Xianguang Meng

List of Publications by Year in descending order

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96 papers	11,562 citations	36303 51 h-index	31849 101 g-index

107 all docs	107 docs citations	107 times ranked	11527 citing authors

#	Article	IF	Citations
1	Catalysis with Two-Dimensional Materials Confining Single Atoms: Concept, Design, and Applications. Chemical Reviews, 2019, 119, 1806-1854.	47.7	745
2	Efficient Visibleâ€Lightâ€Driven Carbon Dioxide Reduction by a Singleâ€Atom Implanted Metalâ€“Organic Framework. Angewandte Chemie - International Edition, 2016, 55, 14310-14314.	13.8	612
3	In Situ Bond Modulation of Graphitic Carbon Nitride to Construct pâ€“n Homojunctions for Enhanced Photocatalytic Hydrogen Production. Advanced Functional Materials, 2016, 26, 6822-6829.	14.9	583
4	Lightâ€Switchable Oxygen Vacancies in Ultrafine Bi₅O₇Br Nanotubes for Boosting Solarâ€Driven Nitrogen Fixation in Pure Water. Advanced Materials, 2017, 29, 1701774.	21.0	533
5	Nanometals for Solarâ€toâ€Chemical Energy Conversion: From Semiconductorâ€Based Photocatalysis to Plasmonâ€Mediated Photocatalysis and Photoâ€Thermocatalysis. Advanced Materials, 2016, 28, 6781-6803.	21.0	471
6	Active Sites Implanted Carbon Cages in Coreâ€“Shell Architecture: Highly Active and Durable Electrocatalyst for Hydrogen Evolution Reaction. ACS Nano, 2016, 10, 684-694.	14.6	426
7	Photothermal Conversion of CO₂ into CH₄ with H₂ over Groupâ€…VIII Nanocatalysts: An Alternative Approach for Solar Fuel Production. Angewandte Chemie - International Edition, 2014, 53, 11478-11482.	13.8	385
8	An Amineâ€Functionalized Iron(III) Metalâ€“Organic Framework as Efficient Visibleâ€Light Photocatalyst for Cr(VI) Reduction. Advanced Science, 2015, 2, 1500006.	11.2	364
9	Promoting Active Species Generation by Plasmon-Induced Hot-Electron Excitation for Efficient Electrocatalytic Oxygen Evolution. Journal of the American Chemical Society, 2016, 138, 9128-9136.	13.7	341
10	Direct Methane Conversion under Mild Condition by Thermo-, Electro-, or Photocatalysis. CheM, 2019, 5, 2296-2325.	11.7	331
11	Reaction Mechanisms of Wellâ€Defined Metalâ€“N₄ Sites in Electrocatalytic CO₂ Reduction. Angewandte Chemie - International Edition, 2018, 57, 16339-16342.	13.8	328
12	Surfaceâ€Plasmonâ€Enhanced Photodriven CO₂ Reduction Catalyzed by Metalâ€“Organicâ€Frameworkâ€Derived Iron Nanoparticles Encapsulated by Ultrathin Carbon Layers. Advanced Materials, 2016, 28, 3703-3710.	21.0	300
13	Natureâ€Inspired Environmental â€œPhosphorylationâ€• Boosts Photocatalytic H₂ Production over Carbon Nitride Nanosheets under Visibleâ€Light Irradiation. Angewandte Chemie - International Edition, 2015, 54, 13561-13565.	13.8	287
14	Confinement Catalysis with 2D Materials for Energy Conversion. Advanced Materials, 2019, 31, e1901996.	21.0	257
15	Direct and Selective Photocatalytic Oxidation of CH₄ to Oxygenates with O₂ on Cocatalysts/ZnO at Room Temperature in Water. Journal of the American Chemical Society, 2019, 141, 20507-20515.	13.7	253
16	Solar-Energy-Mediated Methane Conversion. Joule, 2019, 3, 1606-1636.	24.0	252
17	Hematite Films Decorated with Nanostructured Ferric Oxyhydroxide as Photoanodes for Efficient and Stable Photoelectrochemical Water Splitting. Advanced Functional Materials, 2015, 25, 2686-2692.	14.9	223
18	Targeting Activation of CO₂ and H₂ over Ruâ€Loaded Ultrathin Layered Double Hydroxides to Achieve Efficient Photothermal CO₂ Methanation in Flowâ€Type System. Advanced Energy Materials, 2017, 7, 1601657.	19.5	193

