

Chaozhu Shu

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85
papers

1,799
citations

24
h-index

39
g-index

89
ext. papers

2,639
ext. citations

10.3
avg, IF

5.47
L-index

#	Paper	IF	Citations
85	Understanding the Reaction Chemistry during Charging in Aprotic Lithium-Oxygen Batteries: Existing Problems and Solutions. <i>Advanced Materials</i> , 2019 , 31, e1804587	24	156
84	Strategies toward High-Loading Lithium-Sulfur Battery. <i>Advanced Energy Materials</i> , 2020 , 10, 2000082	21.8	140
83	An artificial hybrid interphase for an ultrahigh-rate and practical lithium metal anode. <i>Energy and Environmental Science</i> , 2021 , 14, 4115-4124	35.4	94
82	Heterostructured NiS/ZnInS Realizing Toroid-like LiO Deposition in Lithium-Oxygen Batteries with Low-Donor-Number Solvents. <i>ACS Nano</i> , 2020 , 14, 3490-3499	16.7	64
81	Three-Dimensional Interconnected Network Architecture with Homogeneously Dispersed Carbon Nanotubes and Layered MoS as a Highly Efficient Cathode Catalyst for Lithium-Oxygen Battery. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 34077-34086	9.5	60
80	N-doped onion-like carbon as an efficient oxygen electrode for long-life Li-O ₂ battery. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2128-2136	13	59
79	Highly reversible Li-O ₂ battery induced by modulating local electronic structure via synergistic interfacial interaction between ruthenium nanoparticles and hierarchically porous carbon. <i>Nano Energy</i> , 2019 , 57, 166-175	17.1	57
78	Free-Standing Three-Dimensional CuCoS Nanosheet Array with High Catalytic Activity as an Efficient Oxygen Electrode for Lithium-Oxygen Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 3834-3842	9.5	55
77	Design strategies toward catalytic materials and cathode structures for emerging Li-O ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 21605-21633	13	54
76	Interface engineering induced selenide lattice distortion boosting catalytic activity of heterogeneous CoSe ₂ @NiSe ₂ for lithium-oxygen battery. <i>Chemical Engineering Journal</i> , 2020 , 393, 124592	14.7	50
75	In Situ Fabricating Oxygen Vacancy-Rich TiO Nanoparticles via Utilizing Thermodynamically Metastable Ti Atoms on TiCT _x MXene Nanosheet Surface To Boost Electrocatalytic Activity for High-Performance Li-O Batteries. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 46696-46704	9.5	47
74	Tuning oxygen non-stoichiometric surface via defect engineering to promote the catalysis activity of Co ₃ O ₄ in Li-O ₂ batteries. <i>Chemical Engineering Journal</i> , 2020 , 381, 122678	14.7	45
73	Optimizing Redox Reactions in Aprotic Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 2002180	21.8	45
72	Hierarchical Nitrogen-Doped Graphene/Carbon Nanotube Composite Cathode for Lithium-Oxygen Batteries. <i>ChemSusChem</i> , 2015 , 8, 3973-6	8.3	44
71	Rationalizing the Effect of Oxygen Vacancy on Oxygen Electrocatalysis in Li-O Battery. <i>Small</i> , 2020 , 16, e2001812	11	43
70	Mesoporous boron-doped onion-like carbon as long-life oxygen electrode for sodium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 6610-6619	13	39
69	Honeycomb-like Ni ₃ S ₂ supported on Ni foam as high performance free-standing cathode for lithium oxygen batteries. <i>Electrochimica Acta</i> , 2018 , 290, 657-665	6.7	37

