Yongfu Sun

List of Publications by Year
in descending order

81 papers	16,028 citations	31976 53 h-index	51608 86 g-index
89 all docs	89 docs citations	89 times ranked	14093 citing authors

#	Article	IF	Citations
1	Partially oxidized atomic cobalt layers for carbon dioxide electroreduction to liquid fuel. Nature, 2016, 529, 68-71.	27.8	1,565
2	Oxygen Vacancies Confined in Ultrathin Indium Oxide Porous Sheets for Promoted Visible-Light Water Splitting. Journal of the American Chemical Society, 2014, 136, 6826-6829.	13.7	1,178
3	Selective visible-light-driven photocatalytic CO2 reduction to CH4 mediated by atomically thin CuIn5S8 layers. Nature Energy, 2019, 4, 690-699.	39.5	948
4	Atomically-thin two-dimensional sheets for understanding active sites in catalysis. Chemical Society Reviews, 2015, 44, 623-636.	38.1	872
5	Defect-Mediated Electronâ€“Hole Separation in One-Unit-Cell ZnIn₂S₄ Layers for Boosted Solar-Driven CO₂ Reduction. Journal of the American Chemical Society, 2017, 139, 7586-7594.	13.7	764
6	Freestanding Tin Disulfide Singleâ€Layers Realizing Efficient Visibleâ€Light Water Splitting. Angewandte Chemie - International Edition, 2012, 51, 8727-8731.	13.8	545
7	Metallic tin quantum sheets confined in graphene toward high-efficiency carbon dioxide electroreduction. Nature Communications, 2016, 7, 12697.	12.8	522
8	Highly Efficient and Exceptionally Durable CO₂ Photoreduction to Methanol over Freestanding Defective Single-Unit-Cell Bismuth Vanadate Layers. Journal of the American Chemical Society, 2017, 139, 3438-3445.	13.7	508
9	Fabrication of flexible and freestanding zinc chalcogenide single layers. Nature Communications, 2012, 3, 1057.	12.8	470
10	Efficient Visibleâ€Lightâ€Driven CO₂ Reduction Mediated by Defectâ€Engineered BiOBr Atomic Layers. Angewandte Chemie - International Edition, 2018, 57, 8719-8723.	13.8	439
11	Ultrathin Co₃O₄ Layers Realizing Optimized CO₂ Electroreduction to Formate. Angewandte Chemie - International Edition, 2016, 55, 698-702.	13.8	424
12	Partially Oxidized SnS₂ Atomic Layers Achieving Efficient Visible-Light-Driven CO₂ Reduction. Journal of the American Chemical Society, 2017, 139, 18044-18051.	13.7	368
13	Atomic layer confined vacancies for atomic-level insights into carbon dioxide electroreduction. Nature Communications, 2017, 8, 14503.	12.8	365
14	Single Unit Cell Bismuth Tungstate Layers Realizing Robust Solar CO₂ Reduction to Methanol. Angewandte Chemie - International Edition, 2015, 54, 13971-13974.	13.8	342
15	Atomically-thin non-layered cobalt oxide porous sheets for highly efficient oxygen-evolving electrocatalysts. Chemical Science, 2014, 5, 3976.	7.4	332
16	Pits confined in ultrathin cerium(IV) oxide for studying catalytic centers in carbon monoxide oxidation. Nature Communications, 2013, 4, 2899.	12.8	326
17	Efficient and Robust Carbon Dioxide Electroreduction Enabled by Atomically Dispersed Sn^{Î´}⁺ Sites. Advanced Materials, 2019, 31, e1808135.	21.0	321
18	Atomically-thick two-dimensional crystals: electronic structure regulation and energy device construction. Chemical Society Reviews, 2014, 43, 530-546.	38.1	309

