Yong-Peng Lei

List of Publications by Year
in descending order

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85 papers	7,308 citations	61984 43 h-index	58581 82 g-index
87 all docs	87 docs citations	87 times ranked	7365 citing authors

#	Article	IF	Citations
1	Pyridinic-N-Dominated Doped Defective Graphene as a Superior Oxygen Electrocatalyst for Ultrahigh-Energy-Density Znâ€“Air Batteries. ACS Energy Letters, 2018, 3, 1183-1191.	17.4	456
2	Defect engineering in earth-abundant electrocatalysts for CO₂ and N₂ reduction. Energy and Environmental Science, 2019, 12, 1730-1750.	30.8	439
3	Potassium vanadates with stable structure and fast ion diffusion channel as cathode for rechargeable aqueous zinc-ion batteries. Nano Energy, 2018, 51, 579-587.	16.0	425
4	Metal Organic Framework-Templated Synthesis of Bimetallic Selenides with Rich Phase Boundaries for Sodium-Ion Storage and Oxygen Evolution Reaction. ACS Nano, 2019, 13, 5635-5645.	14.6	400
5	Fe/Fe₃C@C nanoparticles encapsulated in N-doped grapheneâ€“CNTs framework as an efficient bifunctional oxygen electrocatalyst for robust rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2018, 6, 516-526.	10.3	366
6	Engineering Dual Singleâ€Atom Sites on 2D Ultrathin Nâ€doped Carbon Nanosheets Attaining Ultraâ€Lowâ€Temperature Zincâ€Air Battery. Angewandte Chemie - International Edition, 2022, 61, .	13.8	355
7	Engineering the Atomic Interface with Single Platinum Atoms for Enhanced Photocatalytic Hydrogen Production. Angewandte Chemie - International Edition, 2020, 59, 1295-1301.	13.8	344
8	In situ synthesis of graphitic-C3N4 nanosheet hybridized N-doped TiO2 nanofibers for efficient photocatalytic H2 production and degradation. Nano Research, 2015, 8, 1199-1209.	10.4	292
9	Designing Atomic Active Centers for Hydrogen Evolution Electrocatalysts. Angewandte Chemie - International Edition, 2020, 59, 20794-20812.	13.8	257
10	Single Atom Catalysts for Fuel Cells and Rechargeable Batteries: Principles, Advances, and Opportunities. ACS Nano, 2021, 15, 210-239.	14.6	199
11	Regulating the coordination structure of metal single atoms for efficient electrocatalytic CO₂ reduction. Energy and Environmental Science, 2020, 13, 4609-4624.	30.8	188
12	Atomic-scale engineering of chemical-vapor-deposition-grown 2D transition metal dichalcogenides for electrocatalysis. Energy and Environmental Science, 2020, 13, 1593-1616.	30.8	166
13	Confining ultrasmall bimetallic alloys in porous Nâ€“carbon for use as scalable and sustainable electrocatalysts for rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2019, 7, 12451-12456.	10.3	128
14	Quasi-solid-state Zn-air batteries with an atomically dispersed cobalt electrocatalyst and organohydrogel electrolyte. Nature Communications, 2022, 13, .	12.8	127
15	Boosting interfacial charge transfer for alkaline hydrogen evolution via rational interior Se modification. Nano Energy, 2021, 81, 105641.	16.0	118
16	N-doped defective carbon with trace Co for efficient rechargeable liquid electrolyte-/all-solid-state Zn-air batteries. Science Bulletin, 2018, 63, 548-555.	9.0	117
17	Electrospun Inorganic Nanofibers for Oxygen Electrocatalysis: Design, Fabrication, and Progress. Advanced Energy Materials, 2020, 10, 1902115.	19.5	111
18	Edge Defect Engineering of Nitrogen-Doped Carbon for Oxygen Electrocatalysts in Znâ€“Air Batteries. ACS Applied Materials & Interfaces, 2018, 10, 29448-29456.	8.0	110