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19	Selective light absorber-assisted single nickel atom catalysts for ambient sunlight-driven CO2 methanation. Nature Communications, 2019, 10, 2359.	12.8	185
20	Light-Enhanced Carbon Dioxide Activation and Conversion by Effective Plasmonic Coupling Effect of Pt and Au Nanoparticles. ACS Applied Materials & Interfaces, 2018, 10, 408-416.	8.0	179
21	Efficient Visibleâ€Lightâ€Driven Carbon Dioxide Reduction by a Singleâ€Atom Implanted Metalâ€“Organic Framework. Angewandte Chemie, 2016, 128, 14522-14526.	2.0	174
22	Conversion of Carbon Dioxide by Methane Reforming under Visibleâ€Light Irradiation: Surfaceâ€Plasmonâ€Mediated Nonpolar Molecule Activation. Angewandte Chemie - International Edition, 2015, 54, 11545-11549.	13.8	168
23	Efficient hydrogen evolution over Sb doped SnO2 photocatalyst sensitized by Eosin Y under visible light irradiation. Nano Energy, 2017, 36, 331-340.	16.0	168
24	Photocatalytic CO₂conversion over alkali modified TiO₂without loading noble metal cocatalyst. Chemical Communications, 2014, 50, 11517-11519.	4.1	162
25	A selective Au-ZnO/TiO2 hybrid photocatalyst for oxidative coupling of methane to ethane with dioxygen. Nature Catalysis, 2021, 4, 1032-1042.	34.4	156
26	In situ synthesis of ordered mesoporous Co-doped TiO₂ and its enhanced photocatalytic activity and selectivity for the reduction of CO₂. Journal of Materials Chemistry A, 2015, 3, 9491-9501.	10.3	155
27	Intermolecular cascaded Ï€-conjugation channels for electron delivery powering CO2 photoreduction. Nature Communications, 2020, 11, 1149.	12.8	147
28	All-solid-state Z-scheme system arrays of Fe₂V₄O₁₃/RGO/CdS for visible light-driving photocatalytic CO₂ reduction into renewable hydrocarbon fuel. Chemical Communications, 2015, 51, 800-803.	4.1	139
29	Photoreduction of CO 2 over the well-crystallized ordered mesoporous TiO 2 with the confined space effect. Nano Energy, 2014, 9, 50-60.	16.0	137
30	Design of PdAu alloy plasmonic nanoparticles for improved catalytic performance in CO2 reduction with visible light irradiation. Nano Energy, 2016, 26, 398-404.	16.0	133
31	Visible-Light-Mediated Methane Activation for Steam Methane Reforming under Mild Conditions: A Case Study of Rh/TiO₂ Catalysts. ACS Catalysis, 2018, 8, 7556-7565.	11.2	126
32	Light assisted CO 2 reduction with methane over group VIII metals: Universality of metal localized surface plasmon resonance in reactant activation. Applied Catalysis B: Environmental, 2017, 209, 183-189.	20.2	122
33	Distance Synergy of MoS₂â€Confined Rhodium Atoms for Highly Efficient Hydrogen Evolution. Angewandte Chemie - International Edition, 2020, 59, 10502-10507.	13.8	122
34	Selective Photo-oxidation of Methane to Methanol with Oxygen over Dual-Cocatalyst-Modified Titanium Dioxide. ACS Catalysis, 2020, 10, 14318-14326.	11.2	114
35	Elemental Boron for Efficient Carbon Dioxide Reduction under Light Irradiation. Angewandte Chemie - International Edition, 2017, 56, 5570-5574.	13.8	104
36	Cation Vacancy-Initiated CO₂ Photoreduction over ZnS for Efficient Formate Production. ACS Energy Letters, 2019, 4, 1387-1393.	17.4	102