#	Article	IF	Citations
19	Atomically Thick Bismuth Selenide Freestanding Single Layers Achieving Enhanced Thermoelectric Energy Harvesting. Journal of the American Chemical Society, 2012, 134, 20294-20297.	13.7	279
20	Infrared Light-Driven CO2 Overall Splitting at Room Temperature. Joule, 2018, 2, 1004-1016.	24.0	258
21	Ultrathin Two-Dimensional Inorganic Materials: New Opportunities for Solid State Nanochemistry. Accounts of Chemical Research, 2015, 48, 3-12.	15.6	255
22	Photocatalytic CO₂ Conversion of M_{0.33}WO₃ Directly from the Air with High Selectivity: Insight into Full Spectrum-Induced Reaction Mechanism. Journal of the American Chemical Society, 2019, 141, 5267-5274.	13.7	224
23	Fundamentals and challenges of ultrathin 2D photocatalysts in boosting CO₂ photoreduction. Chemical Society Reviews, 2020, 49, 6592-6604.	38.1	220
24	Carbon Dioxide Electroreduction into Syngas Boosted by a Partially Delocalized Charge in Molybdenum Sulfide Selenide Alloy Monolayers. Angewandte Chemie - International Edition, 2017, 56, 9121-9125.	13.8	205
25	Photocatalytic Conversion of Waste Plastics into C₂ Fuels under Simulated Natural Environment Conditions. Angewandte Chemie - International Edition, 2020, 59, 15497-15501.	13.8	198
26	Metallic Singleâ€Unitâ€Cell Orthorhombic Cobalt Diselenide Atomic Layers: Robust Waterâ€Electrolysis Catalysts. Angewandte Chemie - International Edition, 2015, 54, 12004-12008.	13.8	166
27	Aligned Fe2TiO5-containing nanotube arrays with low onset potential for visible-light water oxidation. Nature Communications, 2014, 5, 5122.	12.8	161
28	Atomicâ€Layerâ€Confined Doping for Atomicâ€Level Insights into Visibleâ€Light Water Splitting. Angewandte Chemie - International Edition, 2015, 54, 9266-9270.	13.8	158
29	Atomically Thin Tin Dioxide Sheets for Efficient Catalytic Oxidation of Carbon Monoxide. Angewandte Chemie - International Edition, 2013, 52, 10569-10572.	13.8	155
30	Allâ€Surfaceâ€Atomicâ€Metal Chalcogenide Sheets for Highâ€Efficiency Visibleâ€Light Photoelectrochemical Water Splitting. Advanced Energy Materials, 2014, 4, 1300611.	19.5	154
31	Carbon Dioxide Electroreduction into Syngas Boosted by a Partially Delocalized Charge in Molybdenum Sulfide Selenide Alloy Monolayers. Angewandte Chemie, 2017, 129, 9249-9253.	2.0	154
32	Ultrastable and Efficient Visibleâ€lightâ€driven CO₂ Reduction Triggered by Regenerative Oxygenâ€Vacancies in Bi₂O₂CO₃ Nanosheets. Angewandte Chemie - International Edition, 2021, 60, 13840-13846.	13.8	152
33	Rational design of electrocatalytic carbon dioxide reduction for a zero-carbon network. Chemical Society Reviews, 2022, 51, 1234-1252.	38.1	148
34	Ultrathin Conductor Enabling Efficient IR Light CO₂ Reduction. Journal of the American Chemical Society, 2019, 141, 423-430.	13.7	146
35	Asymmetric Triple-Atom Sites Confined in Ternary Oxide Enabling Selective CO₂ Photothermal Reduction to Acetate. Journal of the American Chemical Society, 2021, 143, 18233-18241.	13.7	130
36	Progress and Perspective for In Situ Studies of CO₂ Reduction. Journal of the American Chemical Society, 2020, 142, 9567-9581.	13.7	125