68	Morphology regulation of Li ₂ O ₂ by flower-like ZnCo ₂ S ₄ enabling high performance Li-O ₂ battery. <i>Journal of Power Sources</i> , 2019 , 441, 227168	8.9	33
67	Interface-engineered metallic 1T-MoS ₂ nanosheet array induced via palladium doping enabling catalysis enhancement for lithium-oxygen battery. <i>Chemical Engineering Journal</i> , 2020 , 382, 122854	14.7	31
66	Studies on palladium coated titanium foams cathode for Mg-H ₂ O ₂ fuel cells. <i>Journal of Power Sources</i> , 2012 , 208, 159-164	8.9	29
65	Three-dimensional CoNi ₂ S ₄ nanorod arrays anchored on carbon textiles as an integrated cathode for high-rate and long-life Lithium-Oxygen battery. <i>Electrochimica Acta</i> , 2019 , 301, 69-79	6.7	26
64	High performance cathode based on carbon fiber felt for magnesium-air fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 5885-5893	6.7	26
63	Heteroatom-Induced Electronic Structure Modulation of Vertically Oriented Oxygen Vacancy-Rich NiFe Layered Double Oxide Nanoflakes To Boost Bifunctional Catalytic Activity in Li-O Battery. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 29868-29878	9.5	25
62	Catalytic Activity Boosting of Nickel Sulfide toward Oxygen Evolution Reaction via Confined Overdoping Engineering. <i>ACS Applied Energy Materials</i> , 2019 , 2, 5363-5372	6.1	24
61	Component-Interaction Reinforced Quasi-Solid Electrolyte with Multifunctionality for Flexible Li-O Battery with Superior Safety under Extreme Conditions. <i>Small</i> , 2019 , 15, e1804701	11	24
60	Improved Cyclability of Lithium-Oxygen Batteries by Synergistic Catalytic Effects of Two-Dimensional MoS ₂ Nanosheets Anchored on Hollow Carbon Spheres. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 6929-6938	8.3	22
59	3D Array of Bi ₂ S ₃ Nanorods Supported on Ni Foam as a Highly Efficient Integrated Oxygen Electrode for the Lithium-Oxygen Battery. <i>Particle and Particle Systems Characterization</i> , 2018 , 35, 1700433	7.1	22
58	Enhanced cyclability of rechargeable Li-O ₂ batteries enabled by boron carbide. <i>RSC Advances</i> , 2015 , 5, 103019-103022	3.7	21
57	Ni ₃ Se ₂ /NiSe ₂ heterostructure nanoforests as an efficient bifunctional electrocatalyst for high-capacity and long-life Li-O ₂ batteries. <i>Journal of Power Sources</i> , 2020 , 468, 228308	8.9	20
56	Long-cycling lithium-oxygen batteries enabled by tailoring Li nucleation and deposition via lithiophilic oxygen vacancy in Vo-TiO ₂ /Ti ₃ C ₂ T _x composite anodes. <i>Journal of Energy Chemistry</i> , 2022 , 65, 654-665	12	20
55	A 3D free-standing Co doped NiP nanowire oxygen electrode for stable and long-life lithium-oxygen batteries. <i>Nanoscale</i> , 2020 , 12, 6785-6794	7.7	19
54	Phosphorus vacancies enriched Ni ₂ P nanosheets as efficient electrocatalyst for high-performance Li-O ₂ batteries. <i>Electrochimica Acta</i> , 2020 , 337, 135795	6.7	19
53	Tuning the electronic band structure of Mott-Schottky heterojunctions modified with surface sulfur vacancy achieves an oxygen electrode with high catalytic activity for lithium-oxygen batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 11337-11345	13	17
52	Three-Dimensional Flower-Like MoS ₂ @Carbon Nanotube Composites with Interconnected Porous Networks and High Catalytic Activity as Cathode for Lithium-Oxygen Batteries. <i>ChemElectroChem</i> , 2018 , 5, 2816-2824	4.3	17
51	Unique intermediate adsorption enabled by anion vacancies in metal sulfide embedded MXene nanosheets overcoming kinetic barriers of oxygen electrode reactions in lithium-oxygen batteries. <i>Energy Storage Materials</i> , 2021 , 40, 41-50	19.4	16