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19	Enhanced photocatalytic CO2-reduction activity of electrospun mesoporous TiO2 nanofibers by solvothermal treatment. Dalton Transactions, 2014, 43, 9158.	3.3	105
20	NiCoP nanoleaves array for electrocatalytic alkaline H2 evolution and overall water splitting. Journal of Energy Chemistry, 2020, 50, 395-401.	12.9	103
21	One-stone, two birds: Alloying effect and surface defects induced by Pt on Cu2â^'xSe nanowires to boost C-C bond cleavage for electrocatalytic ethanol oxidation. Nano Energy, 2021, 88, 106307.	16.0	99
22	Engineering of Electronic States on Co₃O₄ Ultrathin Nanosheets by Cation Substitution and Anion Vacancies for Oxygen Evolution Reaction. Small, 2020, 16, e2001571.	10.0	98
23	Hierarchically porous SiC ultrathin fibers mat with enhanced mass transport, amphipathic property and high-temperature erosion resistance. Journal of Materials Chemistry A, 2014, 2, 20873-20881.	10.3	86
24	Charge Engineering of Mo2C@Defect-Rich N-Doped Carbon Nanosheets for Efficient Electrocatalytic H2 Evolution. Nano-Micro Letters, 2019, 11, 45.	27.0	86
25	Mesoporous silicon carbide nanofibers with in situ embedded carbon for co-catalyst free photocatalytic hydrogen production. Nano Research, 2016, 9, 886-898.	10.4	85
26	Facile synthesis of FeCo@NC coreâ€“shell nanospheres supported on graphene as an efficient bifunctional oxygen electrocatalyst. Nano Research, 2017, 10, 2332-2343.	10.4	85
27	Carbon nanotube-encapsulated cobalt for oxygen reduction: integration of space confinement and N-doping. Chemical Communications, 2019, 55, 14801-14804.	4.1	85
28	Trimetallic oxyhydroxides as active sites for large-current-density alkaline oxygen evolution and overall water splitting. Journal of Materials Science and Technology, 2022, 110, 128-135.	10.7	81
29	Combined Electron and Structure Manipulation on Fe-Containing N-Doped Carbon Nanotubes To Boost Bifunctional Oxygen Electrocatalysis. ACS Applied Materials & Interfaces, 2018, 10, 35888-35895.	8.0	77
30	Vertical SnO₂ nanosheet@SiC nanofibers with hierarchical architecture for high-performance gas sensors. Journal of Materials Chemistry C, 2016, 4, 295-304.	5.5	75
31	Biomass Waste-Derived 3D Metal-Free Porous Carbon as a Bifunctional Electrocatalyst for Rechargeable Zincâ€“Air Batteries. ACS Sustainable Chemistry and Engineering, 2019, 7, 17039-17046.	6.7	74
32	N-doped graphene grown on silk cocoon-derived interconnected carbon fibers for oxygen reduction reaction and photocatalytic hydrogen production. Nano Research, 2016, 9, 2498-2509.	10.4	70
33	Three-dimensional (3D) interconnected networks fabricated via in-situ growth of N-doped graphene/carbon nanotubes on Co-containing carbon nanofibers for enhanced oxygen reduction. Nano Research, 2016, 9, 317-328.	10.4	70
34	Potential active sites of Mo single atoms for electrocatalytic reduction of N2. Chinese Chemical Letters, 2021, 32, 53-56.	9.0	66
35	Electrospun interconnected Fe-N/C nanofiber networks as efficient electrocatalysts for oxygen reduction reaction in acidic media. Scientific Reports, 2015, 5, 17396.	3.3	65
36	Engineering the Atomic Interface with Single Platinum Atoms for Enhanced Photocatalytic Hydrogen Production. Angewandte Chemie, 2020, 132, 1311-1317.	2.0	59

