Katsumi Kaneko

List of Publications by Citations

94 papers	12,468 citations	34 h-index	96 g-index
96 ext. papers	15,089 ext. citations	7.2 avg, IF	6.45 L-index

#	Paper	IF	Citations
94	Physisorption of gases, with special reference to the evaluation of surface area and pore size distribution (IUPAC Technical Report). *Pure and Applied Chemistry*, **2015**, 87, 1051-1069	2.1	7465
93	Mesopore-modified zeolites: preparation, characterization, and applications. *Chemical Reviews*, **2006**, 106, 896-910	68.1	922
92	Determination of pore size and pore size distribution. *Journal of Membrane Science*, **1994**, 96, 59-89	9.6	483
91	Simulation study on the relationship between a high resolution α_s-plot and the pore size distribution for activated carbon. *Carbon*, **1998**, 36, 1459-1467	10.4	236
90	Nitrogen Adsorption in Slit Pores at Ambient Temperatures: Comparison of Simulation and Experiment. *Langmuir*, **1994**, 10, 4606-4609	4	193
89	Conducting linear chains of sulphur inside carbon nanotubes. *Nature Communications*, **2013**, 4, 2162	17.4	176
88	Quantum effects on hydrogen isotope adsorption on single-wall carbon nanohorns. *Journal of the American Chemical Society*, **2005**, 127, 7511-6	16.4	175
87	Partial breaking of the Coulombic ordering of ionic liquids confined in carbon nanopores. *Nature Materials*, **2017**, 16, 1225-1232	27	166
86	Freezing of simple fluids in microporous activated carbon fibers: Comparison of simulation and experiment. *Journal of Chemical Physics*, **1999**, 111, 9058-9067	3.9	141
85	Uniform Mesopore-Donated Zeolite Y Using Carbon Aerogel Templating. *Journal of Physical Chemistry B*, **2003**, 107, 10974-10976	3.4	137
84	Micropore Size Distribution of Activated Carbon Fiber Using the Density Functional Theory and Other Methods. *Langmuir*, **2000**, 16, 4300-4304	4	115
83	A new determination method of absolute adsorption isotherm of supercritical gases under high pressure with a special relevance to density-functional theory study. *Journal of Chemical Physics*, **2001**, 114, 4196-4205	3.9	114
82	Intrapore field-dependent micropore filling of supercritical N2 in slit-shaped micropores. *Journal of Chemical Physics*, **1992**, 97, 8705-8711	3.9	110
81	Effect of Purification on Pore Structure of HiPco Single-Walled Carbon Nanotube Aggregates. *Nano Letters*, **2002**, 2, 385-388	11.5	97
80	Adsorption Properties of Templated Mesoporous Carbon (CMK-1) for Nitrogen and Supercritical MethaneExperiment and GCMC Simulation. *Journal of Physical Chemistry B*, **2002**, 106, 6523-6528	3.4	96
79	Storage of hydrogen at 303 K in graphite slitlike pores from grand canonical Monte Carlo simulation. *Journal of Physical Chemistry B*, **2005**, 109, 17174-83	3.4	92
78	Direct Evidence on C□ Single Bonding in Single-Wall Carbon Nanohorn Aggregates. *Journal of Physical Chemistry C*, **2007**, 111, 5572-5575	3.8	87

