Jiawei Wang

List of Publications by Year
in descending order

52	1,965	304743	254184
papers	citations	22 h-index	43 g-index

53	53	53	2602
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Materials challenges for the development of solid sorbents for post-combustion carbon capture. Journal of Materials Chemistry, 2012, 22, 2815-2823.	6.7	255
2	Hydrothermal Carbonization of Macroalgae and the Effects of Experimental Parameters on the Properties of Hydrochars. ACS Sustainable Chemistry and Engineering, 2013, 1, 1092-1101.	6.7	133
3	Recent advances in simultaneous removal of SO2 and NOx from exhaust gases: Removal process, mechanism and kinetics. Chemical Engineering Journal, 2021, 420, 127588.	12.7	106
4	Remote-controlled experiments with cloud chemistry. Nature Chemistry, 2015, 7, 1-5.	13.6	96
5	Low temperature assembly of fullerene arrays in single-walled carbon nanotubes using supercritical fluids. Journal of Materials Chemistry, 2004, 14, 2852.	6.7	89
6	Selective hostâ€“guest interaction of single-walled carbon nanotubes with functionalised fullerenes. Chemical Communications, 2004, , 176-177.	4.1	85
7	A techno-economic analysis of energy recovery from organic fraction of municipal solid waste (MSW) by an integrated intermediate pyrolysis and combined heat and power (CHP) plant. Energy Conversion and Management, 2018, 174, 406-416.	9.2	84
8	Adsorption of carbon dioxide on hydrotalcite-like compounds of different compositions. Chemical Engineering Research and Design, 2011, 89, 1711-1721.	5.6	76
9	Preparation and CO2 adsorption of amine modified Mgâ€“Al LDH via exfoliation route. Chemical Engineering Science, 2012, 68, 424-431.	3.8	76
10	Preparation and CO2 adsorption of diamine modified montmorillonite via exfoliation grafting route. Chemical Engineering Journal, 2013, 215-216, 699-708.	12.7	74
11	Synthesis of mesoporous silica hollow spheres in supercritical CO2/water systems. Journal of Materials Chemistry, 2006, 16, 1751.	6.7	67
12	Synthesis of siliceous hollow spheres with large mesopore wall structure by supercritical CO2-in-water interface templating. Chemical Communications, 2005, , 210.	4.1	62
13	Co-pyrolysis of Miscanthus Sacchariflorus and coals: A systematic study on the synergies in thermal decomposition, kinetics and vapour phase products. Fuel, 2020, 262, 116603.	6.4	55
14	Pyro-Oil and Wax Recovery from Reclaimed Plastic Waste in a Continuous Auger Pyrolysis Reactor. Energies, 2020, 13, 2040.	3.1	42
15	Effect of microwave irradiation on the viscosity of crude oil: A view at the molecular level. Fuel Processing Technology, 2018, 170, 44-52.	7.2	41
16	Steam gasification of Miscanthus derived char: the reaction kinetics and reactivity with correlation to the material composition and microstructure. Energy Conversion and Management, 2020, 219, 113026.	9.2	41
17	Pyrolysis of polyolefin plastic waste and potential applications in asphalt road construction: A technical review. Resources, Conservation and Recycling, 2022, 180, 106213.	10.8	40
18	Kinetic study on the CO2 gasification of biochar derived from Miscanthus at different processing conditions. Energy, 2021, 217, 119341.	8.8	33