50	Two-dimensional spinel CuCo ₂ S ₄ nanosheets as high efficiency cathode catalyst for lithium-oxygen batteries. <i>Journal of Alloys and Compounds</i> , 2019 , 798, 560-567	5.7	15
49	Configuration of gradient-porous ultrathin FeCoS nanosheets vertically aligned on Ni foam as a noncarbonaceous freestanding oxygen electrode for lithium-oxygen batteries. <i>Nanoscale</i> , 2020 , 12, 1864-1874 ¹⁵	7.7	15
48	Modulating electronic structure of honeycomb-like Ni ₂ P/Ni ₁₂ P ₅ heterostructure with phosphorus vacancies for highly efficient lithium-oxygen batteries. <i>Chemical Engineering Journal</i> , 2021 , 413, 127404	14.7	15
47	Cobalt encapsulated within porous MOF-derived nitrogen-doped carbon as an efficient bifunctional electrocatalyst for aprotic lithium-oxygen battery. <i>Journal of Alloys and Compounds</i> , 2019 , 810, 151877	5.7	14
46	Optimized orbital occupancy of transition metal in spinel Ni-Co oxides with heteroatom doping for Aprotic Li-O ₂ battery. <i>Chemical Engineering Journal</i> , 2022 , 430, 132977	14.7	12
45	NiCo ₂ S ₄ Nanorod Arrays Supported on Carbon Textile as a Free-Standing Electrode for Stable and Long-Life Lithium-Oxygen Batteries. <i>ChemElectroChem</i> , 2019 , 6, 349-358	4.3	12
44	Ferroelectric polarization accelerates lithium-ion diffusion for dendrite-free and highly-practical lithium-metal batteries. <i>Nano Energy</i> , 2021 , 79, 105481	17.1	12
43	Excellent electrolyte-electrode interface stability enabled by inhibition of anion mobility in hybrid gel polymer electrolyte based LiO ₂ batteries. <i>Journal of Membrane Science</i> , 2020 , 604, 118051	9.6	11
42	Suppressing dendrite growth and side reactions on Zn metal anode via guiding interfacial anion/cation/H ₂ O distribution by artificial multi-functional interface layer. <i>Energy Storage Materials</i> , 2021 , 44, 452-452	19.4	11
41	3D Printed LiS Batteries with In Situ Decorated Li ₂ S/C Cathode: Interface Engineering Induced Loading-Insensitivity for Scaled Areal Performance. <i>Advanced Energy Materials</i> , 2021 , 11, 2100420	21.8	11
40	Shape-controlled porous carbon from calcium citrate precursor and their intriguing application in lithium-ion batteries. <i>Ionics</i> , 2017 , 23, 2301-2310	2.7	10
39	Defect regulation of heterogeneous nickel-based oxides via interfacial engineering for long-life lithium-oxygen batteries. <i>Electrochimica Acta</i> , 2019 , 321, 134716	6.7	10
38	In Situ/Operando Raman Techniques in LithiumSulfur Batteries. <i>Small Structures</i> , 2100170	8.7	10
37	Anionic vacancy-dependent activity of the CoSe ₂ with a tunable interfacial electronic structure on the N-doped carbon cloth for advanced LiO ₂ batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 16636-16648 ¹⁰	12.6	10
36	Invigorating the Catalytic Activity of Cobalt Selenide via Structural Phase Transition Engineering for LithiumOxygen Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 5018-5027	8.3	8
35	Strong intermolecular polarization to boost polysulfide conversion kinetics for high-performance lithiumSulfur batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 9771-9779	13	8
34	Dendrite-Free Solid-State LiO ₂ Batteries Enabled by OrganicInorganic Interaction Reinforced Gel Polymer Electrolyte. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 17362-17371	8.3	7
33	Multifunctional Selenium Vacancy Coupling with Interface Engineering Enables High-Stability LiO ₂ Battery. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 6667-6674	8.3	7

32	A-site cationic defects induced electronic structure regulation of LaMnO ₃ perovskite boosts oxygen electrode reactions in aprotic lithium-oxygen batteries. <i>Energy Storage Materials</i> , 2021 , 43, 293-304	19.4	7
31	Adjusting the Covalency of Metal-Oxygen Bonds in LaCoO ₃ by Sr and Fe Cation Codoping to Achieve Highly Efficient Electrocatalysts for Aprotic Lithium-Oxygen Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 33133-33146	9.5	6
30	Modulating Solid time by ion-transport-enhancement toward dendrite-free lithium metal anode. <i>Nano Research</i> , 2021 , 14, 111-118	10	6
29	Surface atomic modulation of CoP bifunctional catalyst for high performance Li-O battery enabled by high-index (211) facets. <i>Journal of Colloid and Interface Science</i> , 2021 , 601, 114-123	9.3	6
28	Promoting the Electrocatalytic Activity of Ti ₃ C ₂ T _x MXene by Modulating CO ₂ Adsorption through Oxygen Vacancies for High-Performance Lithium-Carbon Dioxide Batteries. <i>ChemElectroChem</i> , 2020 , 7, 4922-4930	4.3	5
27	Interfacial electronic structure design of MXene-based electrocatalyst via vacancy modulation for lithium-oxygen battery. <i>Carbon</i> , 2020 , 166, 273-283	10.4	5
26	Interfacial engineering of polypropylene separator with outstanding high-temperature stability for highly safe and stable lithium-sulfur batteries. <i>Electrochemistry Communications</i> , 2021 , 125, 106971	5.1	5
25	Adjusting the d-band center of metallic sites in NiFe-based Bimetal-organic frameworks via tensile strain to achieve High-performance oxygen electrode catalysts for Lithium-oxygen batteries. <i>Journal of Colloid and Interface Science</i> , 2022 , 607, 1215-1225	9.3	5
24	Cationic vanadium vacancy-enriched V ₂ O ₅ on V ₂ C MXene as superior bifunctional electrocatalysts for LiO ₂ batteries. <i>Science China Materials</i> , 2021 , 14, 111-118	7.1	5
23	3D porous network gel polymer electrolyte with high transference number for dendrite-free LiO ₂ batteries. <i>Solid State Ionics</i> , 2019 , 343, 115088	3.3	4
22	Manipulating the ion-transference and deposition kinetics by regulating the surface chemistry of zinc metal anodes for rechargeable zinc-air batteries. <i>Green Energy and Environment</i> , 2021 , 6, 111-118	5.7	4
21	Oxygen vacancy engineering of vertically aligned NiO nanosheets for effective CO ₂ reduction and capture in Li-CO ₂ battery. <i>Electrochimica Acta</i> , 2021 , 383, 138359	6.7	4
20	Coupling enhancement mechanisms, materials, and strategies for surface-enhanced Raman scattering devices. <i>Analyst</i> , 2021 , 146, 5008-5032	5	4
19	Mapping Techniques for the Design of Lithium-Sulfur Batteries.. <i>Small</i> , 2022 , e2106657	11	3
18	Synergistic Effect of Microstructure Engineering and Local Crystal Structure Tuning to Improve the Cycling Stability of Ni-Rich Cathodes. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 48720-48729	9.5	3
17	Iron doped CoP nanowires on carbon cloth: An efficient and stable electrocatalyst for LiO ₂ battery. <i>Journal of Alloys and Compounds</i> , 2020 , 820, 153086	5.7	3
16	Low Field Gradient and Highly Enhanced Plasmonic Nanocavity Array for Supersensitive Determination of Multiple Hazardous Chemical Residues. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 4710-4719	2.8	3
15	Two-Dimensional Boron-Rich Monolayer BN as High Capacity for Lithium-Ion Batteries: A First-Principles Study. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 41169-41181	9.5	3

