

Jihui Gao

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

1,695
citations

25
h-index

38
g-index

83
ext. papers

2,447
ext. citations

7.4
avg, IF

5.33
L-index

#	Paper	IF	Citations
77	Activity origin of boron doped carbon cluster for thermal catalytic oxidation: Coupling effects of dopants and edges.. <i>Journal of Colloid and Interface Science</i> , 2022 , 613, 47-56	9.3	0
76	One-step synergistic optimization of hierarchical pore topology and nitrogen dopants in activated coke for efficient catalytic oxidation of nitric oxide. <i>Journal of Cleaner Production</i> , 2022 , 335, 130360	10.3	0
75	Influence of minerals with different porous structures on thermochemical heat storage performance of CaCl ₂ -based composite sorbents. <i>Solar Energy Materials and Solar Cells</i> , 2022 , 243, 111769	6.4	1
74	Analysis of SO Physisorption by Edge-Functionalized Nanoporous Carbons Using Grand Canonical Monte Carlo Methods and Density Functional Theory: Implications for SO Removal.. <i>ACS Omega</i> , 2021 , 6, 33735-33746	3.9	1
73	Understanding the activity origin of oxygen-doped carbon materials in catalyzing the two-electron oxygen reduction reaction towards hydrogen peroxide generation. <i>Journal of Colloid and Interface Science</i> , 2021 ,	9.3	1
72	H ₂ O ₂ Electrogeneration from O ₂ Electroreduction by N-Doped Carbon Materials: A Mini-Review on Preparation Methods, Selectivity of N Sites, and Prospects. <i>Advanced Materials Interfaces</i> , 2021 , 8, 200209	4.6	9
71	Selective H ₂ O ₂ electrosynthesis by O-doped and transition-metal-O-doped carbon cathodes via O ₂ electroreduction: A critical review. <i>Chemical Engineering Journal</i> , 2021 , 410, 128368	14.7	36
70	Fe ³⁺ -mediated coal-assisted water electrolysis for hydrogen production: Roles of mineral matter and oxygen-containing functional groups in coal. <i>Energy</i> , 2021 , 220, 119677	7.9	6
69	O-doped Graphitic Granular Biochar Enables Pollutants Removal via Simultaneous HO Generation and Activation in Neutral Fe-free Electro-Fenton Process. <i>Separation and Purification Technology</i> , 2021 , 262,	8.3	4
68	Inexpensive activated coke electrocatalyst for high-efficiency hydrogen peroxide production: Coupling effects of amorphous carbon cluster and oxygen dopant. <i>Applied Catalysis B: Environmental</i> , 2021 , 286, 119860	21.8	20
67	Catalytic activation preparation of nitrogen-doped hierarchical porous bio-char for efficient adsorption of dichloromethane and toluene. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021 , 156, 105150	6	8
66	Carboxyl-Dominant Oxygen Rich Carbon for Improved Sodium Ion Storage: Synergistic Enhancement of Adsorption and Intercalation Mechanisms. <i>Advanced Energy Materials</i> , 2021 , 11, 200298	21.8	36
65	Vapor deposition of aluminium oxide into N-rich mesoporous carbon framework as a reversible sulfur host for lithium-sulfur battery cathode. <i>Nano Research</i> , 2021 , 14, 131-138	10	12
64	Pulsed electrocatalysis enables an efficient 2-electron oxygen reduction reaction for H ₂ O ₂ production. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 15948-15954	13	6
63	Scalable Production of EP/CaCl ₂ @C Multistage CoreShell Sorbent for Solar-Driven Sorption Heat Storage Application. <i>Energy & Fuels</i> , 2021 , 35, 6845-6857	4.1	5
62	Compressing Two-Dimensional Graphite-Nanosheet-Supported CaO for Optimizing Porous Structures toward High-Volumetric-Performance Heat Storage. <i>Energy & Fuels</i> , 2021 , 35, 10841-10849	4.1	6
61	Mechanism investigation of carboxyl functional groups catalytic oxidation in coal assisted water electrolysis cell. <i>Energy</i> , 2021 , 226, 120243	7.9	4