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37	Biomass in situ conversion to Fe single atomic sites coupled with Fe₂O₃ clusters embedded in porous carbons for the oxygen reduction reaction. Journal of Materials Chemistry A, 2020, 8, 20629-20636.	10.3	54
38	Electron accumulation enables Bi efficient CO2 reduction for formate production to boost clean Zn-CO2 batteries. Nano Energy, 2022, 92, 106780.	16.0	54
39	Highly efficient oxygen evolution and stable water splitting by coupling NiFe LDH with metal phosphides. Science China Materials, 2021, 64, 1662-1670.	6.3	52
40	Defect-engineered 2D/2D hBN/g-C3N4 Z-scheme heterojunctions with full visible-light absorption: Efficient metal-free photocatalysts for hydrogen evolution. Applied Surface Science, 2021, 547, 149207.	6.1	51
41	Large-scale, flexible and high-temperature resistant ZrO₂/SiC ultrafine fibers with a radial gradient composition. Journal of Materials Chemistry A, 2014, 2, 9607-9612.	10.3	49
42	In Situâ€Fabricated 2D/2D Heterojunctions of Ultrathin SiC/Reduced Graphene Oxide Nanosheets for Efficient CO₂ Photoreduction with High CH₄ Selectivity. ChemSusChem, 2018, 11, 4237-4245.	6.8	48
43	Bimetallic chalcogenides for electrocatalytic CO2 reduction. Rare Metals, 2021, 40, 3442-3453.	7.1	47
44	Phosphating-induced charge transfer on CoO/CoP interface for alkaline H2 evolution. Chinese Chemical Letters, 2021, 32, 3355-3358.	9.0	45
45	Nâ€Doped 3D Carbon Aerogel with Trace Fe as an Efficient Catalyst for the Oxygen Reduction Reaction. ChemElectroChem, 2017, 4, 514-520.	3.4	43
46	Rational designed Co@N-doped carbon catalyst for high-efficient H2S selective oxidation by regulating electronic structures. Chemical Engineering Journal, 2020, 401, 126038.	12.7	43
47	Enhanced Selective H₂S Oxidation Performance on Mo₂C-Modified g-C₃N₄. ACS Sustainable Chemistry and Engineering, 2019, 7, 16257-16263.	6.7	39
48	Boron nitride by pyrolysis of the melt-processable poly[tris(methylamino)borane]: Structure, composition and oxidation resistance. Ceramics International, 2012, 38, 271-276.	4.8	37
49	Ultra-thin Cu₂S nanosheets: effective cocatalysts for photocatalytic hydrogen production. Chemical Communications, 2015, 51, 13305-13308.	4.1	35
50	Nearly stoichiometric BN fiber with low dielectric constant derived from poly[(alkylamino)borazine]. Materials Letters, 2011, 65, 157-159.	2.6	34
51	B, N-codoped 3D micro-/mesoporous carbon nanofibers web as efficient metal-free catalysts for oxygen reduction. Current Applied Physics, 2015, 15, 1606-1614.	2.4	34
52	Accelerating charge transfer to enhance H₂ evolution of defect-rich CoFe₂O₄ by constructing a Schottky junction. Chemical Communications, 2020, 56, 14019-14022.	4.1	34
53	Growth of TiO2 nanostructures exposed {001} and {110} facets on SiC ultrafine fibers for enhanced gas sensing performance. Sensors and Actuators B: Chemical, 2018, 276, 57-64.	7.8	32
54	TpyCo²⁺â€Based Coordination Polymers by Waterâ€Induced Gelling Trigged Efficient Oxygen Evolution Reaction. Advanced Functional Materials, 2020, 30, 2000593.	14.9	31

