

Toshihide Horikawa

List of Publications by Year in descending order

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75
papers

2,843
citations

218677

26
h-index

175258

52
g-index

75
all docs

75
docs citations

75
times ranked

3370
citing authors

#	ARTICLE	IF	CITATIONS
1	Capillary condensation of adsorbates in porous materials. <i>Advances in Colloid and Interface Science</i> , 2011, 169, 40-58.	14.7	340
2	Preparing activated carbon from various nutshells by chemical activation with K ₂ CO ₃ . <i>Carbon</i> , 2002, 40, 2381-2386.	10.3	326
3	Preparation of nitrogen-doped porous carbon by ammonia gas treatment and the effects of N-doping on water adsorption. <i>Carbon</i> , 2012, 50, 1833-1842.	10.3	213
4	Water adsorption on carbon - A review. <i>Advances in Colloid and Interface Science</i> , 2017, 250, 64-78.	14.7	204
5	Controllability of pore characteristics of resorcinol-formaldehyde carbon aerogel. <i>Carbon</i> , 2004, 42, 1625-1633.	10.3	179
6	Size control and characterization of spherical carbon aerogel particles from resorcinol-formaldehyde resin. <i>Carbon</i> , 2004, 42, 169-175.	10.3	132
7	Activated carbon from chickpea husk by chemical activation with K ₂ CO ₃ : preparation and characterization. <i>Microporous and Mesoporous Materials</i> , 2002, 55, 63-68.	4.4	106
8	Characteristics and humidity control capacity of activated carbon from bamboo. <i>Bioresource Technology</i> , 2010, 101, 3964-3969.	9.6	81
9	A new adsorption-desorption model for water adsorption in porous carbons. <i>Carbon</i> , 2011, 49, 416-424.	10.3	76
10	Preparation and characterization of high-specific-surface-area activated carbons from K ₂ CO ₃ -treated waste polyurethane. <i>Journal of Colloid and Interface Science</i> , 2005, 281, 437-443.	9.4	73
11	Preparation and characterization of nitrogen-doped mesoporous titania with high specific surface area. <i>Microporous and Mesoporous Materials</i> , 2008, 110, 397-404.	4.4	66
12	On the isosteric heat of adsorption of non-polar and polar fluids on highly graphitized carbon black. <i>Journal of Colloid and Interface Science</i> , 2015, 439, 1-6.	9.4	66
13	Synthesizing activated carbons from resins by chemical activation with K ₂ CO ₃ . <i>Carbon</i> , 2002, 40, 2747-2752.	10.3	64
14	Preparation and characterization of the carbonized material of phenol-formaldehyde resin with addition of various organic substances. <i>Carbon</i> , 2003, 41, 465-472.	10.3	56
15	Effects of temperature on water adsorption on controlled microporous and mesoporous carbonaceous solids. <i>Carbon</i> , 2013, 56, 183-192.	10.3	56
16	Characterization of oxygen functional groups on carbon surfaces with water and methanol adsorption. <i>Carbon</i> , 2015, 81, 447-457.	10.3	52
17	Water as a potential molecular probe for functional groups on carbon surfaces. <i>Carbon</i> , 2014, 67, 72-78.	10.3	51
18	Optimal design of cryogenic distillation columns with side heat pumps for the propylene/propane separation. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 82, 112-122.	3.6	45

