

Sheng Zhang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

63

papers

7,971

citations

35

h-index

69

g-index

69

ext. papers

8,840

ext. citations

10.5

avg, IF

6.15

L-index

#	Paper	IF	Citations
63	Boosting oxygen evolution over inverse spinel Fe-Co-Mn oxide nanocubes through electronic structure engineering. <i>Chemical Engineering Journal</i> , 2022 , 433, 134446	14.7	3
62	Nanoporous tin oxides for efficient electrochemical CO ₂ reduction to formate. <i>Green Chemical Engineering</i> , 2021 ,	3	6
61	Revisiting Chlor-Alkali Electrolyzers: from Materials to Devices. <i>Transactions of Tianjin University</i> , 2021 , 27, 202-216	2.9	7
60	Highly efficient CO ₂ electrolysis within a wide operation window using octahedral tin oxide single crystals. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 7848-7856	13	15
59	Efficient electrochemical reduction of CO promoted by the electrospun CuS/Cu tandem catalyst. <i>Nanoscale</i> , 2021 , 13, 16986-16994	7.7	0
58	Self-healing polyelectrolyte complex coating for flame retardant flexible polyurethane foam with enhanced mechanical property. <i>Composites Part B: Engineering</i> , 2021 , 219, 108886	10	19
57	Surface-functionalized palladium catalysts for electrochemical CO ₂ reduction. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 15884-15890	13	28
56	Recent Advances in Electrochemical CO ₂ Reduction Using CopperBased Catalysts. <i>Wuli Huaxue Xuebao/Acta Physico - Chimica Sinica</i> , 2020 , 2006034-0	3.8	7
55	CO Reduction: From Homogeneous to Heterogeneous Electrocatalysis. <i>Accounts of Chemical Research</i> , 2020 , 53, 255-264	24.3	168
54	Stable Surface-Anchored Cu Nanocubes for CO ₂ Electroreduction to Ethylene. <i>ACS Applied Nano Materials</i> , 2020 , 3, 8328-8334	5.6	15
53	2D surface induced self-assembly of Pd nanocrystals into nanostrings for enhanced formic acid electrooxidation. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 17128-17135	13	5
52	First-row transition metal oxide oxygen evolution electrocatalysts: regulation strategies and mechanistic understandings. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 5417-5432	5.8	28
51	Atomically thin micas as proton-conducting membranes. <i>Nature Nanotechnology</i> , 2019 , 14, 962-966	28.7	26
50	Perfect proton selectivity in ion transport through two-dimensional crystals. <i>Nature Communications</i> , 2019 , 10, 4243	17.4	31
49	Tuning the electronic structure of platinum nanocrystals towards high efficient ethanol oxidation. <i>Chinese Journal of Catalysis</i> , 2019 , 40, 1904-1911	11.3	7
48	Giant photoeffect in proton transport through graphene membranes. <i>Nature Nanotechnology</i> , 2018 , 13, 300-303	28.7	41
47	Scalable and efficient separation of hydrogen isotopes using graphene-based electrochemical pumping. <i>Nature Communications</i> , 2017 , 8, 15215	17.4	76

