Fei Sun

List of Publications by Year
in descending order

73 papers	3,281 citations	109137 35 h-index	155451 55 g-index
74 all docs	74 docs citations	74 times ranked	3532 citing authors

#	Article	IF	Citations
1	In Situ High-Level Nitrogen Doping into Carbon Nanospheres and Boosting of Capacitive Charge Storage in Both Anode and Cathode for a High-Energy 4.5 V Full-Carbon Lithium-Ion Capacitor. Nano Letters, 2018, 18, 3368-3376.	4.5	163
2	In Situ Doping Boron Atoms into Porous Carbon Nanoparticles with Increased Oxygen Graft Enhances both Affinity and Durability toward Electrolyte for Greatly Improved Supercapacitive Performance. Advanced Functional Materials, 2018, 28, 1804190.	7.8	149
3	Carboxylâ€Dominant Oxygen Rich Carbon for Improved Sodium Ion Storage: Synergistic Enhancement of Adsorption and Intercalation Mechanisms. Advanced Energy Materials, 2021, 11, .	10.2	133
4	Regenerative Polysulfide-Scavenging Layers Enabling Lithiumâ€“Sulfur Batteries with High Energy Density and Prolonged Cycling Life. ACS Nano, 2017, 11, 2697-2705.	7.3	132
5	Hierarchical porous carbon derived from wood tar using crab as the template: Performance on supercapacitor. Journal of Power Sources, 2020, 455, 227982.	4.0	122
6	Selective H2O2 electrosynthesis by O-doped and transition-metal-O-doped carbon cathodes via O2 electroreduction: A critical review. Chemical Engineering Journal, 2021, 410, 128368.	6.6	110
7	High performance aqueous supercapacitor based on highly nitrogen-doped carbon nanospheres with unimodal mesoporosity. Journal of Power Sources, 2017, 337, 189-196.	4.0	99
8	A green trace K2CO3 induced catalytic activation strategy for developing coal-converted activated carbon as advanced candidate for CO2 adsorption and supercapacitors. Chemical Engineering Journal, 2020, 383, 123205.	6.6	92
9	Fluorine-rich nanoporous carbon with enhanced surface affinity in organic electrolyte for high-performance supercapacitors. Nano Energy, 2016, 21, 80-89.	8.2	89
10	Controllable nitrogen introduction into porous carbon with porosity retaining for investigating nitrogen doping effect on SO 2 adsorption. Chemical Engineering Journal, 2016, 290, 116-124.	6.6	84
11	A high performance lithium ion capacitor achieved by the integration of a Sn-C anode and a biomass-derived microporous activated carbon cathode. Scientific Reports, 2017, 7, 40990.	1.6	79
12	Nitrogen-rich carbon spheres made by a continuous spraying process for high-performance supercapacitors. Nano Research, 2016, 9, 3209-3221.	5.8	78
13	Robust iron nanoparticles with graphitic shells for high-performance Ni-Fe battery. Nano Energy, 2016, 30, 217-224.	8.2	76
14	One-step ammonia activation of Zhundong coal generating nitrogen-doped microporous carbon for gas adsorption and energy storage. Carbon, 2016, 109, 747-754.	5.4	75
15	A systematic investigation of SO2 removal dynamics by coal-based activated cokes: The synergic enhancement effect of hierarchical pore configuration and gas components. Applied Surface Science, 2015, 357, 1895-1901.	3.1	73
16	Oxygen Functional Group Modification of Cellulose-Derived Hard Carbon for Enhanced Sodium Ion Storage. ACS Sustainable Chemistry and Engineering, 2019, 7, 18554-18565.	3.2	72
17	Porous carbon with a large surface area and an ultrahigh carbon purity via templating carbonization coupling with KOH activation as excellent supercapacitor electrode materials. Applied Surface Science, 2016, 387, 857-863.	3.1	70
18	The effect of nitrogen-containing functional groups on SO2 adsorption on carbon surface: Enhanced physical adsorption interactions. Surface Science, 2018, 677, 78-82.	0.8	66