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37	A Co₃O₄-embedded porous ZnO rhombic dodecahedron prepared using zeolitic imidazolate frameworks as precursors for CO₂ photoreduction. Nanoscale, 2016, 8, 6712-6720.	5.6	96
38	A highly durable p-LaFeO₃/n-Fe₂O₃ photocell for effective water splitting under visible light. Chemical Communications, 2015, 51, 3630-3633.	4.1	83
39	Tuning Cu dopant of Zn0.5Cd0.5S nanocrystals enables high-performance photocatalytic H2 evolution from water splitting under visible-light irradiation. Nano Energy, 2016, 26, 405-416.	16.0	78
40	Optimizing Electron Densities of Niâ€Nâ€C Complexes by Hybrid Coordination for Efficient Electrocatalytic CO₂ Reduction. ChemSusChem, 2020, 13, 929-937.	6.8	76
41	Efficient photocatalytic CO 2 reduction in all-inorganic aqueous environment: Cooperation between reaction medium and Cd(II) modified colloidal ZnS. Nano Energy, 2017, 34, 524-532.	16.0	74
42	The electrochemical preparation and microwave absorption properties of magnetic carbon fibers coated with Fe3O4 films. Applied Surface Science, 2011, 257, 10808-10814.	6.1	72
43	Light assisted CO₂reduction with methane over SiO₂encapsulated Ni nanocatalysts for boosted activity and stability. Journal of Materials Chemistry A, 2017, 5, 10567-10573.	10.3	71
44	Efficient photocatalytic CO2 reduction over Co(II) species modified CdS in aqueous solution. Applied Catalysis B: Environmental, 2018, 226, 252-257.	20.2	70
45	Highly Selective Production of Ethylene by the Electroreduction of Carbon Monoxide. Angewandte Chemie - International Edition, 2020, 59, 154-160.	13.8	68
46	A rapidly room-temperature-synthesized Cd/ZnS:Cu nanocrystal photocatalyst for highly efficient solar-light-powered CO2 reduction. Applied Catalysis B: Environmental, 2018, 237, 68-73.	20.2	65
47	Finely dispersed Au nanoparticles on graphitic carbon nitride as highly active photocatalyst for hydrogen peroxide production. Catalysis Communications, 2019, 123, 69-72.	3.3	63
48	Crystal-facet-dependent hot-electron transfer in plasmonic-Au/semiconductor heterostructures for efficient solar photocatalysis. Journal of Materials Chemistry C, 2015, 3, 7538-7542.	5.5	55
49	A Promising Application of Optical Hexagonal TaN in Photocatalytic Reactions. Angewandte Chemie - International Edition, 2018, 57, 16781-16784.	13.8	55
50	Probing the role of nickel dopant in aqueous colloidal ZnS nanocrystals for efficient solar-driven CO2 reduction. Applied Catalysis B: Environmental, 2019, 244, 1013-1020.	20.2	50
51	Improved Photocatalytic H₂ Evolution over Gâ€Carbon Nitride with Enhanced Inâ€Plane Ordering. Small, 2016, 12, 6160-6166.	10.0	48
52	Reaction Mechanisms of Wellâ€Defined Metalâ€“N₄ Sites in Electrocatalytic CO₂ Reduction. Angewandte Chemie, 2018, 130, 16577-16580.	2.0	44
53	Selective Deposition of Ag₃PO₄ on Specific Facet of BiVO₄ Nanoplate for Enhanced Photoelectrochemical Performance. Solar Rrl, 2018, 2, 1800102.	5.8	44
54	Insights into the critical dual-effect of acid treatment on ZnxCd1-xS for enhanced photocatalytic production of syngas under visible light. Applied Catalysis B: Environmental, 2021, 288, 119976.	20.2	41

