2S and TiO2 by engineering energy band alignment with interfacial Ag. *Nano Research*, **2015**, 8, 3621-3629	10	53
52	Engineering on the edge of Pd nanosheet cocatalysts for enhanced photocatalytic reduction of CO2 to fuels. *Journal of Materials Chemistry A*, **2017**, 5, 2619-2628	13	52

51	A unique platinum-graphene hybrid structure for high activity and durability in oxygen reduction reaction. *Scientific Reports*, **2013**, 3, 2580	4.9	52
50	Interfacial facet engineering on the Schottky barrier between plasmonic Au and TiO2 in boosting the photocatalytic CO2 reduction under ultraviolet and visible light irradiation. *Chemical Engineering Journal*, **2021**, 404, 127145	14.7	52
49	Twin defects engineered Pd cocatalyst on CN nanosheets for enhanced photocatalytic performance in CO reduction reaction. *Nanotechnology*, **2017**, 28, 484003	3.4	51
48	Bridge engineering in photocatalysis and photoelectrocatalysis. *Nanoscale*, **2020**, 12, 5764-5791	7.7	51
47	Long-term production of H2 over Pt/CdS nanoplates under sunlight illumination. *Chemical Engineering Journal*, **2016**, 283, 351-357	14.7	50
46	Surface Polarization Matters: Enhancing the Hydrogen-Evolution Reaction by Shrinking Pt Shells in PtPdGraphene Stack Structures. *Angewandte Chemie*, **2014**, 126, 12316-12320	3.6	45
45	Facet engineered interface design of NaYF:Yb,Tm upconversion nanocrystals on BiOCl nanoplates for enhanced near-infrared photocatalysis. *Nanoscale*, **2016**, 8, 19014-19024	7.7	42
44	Interface engineering on Janus PdAu heterojunction co-catalysts for selective photocatalytic reduction of CO2 to CH4. *Journal of Materials Chemistry A*, **2019**, 7, 5266-5276	13	41
43	Surface and Interface Engineering in Ag2S@MoS2 CoreShell Nanowire Heterojunctions for Enhanced Visible Photocatalytic Hydrogen Production. *ChemCatChem*, **2018**, 10, 2107-2114	5.2	39
42	Reversible phase transfer of graphene oxide and its use in the synthesis of graphene-based hybrid materials. *Carbon*, **2011**, 49, 4563-4570	10.4	39
41	Lattice Engineering on Metal Cocatalysts for Enhanced Photocatalytic Reduction of CO into CH. *ChemSusChem*, **2018**, 11, 3524-3533	8.3	36
40	Aspect ratio dependent photocatalytic enhancement of CsPbBr3 in CO2 reduction with two-dimensional metal organic framework as a cocatalyst. *Applied Catalysis B: Environmental*, **2021**, 297, 120411	21.8	36
39	Recent advances in surface and interface engineering for electrocatalysis. *Chinese Journal of Catalysis*, **2015**, 36, 1476-1493	11.3	35
38	Etching approach to hybrid structures of PtPd nanocages and graphene for efficient oxygen reduction reaction catalysts. *Nano Research*, **2015**, 8, 2789-2799	10	34
37	Facet Engineered Interface Design of Plasmonic Metal and Cocatalyst on BiOCl Nanoplates for Enhanced Visible Photocatalytic Oxygen Evolution. *Small*, **2017**, 13, 1701607	11	34
36	Shape-controlled synthesis of well-dispersed platinum nanocubes supported on graphitic carbon nitride as advanced visible-light-driven catalyst for efficient photoreduction of hexavalent chromium. *Journal of Colloid and Interface Science*, **2019**, 535, 41-49	9.3	33
35	Sequential coating upconversion NaYF:Yb,Tm nanocrystals with SiO and ZnO layers for NIR-driven photocatalytic and antibacterial applications. *Materials Science and Engineering C*, **2017**, 70, 1141-1148	8.3	32
34	Tunable Oxygen Activation for Catalytic Organic Oxidation: Schottky Junction versus Plasmonic Effects. *Angewandte Chemie*, **2014**, 126, 3269-3273	3.6	32