77	A Remarkable Elevation of Freezing Temperature of CCl4 in Graphitic Micropores. *Journal of Physical Chemistry B*, **1999**, 103, 7061-7063	3.4	82
76	Grand canonical monte carlo simulation study of methane adsorption at an open graphite surface and in slit-like carbon pores at 273 K. *Langmuir*, **2005**, 21, 5639-46	4	78
75	Confinement in carbon nanospace-induced production of KI nanocrystals of high-pressure phase. *Journal of the American Chemical Society*, **2011**, 133, 10344-7	16.4	75
74	Effect of Catalyst Size on Hydrogen Storage Capacity of Pt-Impregnated Active Carbon via Spillover. *Journal of Physical Chemistry Letters*, **2010**, 1, 1060-1063	6.4	74
73	Large area films of alternating graphene-carbon nanotube layers processed in water. *ACS Nano*, **2013**, 7, 10788-98	16.7	73
72	Activation routes for high surface area graphene monoliths from graphene oxide colloids. *Carbon*, **2014**, 76, 220-231	10.4	72
71	Nanowindow-Induced Molecular Sieving Effect in a Single-Wall Carbon Nanohorn. *Journal of Physical Chemistry B*, **2002**, 106, 12668-12669	3.4	69
70	Controlled Opening of Single-Wall Carbon Nanohorns by Heat Treatment in Carbon Dioxide. *Journal of Physical Chemistry B*, **2003**, 107, 4479-4484	3.4	66
69	Prediction of Hysteresis Disappearance in the Adsorption Isotherm of N2 on Regular Mesoporous Silica. *Langmuir*, **1998**, 14, 3079-3081	4	61
68	Enhancement of the methylene blue adsorption rate for ultramicroporous carbon fiber by addition of mesopores. *Carbon*, **2006**, 44, 1884-1890	10.4	60
67	Dynamic quantum molecular sieving separation of D2 from H2-D2 mixture with nanoporous materials. *Journal of the American Chemical Society*, **2012**, 134, 18483-6	16.4	50
66	Structural prediction of graphitization and porosity in carbide-derived carbons. *Carbon*, **2017**, 119, 1-9	10.4	44
65	Efficient H2 adsorption by nanopores of high-purity double-walled carbon nanotubes. *Journal of the American Chemical Society*, **2006**, 128, 12636-7	16.4	44
64	Air separation with graphene mediated by nanowindow-rim concerted motion. *Nature Communications*, **2018**, 9, 1812	17.4	42
63	Surface Fractal Dimension of Less-Crystalline Carbon Micropore Walls. *Journal of Physical Chemistry B*, **1997**, 101, 1845-1850	3.4	41
62	Quantum Effects on Hydrogen Isotopes Adsorption in Nanopores. *Journal of Low Temperature Physics*, **2009**, 157, 352-373	1.3	37
61	Ambient Temperature Reduction of NO to N2 in Ru-Tailored Carbon Subnanospace. *Journal of Physical Chemistry B*, **1997**, 101, 1938-1939	3.4	35
60	Microporosity Development of Single-Wall Carbon Nanohorn with Chemically Induced Coalescence of the Assembly Structure. *Journal of Physical Chemistry B*, **2004**, 108, 17775-17782	3.4	34

59	Correlation in structure and properties of highly-porous graphene monoliths studied with a thermal treatment method. *Carbon*, **2016**, 96, 174-183	10.4	31
58	Nanostructured carbon materials for enhanced nitrobenzene adsorption: Physical vs. chemical surface properties. *Carbon*, **2018**, 139, 833-844	10.4	31
57	Anomaly of CH4 molecular assembly confined in single-wall carbon nanohorn spaces. *Journal of the American Chemical Society*, **2011**, 133, 2022-4	16.4	31
56	Developments and structures of mesopores in alkaline-treated ZSM-5 zeolites. *Adsorption*, **2006**, 12, 309-316	2.6	30
55	Direct Thermal Fluorination of Single Wall Carbon Nanohorns. *Journal of Physical Chemistry B*, **2004**, 108, 9614-9618	3.4	28
54	Preformed monolayer-induced filling of molecules in micropores. *Chemical Physics Letters*, **2000**, 326, 158-162	2.5	27
53	Comparative pore structure analysis of highly porous graphene monoliths treated at different temperatures with adsorption of N2 at 77.4 K and of Ar at 87.3 K and 77.4 K. *Microporous and Mesoporous Materials*, **2015**, 209, 72-78	5.3	26
52	Charge-transfer mediated nanopore-controlled pyrene derivatives/graphene colloids. *Carbon*, **2018** , 139, 512-521	10.4	23
51	A water-resilient carbon nanotube based strain sensor for monitoring structural integrity. *Journal of Materials Chemistry A*, **2019**, 7, 19996-20005	13	22
50	Super-sieving effect in phenol adsorption from aqueous solutions on nanoporous carbon beads. *Carbon*, **2018**, 135, 12-20	10.4	21
49	The structural change of graphitization-controlled microporous carbon upon adsorption of H2O and N2. *Chemical Physics Letters*, **1992**, 191, 569-573	2.5	21
48	Water Adsorption Property of Hierarchically Nanoporous Detonation Nanodiamonds. *Langmuir*, **2017**, 33, 11180-11188	4	20
47	Structural Characterization of Heat-Treated Activated Carbon Fibers. *Journal of Porous Materials*, **1997**, 4, 181-186	2.4	20
46	Adsorption of water vapor on mesoporosity-controlled singe wall carbon nanohorn. *Colloids and Interface Science Communications*, **2015**, 5, 8-11	5.4	17
45	Carbon Molecular Sieves: Reconstruction of Atomistic Structural Models with Experimental Constraints. *Journal of Physical Chemistry C*, **2014**, 118, 12996-13007	3.8	17
44	High capacitance carbon-based xerogel film produced without critical drying. *Applied Physics Letters* , **2008**, 93, 193112	3.4	16
43	Chemically and mechanically robust SWCNT based strain sensor with monotonous piezoresistive response for infrastructure monitoring. *Chemical Engineering Journal*, **2020**, 388, 124174	14.7	13
42	Water-selective adsorption sites on detonation nanodiamonds. *Carbon*, **2018**, 139, 853-860	10.4	13

