Xiaoxia Chang

List of Publications by Year
in descending order

57 papers	6,129 citations	94381 37 h-index	143943 57 g-index
65 all docs	65 docs citations	65 times ranked	7693 citing authors

#	Article	IF	Citations
1	CO₂ photo-reduction: insights into CO₂ activation and reaction on surfaces of photocatalysts. Energy and Environmental Science, 2016, 9, 2177-2196.	15.6	1,488
2	Enhanced Surface Reaction Kinetics and Charge Separation of pâ€“n Heterojunction Co₃O₄/BiVO₄ Photoanodes. Journal of the American Chemical Society, 2015, 137, 8356-8359.	6.6	767
3	Effective Charge Carrier Utilization in Photocatalytic Conversions. Accounts of Chemical Research, 2016, 49, 911-921.	7.6	266
4	Synergism of Geometric Construction and Electronic Regulation: 3D Seâ€(NiCo)S<i>_x</i>/(OH)<i>_x</i> Nanosheets for Highly Efficient Overall Water Splitting. Advanced Materials, 2018, 30, e1705538.	11.1	236
5	The Development of Cocatalysts for Photoelectrochemical CO₂ Reduction. Advanced Materials, 2019, 31, e1804710.	11.1	202
6	Synergistic Cocatalytic Effect of Carbon Nanodots and Co₃O₄ Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite. Angewandte Chemie - International Edition, 2016, 55, 5851-5855.	7.2	187
7	Tuning Cu/Cu₂O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. Angewandte Chemie - International Edition, 2018, 57, 15415-15419.	7.2	175
8	Stable Aqueous Photoelectrochemical CO₂ Reduction by a Cu₂O Dark Cathode with Improved Selectivity for Carbonaceous Products. Angewandte Chemie - International Edition, 2016, 55, 8840-8845.	7.2	161
9	Computational and experimental demonstrations of one-pot tandem catalysis for electrochemical carbon dioxide reduction to methane. Nature Communications, 2019, 10, 3340.	5.8	150
10	Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts. Angewandte Chemie - International Edition, 2016, 55, 13734-13738.	7.2	149
11	Surviving Highâ€Temperature Calcination: ZrO₂â€Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation. Angewandte Chemie - International Edition, 2017, 56, 4150-4155.	7.2	132
12	Spatial separation of oxidation and reduction co-catalysts for efficient charge separation: Pt@TiO₂@MnO_x hollow spheres for photocatalytic reactions. Chemical Science, 2016, 7, 890-895.	3.7	130
13	Lowâ€Coordinated Edge Sites on Ultrathin Palladium Nanosheets Boost Carbon Dioxide Electroreduction Performance. Angewandte Chemie - International Edition, 2018, 57, 11544-11548.	7.2	127
14	Speciation of Cu Surfaces During the Electrochemical CO Reduction Reaction. Journal of the American Chemical Society, 2020, 142, 9735-9743.	6.6	123
15	Spatial control of cocatalysts and elimination of interfacial defects towards efficient and robust CIGS photocathodes for solar water splitting. Energy and Environmental Science, 2018, 11, 2025-2034.	15.6	114
16	Oxygen induced promotion of electrochemical reduction of CO2 via co-electrolysis. Nature Communications, 2020, 11, 3844.	5.8	102
17	WO₃ photoanodes with controllable bulk and surface oxygen vacancies for photoelectrochemical water oxidation. Journal of Materials Chemistry A, 2018, 6, 3350-3354.	5.2	100
18	Understanding the electric and nonelectric field components of the cation effect on the electrochemical CO reduction reaction. Science Advances, 2020, 6, .	4.7	95