60	Janus graphite felt cathode dramatically enhance the H ₂ O ₂ yield from O ₂ electroreduction by the hydrophilicity-hydrophobicity regulation. <i>Chemosphere</i> , 2021 , 278, 130382	8.4	7
59	Coal-Assisted Water Electrolysis for Hydrogen Production: Evolution of Carbon Structure in Different-Rank Coal. <i>Energy & Fuels</i> , 2021 , 35, 3512-3520	4.1	4
58	Hydrothermal Co-Liquefaction of Lignite and Lignocellulosic Biomass with the Addition of Formic Acid: Study on Product Distribution, Characteristics, and Synergistic Effects. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 21663-21675	3.9	9
57	A facile trace potassium assisted catalytic activation strategy regulating pore topology of activated coke for combined removal of toluene/SO ₂ /NO. <i>Chemical Engineering Journal</i> , 2020 , 389, 124262	14.7	13
56	Recent Advances in Hydroliquefaction of Biomass for Bio-oil Production Using In Situ Hydrogen Donors. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 16987-17007	3.9	17
55	Energy-Saving Cathodic Hydrogen Production Enabled by Anodic Oxidation of Aqueous Sodium Sulfite Solutions. <i>Energy & Fuels</i> , 2020 , 34, 9058-9063	4.1	6
54	Oxidation of Zhundong subbituminous coal by Fe ²⁺ /H ₂ O ₂ system under mild conditions. <i>Korean Journal of Chemical Engineering</i> , 2020 , 37, 597-603	2.8	2
53	Development of pomegranate-type CaCl ₂ @C composites via a scalable one-pot pyrolysis strategy for solar-driven thermochemical heat storage. <i>Energy Conversion and Management</i> , 2020 , 212, 112694	10.6	10
52	Communication Oxalic Acid Assisted Water Electrolysis for Less Energy-Intensive Electrochemical Hydrogen Production. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 134503	3.9	3
51	A novel H ₂ O ₂ -persulfate hybrid system supported by electrochemically induced acidic and alkaline conditions for organic pollutant removal. <i>Journal of Applied Electrochemistry</i> , 2020 , 50, 791-797	2.6	1
50	High-performance CaO-based composites synthesized using a space-confined chemical vapor deposition strategy for thermochemical energy storage. <i>Solar Energy Materials and Solar Cells</i> , 2020 , 206, 110346	6.4	16
49	Development of dense Ca-based, Al-stabilized composites with high volumetric energy density for thermochemical energy storage of concentrated solar power. <i>Energy Conversion and Management</i> , 2020 , 221, 113201	10.6	11
48	In-situ catalytic conversion of coal pyrolysis gas to nanoporous carbon rods and superior sodium ion storage performance. <i>Fuel</i> , 2020 , 281, 118782	7.1	3
47	A green trace K ₂ CO ₃ induced catalytic activation strategy for developing coal-converted activated carbon as advanced candidate for CO ₂ adsorption and supercapacitors. <i>Chemical Engineering Journal</i> , 2020 , 383, 123205	14.7	51
46	Investigate the Role of Different Inherent Minerals in PEM Based Coal Assisted Water Electrolysis Cell. <i>Journal of the Electrochemical Society</i> , 2019 , 166, F949-F955	3.9	12
45	Efficient HO electrogeneration at graphite felt modified via electrode polarity reversal: Utilization for organic pollutants degradation. <i>Chemical Engineering Journal</i> , 2019 , 364, 428-439	14.7	41
44	"Self-cleaning" electrochemical regeneration of dye-loaded activated carbon. <i>Electrochemistry Communications</i> , 2019 , 100, 85-89	5.1	10
43	Pore Structure Modified CaO-Based Sorbents with Different Sized Templates for CO ₂ Capture. <i>Energy & Fuels</i> , 2019 , 33, 5398-5407	4.1	17

