Sheng Zhang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1212345/publications.pdf

Version: 2024-02-01

65 papers	9,662 citations	76326 40 h-index	110387 64 g-index
69 all docs	69 docs citations	69 times ranked	13067 citing authors

#	Article	IF	Citations
1	Nitrogen-doped graphene and its electrochemical applications. Journal of Materials Chemistry, 2010, 20, 7491.	6.7	1,040
2	Nanostructured Tin Catalysts for Selective Electrochemical Reduction of Carbon Dioxide to Formate. Journal of the American Chemical Society, 2014, 136, 1734-1737.	13.7	1,001
3	Polyethylenimine-Enhanced Electrocatalytic Reduction of CO₂ to Formate at Nitrogen-Doped Carbon Nanomaterials. Journal of the American Chemical Society, 2014, 136, 7845-7848.	13.7	591
4	Nitrogen-Doped Colloidal Graphene Quantum Dots and Their Size-Dependent Electrocatalytic Activity for the Oxygen Reduction Reaction. Journal of the American Chemical Society, 2012, 134, 18932-18935.	13.7	545
5	Edgeâ€Selectively Sulfurized Graphene Nanoplatelets as Efficient Metalâ€Free Electrocatalysts for Oxygen Reduction Reaction: The Electron Spin Effect. Advanced Materials, 2013, 25, 6138-6145.	21.0	537
6	Ionic liquids for energy, materials, and medicine. Chemical Communications, 2014, 50, 9228-9250.	4.1	447
7	CO₂ Reduction: From Homogeneous to Heterogeneous Electrocatalysis. Accounts of Chemical Research, 2020, 53, 255-264.	15.6	391
8	Effect of carbon black support corrosion on the durability of Pt/C catalyst. Journal of Power Sources, 2007, 171, 331-339.	7.8	383
9	Highly durable graphene nanoplatelets supported Pt nanocatalysts for oxygen reduction. Journal of Power Sources, 2010, 195, 4600-4605.	7.8	378
10	Graphene Decorated with PtAu Alloy Nanoparticles: Facile Synthesis and Promising Application for Formic Acid Oxidation. Chemistry of Materials, 2011, 23, 1079-1081.	6.7	366
11	Facile, scalable synthesis of edge-halogenated graphene nanoplatelets as efficient metal-free eletrocatalysts for oxygen reduction reaction. Scientific Reports, 2013, 3, 1810.	3.3	300
12	Electrostatic Selfâ€Assembly of a Ptâ€aroundâ€Au Nanocomposite with High Activity towards Formic Acid Oxidation. Angewandte Chemie - International Edition, 2010, 49, 2211-2214.	13.8	295
13	Polyelectrolyte-Induced Reduction of Exfoliated Graphite Oxide: A Facile Route to Synthesis of Soluble Graphene Nanosheets. ACS Nano, 2011, 5, 1785-1791.	14.6	293
14	Rapid Selective Electrocatalytic Reduction of Carbon Dioxide to Formate by an Iridium Pincer Catalyst Immobilized on Carbon Nanotube Electrodes. Angewandte Chemie - International Edition, 2014, 53, 8709-8713.	13.8	221
15	Self assembly of acetylcholinesterase on a gold nanoparticlesâ€“graphene nanosheet hybrid for organophosphate pesticide detection using polyelectrolyte as a linker. Journal of Materials Chemistry, 2011, 21, 5319.	6.7	219
16	Recent progress in nanostructured electrocatalysts for PEM fuel cells. Journal of Materials Chemistry A, 2013, 1, 4631.	10.3	172
17	Carbon nanotubes decorated with Pt nanoparticles via electrostatic self-assembly: a highly active oxygen reduction electrocatalyst. Journal of Materials Chemistry, 2010, 20, 2826.	6.7	153
18	Polymer-supported CuPd nanoalloy as a synergistic catalyst for electrocatalytic reduction of carbon dioxide to methane. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15809-15814.	7.1	140