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19	Coating carbon nanotubes with polymer in supercritical carbon dioxide. Chemical Communications, 2006, , 1670.	4.1	26
20	Linking the SO2 emission of cement plants to the sulfur characteristics of their limestones: A study of 80 NSP cement lines in China. Journal of Cleaner Production, 2019, 220, 200-211.	9.3	26
21	Production of renewable fuels by blending bio-oil with alcohols and upgrading under supercritical conditions. Frontiers of Chemical Science and Engineering, 2019, 13, 702-717.	4.4	25
22	Molten Solar Salt Pyrolysis of Mixed Plastic Waste: Process Simulation and Technoeconomic Evaluation. Energy & Fuels, 2020, 34, 7397-7409.	5.1	24
23	Encapsulation and IR Probing of Cube-Shaped Octasilasesquioxane H8Si8O12 in Carbon Nanotubes. Angewandte Chemie - International Edition, 2006, 45, 5188-5191.	13.8	22
24	Improving the interpretation of mercury porosimetry data using computerised X-ray tomography and mean-field DFT. Chemical Engineering Science, 2011, 66, 2328-2339.	3.8	22
25	A review on catalytic & non-catalytic bio-oil upgrading in supercritical fluids. Frontiers of Chemical Science and Engineering, 2021, 15, 4-17.	4.4	22
26	Preparation of Microporous Carbon from Sargassum horneri by Hydrothermal Carbonization and KOH Activation for CO2 Capture. Journal of Chemistry, 2018, 2018, 1-11.	1.9	21
27	Preparation and CO2 adsorption of amine modified layered double hydroxide via anionic surfactant-mediated route. Chemical Engineering Journal, 2012, 181-182, 267-275.	12.7	20
28	Synthesis of thermochemically stable tetraphenyladamantane-based microporous polymers as gas storage materials. RSC Advances, 2017, 7, 16174-16180.	3.6	20
29	Combining mercury thermoporometry with integrated gas sorption and mercury porosimetry to improve accuracy of pore-size distributions for disordered solids. Journal of Colloid and Interface Science, 2014, 426, 72-79.	9.4	19
30	Sonochemical surface functionalization of exfoliated LDH: Effect on textural properties, CO2 adsorption, cyclic regeneration capacities and subsequent gas uptake for simultaneous methanol synthesis. Ultrasonics Sonochemistry, 2017, 39, 330-343.	8.2	19
31	Coke Formation and Characterization During 1-Hexene Isomerization and Oligomerization over H-ZSM-5 Catalyst under Supercritical Conditions. Industrial & Engineering Chemistry Research, 2009, 48, 7899-7909.	3.7	18
32	Investigation of the role of feedstock properties and process conditions on the slow pyrolysis of biomass in a continuous auger reactor. Journal of Analytical and Applied Pyrolysis, 2022, 161, 105378.	5.5	18
33	Integration of spent coffee grounds valorization for co-production of biodiesel and activated carbon: An energy and techno-economic case assessment in China. Journal of Cleaner Production, 2021, 324, 129187.	9.3	17
34	Prediction of char production from slow pyrolysis of lignocellulosic biomass using multiple nonlinear regression and artificial neural network. Journal of Analytical and Applied Pyrolysis, 2021, 159, 105286.	5.5	17
35	Bibliometric analysis of research trends on the thermochemical conversion of plastics during 1990â€“2020. Journal of Cleaner Production, 2021, 317, 128373.	9.3	16
36	New process development and process evaluation for capturing CO2 in flue gas from power plants using ionic liquid [emim][Tf2N]. Chinese Journal of Chemical Engineering, 2020, 28, 721-732.	3.5	15

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37	Experimental and theoretical study of microwave enhanced catalytic hydrodesulfurization of thiophene in a continuous-flow reactor. Frontiers of Chemical Science and Engineering, 2019, 13, 744-758.	4.4	14
38	Density Functional Theory Study on the Mechanism of Biochar Gasification in CO₂ Environment. Industrial & Engineering Chemistry Research, 2020, 59, 19972-19981.	3.7	13
39	Computational and experimental studies on the CO2 adsorption of layered double hydroxide intercalated by anionic surfactant. Applied Clay Science, 2020, 190, 105556.	5.2	13
40	Rapid Measurement of Cellulose, Hemicellulose, and Lignin Content in Sargassum horneri by Near-Infrared Spectroscopy and Characteristic Variables Selection Methods. Molecules, 2022, 27, 335.	3.8	13
41	Catalytic conversion of bioethanol to value-added chemicals and fuels: A review. , 2022, 1, 47-68.		13
42	Microporous organic polymers based on hexaphenylbiadamantane: Synthesis, ultra-high stability and gas capture. Materials Letters, 2017, 187, 76-79.	2.6	11
43	Preparation and Optimization of Macroalgae-Derived Solid Acid Catalysts. Waste and Biomass Valorization, 2019, 10, 805-816.	3.4	11
44	Microporous frameworks based on adamantane building blocks: Synthesis, porosity, selective adsorption and functional application. Reactive and Functional Polymers, 2018, 130, 126-132.	4.1	10
45	Prolonging catalyst lifetime in supercritical isomerization of 1-hexene over a platinum/alumina catalyst. Chemical Engineering Science, 2009, 64, 3427-3436.	3.8	8
46	Deactivation during 1-Hexene Isomerization over Zeolite Y and ZSM5 Catalysts under Supercritical Conditions. Industrial & Engineering Chemistry Research, 2011, 50, 7161-7171.	3.7	8
47	Simulation of CO2 Capture Process in Flue Gas from Oxy-Fuel Combustion Plant and Effects of Properties of Absorbent. Separations, 2022, 9, 95.	2.4	7
48	CO2 adsorption on Miscanthus Ã— giganteus (MG) chars prepared in different atmospheres. Journal of CO2 Utilization, 2021, 52, 101670.	6.8	6
49	Microporous frameworks with conjugated Ï€-electron skeletons for enhanced gas and organic vapor capture. Microporous and Mesoporous Materials, 2018, 267, 80-83.	4.4	5
50	Enhancement of process modelling and simulation evaluation by deploying a test for assessment and feedback individualisation. Education for Chemical Engineers, 2021, 35, 29-36.	4.8	5
51	Modelling of pore structure evolution during catalyst deactivation and comparison with experiment. Chemical Engineering Science, 2010, 65, 5550-5558.	3.8	4
52	Preface to the CSCST-25 Special Issue. Frontiers of Chemical Science and Engineering, 2019, 13, 629-631.	4.4	1