14	Ion-Inserted Metal-Organic Frameworks Accelerate the Mass Transfer Kinetics in Lithium-Sulfur Batteries. <i>Small</i> , 2021 , 17, e2104367	11	3
13	Interfacial Electron Redistribution of Hydrangea-like NiO@Ni P Heterogeneous Microspheres with Dual-Phase Synergy for High-Performance Lithium-Oxygen Battery.. <i>Small</i> , 2022 , e2106707	11	2
12	NiSe ₂ @NiO heterostructure with optimized electronic structure as efficient electrocatalyst for lithium-oxygen batteries. <i>Journal of Alloys and Compounds</i> , 2022 , 901, 163703	5.7	2
11	Rationalizing Surface Electronic Configuration of Ni-Fe LDO by Introducing Cationic Nickel Vacancies as Highly Efficient Electrocatalysts for Lithium-Oxygen Batteries. <i>Small</i> , 2021 , e2104349	11	2
10	Interfacial interaction between molybdenum phosphide and N, P co-doped hollow carbon fibers boosting the oxygen electrode reactions in zinc-air batteries. <i>Electrochimica Acta</i> , 2021 , 395, 139211	6.7	2
9	Rationalizing the effect of surface electronic structure on oxygen electrocatalyst for high performance lithium-oxygen battery. <i>Electrochimica Acta</i> , 2022 , 407, 139891	6.7	1
8	A multifunctional protective layer with biomimetic ionic channel suppressing dendrite and side reactions on zinc metal anodes.. <i>Journal of Colloid and Interface Science</i> , 2022 , 613, 136-145	9.3	1
7	Modulating in-plane electron density of molybdenum diselenide via spontaneously atomic-scale palladium doping enables high performance lithium oxygen batteries. <i>Journal of Alloys and Compounds</i> , 2021 , 855, 157484	5.7	1
6	Creating low coordination atoms on MoS ₂ /NiS ₂ heterostructure toward modulating the adsorption of oxygenated intermediates in lithium-oxygen batteries. <i>Chemical Engineering Journal</i> , 2022 , 442, 136311	14.7	1
5	Synergy of cobalt vacancies and iron doping in cobalt selenide to promote oxygen electrode reactions in lithium-oxygen batteries.. <i>Journal of Colloid and Interface Science</i> , 2021 , 612, 171-180	9.3	0
4	Boosted Li transference number enabled interfacial engineering for dendrite-free lithium metal anodes. <i>Chemical Communications</i> , 2021 , 57, 12687-12690	5.8	0
3	Tuning the Unsaturated Coordination Center of Electrocatalysts toward High-Performance Lithium Oxygen Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 7499-7507	8.3	0
2	Observation of itinerant ferromagnetism and coupled magnetoresistance in a spinel CuCo ₂ S ₄ . <i>Journal of Materials Chemistry C</i> , 2021 , 9, 8874-8881	7.1	0
1	Active site synergy of the mixed-phase cobalt diselenides with slight lattice distortion for highly reversible and stable lithium oxygen batteries. <i>Journal of Materials Science and Technology</i> , 2021 , 92, 159-170	9.1	0