

Samira Siahrostami

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.

77
papers

7,625
citations

39
h-index

86
g-index

86
ext. papers

10,388
ext. citations

12
avg, IF

6.44
L-index

#	Paper	IF	Citations
77	The role of Pt in MOC on the water-gas shift reaction at low temperatures. <i>Joule</i> , 2021 , 5, 521-523	27.8	2
76	High-Throughput Electron Diffraction Reveals a Hidden Novel Metal-Organic Framework for Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 11391-11397	16.4	9
75	High-Throughput Electron Diffraction Reveals a Hidden Novel Metal-Organic Framework for Electrocatalysis. <i>Angewandte Chemie</i> , 2021 , 133, 11492-11498	3.6	0
74	Electrochemical ammonia synthesis via nitrate reduction on Fe single atom catalyst. <i>Nature Communications</i> , 2021 , 12, 2870	17.4	136
73	Ligand-Engineered Metal-Organic Frameworks for Electrochemical Reduction of Carbon Dioxide to Carbon Monoxide. <i>ACS Catalysis</i> , 2021 , 11, 7350-7357	13.1	17
72	Electrochemical Synthesis of H_2O_2 by Two-Electron Water Oxidation Reaction. <i>Chem</i> , 2021 , 7, 38-63	16.2	45
71	Ternary cobalt-iron sulfide as a robust electrocatalyst for water oxidation: A dual effect from surface evolution and metal doping. <i>Applied Surface Science</i> , 2021 , 542, 148681	6.7	9
70	Mechanochemistry for ammonia synthesis under mild conditions. <i>Nature Nanotechnology</i> , 2021 , 16, 325-330	38.9	51
69	Coproduction of hydrogen and lactic acid from glucose photocatalysis on band-engineered ZnCdS homojunction. <i>iScience</i> , 2021 , 24, 102109	6.1	13
68	High-Performance Zinc-Air Batteries Based on Bifunctional Hierarchically Porous Nitrogen-Doped Carbon. <i>Small</i> , 2021 , e2105928	11	2
67	Building and identifying highly active oxygenated groups in carbon materials for oxygen reduction to HO . <i>Nature Communications</i> , 2020 , 11, 2209	17.4	107
66	A Review on Challenges and Successes in Atomic-Scale Design of Catalysts for Electrochemical Synthesis of Hydrogen Peroxide. <i>ACS Catalysis</i> , 2020 , 10, 7495-7511	13.1	95
65	A review on electrocatalytic oxidation of methane to oxygenates. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 15575-15590	13	33
64	In Situ X-Ray Absorption Spectroscopy Disentangles the Roles of Copper and Silver in a Bimetallic Catalyst for the Oxygen Reduction Reaction. <i>Chemistry of Materials</i> , 2020 , 32, 1819-1827	9.6	15
63	Promoting HO production via 2-electron oxygen reduction by coordinating partially oxidized Pd with defect carbon. <i>Nature Communications</i> , 2020 , 11, 2178	17.4	79
62	Orbital graph convolutional neural network for material property prediction. <i>Physical Review Materials</i> , 2020 , 4,	3.2	19
61	Confined local oxygen gas promotes electrochemical water oxidation to hydrogen peroxide. <i>Nature Catalysis</i> , 2020 , 3, 125-134	36.5	106