#	Article	IF	Citations
37	Efficient Visibleâ€Lightâ€Driven CO₂ Reduction Mediated by Defectâ€Engineered BiOBr Atomic Layers. Angewandte Chemie, 2018, 130, 8855-8859.	2.0	124
38	Highly efficient visible-light-driven photocatalytic activities in synthetic ordered monoclinic BiVO4 quantum tubesâ€“graphene nanocomposites. Nanoscale, 2012, 4, 3761.	5.6	121
39	Aqueous synthesis of mesostructured BiVO4 quantum tubes with excellent dual response to visible light and temperature. Nano Research, 2010, 3, 620-631.	10.4	109
40	Ultrathin TiO2 flakes optimizing solar light driven CO2 reduction. Nano Energy, 2016, 26, 692-698.	16.0	107
41	Efficient infrared light induced CO2 reduction with nearly 100% CO selectivity enabled by metallic CoN porous atomic layers. Nano Energy, 2020, 69, 104421.	16.0	88
42	Industrial-Current-Density CO₂-to-C₂₊ Electroreduction by Anti-swelling Anion-Exchange Ionomer-Modified Oxide-Derived Cu Nanosheets. Journal of the American Chemical Society, 2022, 144, 10446-10454.	13.7	87
43	Synthetic loosely packed monoclinic BiVO4 nanoellipsoids with novel multiresponses to visible light, trace gas and temperature. Chemical Communications, 2009, , 4542.	4.1	86
44	Broad-Spectral-Response Photocatalysts for CO₂ Reduction. ACS Central Science, 2020, 6, 653-660.	11.3	79
45	Conversion of Waste Plastics into Valueâ€Added Carbonaceous Fuels under Mild Conditions. Advanced Materials, 2021, 33, e2005192.	21.0	74
46	Opportunity of Atomically Thin Two-Dimensional Catalysts for Promoting CO₂ Electroreduction. Accounts of Chemical Research, 2020, 53, 2964-2974.	15.6	72
47	Selective CO₂ Photoreduction into C₂ Product Enabled by Charge-Polarized Metal Pair Sites. Nano Letters, 2021, 21, 2324-2331.	9.1	71
48	New aspects of size-dependent metal-insulator transition in synthetic single-domain monoclinic vanadium dioxide nanocrystals. Nanoscale, 2011, 3, 4394.	5.6	67
49	Efficient Photooxidation of Methane to Liquid Oxygenates over ZnO Nanosheets at Atmospheric Pressure and Near Room Temperature. Nano Letters, 2021, 21, 4122-4128.	9.1	60
50	Room-Temperature Photooxidation of CH₄ to CH₃OH with Nearly 100% Selectivity over Hetero-ZnO/Fe₂O₃ Porous Nanosheets. Journal of the American Chemical Society, 2022, 144, 12357-12366.	13.7	59
51	Ni-doped ZnCo2O4 atomic layers to boost the selectivity in solar-driven reduction of CO2. Nano Research, 2018, 11, 2897-2908.	10.4	55
52	Free-floating ultrathin tin monoxide sheets for solar-driven photoelectrochemical water splitting. Journal of Materials Chemistry A, 2014, 2, 10647.	10.3	54
53	Selective CO₂ Photoreduction to CH₄ via Pd^{Î´+}â€Assisted Hydrodeoxygenation over CeO₂ Nanosheets. Angewandte Chemie - International Edition, 2022, 61, .	13.8	48
54	Plastics-to-syngas photocatalysed by Coâ€“Ga2O3 nanosheets. National Science Review, 2022, 9, .	9.5	42

