

# Koji Nakabayashi

## List of Publications by Year in descending order

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Version: 2024-02-01

60  
papers

1,444  
citations

279798

23  
h-index

345221

36  
g-index

62  
all docs

62  
docs citations

62  
times ranked

1375  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Correlation between molecular stacking and anisotropic texture in spinnable mesophase pitch. Carbon, 2022, 192, 395-404.	10.3	13
3	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
4	Effect of blending on hydrotreating reactivities of atmospheric residues: Synergistic effects. Fuel, 2021, 293, 120429.	6.4	6
5	Pressurized physical activation: A simple production method for activated carbon with a highly developed pore structure. Carbon, 2021, 183, 735-742.	10.3	37
6	Development of biomass based-activated carbon for adsorption dehumidification. Energy Reports, 2021, 7, 5871-5884.	5.1	17
7	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
8	Behaviors of Cellulose-Based Activated Carbon Fiber for Acetaldehyde Adsorption at Low Concentration. Applied Sciences (Switzerland), 2020, 10, 25.	2.5	7
9	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
10	<sup>19</sup> F <i>Ex Situ</i> 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
11	Highly Chlorinated Polyvinyl Chloride as a Novel Precursor for Fibrous Carbon Material. Polymers, 2020, 12, 328.	4.5	6
12	Establishment of Innovative Carbon Nanofiber Synthesis Technology Utilizing Carbon Dioxide. ACS Sustainable Chemistry and Engineering, 2020, 8, 3844-3852.	6.7	6
13	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
14	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
15	Toward development of activated carbons with enhanced effective adsorption amount by control of activation process. AIP Conference Proceedings, 2019, , .	0.4	1
16	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
17	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
18	Interaction of Vanadyl Complexes in Atmospheric Residue with Their Matrixes: An ESR Study in a Temperature Range up to 170 Å°C. Journal of Physical Chemistry C, 2019, 123, 20587-20593.	3.1	4

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19	Changes in Composition and Molecular Structures of Atmospheric Residues during Hydrotreating. <i>Energy &amp; Fuels</i> , 2019, 33, 10787-10794.	5.1	10
20	Structural effects on the enhancement of first-cycle Coulombic efficiency of mangrove-derived hard carbon as an anode material in sodium ion batteries. <i>SN Applied Sciences</i> , 2019, 1, 1.	2.9	6
21	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. <i>Carbon Letters</i> , 2019, 29, 193-202.	5.9	14
22	Shortening Stabilization Time Using Pressurized Air Flow in Manufacturing Mesophase Pitch-Based Carbon Fiber. <i>Polymers</i> , 2019, 11, 1911.	4.5	19
23	Electrooxidative Copolymerization of 3,4-Ethylenedioxythiophene and Benzene from a Mixture of Each Monomer. <i>Bulletin of the Chemical Society of Japan</i> , 2018, 91, 141-146.	3.2	1
24	Enhancing the oxidative stabilization of isotropic pitch precursors prepared through the co-carbonization of ethylene bottom oil and polyvinyl chloride. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 67, 358-364.	5.8	16
25	Hydrotreating Reactivities of Atmospheric Residues and Correlation with Their Composition and Properties. <i>Energy &amp; Fuels</i> , 2018, 32, 6726-6736.	5.1	14
26	Preparation of isotropic pitch precursor for pitch-based carbon fiber through the co-carbonization of ethylene bottom oil and polyvinyl chloride. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 67, 276-283.	5.8	34
27	Adsorption of Difluoromethane (HFC-32) onto phenol resin based adsorbent: Theory and experiments. <i>International Journal of Heat and Mass Transfer</i> , 2018, 127, 348-356.	4.8	22
28	Recognition and applications of hierarchical domain structural analysis for synthetic carbons. <i>Tanso</i> , 2018, 2018, 99-107.	0.1	4
29	Dimensional control of tubular-type carbon nanofibers via pyrolytic carbon coating. <i>Journal of Materials Science</i> , 2017, 52, 5165-5178.	3.7	2
30	Highly graphitized carbon from non-graphitizable raw material and its formation mechanism based on domain theory. <i>Carbon</i> , 2017, 121, 301-308.	10.3	68
31	Effects of Blending and Heat-Treating on Composition and Distribution of SARA Fractions of Atmospheric Residues. <i>Energy &amp; Fuels</i> , 2017, 31, 6637-6648.	5.1	10
32	Studying Rotational Mobility of $V\alpha\cdot O$ Complexes in Atmospheric Residues and Their Resins and Asphaltenes by Electron Spin Resonance. <i>Energy &amp; Fuels</i> , 2017, 31, 4748-4757.	5.1	14
33	Structural elucidation of physical and chemical activation mechanisms based on the microdomain structure model. <i>Carbon</i> , 2017, 114, 98-105.	10.3	97
34	Examining the molecular entanglement between $V\alpha\cdot O$ complexes and their matrices in atmospheric residues by ESR. <i>RSC Advances</i> , 2017, 7, 37908-37914.	3.6	11
35	Molecular simulation aided nanoporous carbon design for highly efficient low-concentrated formaldehyde capture. <i>Carbon</i> , 2017, 124, 152-160.	10.3	30
36	Preparation of isotropic spinnable pitch and carbon fiber by the bromination-dehydrobromination of biotar and ethylene bottom oil mixture. <i>Journal of Materials Science</i> , 2017, 52, 1165-1171.	3.7	26