42	Hydrogen peroxide generation from O electroreduction for environmental remediation: A state-of-the-art review. <i>Chemosphere</i> , 2019 , 225, 588-607	8.4	99
41	A new insight into the SO adsorption behavior of oxidized carbon materials using model adsorbents and DFT calculations. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 9181-9188	3.6	24
40	Investigation of advanced NO oxidation process with the delivery of $\cdot\text{OH}$ from thermal decomposition of H_2O_2 . <i>Canadian Journal of Chemical Engineering</i> , 2019 , 97, 2419-2425	2.3	1
39	N-Doped Porous Carbon Derived by Direct Carbonization of Metal-Organic Complexes Crystal Materials for SO_2 Adsorption. <i>Crystal Growth and Design</i> , 2019 , 19, 1973-1984	3.5	21
38	A new insight into SO_2 low-temperature catalytic oxidation in porous carbon materials: non-dissociated O_2 molecule as oxidant. <i>Catalysis Science and Technology</i> , 2019 , 9, 4327-4338	5.5	9
37	Effect of pore hierarchy and pore size on the combined adsorption of SO_2 and toluene in activated coke. <i>Fuel</i> , 2019 , 257, 116090	7.1	18
36	Oxygen Functional Group Modification of Cellulose-Derived Hard Carbon for Enhanced Sodium Ion Storage. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 18554-18565	8.3	31
35	Activated carbon as effective cathode material in iron-free Electro-Fenton process: Integrated HO electrogeneration, activation, and pollutants adsorption. <i>Electrochimica Acta</i> , 2019 , 296, 317-326	6.7	68
34	Effects of oxygen functional groups and FeCl_3 on the evolution of physico-chemical structure in activated carbon obtained from Jixi bituminous coal.. <i>RSC Advances</i> , 2018 , 8, 8569-8579	3.7	8
33	Green electrochemical modification of RVC foam electrode and improved HO electrogeneration by applying pulsed current for pollutant removal. <i>Environmental Science and Pollution Research</i> , 2018 , 25, 6015-6025	5.1	21
32	Broadening the pore size of coal-based activated carbon a washing-free chem-physical activation method for high-capacity dye adsorption.. <i>RSC Advances</i> , 2018 , 8, 14488-14499	3.7	34
31	Development of highly effective $\text{CaO}@\text{Al}_2\text{O}_3$ with hierarchical architecture CO_2 sorbents via a scalable limited-space chemical vapor deposition technique. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 3462-3470	13	34
30	Adjusting the Porosity of Coal-Based Activated Carbons Based on a Catalytic Physical Activation Process for Gas and Liquid Adsorption. <i>Energy & Fuels</i> , 2018 , 32, 1255-1264	4.1	30
29	Drastic Enhancement of HO Electro-generation by Pulsed Current for Ibuprofen Degradation: Strategy Based on Decoupling Study on HO Decomposition Pathways. <i>Chemical Engineering Journal</i> , 2018 , 338, 709-718	14.7	40
28	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. <i>Nano Letters</i> , 2018 , 18, 3368-3376	11.5	118
27	Transformation and catalytic effects of sodium during coal pyrolysis. <i>International Journal of Energy Research</i> , 2018 , 42, 4131-4141	4.5	2
26	Highly efficient H_2O_2 electrogeneration from O_2 reduction by pulsed current: Facilitated release of H_2O_2 from porous cathode to bulk. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018 , 83, 59-63	5.3	20
25	Introducing catalytic gasification into chemical activation for the conversion of natural coal into hierarchically porous carbons with broadened pore size for enhanced supercapacitive utilization.. <i>RSC Advances</i> , 2018 , 8, 37880-37889	3.7	8