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19	Novel approach to the characterization of the pore structure and surface chemistry of porous carbon with Ar, N ₂ , H ₂ O and CH ₃ OH adsorption. <i>Microporous and Mesoporous Materials</i> , 2015, 209, 79-89.	4.4	39
20	Adsorption mechanism of metal ions on activated carbon. <i>Adsorption</i> , 2019, 25, 1251-1258.	3.0	39
21	Preparation of molecular sieving carbon from waste resin by chemical vapor deposition. <i>Carbon</i> , 2002, 40, 709-714.	10.3	37
22	Influence of surface-active agents on pore characteristics of the generated spherical resorcinol-formaldehyde based carbon aerogels. <i>Carbon</i> , 2004, 42, 2683-2689.	10.3	35
23	Scanning curves of water adsorption on graphitized thermal carbon black and ordered mesoporous carbon. <i>Carbon</i> , 2015, 95, 137-143.	10.3	34
24	Adsorption properties and photocatalytic activity of TiO ₂ and La-doped TiO ₂ . <i>Adsorption</i> , 2008, 14, 257-263.	3.0	33
25	Spectroscopic study for photocatalytic decomposition of organic compounds on titanium dioxide containing sulfur under visible light irradiation. <i>Journal of Colloid and Interface Science</i> , 2006, 298, 805-809.	9.4	31
26	Temperature dependence of water adsorption on highly graphitized carbon black and highly ordered mesoporous carbon. <i>Carbon</i> , 2017, 124, 271-280.	10.3	31
27	The interplay between molecular layering and clustering in adsorption of gases on graphitized thermal carbon black – Spill-over phenomenon and the important role of strong sites. <i>Journal of Colloid and Interface Science</i> , 2015, 446, 98-113.	9.4	26
28	Design and control of diphenyl carbonate reactive distillation process with thermally coupled and heat-integrated stages configuration. <i>Computers and Chemical Engineering</i> , 2019, 121, 130-147.	3.8	26
29	Synthesis and electrochemical performance of a nanocrystalline Li ₄ Ti ₅ O ₁₂ /C composite for lithium-ion batteries prepared using resorcinol-formaldehyde resins. <i>Electrochimica Acta</i> , 2019, 295, 540-549.	5.2	23
30	On the evolution of the heat spike in the isosteric heat versus loading for argon adsorption on graphite-A new molecular model for graphite & reconciliation between experiment and computer simulation. <i>Carbon</i> , 2017, 122, 622-634.	10.3	22
31	On the relative strength of adsorption of gases on carbon surfaces with functional groups: fluid-fluid, fluid-graphite and fluid-functional group interactions. <i>Carbon</i> , 2013, 61, 551-557.	10.3	21
32	Characterization of a New Solid Having Graphitic Hexagonal Pores with a GCMC Technique. <i>Journal of Physical Chemistry C</i> , 2011, 115, 13361-13372.	3.1	17
33	Design of a Multitask Reactive Distillation with Intermediate Heat Exchangers for the Production of Silane and Chlorosilane Derivates. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 10968-10977.	3.7	15
34	A GCMC simulation and experimental study of krypton adsorption/desorption hysteresis on a graphite surface. <i>Journal of Colloid and Interface Science</i> , 2016, 478, 402-412.	9.4	15
35	A self-consistent method to determine accessible volume, area and pore size distribution (APSD) of BPL, Norit and AX-21 activated carbon. <i>Carbon</i> , 2012, 50, 500-509.	10.3	14
36	Design and Control of Reactive Distillation Sequences with Heat-Integrated Stages To Produce Diphenyl Carbonate. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 250-260.	3.7	14

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37	Packing effects on argon and methanol adsorption inside graphitic cylindrical and slit pores: A GCMC simulation study. <i>Journal of Colloid and Interface Science</i> , 2012, 368, 474-487.	9.4	13
38	Preparation of Nitrogen-Doped Porous Carbon and its Water Adsorption Behaviour. <i>Adsorption Science and Technology</i> , 2013, 31, 135-144.	3.2	13
39	Adsorption of Water and Methanol on Highly Graphitized Thermal Carbon Black and Activated Carbon Fibre. <i>Australian Journal of Chemistry</i> , 2015, 68, 1336.	0.9	13
40	Henry Constant of Water Adsorption on Functionalized Graphite: Importance of the Potential Models of Water and Functional Group. <i>Journal of Physical Chemistry C</i> , 2018, 122, 24171-24181.	3.1	13
41	Adsorption of methanol on highly graphitized thermal carbon black effects of the configuration of functional groups and their interspacing. <i>Carbon</i> , 2017, 118, 709-722.	10.3	11
42	CHARACTERIZATION OF PALLADIUM AND PALLADIUM-SILVER ALLOY LAYERS ON STAINLESS STEEL SUPPORT. <i>International Journal of Modern Physics B</i> , 2006, 20, 3866-3871.	2.0	10
43	IR SPECTROSCOPIC ANALYSIS OF THERMAL BEHAVIOR OF ADSORBED WATER ON Y-TYPE ZEOLITE. <i>International Journal of Modern Physics Conference Series</i> , 2012, 06, 437-442.	0.7	10
44	Modification of commercial NaY zeolite to give high water diffusivity and adsorb a large amount of water. <i>Journal of Colloid and Interface Science</i> , 2015, 455, 220-225.	9.4	8
45	Entropy production and economic analysis in diabatic distillation columns with heat exchangers in series. <i>Energy</i> , 2015, 93, 1719-1730.	8.8	8
46	Temperature dependence of water cluster on functionalized graphite. <i>Carbon</i> , 2021, 183, 380-389.	10.3	8
47	A computer simulation and experimental study of the difference between krypton adsorption on a graphite surface and in a graphitic hexagonal pore. <i>Carbon</i> , 2012, 50, 2908-2917.	10.3	7
48	Characterization of Cabot BP280 with argon and nitrogen adsorption at temperatures above and below the triple point “ Energetic vs Structural heterogeneities. <i>Microporous and Mesoporous Materials</i> , 2020, 293, 109762.	4.4	7
49	EFFECTS OF THE ORGANIC SOLVENT IN CARRIER GAS ON THE PREPARED TiO_2 THIN FILM BY METAL-ORGANIC CHEMICAL VAPOR DEPOSITION METHOD. <i>International Journal of Modern Physics B</i> , 2011, 25, 4171-4174.	2.0	5
50	Energy Minimization in Cryogenic Distillation Columns Through Intermediate Side Heat Exchangers. <i>Computer Aided Chemical Engineering</i> , 2014, 33, 1501-1506.	0.5	5
51	On the explanation of hysteresis in the adsorption of ammonia on graphitized thermal carbon black. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 1163-1171.	2.8	5
52	Characterization of non-graphitized carbon blacks: a model with surface crevices. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 12569-12581.	2.8	5
53	Significant role of counterion for lead(II) ion adsorption on carbon pore surface. <i>Carbon</i> , 2022, 196, 575-588.	10.3	5
54	Photocatalytic activity of nanostructured tubular TiO_2 synthesized using kenaf fibers as a sacrificial template. <i>Industrial Crops and Products</i> , 2018, 113, 210-216.	5.2	4