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37	Improvement of Electric Conductivity of Non-graphitizable Carbon Material via Breaking-down and Merging of the Microdomains. <i>Evergreen</i> , 2017, 4, 16-20.	0.5	0
38	Electroresponsive Structurally Colored Materials: A Combination of Structural and Electrochromic Effects. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 2503-2506.	13.8	29
39	Electrocatalytic Hydrogenation of <i>p</i> -Xylene in a PEM Reactor as a Study of a Model Reaction for Hydrogen Storage. <i>Chemistry Letters</i> , 2016, 45, 1437-1439.	1.3	13
40	C4F8 plasma treatment as an effective route for improving rate performance of natural/synthetic graphite anodes in lithium ion batteries. <i>Carbon</i> , 2016, 103, 28-35.	10.3	40
41	Preparation of pitch based carbon fibers using Hyper-coal as a raw material. <i>Carbon</i> , 2016, 106, 28-36.	10.3	69
42	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. <i>Electrochimica Acta</i> , 2016, 213, 432-438.	5.2	31
43	Electrochemical Polymerization on Porous Electrodes in Neat and Highly Concentrated Monomer Solutions. <i>Chemistry Letters</i> , 2016, 45, 1271-1273.	1.3	2
44	Electrocatalytic Hydrogenation of Toluene Using a Proton Exchange Membrane Reactor. <i>Bulletin of the Chemical Society of Japan</i> , 2016, 89, 1178-1183.	3.2	44
45	Preparation of isotropic pitch-based carbon fiber using hyper coal through co-carbonation with ethylene bottom oil. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 34, 397-404.	5.8	44
46	Electroresponsive Structurally Colored Materials: A Combination of Structural and Electrochromic Effects. <i>Angewandte Chemie</i> , 2016, 128, 2549-2552.	2.0	7
47	Enhancement of the rate performance of plasma-treated platelet carbon nanofiber anodes in lithium-ion batteries. <i>RSC Advances</i> , 2016, 6, 4810-4817.	3.6	2
48	Enhancing the tensile strength of isotropic pitch-based carbon fibers by improving the stabilization and carbonization properties of precursor pitch. <i>Carbon</i> , 2016, 99, 649-657.	10.3	67
49	Influence of Pore Size and Surface Functionality of Activated Carbons on Adsorption Behaviors of Indole and Amylase. <i>Evergreen</i> , 2016, 3, 17-24.	0.5	2
50	Development of a novel electrochemical carboxylation system using a microreactor. <i>RSC Advances</i> , 2015, 5, 98721-98723.	3.6	47
51	Electrochemical fixation of CO <sub>2</sub> to organohalides in room-temperature ionic liquids under supercritical CO <sub>2</sub> . <i>Electrochimica Acta</i> , 2015, 161, 212-218.	5.2	34
52	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. <i>Carbon</i> , 2015, 94, 432-438.	10.3	109
53	An anodic aromatic C,C cross-coupling reaction using parallel laminar flow mode in a flow microreactor. <i>Chemical Communications</i> , 2015, 51, 4891-4894.	4.1	53
54	Templated electrochemical synthesis of conducting polymer nanowires from corresponding monomer nanoemulsions prepared by tandem acoustic emulsification. <i>RSC Advances</i> , 2014, 4, 22938.	3.6	11

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55	Tandem acoustic emulsion, an effective tool for the electrosynthesis of highly transparent and conductive polymer films. <i>Electrochimica Acta</i> , 2013, 110, 593-598.	5.2	18
56	Size-Controlled Synthesis of Polymer Nanoparticles with Tandem Acoustic Emulsification Followed by Soap-Free Emulsion Polymerization. <i>ACS Macro Letters</i> , 2013, 2, 482-484.	4.8	38
57	Electrochemical and Photoelectrochemical Behaviors of Polythiophene Nanowires Prepared by Templated Electrodeposition in Supercritical Fluids. <i>Electrochemistry</i> , 2013, 81, 328-330.	1.4	7
58	Morphological and Electrochemical Properties of 3,4-Substituted Polythiophene Films Prepared by Electrochemical Polymerization. <i>Electrochemistry</i> , 2013, 81, 334-336.	1.4	4
59	Highly clear and transparent nanoemulsion preparation under surfactant-free conditions using tandem acoustic emulsification. <i>Chemical Communications</i> , 2011, 47, 5765.	4.1	73
60	Electrochemical Reaction of Water-Insoluble Organic Droplets in Aqueous Electrolytes Using Acoustic Emulsification. <i>Langmuir</i> , 2010, 26, 9111-9115.	3.5	20