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55	Au-nanoparticle-supported ZnO as highly efficient photocatalyst for H2O2 production. Catalysis Communications, 2020, 134, 105860.	3.3	39
56	Stabilizing CuGaS₂ by crystalline CdS through an interfacial Z-scheme charge transfer for enhanced photocatalytic CO₂ reduction under visible light. Nanoscale, 2020, 12, 8693-8700.	5.6	39
57	Distance Synergy of MoS₂â€Confined Rhodium Atoms for Highly Efficient Hydrogen Evolution. Angewandte Chemie, 2020, 132, 10588-10593.	2.0	37
58	Synthesis and characterization of a lamellar hydroxyapatite/DNA nanohybrid. Materials Chemistry and Physics, 2011, 126, 470-475.	4.0	36
59	Î²â€cyclodextrin modified gâ€C₃N₄ nanosheet: a fluorescent drug carrier with ultrahigh drug loading capacity and pHâ€responsive release. Journal of Chemical Technology and Biotechnology, 2019, 94, 628-633.	3.2	36
60	Superfine Ag nanoparticle decorated Zn nanoplates for the active and selective electrocatalytic reduction of CO₂to CO. Chemical Communications, 2016, 52, 14105-14108.	4.1	33
61	Solarâ€Enhanced CO₂ Conversion with CH₄ over Synergetic NiCo Alloy Catalysts with Lightâ€toâ€Fuel Efficiency of 33.8%. Solar Rrl, 2021, 5, 2100185.	5.8	31
62	Efficient Photocatalytic Hydrogen Peroxide Production over TiO2 Passivated by SnO2. Catalysts, 2019, 9, 623.	3.5	29
63	Light irradiation enhanced CO2 reduction with methane: A case study in size-dependent optical property of Ni nanoparticles. Catalysis Today, 2019, 335, 187-192.	4.4	29
64	Unique homoâ€“heterojunction synergistic system consisting of stacked BiOCl nanoplate/Znâ€“Cr layered double hydroxide nanosheets promoting photocatalytic conversion of CO₂ into solar fuels. Chemical Communications, 2018, 54, 5126-5129.	4.1	27
65	Nanorod-like Î±-Bi₂O₃: a highly active photocatalyst synthesized using g-C₃N₄ as a template. RSC Advances, 2014, 4, 55062-55066.	3.6	22
66	Ca- and Ga-Doped LaMnO₃ for Solar Thermochemical CO₂ Splitting with High Fuel Yield and Cycle Stability. ACS Applied Energy Materials, 2021, 4, 9000-9012.	5.1	22
67	Layered double hydroxides decorated graphic carbon nitride film as efficient photoanodes for photoelectrochemical water splitting. Catalysis Today, 2019, 335, 423-428.	4.4	20
68	Photo-thermal CO2 reduction with methane on group VIII metals: In situ reduced WO3 support for enhanced catalytic activity. Chinese Journal of Catalysis, 2021, 42, 1976-1982.	14.0	20
69	Enhancement of photocatalytic activity for WO3 by simple NaOH loading. Applied Catalysis A: General, 2014, 488, 183-188.	4.3	18
70	Constructing Ordered Threeâ€Dimensional TiO₂ Channels for Enhanced Visibleâ€Light Photocatalytic Performance in CO₂ Conversion Induced by Au Nanoparticles. Chemistry - an Asian Journal, 2018, 13, 577-583.	3.3	18
71	Room-temperature driven and visible light enhanced dehydrogenation reactions catalysed by basic Au/SrTiO₃. Journal of Materials Chemistry A, 2016, 4, 1941-1946.	10.3	17
72	Elemental Boron for Efficient Carbon Dioxide Reduction under Light Irradiation. Angewandte Chemie, 2017, 129, 5662-5666.	2.0	17