46	Graphene Quantum Dots: Syntheses, Properties, and Biological Applications 2016 , 171-192		9
45	3D-niobium oxide supported platinum as an effective and durable oxygen reduction catalyst. <i>Catalysis Communications</i> , 2015 , 68, 67-72	3.2	6
44	Heteroatom-Doped Carbon Nanotubes as Advanced Electrocatalysts for Oxygen Reduction Reaction 2015 , 1-16		3
43	Polymer-supported CuPd nanoalloy as a synergistic catalyst for electrocatalytic reduction of carbon dioxide to methane. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 15809-14	11.5	108
42	A Facile Route to Fabricate Effective Pt/IrO ₂ Bifunctional Catalyst for Unitized Regenerative Fuel Cell. <i>Catalysis Letters</i> , 2014 , 144, 242-247	2.8	20
41	Polyethylenimine-enhanced electrocatalytic reduction of CO ₂ to formate at nitrogen-doped carbon nanomaterials. <i>Journal of the American Chemical Society</i> , 2014 , 136, 7845-8	16.4	500
40	Polyelectrolyte assisted synthesis and enhanced oxygen reduction activity of Pt nanocrystals with controllable shape and size. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 14043-9	9.5	43
39	Single catalyst electrocatalytic reduction of CO ₂ in water to H ₂ +CO syngas mixtures with water oxidation to O ₂ . <i>Energy and Environmental Science</i> , 2014 , 7, 4007-4012	35.4	104
38	Rapid selective electrocatalytic reduction of carbon dioxide to formate by an iridium pincer catalyst immobilized on carbon nanotube electrodes. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 8709-13	16.4	192
37	Nanostructured tin catalysts for selective electrochemical reduction of carbon dioxide to formate. <i>Journal of the American Chemical Society</i> , 2014 , 136, 1734-7	16.4	821
36	Ionic liquids for energy, materials, and medicine. <i>Chemical Communications</i> , 2014 , 50, 9228-50	5.8	396
35	Rapid Selective Electrocatalytic Reduction of Carbon Dioxide to Formate by an Iridium Pincer Catalyst Immobilized on Carbon Nanotube Electrodes. <i>Angewandte Chemie</i> , 2014 , 126, 8853-8857	3.6	59
34	Pt/Tin Oxide/Carbon Nanocomposites as Promising Oxygen Reduction Electrocatalyst with Improved Stability and Activity. <i>Electrochimica Acta</i> , 2014 , 117, 413-419	6.7	35
33	Edge-selectively sulfurized graphene nanoplatelets as efficient metal-free electrocatalysts for oxygen reduction reaction: the electron spin effect. <i>Advanced Materials</i> , 2013 , 25, 6138-45	24	465
32	Effects and Mechanism Research of the Desilication Pretreatment for High-Aluminum Fly Ash. <i>Energy & Fuels</i> , 2013 , 27, 6948-6954	4.1	28
31	IrO ₂ -graphene hybrid as an active oxygen evolution catalyst for water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 9217-9222	6.7	29
30	Pt@GO@IrO ₂ nanocomposite by UV-photoreduction method as promising electrocatalyst for methanol oxidation. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12310-12317	6.7	32
29	Recent progress in nanostructured electrocatalysts for PEM fuel cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 4631	13	157

