Koji Nakabayashi

List of Publications by Year
in descending order

60	1,444	279798	345221
papers	citations	23 h-index	36 g-index

62	62	62	1375
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coating of graphite anode with coal tar pitch as an effective precursor for enhancing the rate performance in Li-ion batteries: Effects of composition and softening points of coal tar pitch. Carbon, 2015, 94, 432-438.	10.3	109
2	Structural elucidation of physical and chemical activation mechanisms based on the microdomain structure model. Carbon, 2017, 114, 98-105.	10.3	97
3	Highly clear and transparent nanoemulsion preparation under surfactant-free conditions using tandem acoustic emulsification. Chemical Communications, 2011, 47, 5765.	4.1	73
4	Preparation of pitch based carbon fibers using Hyper-coal as a raw material. Carbon, 2016, 106, 28-36.	10.3	69
5	Highly graphitized carbon from non-graphitizable raw material and its formation mechanism based on domain theory. Carbon, 2017, 121, 301-308.	10.3	68
6	Enhancing the tensile strength of isotropic pitch-based carbon fibers by improving the stabilization and carbonization properties of precursor pitch. Carbon, 2016, 99, 649-657.	10.3	67
7	An anodic aromatic C,C cross-coupling reaction using parallel laminar flow mode in a flow microreactor. Chemical Communications, 2015, 51, 4891-4894.	4.1	53
8	Development of a novel electrochemical carboxylation system using a microreactor. RSC Advances, 2015, 5, 98721-98723.	3.6	47
9	Electrocatalytic Hydrogenation of Toluene Using a Proton Exchange Membrane Reactor. Bulletin of the Chemical Society of Japan, 2016, 89, 1178-1183.	3.2	44
10	Preparation of isotropic pitch-based carbon fiber using hyper coal through co-carbonation with ethylene bottom oil. Journal of Industrial and Engineering Chemistry, 2016, 34, 397-404.	5.8	44
11	Manufacturing spinnable mesophase pitch using direct coal extracted fraction and its derived mesophase pitch based carbon fiber. Carbon, 2020, 158, 922-929.	10.3	43
12	C4F8 plasma treatment as an effective route for improving rate performance of natural/synthetic graphite anodes in lithium ion batteries. Carbon, 2016, 103, 28-35.	10.3	40
13	Size-Controlled Synthesis of Polymer Nanoparticles with Tandem Acoustic Emulsification Followed by Soap-Free Emulsion Polymerization. ACS Macro Letters, 2013, 2, 482-484.	4.8	38
14	Pressurized physical activation: A simple production method for activated carbon with a highly developed pore structure. Carbon, 2021, 183, 735-742.	10.3	37
15	Electrochemical fixation of CO2 to organohalides in room-temperature ionic liquids under supercritical CO2. Electrochimica Acta, 2015, 161, 212-218.	5.2	34
16	Preparation of isotropic pitch precursor for pitch-based carbon fiber through the co-carbonization of ethylene bottom oil and polyvinyl chloride. Journal of Industrial and Engineering Chemistry, 2018, 67, 276-283.	5.8	34
17	Enhancing water adsorption capacity of acorn nutshell based activated carbon for adsorption thermal energy storage application. Energy Reports, 2020, 6, 255-263.	5.1	34
18	Effect of heat pre-treatment conditions on the electrochemical properties of mangrove wood-derived hard carbon as an effective anode material for lithium-ion batteries. Electrochimica Acta, 2016, 213, 432-438.	5.2	31