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19	Post Iron Decoration of Mesoporous Nitrogenâ€Doped Carbon Spheres for Efficient Electrochemical Oxygen Reduction. Advanced Energy Materials, 2017, 7, 1701154.	10.2	65
20	Adsorption of SO2 by typical carbonaceous material: a comparative study of carbon nanotubes and activated carbons. Adsorption, 2013, 19, 959-966.	1.4	60
21	Converting biomass waste into microporous carbon with simultaneously high surface area and carbon purity as advanced electrochemical energy storage materials. Applied Surface Science, 2018, 436, 486-494.	3.1	58
22	Confined growth of small ZnO nanoparticles in a nitrogen-rich carbon framework: Advanced anodes for long-life Li-ion batteries. Carbon, 2017, 113, 46-54.	5.4	55
23	Inexpensive activated coke electrocatalyst for high-efficiency hydrogen peroxide production: Coupling effects of amorphous carbon cluster and oxygen dopant. Applied Catalysis B: Environmental, 2021, 286, 119860.	10.8	55
24	H₂O₂ Electrogeneration from O₂ Electroreduction by Nâ€Doped Carbon Materials: A Miniâ€Review on Preparation Methods, Selectivity of N Sites, and Prospects. Advanced Materials Interfaces, 2021, 8, 2002091.	1.9	54
25	Broadening the pore size of coal-based activated carbonviaa washing-free chem-physical activation method for high-capacity dye adsorption. RSC Advances, 2018, 8, 14488-14499.	1.7	51
26	Highlighting the role of nitrogen doping in enhancing CO₂ uptake onto carbon surfaces: a combined experimental and computational analysis. Journal of Materials Chemistry A, 2016, 4, 18248-18252.	5.2	48
27	Adjusting the Porosity of Coal-Based Activated Carbons Based on a Catalytic Physical Activation Process for Gas and Liquid Adsorption. Energy & Fuels, 2018, 32, 1255-1264.	2.5	46
28	A new insight into the SO₂ adsorption behavior of oxidized carbon materials using model adsorbents and DFT calculations. Physical Chemistry Chemical Physics, 2019, 21, 9181-9188.	1.3	46
29	The effect of functional groups on the SO 2 adsorption on carbon surface I: A new insight into noncovalent interaction between SO 2 molecule and acidic oxygen-containing groups. Applied Surface Science, 2016, 369, 552-557.	3.1	45
30	Electrolyte Interphase Built from Anionic Covalent Organic Frameworks for Lithium Dendrite Suppression. Advanced Functional Materials, 2021, 31, 2009718.	7.8	43
31	A new insight into the role of coal adsorbed water in low-temperature oxidation: EnhancedÂ·OH radical generation. Combustion and Flame, 2019, 208, 27-36.	2.8	42
32	Microwave Irradiation Induced High-Efficiency Regeneration for Desulfurized Activated Coke: A Comparative Study with Conventional Thermal Regeneration. Energy & Fuels, 2017, 31, 9693-9702.	2.5	41
33	Strongly coupled calcium carbonate/antioxidative graphite nanosheets composites with high cycling stability for thermochemical energy storage. Applied Energy, 2018, 231, 412-422.	5.1	41
34	Graphitic porous carbon with multiple structural merits for high-performance organic supercapacitor. Journal of Power Sources, 2020, 477, 228759.	4.0	39
35	High-energy Li-ion hybrid supercapacitor enabled by a long life N-rich carbon based anode. Electrochimica Acta, 2016, 213, 626-632.	2.6	37
36	Mechanism of SO2 adsorption and desorption on commercial activated coke. Korean Journal of Chemical Engineering, 2011, 28, 2218-2225.	1.2	35

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37	A novel melt infiltration method promoting porosity development of low-rank coal derived activated carbon as supercapacitor electrode materials. Journal of the Taiwan Institute of Chemical Engineers, 2018, 91, 588-596.	2.7	35
38	A facile trace potassium assisted catalytic activation strategy regulating pore topology of activated coke for combined removal of toluene/SO2/NO. Chemical Engineering Journal, 2020, 389, 124262.	6.6	35
39	Development of dense Ca-based, Al-stabilized composites with high volumetric energy density for thermochemical energy storage of concentrated solar power. Energy Conversion and Management, 2020, 221, 113201.	4.4	34
40	Effect of pore hierarchy and pore size on the combined adsorption of SO2 and toluene in activated coke. Fuel, 2019, 257, 116090.	3.4	33
41	Preparation of activated carbons for SO2 adsorption by CO2 and steam activation. Journal of the Taiwan Institute of Chemical Engineers, 2011, 43, 112-112.	2.7	32
42	Pulsed electrocatalysis enables the stabilization and activation of carbon-based catalysts towards H2O2 production. Applied Catalysis B: Environmental, 2022, 316, 121688.	10.8	32
43	Catalytic activation preparation of nitrogen-doped hierarchical porous bio-char for efficient adsorption of dichloromethane and toluene. Journal of Analytical and Applied Pyrolysis, 2021, 156, 105150.	2.6	28
44	Janus graphite felt cathode dramatically enhance the H2O2 yield from O2 electroreduction by the hydrophilicity-hydrophobicity regulation. Chemosphere, 2021, 278, 130382.	4.2	28
45	Producing elemental sulfur from SO2 by calcium loaded activated coke: Enhanced activity and selectivity. Chemical Engineering Journal, 2020, 401, 126022.	6.6	27
46	Hierarchical porous carbon sheets with compressed framework and optimized pore configuration for high-rate and long-term sodium and lithium ions storage. Carbon, 2019, 155, 166-175.	5.4	26
47	Pulsed electrocatalysis enables an efficient 2-electron oxygen reduction reaction for H₂O₂production. Journal of Materials Chemistry A, 2021, 9, 15948-15954.	5.2	25
48	Vapor deposition of aluminium oxide into N-rich mesoporous carbon framework as a reversible sulfur host for lithium-sulfur battery cathode. Nano Research, 2021, 14, 131-138.	5.8	24
49	Pore Reorganization of Porous Carbon during Trace Calcium-Catalyzed Coal Activation for Adsorption Applications. Energy & Fuels, 2018, 32, 9191-9201.	2.5	21
50	A new insight into SO₂ low-temperature catalytic oxidation in porous carbon materials: non-dissociated O₂ molecule as oxidant. Catalysis Science and Technology, 2019, 9, 4327-4338.	2.1	20
51	Novel method for regeneration/reactivation of spent dolomite-based sorbents from calcium looping cycles. Chemical Engineering Journal, 2019, 360, 148-156.	6.6	20
52	A high-rate and ultrastable anode enabled by boron-doped nanoporous carbon spheres for high-power and long life lithium ion capacitors. Materials Today Energy, 2018, 9, 428-439.	2.5	19
53	Natural template derived porous carbon nanoplate architectures with tunable pore configuration for a full-carbon sodium-ion capacitor. Journal of Materials Chemistry A, 2021, 9, 23607-23618.	5.2	19
54	Enhanced SO2 fluidized adsorption dynamic by hierarchically porous activated coke. Journal of the Energy Institute, 2020, 93, 802-810.	2.7	16