28	Tungsten doped CoSe nanocomposites as an efficient non precious metal catalyst for oxygen reduction. <i>Electrochimica Acta</i> , 2013 , 91, 179-184	6.7	23
27	Metal-Free Electrocatalysts for Oxygen Reduction. <i>Lecture Notes in Energy</i> , 2013 , 375-389	0.4	3
26	Facile, scalable synthesis of edge-halogenated graphene nanoplatelets as efficient metal-free electrocatalysts for oxygen reduction reaction. <i>Scientific Reports</i> , 2013 , 3, 1810	4.9	278
25	Niobium Dioxide Facilitating Methanol Electrooxidation on Pt/C Catalyst by Synergistic Effect. <i>Fuel Cells</i> , 2013 , 13, n/a-n/a	2.9	2
24	Pt/porous-IrO ₂ nanocomposite as promising electrocatalyst for unitized regenerative fuel cell. <i>Electrochemistry Communications</i> , 2012 , 14, 63-66	5.1	77
23	Role of Pt-pyridinic nitrogen sites in methanol oxidation on Pt/polypyrrole-carbon black Catalyst. <i>Journal of Power Sources</i> , 2012 , 197, 44-49	8.9	41
22	Investigation on the durability of direct dimethyl ether fuel cell. Part I: Anode degradation. <i>Journal of Power Sources</i> , 2012 , 198, 170-175	8.9	7
21	Effect of Se in Co-based selenides towards oxygen reduction electrocatalytic activity. <i>Journal of Power Sources</i> , 2012 , 206, 103-107	8.9	25
20	Preparation of Pt/Irx(IrO ₂) _{10x} bifunctional oxygen catalyst for unitized regenerative fuel cell. <i>Journal of Power Sources</i> , 2012 , 210, 321-326	8.9	48
19	Nitrogen-doped colloidal graphene quantum dots and their size-dependent electrocatalytic activity for the oxygen reduction reaction. <i>Journal of the American Chemical Society</i> , 2012 , 134, 18932-5	16.4	478
18	Perylene Monolayer Protected Gold Nanorods: Unique Optical, Electronic Properties and Self-Assemblies. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 10396-10404	3.8	40
17	Electrochemical studies of Pt/IrO ₂ electrocatalyst as a bifunctional oxygen electrode. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 59-67	6.7	80
16	Polyelectrolyte-induced reduction of exfoliated graphite oxide: a facile route to synthesis of soluble graphene nanosheets. <i>ACS Nano</i> , 2011 , 5, 1785-91	16.7	274
15	Graphene-polypyrrole nanocomposite as a highly efficient and low cost electrically switched ion exchanger for removing ClO ₂ from wastewater. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3633-7	9.5	89
14	Graphene Decorated with PtAu Alloy Nanoparticles: Facile Synthesis and Promising Application for Formic Acid Oxidation. <i>Chemistry of Materials</i> , 2011 , 23, 1079-1081	9.6	342
13	Self assembly of acetylcholinesterase on a gold nanoparticles-graphene nanosheet hybrid for organophosphate pesticide detection using polyelectrolyte as a linker. <i>Journal of Materials Chemistry</i> , 2011 , 21, 5319		196
12	In situ ion exchange preparation of Pt/carbon nanotubes electrode: Effect of two-step oxidation of carbon nanotubes. <i>Journal of Power Sources</i> , 2011 , 196, 9955-9960	8.9	11
11	Self-assembly of Pt nanoparticles on highly graphitized carbon nanotubes as an excellent oxygen-reduction catalyst. <i>Applied Catalysis B: Environmental</i> , 2011 , 102, 372-377	21.8	84

10	Carbon nanotubes decorated with Pt nanoparticles via electrostatic self-assembly: a highly active oxygen reduction electrocatalyst. <i>Journal of Materials Chemistry</i> , 2010 , 20, 2826		144
9	Nitrogen-doped graphene and its electrochemical applications. <i>Journal of Materials Chemistry</i> , 2010 , 20, 7491		934
8	Low-cost and durable catalyst support for fuel cells: Graphite submicronparticles. <i>Journal of Power Sources</i> , 2010 , 195, 457-460	8.9	44
7	Facile synthesis of PtAu alloy nanoparticles with high activity for formic acid oxidation. <i>Journal of Power Sources</i> , 2010 , 195, 1103-1106	8.9	119
6	Electrostatic Self-Assembly of a Pt-around-Au Nanocomposite with High Activity towards Formic Acid Oxidation. <i>Angewandte Chemie</i> , 2010 , 122, 2257-2260	3.6	24
5	Electrostatic self-assembly of a Pt-around-Au nanocomposite with high activity towards formic acid oxidation. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 2211-4	16.4	270
4	Noncovalently functionalized graphitic mesoporous carbon as a stable support of Pt nanoparticles for oxygen reduction. <i>Journal of Power Sources</i> , 2010 , 195, 1805-1811	8.9	74
3	Highly durable graphene nanoplatelets supported Pt nanocatalysts for oxygen reduction. <i>Journal of Power Sources</i> , 2010 , 195, 4600-4605	8.9	345
2	Stabilization of platinum nanoparticle electrocatalysts for oxygen reduction using poly(diallyldimethylammonium chloride). <i>Journal of Materials Chemistry</i> , 2009 , 19, 7995		82
1	Effect of carbon black support corrosion on the durability of Pt/C catalyst. <i>Journal of Power Sources</i> , 2007 , 171, 331-339	8.9	343