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55	XPS Study of the Influence of CO ₂ on the H ₂ Flux through a Composite Membrane Made of Palladium and Porous Stainless Steel. <i>Journal of Chemical Engineering of Japan</i> , 2010, 43, 745-750.	0.6	4
56	Adsorption properties of templated nanoporous carbons comprising 1â€“2 graphene layers. , 2022, 1, 123-135.		4
57	Preparation of Spherical Magnetic Mesoporous Silica Containing Magnetite Nanoparticles by Phase Transfer. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 2577-2582.	3.7	3
58	THE EFFECT OF CARBON MONOXIDE ON THE HYDROGEN PERMEABILITY OF A PALLADIUM MEMBRANE. <i>International Journal of Modern Physics B</i> , 2010, 24, 2833-2837.	2.0	3
59	The Effects of Created Mesopores in ZSM-5 Zeolites by an Alkali Treatment on Water Adsorption. <i>Journal of Chemical Engineering of Japan</i> , 2016, 49, 120-125.	0.6	3
60	On the resolution of constant isosteric heat of propylene adsorption on graphite in the sub-monolayer coverage region. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 512, 101-110.	4.7	3
61	Application of Si/SiC ceramic filters as support for structural palladium catalysts for the reductive decomposition of aqueous nitrite. <i>Journal of the Ceramic Society of Japan</i> , 2018, 126, 714-718.	1.1	3
62	On the transition from partial wetting to complete wetting of methanol on graphite. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 26219-26231.	2.8	3
63	Performance of a Bench-Scale Annular-Type Packed-Bed Photocatalytic Reactor for Decomposition of Indigo Carmine Dissolved in Water. <i>Journal of Chemical Engineering of Japan</i> , 2009, 42, 502-507.	0.6	2
64	Effect of Fluid Flow on Crystallization in a Segmented Flow Microchannel. <i>Journal of Chemical Engineering of Japan</i> , 2021, 54, 603-611.	0.6	2
65	FTIR STUDY ON MOLECULAR CONTAMINATION ON SURFACE OF OPTICAL MATERIALS. <i>International Journal of Modern Physics B</i> , 2006, 20, 3860-3865.	2.0	1
66	PHOTOCATALYTIC ACTIVITY OF NITROGEN AND FLUORINE CO-DOPED TITANIUM DIOXIDE PREPARED USING OF VARIOUS PH SOLUTIONS. <i>International Journal of Modern Physics B</i> , 2010, 24, 3242-3247.	2.0	1
67	HYDROGEN PERMEABILITY OF PALLADIUM MEMBRANE FOR STEAM-REFORMING OF BIO-ETHANOL USING THE MEMBRANE REACTOR. <i>International Journal of Modern Physics Conference Series</i> , 2012, 06, 7-12.	0.7	1
68	On the description of isotherms of CH ₄ and C ₂ H ₄ adsorption on graphite from subcritical to supercritical conditions. <i>Adsorption</i> , 2013, 19, 131-142.	3.0	1
69	Effect of Mixing Methods on the Precipitation of Basic Copper Acetate. <i>Applied Mechanics and Materials</i> , 0, 625, 201-204.	0.2	1
70	PHOTOCATALYTIC REACTION OF ACETONE ON MESOPOROUS CHROMIUM SILICATE. <i>International Journal of Modern Physics B</i> , 2006, 20, 3854-3859.	2.0	0
71	Preparation and Function of Composite Material Arrayed Mesoporous Silica Microsphere on Titania Film. <i>Journal of the Society of Powder Technology, Japan</i> , 2008, 45, 90-97.	0.1	0
72	Design and control of diphenyl carbonate reactive distillation processes using arrangements with heat-integrated stages. , 2017, , .		0

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73	Modular Concept Inspired by Microchemical Systems and Application to Distillation. Computer Aided Chemical Engineering, 2018, , 2419-2424.	0.5	0
74	Adsorption Behavior of Arsenic Using Spherical Porous Silica Particles Covered with Magnetite. Journal of Ion Exchange, 2007, 18, 298-301.	0.3	0
75	Influence of resorcinolâ€“formaldehyde resin on the formation of alkali titanate fibers. Ceramics International, 2022, 48, 5704-5713.	4.8	0