33	Recent Advances in Two-Dimensional Nanostructures for Catalysis Applications. *Science of Advanced Materials*, **2015**, 7, 2168-2181	2.3	32
32	In situ growth of FeNi alloy nanoflowers on reduced graphene oxide nanosheets and their magnetic properties. *CrystEngComm*, **2012**, 14, 1432-1438	3.3	30
31	Engineering an Interfacial Facet of S-Scheme Heterojunction for Improved Photocatalytic Hydrogen Evolution by Modulating the Internal Electric Field. *ACS Applied Materials & Interfaces*, **2021**, 13, 39491-39500	9.5	28
30	Order engineering on the lattice of intermetallic PdCu co-catalysts for boosting the photocatalytic conversion of CO2 into CH4. *Journal of Materials Chemistry A*, **2018**, 6, 17444-17456	13	27
29	Synergism of surface strain and interfacial polarization on Pd@Au core□shell cocatalysts for highly efficient photocatalytic CO2 reduction over TiO2. *Journal of Materials Chemistry A*, **2020**, 8, 7350-7359	13	26
28	Synthesis of vis/NIR-driven hybrid photocatalysts by electrostatic assembly of NaYF4:Yb, Tm nanocrystals on g-C3N4 nanosheets. *Materials Letters*, **2015**, 146, 87-90	3.3	25
27	Facet engineering on the interface of BiOCl-PbS heterostructures for enhanced broad-spectrum photocatalytic H2 production. *Chemical Engineering Journal*, **2019**, 362, 1-11	14.7	25
26	Direct Generation of Fine Bi2WO6 Nanocrystals on g-C3N4 Nanosheets for Enhanced Photocatalytic Activity. *ChemNanoMat*, **2016**, 2, 732-738	3.5	22
25	Incorporation of Pd into Pt Co-Catalysts toward Enhanced Photocatalytic Water Splitting. *Particle and Particle Systems Characterization*, **2016**, 33, 506-511	3.1	22
24	Crystalline phase engineering on cocatalysts: A promising approach to enhancement on photocatalytic conversion of carbon dioxide to fuels. *Applied Catalysis B: Environmental*, **2018**, 230, 145-153	21.8	21
23	Heterogeneous Semiconductor Shells Sequentially Coated on Upconversion Nanoplates for NIR-Light Enhanced Photocatalysis. *Inorganic Chemistry*, **2017**, 56, 2328-2336	5.1	20
22	Vacancy engineering of AuCu cocatalysts for improving the photocatalytic conversion of CO2 to CH4. *Journal of Materials Chemistry A*, **2019**, 7, 27007-27015	13	20
21	Cocatalyst Engineering in Piezocatalysis: A Promising Strategy for Boosting Hydrogen Evolution. *ACS Applied Materials & Interfaces*, **2021**, 13, 15305-15314	9.5	19
20	Ultrathin nanosheets of palladium in boosting its cocatalyst role and plasmonic effect towards enhanced photocatalytic hydrogen evolution. *RSC Advances*, **2016**, 6, 56800-56806	3.7	18
19	Integration of Plasmonic Metal and Cocatalyst: An Efficient Strategy for Boosting the Visible and Broad-Spectrum Photocatalytic H2 Evolution. *Advanced Materials Interfaces*, **2019**, 6, 1900775	4.6	17
18	Optical Properties and a Simple and General Route for the Rapid Syntheses of Reduced Graphene Oxide□Metal Sulfide Nanocomposites. *European Journal of Inorganic Chemistry*, **2013**, 2013, 256-262	2.3	17
17	Stacking design in photocatalysis: synergizing cocatalyst roles and anti-corrosion functions of metallic MoS2 and graphene for remarkable hydrogen evolution over CdS. *Journal of Materials Chemistry A*, **2021**, 9, 1552-1562	13	15
16	A novel etching and reconstruction route to ultrathin porous TiO2 hollow spheres for enhanced photocatalytic hydrogen evolution. *International Journal of Hydrogen Energy*, **2016**, 41, 1627-1634	6.7	12

15	Stacking Engineering of Semiconductor Heterojunctions on Hollow Carbon Spheres for Boosting Photocatalytic CO2 Reduction. *ACS Catalysis*,2569-2580	13.1	12
14	Hierarchical ZnO microspheres built by sheet-like network: Large-scale synthesis and structurally enhanced catalytic performances. *Materials Chemistry and Physics*, **2012**, 132, 1065-1070	4.4	11
13	What is the better choice for Pd cocatalysts for photocatalytic reduction of CO2 to renewable fuels: high-crystallinity or amorphous?. *Journal of Materials Chemistry A*, **2020**, 8, 21208-21218	13	11
12	Coating a N-doped TiO2 shell on dually sensitized upconversion nanocrystals to provide NIR-enhanced photocatalysts for efficient utilization of upconverted emissions. *Inorganic Chemistry Frontiers*, **2016**, 3, 1190-1197	6.8	9
11	Significantly Enhanced Photocatalytic CO Reduction by Surface Amorphization of Cocatalysts. *Small* , **2021**, 17, e2102105	11	9
10	A facile and general route for the synthesis of semiconductor quantum dots on reduced graphene oxide sheets. *RSC Advances*, **2014**, 4, 13601	3.7	8
9	Boosting Photocatalytic Water Splitting: Interfacial Charge Polarization in Atomically Controlled Core□Shell Cocatalysts. *Angewandte Chemie*, **2015**, 127, 15023-15027	3.6	8
8	PtCu thickness-modulated interfacial charge transfer and surface reactivity in stacked graphene/Pd@PtCu heterostructures for highly efficient visible-light reduction of CO2 to CH4. *Applied Catalysis B: Environmental*, **2022**, 305, 121069	21.8	8
7	Metallic cobalt and molybdenum oxides encapsulated in B, N-doped carbon nanocomposite catalyzed hydrogen evolution from ammonia borane hydrolysis. *Vacuum*, **2020**, 174, 109213	3.7	8
6	Chemical etching of graphene-supported PdPt alloy nanocubes into concave nanostructures for enhanced catalytic hydrogen production from alkaline formaldehyde aqueous solution. *Inorganic Chemistry Frontiers*, **2017**, 4, 1704-1713	6.8	7
5	Facile □embedding□ of Au nanocrystals into silica spheres with controllable quantity for improved catalytic reduction of p-nitrophenol. *Inorganic Chemistry Frontiers*, **2015**, 2, 938-944	6.8	4
4	Semiconductors: A Unique Semiconductor□Metal□Graphene Stack Design to Harness Charge Flow for Photocatalysis (Adv. Mater. 32/2014). *Advanced Materials*, **2014**, 26, 5578-5578	24	4
3	Emerging Stacked Photocatalyst Design Enables Spatially Separated Ni(OH) Redox Cocatalysts for Overall CO Reduction and H O Oxidation.. *Small*, **2021**, e2104681	11	4
2	Quantifying the photocatalytic role and activity at the edge and surface of Pd co-catalysts using N2 fixation as a case. *Journal of Materials Chemistry A*, **2021**, 9, 26036-26044	13	1
1	R□ktitelbild: Surface Polarization Matters: Enhancing the Hydrogen-Evolution Reaction by Shrinking Pt Shells in Pt□Pd□Graphene Stack Structures (Angew. Chem. 45/2014). *Angewandte Chemie*, **2014**, 126, 12462-12462	3.6	