#	Article	IF	Citations
19	Facile synthesis of PtAu alloy nanoparticles with high activity for formic acid oxidation. Journal of Power Sources, 2010, 195, 1103-1106.	7.8	133
20	Single catalyst electrocatalytic reduction of CO₂in water to H₂+CO syngas mixtures with water oxidation to O₂. Energy and Environmental Science, 2014, 7, 4007-4012.	30.8	120
21	Scalable and efficient separation of hydrogen isotopes using graphene-based electrochemical pumping. Nature Communications, 2017, 8, 15215.	12.8	119
22	Grapheneâ€“Polypyrrole Nanocomposite as a Highly Efficient and Low Cost Electrically Switched Ion Exchanger for Removing ClO₄^{â€“} from Wastewater. ACS Applied Materials & Interfaces, 2011, 3, 3633-3637.	8.0	109
23	Self-assembly of Pt nanoparticles on highly graphitized carbon nanotubes as an excellent oxygen-reduction catalyst. Applied Catalysis B: Environmental, 2011, 102, 372-377.	20.2	104
24	Electrochemical studies of Pt/Irâ€“IrO2 electrocatalyst as a bifunctional oxygen electrode. International Journal of Hydrogen Energy, 2012, 37, 59-67.	7.1	95
25	Stabilization of platinum nanoparticle electrocatalysts for oxygen reduction using poly(diallyldimethylammonium chloride). Journal of Materials Chemistry, 2009, 19, 7995.	6.7	87
26	Pt/porous-IrO2 nanocomposite as promising electrocatalyst for unitized regenerative fuel cell. Electrochemistry Communications, 2012, 14, 63-66.	4.7	87
27	First-row transition metal oxide oxygen evolution electrocatalysts: regulation strategies and mechanistic understandings. Sustainable Energy and Fuels, 2020, 4, 5417-5432.	4.9	86
28	Noncovalently functionalized graphitic mesoporous carbon as a stable support of Pt nanoparticles for oxygen reduction. Journal of Power Sources, 2010, 195, 1805-1811.	7.8	78
29	Self-healing polyelectrolyte complex coating for flame retardant flexible polyurethane foam with enhanced mechanical property. Composites Part B: Engineering, 2021, 219, 108886.	12.0	71
30	Perfect proton selectivity in ion transport through two-dimensional crystals. Nature Communications, 2019, 10, 4243.	12.8	60
31	Giant photoeffect in proton transport through graphene membranes. Nature Nanotechnology, 2018, 13, 300-303.	31.5	59
32	Preparation of Pt/Irx(IrO2)10â^'x bifunctional oxygen catalyst for unitized regenerative fuel cell. Journal of Power Sources, 2012, 210, 321-326.	7.8	55
33	Surface-functionalized palladium catalysts for electrochemical CO₂ reduction. Journal of Materials Chemistry A, 2020, 8, 15884-15890.	10.3	55
34	Low-cost and durable catalyst support for fuel cells: Graphite submicronparticles. Journal of Power Sources, 2010, 195, 457-460.	7.8	49
35	Polyelectrolyte Assisted Synthesis and Enhanced Oxygen Reduction Activity of Pt Nanocrystals with Controllable Shape and Size. ACS Applied Materials & Interfaces, 2014, 6, 14043-14049.	8.0	49
36	Role of Pt-pyridinic nitrogen sites in methanol oxidation on Pt/polypyrrole-carbon black Catalyst. Journal of Power Sources, 2012, 197, 44-49.	7.8	48