60	Heteroatom-Doped Transition Metal Nitrides for CO Electrochemical Reduction: A Density Functional Theory Screening Study. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 26344-26351	3.8	2
59	Circumventing Scaling Relations in Oxygen Electrochemistry Using Metal-Organic Frameworks. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 10029-10036	6.4	16
58	A Porphyrinic Zirconium Metal-Organic Framework for Oxygen Reduction Reaction: Tailoring the Spacing between Active-Sites through Chain-Based Inorganic Building Units. <i>Journal of the American Chemical Society</i> , 2020 , 142, 15386-15395	16.4	65
57	Effect of Adventitious Carbon on Pit Formation of Monolayer MoS. <i>Advanced Materials</i> , 2020 , 32, e2003020	2.4	5
56	Development of Fukui Function Based Descriptors for a Machine Learning Study of CO ₂ Reduction. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 10079-10084	3.8	12
55	Highly selective oxygen reduction to hydrogen peroxide on transition metal single atom coordination. <i>Nature Communications</i> , 2019 , 10, 3997	17.4	264
54	Noble metal supported hexagonal boron nitride for the oxygen reduction reaction: a DFT study. <i>Nanoscale Advances</i> , 2019 , 1, 132-139	5.1	16
53	ZnO As an Active and Selective Catalyst for Electrochemical Water Oxidation to Hydrogen Peroxide. <i>ACS Catalysis</i> , 2019 , 9, 4593-4599	13.1	95
52	Selective and Efficient Gd-Doped BiVO ₄ Photoanode for Two-Electron Water Oxidation to H ₂ O ₂ . <i>ACS Energy Letters</i> , 2019 , 4, 720-728	20.1	76
51	Precious Metal-Free Nickel Nitride Catalyst for the Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 26863-26871	9.5	47
50	Improved Oxygen Reduction Reaction Activity of Nanostructured CoS ₂ through Electrochemical Tuning. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8605-8614	6.1	21
49	Prediction of Stable and Active (Oxy-Hydro) Oxide Nanoislands on Noble-Metal Supports for Electrochemical Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 2006-2013	3.5	14
48	Designing Carbon-Based Materials for Efficient Electrochemical Reduction of CO ₂ . <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 879-885	3.9	5
47	CaSnO ₃ : An Electrocatalyst for Two-Electron Water Oxidation Reaction to Form H ₂ O ₂ . <i>ACS Energy Letters</i> , 2019 , 4, 352-357	20.1	77
46	Single Metal Atoms Anchored in Two-Dimensional Materials: Bifunctional Catalysts for Fuel Cell Applications. <i>ChemCatChem</i> , 2018 , 10, 3034-3039	5.2	37
45	Understanding Catalytic Activity Trends in the Oxygen Reduction Reaction. <i>Chemical Reviews</i> , 2018 , 118, 2302-2312	68.1	908
44	Isolated Ni single atoms in graphene nanosheets for high-performance CO ₂ reduction. <i>Energy and Environmental Science</i> , 2018 , 11, 893-903	35.4	580
43	Ultrathin Cobalt Oxide Overlayer Promotes Catalytic Activity of Cobalt Nitride for the Oxygen Reduction Reaction. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 4783-4791	3.8	36

42	High-efficiency oxygen reduction to hydrogen peroxide catalysed by oxidized carbon materials. <i>Nature Catalysis</i> , 2018 , 1, 156-162	36.5	632
41	Cation-exchanged zeolites for the selective oxidation of methane to methanol. <i>Catalysis Science and Technology</i> , 2018 , 8, 114-123	5.5	110
40	Defective Carbon-Based Materials for the Electrochemical Synthesis of Hydrogen Peroxide. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 311-317	8.3	153
39	Copper Silver Thin Films with Metastable Miscibility for Oxygen Reduction Electrocatalysis in Alkaline Electrolytes. <i>ACS Applied Energy Materials</i> , 2018 , 1, 1990-1999	6.1	21
38	Nature of Lone-Pair-Surface Bonds and Their Scaling Relations. <i>Inorganic Chemistry</i> , 2018 , 57, 7222-7238	5.1	35
37	Designing Boron Nitride Islands in Carbon Materials for Efficient Electrochemical Synthesis of Hydrogen Peroxide. <i>Journal of the American Chemical Society</i> , 2018 , 140, 7851-7859	16.4	184
36	Introducing Fe ²⁺ into Nickel-Iron Layered Double Hydroxide: Local Structure Modulated Water Oxidation Activity. <i>Angewandte Chemie</i> , 2018 , 130, 9536-9540	3.6	61
35	Introducing Fe into Nickel-Iron Layered Double Hydroxide: Local Structure Modulated Water Oxidation Activity. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 9392-9396	16.4	181
34	Effects of redox-active interlayer anions on the oxygen evolution reactivity of NiFe-layered double hydroxide nanosheets. <i>Nano Research</i> , 2018 , 11, 1358-1368	10	93
33	Exploring the Effect of Gold Support on the Oxygen Reduction Reaction Activity of Metal Porphycenes. <i>ChemCatChem</i> , 2018 , 10, 5505-5510	5.2	4
32	Theoretical Approaches to Describing the Oxygen Reduction Reaction Activity of Single-Atom Catalysts. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 29307-29318	3.8	39
31	Enhancing Catalytic Activity of MoS ₂ Basal Plane S-Vacancy by Co Cluster Addition. <i>ACS Energy Letters</i> , 2018 , 3, 2685-2693	20.1	79
30	Light-Driven BiVO ₄ Fuel Cell with Simultaneous Production of H ₂ O ₂ . <i>Advanced Energy Materials</i> , 2018 , 8, 1801158	21.8	64
29	One- or Two-Electron Water Oxidation, Hydroxyl Radical, or HO Evolution. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 1157-1160	6.4	142
28	Development of a reactor with carbon catalysts for modular-scale, low-cost electrochemical generation of H ₂ O ₂ . <i>Reaction Chemistry and Engineering</i> , 2017 , 2, 239-245	4.9	100
27	High-performance oxygen reduction and evolution carbon catalysis: From mechanistic studies to device integration. <i>Nano Research</i> , 2017 , 10, 1163-1177	10	50
26	Trends in Adsorption Energies of the Oxygenated Species on Single Platinum Atom Embedded in Carbon Nanotubes. <i>Catalysis Letters</i> , 2017 , 147, 2689-2696	2.8	10
25	Understanding activity trends in electrochemical water oxidation to form hydrogen peroxide. <i>Nature Communications</i> , 2017 , 8, 701	17.4	193