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19	Tunable syngas production from photocatalytic CO₂ reduction with mitigated charge recombination driven by spatially separated cocatalysts. Chemical Science, 2018, 9, 5334-5340.	3.7	89
20	Mechanistic Insights into Electroreductive Câ€“C Coupling between CO and Acetaldehyde into Multicarbon Products. Journal of the American Chemical Society, 2020, 142, 2975-2983.	6.6	87
21	Quantification of Active Sites and Elucidation of the Reaction Mechanism of the Electrochemical Nitrogen Reduction Reaction on Vanadium Nitride. Angewandte Chemie - International Edition, 2019, 58, 13768-13772.	7.2	86
22	Morphological and Compositional Design of Pdâ€“Cu Bimetallic Nanocatalysts with Controllable Product Selectivity toward CO₂ Electroreduction. Small, 2018, 14, 1703314.	5.2	84
23	The Functionality of Surface Hydroxy Groups on the Selectivity and Activity of Carbon Dioxide Reduction over Cuprous Oxide in Aqueous Solutions. Angewandte Chemie - International Edition, 2018, 57, 7724-7728.	7.2	82
24	Hydroxide Is Not a Promoter of C₂₊ Product Formation in the Electrochemical Reduction of CO on Copper. Angewandte Chemie - International Edition, 2020, 59, 4464-4469.	7.2	80
25	Electrokinetic and in situ spectroscopic investigations of CO electrochemical reduction on copper. Nature Communications, 2021, 12, 3264.	5.8	80
26	Fabrication of porous nanoflake BiMO_x (M = W, V, and Mo) photoanodes via hydrothermal anion exchange. Chemical Science, 2016, 7, 6381-6386.	3.7	65
27	Toward Excellence of Transition Metalâ€Based Catalysts for CO₂ Electrochemical Reduction: An Overview of Strategies and Rationales. Small Methods, 2020, 4, 2000033.	4.6	60
28	pH Dependence of Cu Surface Speciation in the Electrochemical CO Reduction Reaction. ACS Catalysis, 2020, 10, 13737-13747.	5.5	57
29	A Lowâ€Cost NiO Hole Transfer Layer for Ohmic Back Contact to Cu₂O for Photoelectrochemical Water Splitting. Small, 2017, 13, 1702007.	5.2	53
30	Understanding the complementarities of surface-enhanced infrared and Raman spectroscopies in CO adsorption and electrochemical reduction. Nature Communications, 2022, 13, 2656.	5.8	53
31	Stable Aqueous Photoelectrochemical CO₂ Reduction by a Cu₂O Dark Cathode with Improved Selectivity for Carbonaceous Products. Angewandte Chemie, 2016, 128, 8986-8991.	1.6	48
32	Surviving Highâ€Temperature Calcination: ZrO₂â€Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation. Angewandte Chemie, 2017, 129, 4214-4219.	1.6	48
33	Câˆ’C Coupling Is Unlikely to Be the Rateâ€Determining Step in the Formation of C₂₊ Products in the Copperâ€Catalyzed Electrochemical Reduction of CO. Angewandte Chemie - International Edition, 2022, 61, .	7.2	43
34	Synergistic Cocatalytic Effect of Carbon Nanodots and Co₃O₄ Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite. Angewandte Chemie, 2016, 128, 5945-5949.	1.6	42
35	Lowâ€Coordinated Edge Sites on Ultrathin Palladium Nanosheets Boost Carbon Dioxide Electroreduction Performance. Angewandte Chemie, 2018, 130, 11718-11722.	1.6	39
36	Water Splitting: Synergism of Geometric Construction and Electronic Regulation: 3D Seâ€(NiCo)S<i>_x</i>/(OH)<i>_x</i> Nanosheets for Highly Efficient Overall Water Splitting (Adv. Mater. 12/2018). Advanced Materials, 2018, 30, 1870085.	11.1	38