#	Article	IF	Citations
37	Atomically thin micas as proton-conducting membranes. Nature Nanotechnology, 2019, 14, 962-966.	31.5	45
38	Pt/Tin Oxide/Carbon Nanocomposites as Promising Oxygen Reduction Electrocatalyst with Improved Stability and Activity. Electrochimica Acta, 2014, 117, 413-419.	5.2	44
39	Perylene Monolayer Protected Gold Nanorods: Unique Optical, Electronic Properties and Self-Assemblies. Journal of Physical Chemistry C, 2012, 116, 10396-10404.	3.1	43
40	Highly efficient CO₂ electrolysis within a wide operation window using octahedral tin oxide single crystals. Journal of Materials Chemistry A, 2021, 9, 7848-7856.	10.3	42
41	Stable Surface-Anchored Cu Nanocubes for CO₂ Electroreduction to Ethylene. ACS Applied Nano Materials, 2020, 3, 8328-8334.	5.0	41
42	Ptâ€“rGOâ€“TiO2 nanocomposite by UV-photoreduction method as promising electrocatalyst for methanol oxidation. International Journal of Hydrogen Energy, 2013, 38, 12310-12317.	7.1	39
43	Iron Nanoparticles Tuned to Catalyze CO₂ Electroreduction in Acidic Solutions through Chemical Microenvironment Engineering. ACS Catalysis, 2022, 12, 7517-7523.	11.2	38
44	Effects and Mechanism Research of the Desilication Pretreatment for High-Aluminum Fly Ash. Energy & Fuels, 2013, 27, 6948-6954.	5.1	37
45	IrO2-graphene hybrid as an active oxygen evolution catalyst for water electrolysis. International Journal of Hydrogen Energy, 2013, 38, 9217-9222.	7.1	37
46	Revisiting Chlor-Alkali Electrolyzers: from Materials to Devices. Transactions of Tianjin University, 2021, 27, 202-216.	6.4	32
47	Effect of Se in Co-based selenides towards oxygen reduction electrocatalytic activity. Journal of Power Sources, 2012, 206, 103-107.	7.8	30
48	Tungsten doped Coâ€“Se nanocomposites as an efficient non precious metal catalyst for oxygen reduction. Electrochimica Acta, 2013, 91, 179-184.	5.2	27
49	Electrode Engineering for Electrochemical CO₂ Reduction. Energy & Fuels, 2022, 36, 4234-4249.	5.1	22
50	A Facile Route to Fabricate Effective Pt/IrO2 Bifunctional Catalyst for Unitized Regenerative Fuel Cell. Catalysis Letters, 2014, 144, 242-247.	2.6	20
51	Graphene Quantum Dots: Syntheses, Properties, and Biological Applications. , 2016, , 171-192.		17
52	Boosting oxygen evolution over inverse spinel Fe-Co-Mn oxide nanocubes through electronic structure engineering. Chemical Engineering Journal, 2022, 433, 134446.	12.7	16
53	Tuning the electronic structure of platinum nanocrystals towards high efficient ethanol oxidation. Chinese Journal of Catalysis, 2019, 40, 1904-1911.	14.0	14
54	Recent Advances in Electrochemical CO₂ Reduction Using CopperBased Catalysts. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2020, .	4.9	14

#	Article	IF	Citations
55	Nanoporous tin oxides for efficient electrochemical CO2 reduction to formate. Green Chemical Engineering, 2022, 3, 138-145.	6.3	13
56	In situ ion exchange preparation of Pt/carbon nanotubes electrode: Effect of two-step oxidation of carbon nanotubes. Journal of Power Sources, 2011, 196, 9955-9960.	7.8	11
57	Ordered mesoporous carbon spheres assisted Ru nanoclusters/RuO2 with redistribution of charge density for efficient CO2 methanation in a novel H2/CO2 fuel cell. Journal of Energy Chemistry, 2022, 72, 116-124.	12.9	11
58	Investigation on the durability of direct dimethyl ether fuel cell. Part I: Anode degradation. Journal of Power Sources, 2012, 198, 170-175.	7.8	10
59	3D-niobium oxide supported platinum as an effective and durable oxygen reduction catalyst. Catalysis Communications, 2015, 68, 67-72.	3.3	9
60	2D surface induced self-assembly of Pd nanocrystals into nanostrings for enhanced formic acid electrooxidation. Journal of Materials Chemistry A, 2020, 8, 17128-17135.	10.3	9
61	Efficient electrochemical reduction of CO₂promoted by the electrospun Cu_{1.96}S/Cu tandem catalyst. Nanoscale, 2021, 13, 16986-16994.	5.6	8
62	Metal-Free Electrocatalysts for Oxygen Reduction. Lecture Notes in Energy, 2013, , 375-389.	0.3	3
63	Niobium Dioxide Facilitating Methanol Electrooxidation on Pt/C Catalyst by Synergistic Effect. Fuel Cells, 2013, 13, 895-902.	2.4	3
64	Electrochemical Conversion of CO2 into Valued Added Products on High-Surface-Area Tin Catalysts. ECS Meeting Abstracts, 2019, , .	0.0	0
65	Octahedral SnO2 Single Crystals for Selective CO2 Electroreduction. ECS Meeting Abstracts, 2020, MA2020-02, 3233-3233.	0.0	0