Xiaoxia Chang

List of Publications by Year in Descending Order

55 papers	4,197 citations	29 h-index	64 g-index
65 ext. papers	5,090 ext. citations	11.9 avg, IF	6.12 L-index

#	Paper	IF	Citations
55	Understanding the complementarities of surface-enhanced infrared and Raman spectroscopies in CO adsorption and electrochemical reduction.. *Nature Communications*, **2022**, 13, 2656	17.4	5
54	C-C Coupling Is Unlikely to Be the Rate-Determining Step in the Formation of C Products in the Copper-Catalyzed Electrochemical Reduction of CO. *Angewandte Chemie - International Edition*, **2021**,	16.4	7
53	Electrokinetic and in situ spectroscopic investigations of CO electrochemical reduction on copper. *Nature Communications*, **2021**, 12, 3264	17.4	29
52	Bridging the Gap in the Mechanistic Understanding of Electrocatalysis via In Situ Characterizations. *IScience*, **2020**, 23, 101776	6.1	7
51	Understanding the electric and nonelectric field components of the cation effect on the electrochemical CO reduction reaction. *Science Advances*, **2020**, 6,	14.3	24
50	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	3.6	
49	Mechanistic Insights into Electroreductive C-C Coupling between CO and Acetaldehyde into Multicarbon Products. *Journal of the American Chemical Society*, **2020**, 142, 2975-2983	16.4	52
48	Speciation of Cu Surfaces During the Electrochemical CO Reduction Reaction. *Journal of the American Chemical Society*, **2020**, 142, 9735-9743	16.4	70
47	Hydroxide Is Not a Promoter of C Product Formation in the Electrochemical Reduction of CO on Copper. *Angewandte Chemie - International Edition*, **2020**, 59, 4464-4469	16.4	39
46	Hydroxide Is Not a Promoter of C2+ Product Formation in the Electrochemical Reduction of CO on Copper. *Angewandte Chemie*, **2020**, 132, 4494-4499	3.6	9
45	pH Dependence of Cu Surface Speciation in the Electrochemical CO Reduction Reaction. *ACS Catalysis*, **2020**, 10, 13737-13747	13.1	25
44	Oxygen induced promotion of electrochemical reduction of CO via co-electrolysis. *Nature Communications*, **2020**, 11, 3844	17.4	35
43	Toward Excellence of Transition Metal-Based Catalysts for CO2 Electrochemical Reduction: An Overview of Strategies and Rationales. *Small Methods*, **2020**, 4, 2000033	12.8	35
42	Multifunctional Nickel Film Protected n-Type Silicon Photoanode with High Photovoltage for Efficient and Stable Oxygen Evolution Reaction. *Small Methods*, **2019**, 3, 1900212	12.8	24
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	3.6	21
40	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	16.4	57
39	Computational and experimental demonstrations of one-pot tandem catalysis for electrochemical carbon dioxide reduction to methane. *Nature Communications*, **2019**, 10, 3340	17.4	81

38	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	3.6	
37	The Development of Cocatalysts for Photoelectrochemical CO Reduction. *Advanced Materials*, **2019** , 31, e1804710	24	104
36	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	16.4	59
35	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	35.4	87
34	CO2 Electroreduction: Morphological and Compositional Design of PdCu Bimetallic Nanocatalysts with Controllable Product Selectivity toward CO2 Electroreduction (Small 7/2018). *Small*, **2018**, 14, 1870031	11	1
33	Synergism of Geometric Construction and Electronic Regulation: 3D Se-(NiCo)S /(OH) Nanosheets for Highly Efficient Overall Water Splitting. *Advanced Materials*, **2018**, 30, e1705538	24	193
32	Morphological and Compositional Design of Pd-Cu Bimetallic Nanocatalysts with Controllable Product Selectivity toward CO Electroreduction. *Small*, **2018**, 14, 1703314	11	65
31	WO3 photoanodes with controllable bulk and surface oxygen vacancies for photoelectrochemical water oxidation. *Journal of Materials Chemistry A*, **2018**, 6, 3350-3354	13	69
30	Innenrktitelbild: Low-Coordinated Edge Sites on Ultrathin Palladium Nanosheets Boost Carbon Dioxide Electroreduction Performance (Angew. Chem. 36/2018). *Angewandte Chemie*, **2018**, 130, 11995-11995	3.6	
29	Achieving convenient CO electroreduction and photovoltage in tandem using potential-insensitive disordered Ag nanoparticles. *Chemical Science*, **2018**, 9, 6599-6604	9.4	22
28	Water Splitting: Synergism of Geometric Construction and Electronic Regulation: 3D Se-(NiCo)Sx/(OH)x Nanosheets for Highly Efficient Overall Water Splitting (Adv. Mater. 12/2018). *Advanced Materials*, **2018**, 30, 1870085	24	25
27	Tuning Cu/Cu2O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. *Angewandte Chemie*, **2018**, 130, 15641-15645	3.6	23
26	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	3.6	1
25	Tuning Cu/Cu O Interfaces for the Reduction of Carbon Dioxide to Methanol in Aqueous Solutions. *Angewandte Chemie - International Edition*, **2018**, 57, 15415-15419	16.4	118
24	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	3.6	18
23	Tunable syngas production from photocatalytic CO reduction with mitigated charge recombination driven by spatially separated cocatalysts. *Chemical Science*, **2018**, 9, 5334-5340	9.4	65
22	Low-Coordinated Edge Sites on Ultrathin Palladium Nanosheets Boost Carbon Dioxide Electroreduction Performance. *Angewandte Chemie - International Edition*, **2018**, 57, 11544-11548	16.4	90
21	Low-Coordinated Edge Sites on Ultrathin Palladium Nanosheets Boost Carbon Dioxide Electroreduction Performance. *Angewandte Chemie*, **2018**, 130, 11718-11722	3.6	32