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55	Low-temperature resistant gel polymer electrolytes for zincâ€“air batteries. Journal of Materials Chemistry A, 2022, 10, 19304-19319.	10.3	31
56	Flexible Nâ€“doped TiO2/C ultrafine fiber mat and its photocatalytic activity under simulated sunlight. Applied Surface Science, 2014, 319, 136-142.	6.1	30
57	Novel processable precursor for BN by the polymer-derived ceramics route. Ceramics International, 2011, 37, 3005-3009.	4.8	28
58	Sublayer-enhanced atomic sites of single atom catalysts through in situ atomization of metal oxide nanoparticles. Energy and Environmental Science, 2022, 15, 1183-1191.	30.8	25
59	Bismuth with abundant defects for electrocatalytic CO₂ reduction and Znâ€“CO₂ batteries. Chemical Communications, 2022, 58, 3621-3624.	4.1	25
60	Influence of pyrolysis conditions on fabrication of polymer-derived BN fiber for wave transparent application. Composites Part B: Engineering, 2013, 51, 254-259.	12.0	24
61	Black Phosphorus/TiO₂ Composite Photoanode with Enhanced Photoelectrical Performance. ChemElectroChem, 2017, 4, 2373-2377.	3.4	24
62	Engineering Dual Singleâ€Atom Sites on 2D Ultrathin Nâ€doped Carbon Nanosheets Attaining Ultraâ€Lowâ€Temperature Zincâ€Air Battery. Angewandte Chemie, 0, , .	2.0	24
63	Atmosphere influence in the pyrolysis of poly[(alkylamino)borazine] for the production of BN fibers. Ceramics International, 2013, 39, 6847-6851.	4.8	21
64	A simply prepared flexible SiBOC ultrafine fiber mat with enhanced high-temperature stability and chemical resistance. RSC Advances, 2015, 5, 64911-64917.	3.6	20
65	Scalable in situ growth of SnO2 nanoparticle chains on SiC ultrathin fibers via a facile solâ€“gel-flame method. Applied Surface Science, 2015, 335, 208-212.	6.1	19
66	The functionality of surface hydroxyls on selective CH₄ generation from photoreduction of CO₂ over SiC nanosheets. Chemical Communications, 2019, 55, 1572-1575.	4.1	19
67	Nearly stoichiometric BN fiber by curing and thermolysis of a novel poly[(alkylamino)borazine]. Ceramics International, 2011, 37, 1795-1800.	4.8	18
68	Design aktiver atomarer Zentren fÃ¼r HERâ€Elektrokatalysatoren. Angewandte Chemie, 2020, 132, 20978-20998.	2.0	18
69	Oxygen-rich carbon-nitrogen quantum dots as cocatalysts for enhanced photocatalytic H 2 production activity of TiO 2 nanofibers. Progress in Natural Science: Materials International, 2017, 27, 333-337.	4.4	17
70	Tailoring of Porous Structure in Macro-Meso-Microporous SiC Ultrathin FibersviaElectrospinning Combined with Polymer-Derived Ceramics Route. Materials and Manufacturing Processes, 2016, 31, 1357-1365.	4.7	16
71	Astridia velutina-like S, N-codoped hierarchical porous carbon from silk cocoon for superior oxygen reduction reaction. RSC Advances, 2016, 6, 73560-73565.	3.6	15
72	Ultrathin SiC Nanosheets with High Reduction Potential for Improved CH₄ Generation from Photocatalytic Reduction of CO₂. ChemistrySelect, 2019, 4, 2211-2217.	1.5	15

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73	Modification of hierarchically porous SiC ultrafine fibers with tunable nitrogen-containing surface. Ceramics International, 2016, 42, 5368-5374.	4.8	13
74	Deep oxidization of glucose driven by 4-acetamido-TEMPO for a glucose fuel cell at room temperature. Chemical Communications, 2021, 57, 4051-4054.	4.1	13
75	Boosting oxygen-reduction catalysis over mononuclear CuN2+2 moiety for rechargeable Zn-air battery. Chemical Engineering Journal, 2022, 430, 133105.	12.7	12
76	Effect of molecular monomer structure on the composition and properties of BN via the preceramic polymer route. Materials Letters, 2011, 65, 1111-1113.	2.6	10
77	Preparation and photocatalytic activity of Nâ€“Ag co-doped TiO2/C porous ultrafine fibers mat. Ceramics International, 2014, 40, 2017-2022.	4.8	10
78	Pyrolysis behavior of poly[(n-propylamino/methylamino)borazine]. Ceramics International, 2012, 38, 4745-4749.	4.8	7
79	Ammonia curing behavior of poly[(alkylamino)borazine] fiber. Materials Letters, 2012, 71, 91-93.	2.6	7
80	Effect of Temperature on the Composition and Properties of Poly[(alkylamino)borazine] Precursor to Boron Nitride. Journal of Macromolecular Science - Physics, 2013, 52, 1427-1437.	1.0	5
81	Electrodeposition of the manganese-doped nickel-phosphorus catalyst with enhanced hydrogen evolution reaction activity and durability. International Journal of Hydrogen Energy, 2022, 47, 41994-42000.	7.1	4
82	Preparation and characterization of Schiff base metal complexes for high performance supercapattery. Journal of Energy Storage, 2022, 48, 103956.	8.1	3
83	Multi-TpyCo²⁺-based conductive supramolecular hydrogels constructed by â€œbridge bondâ€• for ultrastable rechargeable Zn-air battery over 1100 h. Journal of Materials Chemistry A, 0, , .	10.3	3
84	Influence of Monomer Structures on the High Temperature Properties of	0.2	1
85	A Novel Liquid Poly[(Alkylamino)Borazine] for Boron Nitride. Materials and Manufacturing Processes, 2012, 28, 14-18.	4.7	0