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73	Exceptional enhancement of H2 production in alkaline environment over plasmonic Au/TiO2 photocatalyst under visible light. APL Materials, 2015, 3, .	5.1	16
74	A Î²-cyclodextrin Modified Graphitic Carbon Nitride with Au Co-Catalyst for Efficient Photocatalytic Hydrogen Peroxide Production. Nanomaterials, 2020, 10, 1969.	4.1	15
75	Hematite homojunctions without foreign element doping for efficient and stable overall water splitting. RSC Advances, 2016, 6, 62263-62269.	3.6	14
76	Effect of band structure on the hot-electron transfer over Au photosensitized brookite TiO₂. Physical Chemistry Chemical Physics, 2016, 18, 3409-3412.	2.8	14
77	Morphology effect of nano-hydroxyapatite as a drug carrier of methotrexate. Journal of Materials Science: Materials in Medicine, 2017, 28, 158.	3.6	14
78	Solid-base loaded WO₃ photocatalyst for decomposition of harmful organics under visible light irradiation. APL Materials, 2015, 3, 104411.	5.1	13
79	Highly Selective Production of Ethylene by the Electroreduction of Carbon Monoxide. Angewandte Chemie, 2020, 132, 160-166.	2.0	13
80	Template-assisted synthesis and novel microwave absorption properties of superparamagnetic 2D-nanolamellar Fe3O4. Materials Research Bulletin, 2014, 49, 176-179.	5.2	11
81	Au modified Bi2O3-TiO2 hybrid for photocatalytic synthesis of hydrogen peroxide. Catalysis Communications, 2021, 155, 106315.	3.3	11
82	Acidâ€treated Graphitic Carbon Nitride Nanosheets as Fluorescence Probe for Detection of Hemin. ChemistrySelect, 2019, 4, 8178-8182.	1.5	10
83	Highly efficient solar-driven CO2-to-fuel conversion assisted by CH4 over NiCo-ZIF derived catalysts. Fuel, 2022, 310, 122441.	6.4	9
84	Self assembly and controlled drug release of a nano-laminated graphite carbon nitride/methotrexate complex. Journal of Materials Science: Materials in Medicine, 2018, 29, 116.	3.6	8
85	Doping Ba into strontium titanate for enhanced photocatalytic oxygen evolution over its supported Au-based catalysts. Catalysis Communications, 2017, 99, 127-130.	3.3	7
86	A Promising Application of Optical Hexagonal TaN in Photocatalytic Reactions. Angewandte Chemie, 2018, 130, 17023-17026.	2.0	7
87	Study on the enhancement of photocatalytic environment purification through ubiquitous-red-clay loading. SN Applied Sciences, 2019, 1, 1.	2.9	4
88	A novel â€œturnâ€onâ€•fluorescent sensor for hydrogen peroxide based on oxidized porous gâ€€ 3 N 4 nanosheets. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 1077-1084.	3.4	4
89	Electrocatalytic Synthesis of Hydrogen Peroxide over Au/TiO₂ and Electrochemical Trace of OOH* Intermediate. Chemistry - an Asian Journal, 2020, 15, 4280-4285.	3.3	4
90	Au Modified F-TiO2 for Efficient Photocatalytic Synthesis of Hydrogen Peroxide. Molecules, 2021, 26, 3844.	3.8	4

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91	Solarâ€Enhanced CO₂ Conversion with CH₄ over Synergetic NiCo Alloy Catalysts with Lightâ€toâ€Fuel Efficiency of 33.8%. Solar Rrl, 2021, 5, 2170085.	5.8	3
92	Photocatalysis: Lightâ€Switchable Oxygen Vacancies in Ultrafine Bi₅O₇Br Nanotubes for Boosting Solarâ€Driven Nitrogen Fixation in Pure Water (Adv. Mater. 31/2017). Advanced Materials, 2017, 29, .	21.0	2
93	Hollow Mesoporous Fe2O3 Nanospindles/CNTs Composite: An Efficient Catalyst for High-Performance Li-O2 Batteries. Frontiers in Chemistry, 2019, 7, 511.	3.6	2
94	RÃ¼cktitelbild: Elemental Boron for Efficient Carbon Dioxide Reduction under Light Irradiation (Angew. Chem. 20/2017). Angewandte Chemie, 2017, 129, 5724-5724.	2.0	0
95	Frontispiece: Highly Selective Production of Ethylene by the Electroreduction of Carbon Monoxide. Angewandte Chemie - International Edition, 2020, 59, .	13.8	0
96	Frontispiz: Highly Selective Production of Ethylene by the Electroreduction of Carbon Monoxide. Angewandte Chemie, 2020, 132, .	2.0	0