Ana Sofia Varela

List of Publications by Year
in descending order

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33 papers	7,578 citations	201385 27 h-index	360668 35 g-index
36 all docs	36 docs citations	36 times ranked	7124 citing authors

#	ARTICLE	IF	CITATIONS
1	Highly selective plasma-activated copper catalysts for carbon dioxide reduction to ethylene. Nature Communications, 2016, 7, 12123.	5.8	896
2	Understanding activity and selectivity of metal-nitrogen-doped carbon catalysts for electrochemical reduction of CO2. Nature Communications, 2017, 8, 944.	5.8	890
3	Nanostructured electrocatalysts with tunable activity and selectivity. Nature Reviews Materials, 2016, 1, .	23.3	675
4	The importance of surface morphology in controlling the selectivity of polycrystalline copper for CO2 electroreduction. Physical Chemistry Chemical Physics, 2012, 14, 76-81.	1.3	576
5	Electrochemical CO₂ Reduction: A Classification Problem. ChemPhysChem, 2017, 18, 3266-3273.	1.0	534
6	Metalâ€Doped Nitrogenated Carbon as an Efficient Catalyst for Direct CO₂ Electroreduction to CO and Hydrocarbons. Angewandte Chemie - International Edition, 2015, 54, 10758-10762.	7.2	504
7	Controlling the selectivity of CO2 electroreduction on copper: The effect of the electrolyte concentration and the importance of the local pH. Catalysis Today, 2016, 260, 8-13.	2.2	417
8	Efficient CO₂ to CO electrolysis on solid Niâ€"Nâ€"C catalysts at industrial current densities. Energy and Environmental Science, 2019, 12, 640-647.	15.6	357
9	Tuning the Catalytic Activity and Selectivity of Cu for CO₂ Electroreduction in the Presence of Halides. ACS Catalysis, 2016, 6, 2136-2144.	5.5	344
10	Electrochemical Reduction of CO₂ on Metal-Nitrogen-Doped Carbon Catalysts. ACS Catalysis, 2019, 9, 7270-7284.	5.5	282
11	Electrochemical Hydrogen Evolution: Sabatierâ€™s Principle and the Volcano Plot. Journal of Chemical Education, 2012, 89, 1595-1599.	1.1	243
12	Electrochemical CO₂ Reduction: Classifying Cu Facets. ACS Catalysis, 2019, 9, 7894-7899.	5.5	170
13	pH Effects on the Selectivity of the Electrocatalytic CO₂ Reduction on Graphene-Embedded Feâ€"Nâ€"C Motifs: Bridging Concepts between Molecular Homogeneous and Solid-State Heterogeneous Catalysis. ACS Energy Letters, 2018, 3, 812-817.	8.8	168
14	Molecular Nitrogenâ€"Carbon Catalysts, Solid Metal Organic Framework Catalysts, and Solid Metal/Nitrogenâ€Doped Carbon (MNC) Catalysts for the Electrochemical CO₂ Reduction. Advanced Energy Materials, 2018, 8, 1703614.	10.2	157
15	Unraveling Mechanistic Reaction Pathways of the Electrochemical CO₂ Reduction on Feâ€"Nâ€"C Single-Site Catalysts. ACS Energy Letters, 2019, 4, 1663-1671.	8.8	138
16	Electrocatalytic CO₂ Reduction on CuO_{<i>x</i>} Nanocubes: Tracking the Evolution of Chemical State, Geometric Structure, and Catalytic Selectivity using Operando Spectroscopy. Angewandte Chemie - International Edition, 2020, 59, 17974-17983.	7.2	138
17	The chemical identity, state and structure of catalytically active centers during the electrochemical CO₂ reduction on porous Feâ€"nitrogenâ€"carbon (Feâ€"Nâ€"C) materials. Chemical Science, 2018, 9, 5064-5073.	3.7	128
18	Tuning Catalytic Selectivity at the Mesoscale via Interparticle Interactions. ACS Catalysis, 2016, 6, 1075-1080.	5.5	123

#	Article	IF	Citations
19	CO₂ Electroreduction on Well-Defined Bimetallic Surfaces: Cu Overlayers on Pt(111) and Pt(211). Journal of Physical Chemistry C, 2013, 117, 20500-20508.	1.5	119
20	Single site porphyrine-like structures advantages over metals for selective electrochemical CO2 reduction. Catalysis Today, 2017, 288, 74-78.	2.2	116
21	Opportunities and challenges in the electrocatalysis of CO2 and CO reduction using bifunctional surfaces: A theoretical and experimental study of Auâ€“Cd alloys. Journal of Catalysis, 2016, 343, 215-231.	3.1	115
22	Design of an Active Site towards Optimal Electrocatalysis: Overlayers, Surface Alloys and Nearâ€Surface Alloys of Cu/Pt(111). Angewandte Chemie - International Edition, 2012, 51, 11845-11848.	7.2	94
23	Catalyst Particle Density Controls Hydrocarbon Product Selectivity in CO₂ Electroreduction on CuO_{<i>x</i>}. ChemSusChem, 2017, 10, 4642-4649.	3.6	66
24	The importance of pH in controlling the selectivity of the electrochemical CO2 reduction. Current Opinion in Green and Sustainable Chemistry, 2020, 26, 100371.	3.2	53
25	Electrocatalytic CO₂ Reduction on CuO_{<i>x</i>} Nanocubes: Tracking the Evolution of Chemical State, Geometric Structure, and Catalytic Selectivity using Operando Spectroscopy. Angewandte Chemie, 2020, 132, 18130-18139.	1.6	45
26	CO₂ electrochemical reduction on metalâ€“organic framework catalysts: current status and future directions. Journal of Materials Chemistry A, 2022, 10, 5899-5917.	5.2	38
27	Optimizing FeNC Materials as Electrocatalysts for the CO₂ Reduction Reaction: Heatâ€Treatment Temperature, Structure and Performance Correlations. ChemCatChem, 2019, 11, 4854-4861.	1.8	19
28	Quantification of liquid products from the electroreduction of CO2 and CO using static headspace-gas chromatography and nuclear magnetic resonance spectroscopy. Catalysis Today, 2017, 288, 54-62.	2.2	16
29	Degradation and mineralization of oxytetracycline in pure and tap water under visible light irradiation using bismuth oxyiodides and the effect of depositing Au nanoparticles. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 388, 112163.	2.0	16
30	The effect of functionalised multi-walled carbon nanotubes in the hydrogen electrooxidation reaction in reactive currents impurified with CO. International Journal of Hydrogen Energy, 2014, 39, 5063-5073.	3.8	13
31	The role of the metal center on charge transport rate in MOF-525: cobalt and nickel porphyrin. Dalton Transactions, 2021, 50, 16939-16944.	1.6	8
32	The benefits of cycling. Nature Energy, 2021, 6, 698-699.	19.8	3
33	Effect of the reaction environment on the CO2 electrochemical reduction. Chem Catalysis, 2022, 2, 233-235.	2.9	0