24	Strongly coupled calcium carbonate/antioxidative graphite nanosheets composites with high cycling stability for thermochemical energy storage. <i>Applied Energy</i> , 2018 , 231, 412-422	10.7	26
23	Nitrogen-Doped Microporous Carbons Derived from Pyridine Ligand-Based Metal-Organic Complexes as High-Performance SO Adsorption Sorbents. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 37407-37416	9.5	15
22	"Floating" cathode for efficient HO electrogeneration applied to degradation of ibuprofen as a model pollutant. <i>Electrochemistry Communications</i> , 2018 , 96, 37-41	5.1	29
21	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. <i>Advanced Functional Materials</i> , 2018 , 28, 1804190	15.6	101
20	Pore Reorganization of Porous Carbon during Trace Calcium-Catalyzed Coal Activation for Adsorption Applications. <i>Energy & Fuels</i> , 2018 , 32, 9191-9201	4.1	11
19	Rates of HO Electrogeneration by Reduction of Anodic O at RVC Foam Cathodes in Batch and Flow-through Cells. <i>Electrochimica Acta</i> , 2018 , 277, 185-196	6.7	29
18	Computer-Free Group-Addition Method for pKa Prediction of 73 Amines for CO ₂ Capture. <i>Journal of Chemical & Engineering Data</i> , 2017 , 62, 111-122	2.8	5
17	A high performance lithium ion capacitor achieved by the integration of a Sn-C anode and a biomass-derived microporous activated carbon cathode. <i>Scientific Reports</i> , 2017 , 7, 40990	4.9	62
16	Trace NaCO Addition to Limestone Inducing High-Capacity SO Capture. <i>Environmental Science & Technology</i> , 2017 , 51, 12692-12698	10.3	8
15	Microwave Irradiation Induced High-Efficiency Regeneration for Desulfurized Activated Coke: A Comparative Study with Conventional Thermal Regeneration. <i>Energy & Fuels</i> , 2017 , 31, 9693-9702	4.1	27
14	The role of quinone cycle in Fe-HO system in the regeneration of Fe. <i>Environmental Technology (United Kingdom)</i> , 2017 , 38, 1887-1896	2.6	21
13	One-step ammonia activation of Zhundong coal generating nitrogen-doped microporous carbon for gas adsorption and energy storage. <i>Carbon</i> , 2016 , 109, 747-754	10.4	53
12	Effect of char structures caused by varying the amount of FeCl ₃ on the pore development during activation. <i>RSC Advances</i> , 2016 , 6, 87478-87485	3.7	20
11	Highlighting the role of nitrogen doping in enhancing CO ₂ uptake onto carbon surfaces: a combined experimental and computational analysis. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 18248-18252	13	29
10	Controllable nitrogen introduction into porous carbon with porosity retaining for investigating nitrogen doping effect on SO ₂ adsorption. <i>Chemical Engineering Journal</i> , 2016 , 290, 116-124	14.7	58
9	Influence of a reagents addition strategy on the Fenton oxidation of rhodamine B: control of the competitive reaction of TDH. <i>RSC Advances</i> , 2016 , 6, 108791-108800	3.7	20
8	Nitrogen-rich carbon spheres made by a continuous spraying process for high-performance supercapacitors. <i>Nano Research</i> , 2016 , 9, 3209-3221	10	59
7	A systematic investigation of SO ₂ removal dynamics by coal-based activated cokes: The synergic enhancement effect of hierarchical pore configuration and gas components. <i>Applied Surface Science</i> , 2015 , 357, 1895-1901	6.7	50

6	Adsorption of SO ₂ by typical carbonaceous material: a comparative study of carbon nanotubes and activated carbons. <i>Adsorption</i> , 2013 , 19, 959-966	2.6	46
5	Enhancement mechanism of SO ₂ removal with calcium hydroxide in the presence of NO ₂ . <i>Korean Journal of Chemical Engineering</i> , 2012 , 29, 263-269	2.8	4
4	Mechanism of SO ₂ adsorption and desorption on commercial activated coke. <i>Korean Journal of Chemical Engineering</i> , 2011 , 28, 2218-2225	2.8	28
3	Preparation and characterization of activated carbons for SO ₂ adsorption from Taixi anthracite by physical activation with steam. <i>Korean Journal of Chemical Engineering</i> , 2011 , 28, 2344-2350	2.8	13
2	Agglomeration of particles during coal combustion in multistage spouted fluidized tower. <i>Korean Journal of Chemical Engineering</i> , 2009 , 26, 907-912	2.8	
1	Natural template derived porous carbon nanoplate architectures with tunable pore configuration for a full-carbon sodium-ion capacitor. <i>Journal of Materials Chemistry A</i> ,	13	3