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37	Multifunctional Nickel Film Protected nâ€Type Silicon Photoanode with High Photovoltage for Efficient and Stable Oxygen Evolution Reaction. Small Methods, 2019, 3, 1900212.	4.6	38
38	Achieving convenient CO₂ electroreduction and photovoltage in tandem using potential-insensitive disordered Ag nanoparticles. Chemical Science, 2018, 9, 6599-6604.	3.7	34
39	Tuning Cu/Cu 2 O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. Angewandte Chemie, 2018, 130, 15641-15645.	1.6	32
40	Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts. Angewandte Chemie, 2016, 128, 13938-13942.	1.6	29
41	Quantification of Active Sites and Elucidation of the Reaction Mechanism of the Electrochemical Nitrogen Reduction Reaction on Vanadium Nitride. Angewandte Chemie, 2019, 131, 13906-13910.	1.6	24
42	Selective Enhancement of Methane Formation in Electrochemical CO₂ Reduction Enabled by a Raman-Inactive Oxygen-Containing Species on Cu. ACS Catalysis, 2022, 12, 6036-6046.	5.5	22
43	The Functionality of Surface Hydroxy Groups on the Selectivity and Activity of Carbon Dioxide Reduction over Cuprous Oxide in Aqueous Solutions. Angewandte Chemie, 2018, 130, 7850-7854.	1.6	21
44	Bridging the Gap in the Mechanistic Understanding of Electrocatalysis via In Situ Characterizations. IScience, 2020, 23, 101776.	1.9	21
45	Determining intrinsic stark tuning rates of adsorbed CO on copper surfaces. Catalysis Science and Technology, 2021, 11, 6825-6831.	2.1	21
46	Hydroxide Is Not a Promoter of C₂₊ Product Formation in the Electrochemical Reduction of CO on Copper. Angewandte Chemie, 2020, 132, 4494-4499.	1.6	16
47	Câˆ’C Coupling Is Unlikely to Be the Rateâ€Determining Step in the Formation of C₂₊ Products in the Copperâ€Catalyzed Electrochemical Reduction of CO. Angewandte Chemie, 2022, 134, .	1.6	6
48	Innentitelbild: Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts (Angew. Chem. 44/2016). Angewandte Chemie, 2016, 128, 13818-13818.	1.6	2
49	CO₂ Electroreduction: Morphological and Compositional Design of Pdâ€“Cu Bimetallic Nanocatalysts with Controllable Product Selectivity toward CO₂ Electroreduction (Small 7/2018). Small, 2018, 14, 1870031.	5.2	2
50	Frontispiece: Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2 O Dark Cathode with Improved Selectivity for Carbonaceous Products. Angewandte Chemie - International Edition, 2016, 55, .	7.2	1
51	Titelbild: Tuning Cu/Cu₂O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions (Angew. Chem. 47/2018). Angewandte Chemie, 2018, 130, 15507-15507.	1.6	1
52	Frontispiz: Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2 O Dark Cathode with Improved Selectivity for Carbonaceous Products. Angewandte Chemie, 2016, 128, .	1.6	0
53	Innentitelbild: Synergistic Cocatalytic Effect of Carbon Nanodots and Co3O4Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite (Angew. Chem. 19/2016). Angewandte Chemie, 2016, 128, 5704-5704.	1.6	0
54	InnenrÃ¼cktitelbild: Surviving Highâ€Temperature Calcination: ZrO₂â€Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation (Angew. Chem. 15/2017). Angewandte Chemie, 2017, 129, 4427-4427.	1.6	0

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55	InnenrÃ¼cktitelbild: Low-Coordinated Edge Sites on Ultrathin Palladium Nanosheets Boost Carbon Dioxide Electroreduction Performance (Angew. Chem. 36/2018). Angewandte Chemie, 2018, 130, 11995-11995.	1.6	0
56	Titelbild: Quantification of Active Sites and Elucidation of the Reaction Mechanism of the Electrochemical Nitrogen Reduction Reaction on Vanadium Nitride (Angew. Chem. 39/2019). Angewandte Chemie, 2019, 131, 13733-13733.	1.6	0
57	Titelbild: Hydroxide Is Not a Promoter of C₂₊ Product Formation in the Electrochemical Reduction of CO on Copper (Angew. Chem. 11/2020). Angewandte Chemie, 2020, 132, 4217-4217.	1.6	0