41	Molecular States of O2 Confined in a Carbon Nanospace from the Low-Temperature Magnetic Susceptibility *Langmuir*, **1997**, 13, 1047-1053	4	13
40	Chemisorption and Photoadsorption of NO on Cerium(IV) Oxide. *Langmuir*, **1997**, 13, 5894-5899	4	13
39	The growth of FeOOH microcrystals and chemisorption rate of NO. *Journal of Chemical Technology and Biotechnology*, **2007**, 37, 11-19	3.5	13
38	Evaluation of Micropore Width of Activated Carbon Fibers by MultiStage Micropore Filling Analysis. *Tanso*, **1989**, 1989, 288-295	0.1	12
37	Sol gel chemistry mediated Zn/Al-based complex dispersant for SWCNT in water without foam formation. *Carbon*, **2015**, 94, 518-523	10.4	11
36	Enhanced CO2 Adsorptivity of Partially Charged Single Walled Carbon Nanotubes by Methylene Blue Encapsulation. *Journal of Physical Chemistry C*, **2012**, 116, 11216-11222	3.8	11
35	Structural mechanism of reactivation with steam of pitch-based activated carbon fibers. *Journal of Colloid and Interface Science*, **2020**, 578, 422-430	9.3	10
34	Characterization of hydrated silicate glass microballoons. *Journal of Materials Research*, **1996**, 11, 2908-2915	2.5	10
33	Iron oxide films of a spinel structure from thermal decomposition of metal ion citrate complex. *Journal of Materials Research*, **1999**, 14, 2002-2006	2.5	9
32	Nanoporosity Change on Elastic Relaxation of Partially Folded Graphene Monoliths. *Langmuir*, **2017**, 33, 14565-14570	4	8
31	The Semiconductive Property of Gamma-Ferric Oxyhydroxide. *Journal of the Electrochemical Society*, **1975**, 122, 451-452	3.9	8
30	Controlled growth of one-dimensional clusters of molybdenum atoms using double-walled carbon nanotube templating. *Applied Physics Letters*, **2009**, 94, 113105	3.4	7
29	Ferromagnetic Iron Oxides from Synthetic FeOOH by Vacuum Thermal Decomposition. *Journal of the Electrochemical Society*, **1984**, 131, 2435-2438	3.9	7
28	Structural adsorption mechanism of chloroform in narrow micropores of pitch-based activated carbon fibres. *Carbon*, **2021**, 171, 681-688	10.4	7
27	Formation of CO(x)-free H2 and cup-stacked carbon nanotubes over nano-Ni dispersed single wall carbon nanohorns. *Langmuir*, **2012**, 28, 7564-71	4	6
26	The subtracting pore effect method for an accurate and reliable surface area determination of porous carbons. *Carbon*, **2021**, 175, 77-86	10.4	6
25	Adsorption separation of heavier isotope gases in subnanometer carbon pores. *Nature Communications*, **2021**, 12, 546	17.4	6
24	Toward in silico modeling of palladium-hydrogen-carbon nanohorn nanocomposites. *Physical Chemistry Chemical Physics*, **2014**, 16, 11763-9	3.6	5

