

# Peng Zhang

## List of Publications by Year in descending order

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29  
papers

2,084  
citations

361413

20  
h-index

477307

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29  
docs citations

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times ranked

2847  
citing authors

#	ARTICLE	IF	CITATIONS
1	Revealing the Intrinsic Atomic Structure and Chemistry of Amorphous LiO <sub>2</sub> -Containing Products in Li <sup>+</sup> O <sub>2</sub> Batteries Using Cryogenic Electron Microscopy. <i>Journal of the American Chemical Society</i> , 2022, 144, 2129-2136.	13.7	28
2	Decomposition pathway and stabilization of ether-based electrolytes in the discharge process of Li-O <sub>2</sub> battery. <i>Journal of Energy Chemistry</i> , 2022, 69, 516-523.	12.9	20
3	Heteroatom Doping-Induced Defected Co <sub>3</sub> O <sub>4</sub> Electrode for High-Performance Lithium Oxygen Battery. <i>ACS Applied Energy Materials</i> , 2022, 5, 3359-3368.	5.1	9
4	Vacancy Defect-Rich Perovskite SrTiO <sub>3</sub> /Ti <sub>3</sub> C <sub>2</sub> MXenes with Exceptional Oxygen Catalytic Activity for Advanced Zn <sup>+</sup> Air Batteries. <i>ACS Applied Energy Materials</i> , 2022, 5, 6100-6109.	5.1	14
5	Unraveling the decomposition mechanism of Li <sub>2</sub> CO <sub>3</sub> in the aprotic medium by isotope-labeled differential electrochemical mass spectrometry. <i>Journal of Energy Chemistry</i> , 2022, 73, 1-4.	12.9	3
6	Porous hollow ZnCo <sub>2</sub> S <sub>4</sub> nanosheet arrays derived from metal-organic framework as efficient cathode for lithium oxygen batteries. <i>Journal of Alloys and Compounds</i> , 2021, 860, 157656.	5.5	13
7	LiOH: A <i>double-edged</i> effect toward electrochemical oxidation of Li <sub>2</sub> O <sub>2</sub> . <i>Journal of Energy Chemistry</i> , 2021, 57, 401-405.	12.9	6
8	Bifunctional Catalytic Activity Guided by Rich Crystal Defects in Ti <sub>3</sub> C <sub>2</sub> MXene Quantum Dot Clusters for Li <sup>+</sup> O <sub>2</sub> Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2003069.	19.5	52
9	Greatly promoted oxygen reduction reaction activity of solid catalysts by regulating the stability of superoxide in metal-O <sub>2</sub> batteries. <i>Science China Materials</i> , 2021, 64, 870-879.	6.3	12
10	Electrochemical Oxidation of Li <sub>2</sub> O <sub>2</sub> Surface-Doped with Li <sub>2</sub> CO <sub>3</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 6627-6632.	8.0	11
11	Nitrogen <sup>+</sup> Doped Cobalt Pyrite Yolk <sup>+</sup> Shell Hollow Spheres for Long <sup>+</sup> Life Rechargeable Zn <sup>+</sup> Air Batteries. <i>Advanced Science</i> , 2020, 7, 2001178.	11.2	206
12	Challenges and Strategy on Parasitic Reaction for High <sup>+</sup> Performance Nonaqueous Lithium <sup>+</sup> Oxygen Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2001789.	19.5	62
13	Atomically dispersed cobalt catalyst anchored on nitrogen-doped carbon nanosheets for lithium-oxygen batteries. <i>Nature Communications</i> , 2020, 11, 1576.	12.8	237
14	Inhibition of Discharge Side Reactions by Promoting Solution-Mediated Oxygen Reduction Reaction with Stable Quinone in Li <sup>+</sup> O <sub>2</sub> Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 10607-10615.	8.0	23
15	A Liquid/Liquid Electrolyte Interface that Inhibits Corrosion and Dendrite Growth of Lithium in Lithium <sup>+</sup> Metal Batteries. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 6397-6405.	13.8	50
16	A Liquid/Liquid Electrolyte Interface that Inhibits Corrosion and Dendrite Growth of Lithium in Lithium <sup>+</sup> Metal Batteries. <i>Angewandte Chemie</i> , 2020, 132, 6459-6467.	2.0	14
17	Hierarchical NiCo <sub>2</sub> S <sub>4</sub> @NiO Core <sup>+</sup> Shell Heterostructures as Catalytic Cathode for Long <sup>+</sup> Life Li <sup>+</sup> O <sub>2</sub> Batteries. <i>Advanced Energy Materials</i> , 2019, 9, 1900788.	19.5	124
18	One <sup>+</sup> Step Route Synthesized Co <sub>2</sub> P/Ru/N <sup>+</sup> Doped Carbon Nanotube Hybrids as Bifunctional Electrocatalysts for High <sup>+</sup> Performance Li <sup>+</sup> O <sub>2</sub> Batteries. <i>Small</i> , 2019, 15, e1900001.	10.0	48

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19	Promoting Surface-Mediated Oxygen Reduction Reaction of Solid Catalysts in Metal <sup>2</sup> Batteries by Capturing Superoxide Species. <i>Journal of the American Chemical Society</i> , 2019, 141, 6263-6270.	13.7	69
20	Functional and stability orientation synthesis of materials and structures in aprotic Li <sup>2</sup> batteries. <i>Chemical Society Reviews</i> , 2018, 47, 2921-3004.	38.1	282
21	Realizing the Embedded Growth of Large Li <sub>2</sub> O <sub>2</sub> Aggregations by Matching Different Metal Oxides for High-Capacity and High-Rate Lithium Oxygen Batteries. <i>Advanced Science</i> , 2017, 4, 1700172.	11.2	59
22	3D Hierarchical Co/CoO <sub>2</sub> /Graphene/Carbonized Melamine Foam as a Superior Cathode toward Long-Life Lithium Oxygen Batteries. <i>Advanced Functional Materials</i> , 2016, 26, 1354-1364.	14.9	206
23	Morphology Engineering of Co <sub>3</sub> O <sub>4</sub> Nanoarrays as Free-Standing Catalysts for Lithium-Oxygen Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 23713-23720.	8.0	82
24	Highly Conductive Mo <sub>2</sub> C Nanofibers Encapsulated in Ultrathin MnO <sub>2</sub> Nanosheets as a Self-Supported Electrode for High-Performance Capacitive Energy Storage. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 32460-32467.	8.0	49
25	Hierarchical porous nitrogen doped three-dimensional graphene as a free-standing cathode for rechargeable lithium-oxygen batteries. <i>Electrochimica Acta</i> , 2016, 191, 90-97.	5.2	43
26	The role of oxygen vacancies in improving the performance of CoO as a bifunctional cathode catalyst for rechargeable Li <sup>2</sup> batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 17598-17605.	10.3	155
27	Synthesis of Porous MnO <sub>2</sub> Submicron Tubes as Highly Efficient Electrocatalyst for Rechargeable Li <sup>2</sup> Batteries. <i>ChemSusChem</i> , 2015, 8, 1972-1979.	6.8	42
28	The controlled growth of porous MnO <sub>2</sub> nanosheets on carbon fibers as a bi-functional catalyst for rechargeable lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10811-10818.	10.3	55
29	Free-Standing Three-Dimensional Graphene/Manganese Oxide Hybrids As Binder-Free Electrode Materials for Energy Storage Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 11665-11674.	8.0	110