#	Article	IF	Citations
55	Visibleâ€Lightâ€Driven Overall Water Splitting Boosted by Tetrahedrally Coordinated Blende Cobalt(II) Oxide Atomic Layers. Angewandte Chemie - International Edition, 2019, 58, 3032-3036.	13.8	41
56	Sandwich-like carbon-anchored ultrathin TiO₂nanosheets realizing ultrafast lithium storage. Inorganic Chemistry Frontiers, 2014, 1, 58-64.	6.0	39
57	Highly depressed temperature-induced metal-insulator transition in synthetic monodisperse 10-nm V2O3 pseudocubes enclosed by {012} facets. Nanoscale, 2011, 3, 2609.	5.6	32
58	Ultrahigh Energy Density Realized by a Singleâ€Layer Î²â€Co(OH)₂ Allâ€Solidâ€State Asymmetric Supercapacitor. Angewandte Chemie, 2014, 126, 13003-13007.	2.0	32
59	Metaln+-MetalÎ´+ pair sites steer C-C coupling for selective CO2 photoreduction to C2 hydrocarbons. Nano Research, 2022, 15, 1882-1891.	10.4	31
60	Sodium vanadium oxide Na₂V₆O₁₆Â·3H₂O nanobelts and nanorings: A new room-temperature ferromagnetic semiconductor. Journal of Materials Chemistry, 2012, 22, 2560-2565.	6.7	26
61	In-plane heterostructured Ag2S-In2S3 atomic layers enabling boosted CO2 photoreduction into CH4. Nano Research, 2021, 14, 4520-4527.	10.4	24
62	Selective CH₄ Partial Photooxidation by Positively Charged Metal Clusters Anchored on Carbon Aerogel under Mild Conditions. Nano Letters, 2021, 21, 10368-10376.	9.1	21
63	Macroscaled mesoporous calcium carbonate tetragonal prisms: top-down solid-phase fabrication and applications of phase-change material support matrices. CrystEngComm, 2010, 12, 3571.	2.6	20
64	Sonochemical synthesis of nanostructured VOPO4ÂÂ·Â2H2O/carbon nanotube composites with improved lithium ion battery performance. Journal of Nanoparticle Research, 2010, 12, 417-427.	1.9	19
65	Progress and perspectives for engineering and recognizing active sites of two-dimensional materials in CO2 electroreduction. Science China Chemistry, 2022, 65, 428-440.	8.2	19
66	Visibleâ€Lightâ€Driven Overall Water Splitting Boosted by Tetrahedrally Coordinated Blende Cobalt(II) Oxide Atomic Layers. Angewandte Chemie, 2019, 131, 3064-3068.	2.0	17
67	Photocatalytic Conversion of Waste Plastics into C₂ Fuels under Simulated Natural Environment Conditions. Angewandte Chemie, 2020, 132, 15627-15631.	2.0	17
68	Surface Engineering on Commercial Cu Foil for Steering C₂H₄/CH₄ Ratio in CO₂ Electroreduction. Nano Letters, 2022, 22, 2988-2994.	9.1	16
69	Ultrastable and Efficient Visibleâ€lightâ€driven CO₂ Reduction Triggered by Regenerative Oxygenâ€Vacancies in Bi₂O₂CO₃ Nanosheets. Angewandte Chemie, 2021, 133, 13959-13965.	2.0	14
70	Probing reaction pathways for H2O-mediated HCHO photooxidation at room temperature. Nano Research, 2021, 14, 1471-1478.	10.4	12
71	Atmospheric CO2 capture and photofixation to near-unity CO by Ti3+-Vo-Ti3+ sites confined in TiO2 ultrathin layers. Science China Chemistry, 2021, 64, 953-958.	8.2	12
72	Catalysts design for CO2 electroreduction. Science China Chemistry, 2022, 65, 425-427.	8.2	11

#	Article	IF	Citations
73	Photoconverting polyethylene terephthalate into exclusive carbon dioxide by heterostructured NiO/Fe2O3 nanosheets under mild conditions. Science China Materials, 2022, 65, 985-991.	6.3	11
74	Industrial-current-density CO2-to-formate conversion with low overpotentials enabled by disorder-engineered metal sites. Nano Research, 2022, 15, 6999-7007.	10.4	9
75	Constructing artificial mimic-enzyme catalysts for carbon dioxide electroreduction. Science China Chemistry, 2022, 65, 106-113.	8.2	7
76	Methanol Oxidation Reaction Performance on Grapheneâ€Supported PtAg Alloy Nanocatalyst: Contrastive Study of Electronic and Geometric Effects Induced from Ag Doping. ChemistrySelect, 2018, 3, 3615-3620.	1.5	6
77	Innentitelbild: Freestanding Tin Disulfide Single-Layers Realizing Efficient Visible-Light Water Splitting (Angew. Chem. 35/2012). Angewandte Chemie, 2012, 124, 8798-8798.	2.0	4
78	Conversion of Waste Plastics into Valueâ€Added Carbonaceous Fuels under Mild Conditions (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	21.0	4
79	Photoelectrochemical Reactions: Allâ€Surfaceâ€Atomicâ€Metal Chalcogenide Sheets for Highâ€Efficiency Visibleâ€Light Photoelectrochemical Water Splitting (Adv. Energy Mater. 1/2014). Advanced Energy Materials, 2014, 4, .	19.5	3
80	Innentitelbild: Metallic Single-Unit-Cell Orthorhombic Cobalt Diselenide Atomic Layers: Robust Water-Electrolysis Catalysts (Angew. Chem. 41/2015). Angewandte Chemie, 2015, 127, 12046-12046.	2.0	1
81	Selective CO2 Photoreduction to CH4 via PdáµŸ+â€assisted Hydrodeoxygenation over CeO2 Nanosheets. Angewandte Chemie, 0, , .	2.0	0