23	Gas storage in soft 1D nano-tunnels by the induced fit of a serration structure. *CrystEngComm*, **2009**, 11, 347-350	3.3	5
22	Novel Structure of Microporous Activated Carbon Fibers and their Gas Adsorption. *Materials Research Society Symposia Proceedings*, **1994**, 349, 73		5
21	Cu-phthalocyanine-mediated nanowindow production on single-wall carbon nanohorn. *Molecular Physics*, **2020**, e1815883	1.7	5
20	Mild oxidation-production of subnanometer-sized nanowindows of single wall carbon nanohorn. *Journal of Colloid and Interface Science*, **2018**, 529, 332-336	9.3	5
19	Unusual hygroscopic nature of nanodiamonds in comparison with well-known porous materials. *Journal of Colloid and Interface Science*, **2019**, 549, 133-139	9.3	4
18	Zn/Al complex-SWCNT ink for transparent and conducting homogeneous films by scalable bar coating method. *Chemical Physics Letters*, **2016**, 650, 113-118	2.5	4
17	Ultrapermeable 2D-channeled graphene-wrapped zeolite molecular sieving membranes for hydrogen separation.. *Science Advances*, **2022**, 8, eabl3521	14.3	4
16	Fundamentals of Gas Adsorption for Characterization of Carbon Materials. *Tanso*, **1999**, 1999, 50-53	0.1	3
15	Mesoscopic cage-like structured single-wall carbon nanotube cryogels. *Microporous and Mesoporous Materials*, **2020**, 293, 109814	5.3	3
14	Reconstructing the fractal clusters of detonation nanodiamonds from small-angle X-ray scattering. *Carbon*, **2020**, 169, 349-356	10.4	3
13	Anomalous Magnetism of Activated Carbon Having Ultra High Surface Area. *Tanso*, **2000**, 2000, 218-222	0.1	2
12	Highly oxidation-resistant graphene-based porous carbon as a metal catalyst support. *Carbon Trends*, **2021**, 3, 100029	0	2
11	Electric field assisted ion adsorption with nanoporous SWCNT electrodes. *Adsorption*, **2019**, 25, 1035-1041	2.6	2
10	Electrical conductivity changes of water-adsorbed nanodiamonds with thermal treatment. *Chemical Physics Letters: X*, **2019**, 2, 100018	2	1
9	Activated Carbon Fibres of Different Cross-Sectional Morphologies. *Adsorption Science and Technology*, **2004**, 22, 517-522	3.6	1
8	Structures and Properties of Atoms and Molecules Confined in Nanospaces. Structures and Properties of Atoms and Molecules Confined in Nanoporous Spaces.. *Hyomen Kagaku*, **2000**, 21, 2-9		1
7	A Molecular Simulation Study on Empirical Determination Method of Pore Structures of Activated Carbons. *Tanso*, **1997**, 1997, 159-166	0.1	1
6	Nanopore structure analysis of single wall carbon nanotube xerogels and cryogels. *Adsorption*, **2021**, 27, 673-681	2.6	1

List of Publications

5	Phenol Molecular Sheets Woven by Water Cavities in Hydrophobic Slit Nanospaces. *Langmuir*, **2018**, 34, 15150-15159	4	1
4	Unearthing of a new science from nanostructured carbons. *Tanso*, **2021**, 2021, 145-160	0.1	
3	Real solid surfaces and fractal.. *Hyomen Kagaku*, **1991**, 12, 34-38		
2	Graphene-Based Carbons of Tuned Nanoporosity and Crystallinity. *Engineering Materials*, **2021**, 153-174	0.4	
1	Apatite□Graphene Interface Channel-Aided Rapid and Selective H2 Permeation. *Journal of Physical Chemistry C*, **2022**, 126, 3653-3660	3.8	