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19	Molecular simulation aided nanoporous carbon design for highly efficient low-concentrated formaldehyde capture. Carbon, 2017, 124, 152-160.	10.3	30
20	Electroresponsive Structurally Colored Materials: A Combination of Structural and Electrochromic Effects. Angewandte Chemie - International Edition, 2016, 55, 2503-2506.	13.8	29
21	Enhanced performance and durability of composite bipolar plate with surface modification of cactus-like carbon nanofibers. Journal of Power Sources, 2021, 482, 228903.	7.8	28
22	Preparation of isotropic spinnable pitch and carbon fiber by the brominationâ€“dehydrobromination of biotar and ethylene bottom oil mixture. Journal of Materials Science, 2017, 52, 1165-1171.	3.7	26
23	Urea/nitric acid co-impregnated pitch-based activated carbon fiber for the effective removal of formaldehyde. Journal of Industrial and Engineering Chemistry, 2019, 80, 98-105.	5.8	26
24	Adsorption of Difluoromethane (HFC-32) onto phenol resin based adsorbent: Theory and experiments. International Journal of Heat and Mass Transfer, 2018, 127, 348-356.	4.8	22
25	Electrochemical Reaction of Water-Insoluble Organic Droplets in Aqueous Electrolytes Using Acoustic Emulsification. Langmuir, 2010, 26, 9111-9115.	3.5	20
26	Shortening Stabilization Time Using Pressurized Air Flow in Manufacturing Mesophase Pitch-Based Carbon Fiber. Polymers, 2019, 11, 1911.	4.5	19
27	Tandem acoustic emulsion, an effective tool for the electrosynthesis of highly transparent and conductive polymer films. Electrochimica Acta, 2013, 110, 593-598.	5.2	18
28	Environmental-friendly production of carbon fiber from isotropic hybrid pitches synthesized from waste biomass and polystyrene with ethylene bottom oil. Journal of Cleaner Production, 2019, 239, 118025.	9.3	17
29	Development of biomass based-activated carbon for adsorption dehumidification. Energy Reports, 2021, 7, 5871-5884.	5.1	17
30	Enhancing the oxidative stabilization of isotropic pitch precursors prepared through the co-carbonization of ethylene bottom oil and polyvinyl chloride. Journal of Industrial and Engineering Chemistry, 2018, 67, 358-364.	5.8	16
31	Studying Rotational Mobility of Vâ•O Complexes in Atmospheric Residues and Their Resins and Asphaltenes by Electron Spin Resonance. Energy & Fuels, 2017, 31, 4748-4757.	5.1	14
32	Hydrotreating Reactivities of Atmospheric Residues and Correlation with Their Composition and Properties. Energy & Fuels, 2018, 32, 6726-6736.	5.1	14
33	Effect of the pre-treated pyrolysis fuel oil: coal tar pitch ratio on the spinnability and oxidation properties of isotropic pitch precursors and the mechanical properties of derived carbon fibers. Carbon Letters, 2019, 29, 193-202.	5.9	14
34	Electrocatalytic Hydrogenation of o-Xylene in a PEM Reactor as a Study of a Model Reaction for Hydrogen Storage. Chemistry Letters, 2016, 45, 1437-1439.	1.3	13
35	Correlation between molecular stacking and anisotropic texture in spinnable mesophase pitch. Carbon, 2022, 192, 395-404.	10.3	13
36	Templated electrochemical synthesis of conducting polymer nanowires from corresponding monomer nanoemulsions prepared by tandem acoustic emulsification. RSC Advances, 2014, 4, 22938.	3.6	11