20	Surviving High-Temperature Calcination: ZrO -Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation. *Angewandte Chemie - International Edition*, **2017**, 56, 4150-4155	16.4	104
19	Surviving High-Temperature Calcination: ZrO2-Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation. *Angewandte Chemie*, **2017**, 129, 4214-4219	3.6	35
18	Innenr�ktitelbild: Surviving High-Temperature Calcination: ZrO2-Induced Hematite Nanotubes for Photoelectrochemical Water Oxidation (Angew. Chem. 15/2017). *Angewandte Chemie*, **2017**, 129, 4427-4427	3.6	
17	A Low-Cost NiO Hole Transfer Layer for Ohmic Back Contact to Cu O for Photoelectrochemical Water Splitting. *Small*, **2017**, 13, 1702007	11	34
16	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	3.6	1
15	Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts. *Angewandte Chemie*, **2016**, 128, 13938-13942	3.6	16
14	Frontispiece: Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2O Dark Cathode with Improved Selectivity for Carbonaceous Products. *Angewandte Chemie - International Edition*, **2016**, 55,	16.4	1
13	Thin Heterojunctions and Spatially Separated Cocatalysts To Simultaneously Reduce Bulk and Surface Recombination in Photocatalysts. *Angewandte Chemie - International Edition*, **2016**, 55, 13734-13738	16.4	124
12	Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2O Dark Cathode with Improved Selectivity for Carbonaceous Products. *Angewandte Chemie*, **2016**, 128, 8986-8991	3.6	41
11	Innentitelbild: Synergistic Cocatalytic Effect of Carbon Nanodots and Co3O4 Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite (Angew. Chem. 19/2016). *Angewandte Chemie*, **2016**, 128, 5704-5704	3.6	
10	Synergistic Cocatalytic Effect of Carbon Nanodots and Co3 O4 Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite. *Angewandte Chemie - International Edition*, **2016**, 55, 5851-5	16.4	153
9	Fabrication of porous nanoflake BiMO (M = W, V, and Mo) photoanodes hydrothermal anion exchange. *Chemical Science*, **2016**, 7, 6381-6386	9.4	51
8	Stable Aqueous Photoelectrochemical CO2 Reduction by a Cu2 O Dark Cathode with Improved Selectivity for Carbonaceous Products. *Angewandte Chemie - International Edition*, **2016**, 55, 8840-5	16.4	135
7	CO2 photo-reduction: insights into CO2 activation and reaction on surfaces of photocatalysts. *Energy and Environmental Science*, **2016**, 9, 2177-2196	35.4	1038
6	Spatial separation of oxidation and reduction co-catalysts for efficient charge separation: Pt@TiO@MnO hollow spheres for photocatalytic reactions. *Chemical Science*, **2016**, 7, 890-895	9.4	111
5	Synergistic Cocatalytic Effect of Carbon Nanodots and Co3O4 Nanoclusters for the Photoelectrochemical Water Oxidation on Hematite. *Angewandte Chemie*, **2016**, 128, 5945-5949	3.6	29
4	Effective Charge Carrier Utilization in Photocatalytic Conversions. *Accounts of Chemical Research*, **2016**, 49, 911-21	24.3	200
3	Enhanced Surface Reaction Kinetics and Charge Separation of p-n Heterojunction Co3O4/BiVO4 Photoanodes. *Journal of the American Chemical Society*, **2015**, 137, 8356-9	16.4	611

2	Determining intrinsic stark tuning rates of adsorbed CO on copper surfaces. *Catalysis Science and Technology*,	5.5	2
1	Selective Enhancement of Methane Formation in Electrochemical CO2 Reduction Enabled by a Raman-Inactive Oxygen-Containing Species on Cu. *ACS Catalysis*,6036-6046	13.1	2