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55	Microcrystalline regulation of bituminous coal derived hard carbon by pre-oxidation strategy for improved sodium-ion storage. Fuel, 2022, 310, 122072.	3.4	16
56	Experimental and numerical studies on the heating mechanism of millimeter multi-particle system under microwave irradiation. Journal of the Energy Institute, 2022, 102, 216-228.	2.7	16
57	Synthesis and application in oxygen reduction reaction of N-doping porous graphitic carbon from biomass waste. Fuel Processing Technology, 2021, 224, 107028.	3.7	15
58	Characteristics and applications of micro fluidized beds (MFBs). Chemical Engineering Journal, 2022, 428, 131330.	6.6	15
59	Understanding the activity origin of oxygen-doped carbon materials in catalyzing the two-electron oxygen reduction reaction towards hydrogen peroxide generation. Journal of Colloid and Interface Science, 2022, 610, 934-943.	5.0	15
60	Preparation and characterization of activated carbons for SO2 adsorption from Taixi anthracite by physical activation with steam. Korean Journal of Chemical Engineering, 2011, 28, 2344-2350.	1.2	13
61	In-situ catalytic conversion of coal pyrolysis gas to nanoporous carbon rods and superior sodium ion storage performance. Fuel, 2020, 281, 118782.	3.4	13
62	Trace Na₂CO₃ Addition to Limestone Inducing High-Capacity SO₂ Capture. Environmental Science & Technology, 2017, 51, 12692-12698.	4.6	11
63	Activity origin of boron doped carbon cluster for thermal catalytic oxidation: Coupling effects of dopants and edges. Journal of Colloid and Interface Science, 2022, 613, 47-56.	5.0	11
64	Ultraviolet Raman spectra: The reasonable method of evaluating coal pyrolysis graphitization. AIP Advances, 2020, 10, .	0.6	10
65	Introducing catalytic gasification into chemical activation for the conversion of natural coal into hierarchically porous carbons with broadened pore size for enhanced supercapacitive utilization. RSC Advances, 2018, 8, 37880-37889.	1.7	9
66	The change of hydrogen bonding network during adsorption of multi-water molecules in lignite: Quantitative analysis based on AIM and DFT. Materials Chemistry and Physics, 2020, 247, 122863.	2.0	9
67	Tuning porosity of coal-derived activated carbons for CO2 adsorption. Frontiers of Chemical Science and Engineering, 2022, 16, 1345-1354.	2.3	9
68	One-step synergistic optimization of hierarchical pore topology and nitrogen dopants in activated coke for efficient catalytic oxidation of nitric oxide. Journal of Cleaner Production, 2022, 335, 130360.	4.6	8
69	High-Performance Battery Separator Made by Thermally Activated Metalâ€“Organic Frameworks. ACS Applied Energy Materials, 2022, 5, 5519-5524.	2.5	6
70	Hierarchical pore configuration in activated coke boosting direct desorption of desulfurization product H2SO4: A combined experimental and computational investigation. Fuel, 2021, 298, 120697.	3.4	5
71	Size-controllable templates for the synthesis of porous carbon with tunable pore configurations. Materials Letters, 2016, 175, 56-59.	1.3	3
72	Preparation and Characterization of Activated Carbons for SO2 Adsorption from Taixi Anthracite. , 2011, , .		0

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73	Effect of the presence of NaCl vapour on indirect sulphation of limestone. Fuel Processing Technology, 2017, 160, 39-46.	3.7	0