24	Theoretical Investigations into Defected Graphene for Electrochemical Reduction of CO ₂ . <i>ACS Sustainable Chemistry and Engineering</i> , 2017 , 5, 11080-11085	8.3	68
23	Transition-Metal Single Atoms in a Graphene Shell as Active Centers for Highly Efficient Artificial Photosynthesis. <i>Chem</i> , 2017 , 3, 950-960	16.2	249
22	Theoretical Investigations of the Electrochemical Reduction of CO on Single Metal Atoms Embedded in Graphene. <i>ACS Central Science</i> , 2017 , 3, 1286-1293	16.8	41
21	Two-Dimensional Materials as Catalysts for Energy Conversion. <i>Catalysis Letters</i> , 2016 , 146, 1917-1921	2.8	39
20	Monocopper Active Site for Partial Methane Oxidation in Cu-Exchanged 8MR Zeolites. <i>ACS Catalysis</i> , 2016 , 6, 6531-6536	13.1	136
19	Exploring Scaling Relations for Chemisorption Energies on Transition-Metal-Exchanged Zeolites ZSM-22 and ZSM-5. <i>ChemCatChem</i> , 2016 , 8, 767-772	5.2	16
18	Structural and Energetic Trends of Ethylene Hydrogenation over Transition Metal Surfaces. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 995-1003	3.8	37
17	Beyond the top of the volcano? A unified approach to electrocatalytic oxygen reduction and oxygen evolution. <i>Nano Energy</i> , 2016 , 29, 126-135	17.1	195
16	Influence of Adsorbed Water on the Oxygen Evolution Reaction on Oxides. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 1032-1037	3.8	55
15	H ₂ production through electro-oxidation of SO ₂ : identifying the fundamental limitations. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 9572-9	3.6	27
14	Catalytic hydrogenation of CC and CO in unsaturated fatty acid methyl esters. <i>Catalysis Science and Technology</i> , 2014 , 4, 2427-2444	5.5	42
13	Trends in the electrochemical synthesis of H ₂ O ₂ : enhancing activity and selectivity by electrocatalytic site engineering. <i>Nano Letters</i> , 2014 , 14, 1603-8	11.5	352
12	Enabling direct H ₂ O ₂ production through rational electrocatalyst design. <i>Nature Materials</i> , 2013 , 12, 1137-43	27	649
11	Tandem cathode for proton exchange membrane fuel cells. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 9326-34	3.6	34
10	First principles investigation of zinc-anode dissolution in zinc-air batteries. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 6416-21	3.6	31
9	Activity and Selectivity for O ₂ Reduction to H ₂ O ₂ on Transition Metal Surfaces. <i>ECS Transactions</i> , 2013 , 58, 53-62	1	9
8	The oxygen reduction reaction mechanism on Pt(111) from density functional theory calculations. <i>Electrochimica Acta</i> , 2010 , 55, 7975-7981	6.7	387
7	An insight into microscopic properties of aprotic ionic liquids: A DFT study. <i>Computational and Theoretical Chemistry</i> , 2010 , 955, 47-52		13

6	Application of Density Functional Theory for evaluation of standard two-electron reduction potentials in some quinone derivatives. <i>Computational and Theoretical Chemistry</i> , 2008 , 870, 10-14		15
5	Electron affinity and redox potential of tetrafluoro-p-benzoquinone: A theoretical study. <i>Journal of Fluorine Chemistry</i> , 2008 , 129, 222-225	2.1	22
4	Calculation of two-electron reduction potentials for some quinone derivatives in aqueous solution using Møller-Plesset perturbation theory. <i>Computational and Theoretical Chemistry</i> , 2006 , 759, 245-247		20
3	Two-Dimensional Metal-Organic Frameworks with Unique Oriented Layers for Oxygen Reduction Reaction: Tailoring the Activity through Exposed Crystal Facets. <i>CCS Chemistry</i> , 1-10	7.2	3
2	SnO ₂ -supported single metal atoms: a bifunctional catalyst for the electrochemical synthesis of H ₂ O ₂ . <i>Journal of Materials Chemistry A</i> ,	13	1
1	Elaborating Nitrogen and Oxygen Dopants Configurations within Graphene Electrocatalysts for Two-Electron Oxygen Reduction		2