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37	Examining the molecular entanglement between Vi€O complexes and their matrices in atmospheric residues by ESR. RSC Advances, 2017, 7, 37908-37914.	3.6	11
38	Effects of Blending and Heat-Treating on Composition and Distribution of SARA Fractions of Atmospheric Residues. Energy & Fuels, 2017, 31, 6637-6648.	5.1	10
39	Enhancement of First Cycle Coulombic Efficiency of Hard Carbon Derived from Eucalyptus in a Sodium Ion Battery. Chemistry Letters, 2019, 48, 753-755.	1.3	10
40	Changes in Composition and Molecular Structures of Atmospheric Residues during Hydrotreating. Energy & Fuels, 2019, 33, 10787-10794.	5.1	10
41	Electrochemical and Photoelectrochemical Behaviors of Polythiophene Nanowires Prepared by Templated Electrodeposition in Supercritical Fluids. Electrochemistry, 2013, 81, 328-330.	1.4	7
42	Electroresponsive Structurally Colored Materials: A Combination of Structural and Electrochromic Effects. Angewandte Chemie, 2016, 128, 2549-2552.	2.0	7
43	Behaviors of Cellulose-Based Activated Carbon Fiber for Acetaldehyde Adsorption at Low Concentration. Applied Sciences (Switzerland), 2020, 10, 25.	2.5	7
44	Structural effects on the enhancement of first-cycle Coulombic efficiency of mangrove-derived hard carbon as an anode material in sodium ion batteries. SN Applied Sciences, 2019, 1, 1.	2.9	6
45	¹⁹F Ex Situ Solid-State NMR Study on Structural Differences in Pores of Activated Carbon Series Derived from Chemical and Physical Activation Processes for EDLCs. Journal of Physical Chemistry C, 2020, 124, 12457-12465.	3.1	6
46	Highly Chlorinated Polyvinyl Chloride as a Novel Precursor for Fibrous Carbon Material. Polymers, 2020, 12, 328.	4.5	6
47	Establishment of Innovative Carbon Nanofiber Synthesis Technology Utilizing Carbon Dioxide. ACS Sustainable Chemistry and Engineering, 2020, 8, 3844-3852.	6.7	6
48	Effect of blending on hydrotreating reactivities of atmospheric residues: Synergistic effects. Fuel, 2021, 293, 120429.	6.4	6
49	Morphological and Electrochemical Properties of 3,4-Substitued Polythiophene Films Prepared by Electrochemical Polymerization. Electrochemistry, 2013, 81, 334-336.	1.4	4
50	Interaction of Vanadyl Complexes in Atmospheric Residue with Their Matrixes: An ESR Study in a Temperature Range up to 170 Â°C. Journal of Physical Chemistry C, 2019, 123, 20587-20593.	3.1	4
51	Recognition and applications of hierarchical domain structural analysis for synthetic carbons. Tanso, 2018, 2018, 99-107.	0.1	4
52	Study on the applicability of pressurized physically activated carbon as an adsorbent in adsorption heat pumps. RSC Advances, 2022, 12, 2558-2563.	3.6	4
53	Electrochemical Polymerization on Porous Electrodes in Neat and Highly Concentrated Monomer Solutions. Chemistry Letters, 2016, 45, 1271-1273.	1.3	2
54	Enhancement of the rate performance of plasma-treated platelet carbon nanofiber anodes in lithium-ion batteries. RSC Advances, 2016, 6, 4810-4817.	3.6	2

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55	Dimensional control of tubular-type carbon nanofibers via pyrolytic carbon coating. Journal of Materials Science, 2017, 52, 5165-5178.	3.7	2
56	Influence of Pore Size and Surface Functionality of Activated Carbons on Adsorption Behaviors of Indole and Amylase. Evergreen, 2016, 3, 17-24.	0.5	2
57	Carbon Waste Powder Prepared from Carbon Rod Waste of Zinc-Carbon Batteries for Methyl Orange Adsorption. Bulletin of Chemical Reaction Engineering and Catalysis, 2020, 15, 66-73.	1.1	2
58	Electrooxidative Copolymerization of 3,4-Ethylenedioxithiophene and Benzene from a Mixture of Each Monomer. Bulletin of the Chemical Society of Japan, 2018, 91, 141-146.	3.2	1
59	Toward development of activated carbons with enhanced effective adsorption amount by control of activation process. AIP Conference Proceedings, 2019, , .	0.4	1
60	Improvement of Electric Conductivity of Non-graphitizable Carbon Material via Breaking-down and Merging of the Microdomains. Evergreen, 2017, 4, 16-20.	0.5	0