Jacek Jagiello

List of Publications by Year
in descending order

110	7,576	45	85
papers	citations	h-index	g-index
		53794	53230

110	110	110	7015
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Confirmation of pore formation mechanisms in biochars and activated carbons by dual isotherm analysis. Materials Advances, 2022, 3, 3961-3971.	5.4	11
2	Carbon materials porosity analysis using DFT models for potential application in the recovery of methane from its low-concentration mixtures. Chemical Engineering Journal, 2022, 436, 135259.	12.7	3
3	Pore development during CO2 and H2O activation associated with the catalytic role of inherent inorganics in sewage sludge char and its performance during the reforming of volatiles. Chemical Engineering Journal, 2022, 446, 137298.	12.7	6
4	Pore wall corrugation effect on the dynamics of adsorbed H2 studied by in situ quasi-elastic neutron scattering: Observation of two timescaled diffusion. Carbon, 2022, 197, 359-367.	10.3	8
5	NLDFT adsorption models for zeolite porosity analysis with particular focus on ultra-microporous zeolites using O2 and H2. Journal of Colloid and Interface Science, 2022, 625, 178-186.	9.4	4
6	Alternative view of oxygen reduction on porous carbon electrocatalysts: The substance of complex oxygen-surface interactions. IScience, 2021, 24, 102216.	4.1	13
7	Assessing the contribution of micropores and mesopores from nitrogen adsorption on nanoporous carbons: Application to pore size analysis. Carbon, 2021, 183, 150-157.	10.3	25
8	Comprehensive Analysis of Hierarchical Porous Carbons Using a Dual-Shape 2D-NLDFT Model with an Adjustable Slitâ€“Cylinder Pore Shape Boundary. ACS Applied Materials & Interfaces, 2021, 13, 49472-49481.	8.0	7
9	Evaluation of the textural properties of ultramicroporous carbons using experimental and theoretical methods. Carbon, 2020, 157, 495-505.	10.3	15
10	Exploiting the adsorption of simple gases O2 and H2 with minimal quadrupole moments for the dual gas characterization of nanoporous carbons using 2D-NLDFT models. Carbon, 2020, 160, 164-175.	10.3	44
11	Crystallizing Atomic Xenon in a Flexible MOF to Probe and Understand Its Temperature-Dependent Breathing Behavior and Unusual Gas Adsorption Phenomenon. Journal of the American Chemical Society, 2020, 142, 20088-20097.	13.7	62
12	Development of a simple NLDFT model for the analysis of adsorption isotherms on zeolite templated carbon (ZTC). Carbon, 2020, 169, 205-213.	10.3	7
13	Enhancing the gas adsorption capacities of UiO-66 by nanographite addition. Microporous and Mesoporous Materials, 2020, 309, 110571.	4.4	11
14	Effect of the Incorporation of Functionalized Cellulose Nanocrystals into UiOâ€66 on Composite Porosity and Surface Heterogeneity Alterations. Advanced Materials Interfaces, 2020, 7, 1902098.	3.7	15
15	Consistency of carbon nanopore characteristics derived from adsorption of simple gases and 2D-NLDFT models. Advantages of using adsorption isotherms of oxygen (O2) at 77â€¯K. Journal of Colloid and Interface Science, 2019, 542, 151-158.	9.4	35
16	Enhanced resolution of ultra micropore size determination of biochars and activated carbons by dual gas analysis using N2 and CO2 with 2D-NLDFT adsorption models. Carbon, 2019, 144, 206-215.	10.3	86
17	Tetracycline removal with activated carbons produced by hydrothermal carbonisation of Agave americana fibres and mimosa tannin. Industrial Crops and Products, 2018, 115, 146-157.	5.2	78
18	Physical meaning of the parameters used in fractal kinetic and generalised adsorption models of Brouersâ€“Sotolongo. Adsorption, 2018, 24, 11-27.	3.0	30

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19	Exploring the effect of ultramicropore distribution on gravimetric capacitance of nanoporous carbons. Electrochimica Acta, 2018, 275, 236-247.	5.2	30
20	Hierarchically Engineered Mesoporous Metal-Organic Frameworks toward Cell-free Immobilized Enzyme Systems. CheM, 2018, 4, 1022-1034.	11.7	281
21	2D-NLDFT adsorption models for porous oxides with corrugated cylindrical pores. Journal of Colloid and Interface Science, 2018, 532, 588-597.	9.4	22
22	Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion. Advanced Functional Materials, 2016, 26, 5621-5630.	14.9	61
23	Structural analysis of IPC zeolites and related materials using positron annihilation spectroscopy and high-resolution argon adsorption. Physical Chemistry Chemical Physics, 2016, 18, 15269-15277.	2.8	21
24	Hierarchical Structures: Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion (Adv. Funct. Mater. 31/2016). Advanced Functional Materials, 2016, 26, 5768-5768.	14.9	0
25	Direct structural evidence of commensurate-to-incommensurate transition of hydrocarbon adsorption in a microporous metal organic framework. Chemical Science, 2016, 7, 759-765.	7.4	24
26	Enhanced reactive adsorption of H₂S on Cuâ€“BTC/ S- and N-doped GO composites. Journal of Materials Chemistry A, 2015, 3, 8194-8204.	10.3	63
27	Dual gas analysis of microporous carbons using 2D-NLDFT heterogeneous surface model and combined adsorption data of N2 and CO2. Carbon, 2015, 91, 330-337.	10.3	133
28	Adsorption of pentane isomers on metal-organic frameworks Cu-BTC and Fe-BTC. Catalysis Today, 2015, 243, 69-75.	4.4	30
29	Effects of CO2 activation of carbon aerogels leading to ultrahigh micro-meso porosity. Microporous and Mesoporous Materials, 2015, 209, 18-22.	4.4	33
30	Unified Method for the Total Pore Volume and Pore Size Distribution of Hierarchical Zeolites from Argon Adsorption and Mercury Intrusion. Langmuir, 2015, 31, 1242-1247.	3.5	41
31	Adsorption Properties of Activated Carbons Prepared from Waste CDs and DVDs. ACS Sustainable Chemistry and Engineering, 2015, 3, 733-742.	6.7	73
32	Carbons with narrow pore size distribution prepared by simultaneous carbonization and self-activation of tobacco stems and their application to supercapacitors. Carbon, 2015, 81, 148-157.	10.3	144
33	Insight into the mechanism of CO2 adsorption on Cuâ€“BTC and its composites with graphite oxide or aminated graphite oxide. Chemical Engineering Journal, 2014, 239, 399-407.	12.7	71
34	The first example of commensurate adsorption of atomic gas in a MOF and effective separation of xenon from other noble gases. Chemical Science, 2014, 5, 620-624.	7.4	203
35	Complexity of CO2 adsorption on nanoporous sulfur-doped carbons â€“ Is surface chemistry an important factor?. Carbon, 2014, 74, 207-217.	10.3	109
36	2D-NLDFT adsorption models for carbon slit-shaped pores with surface energetical heterogeneity and geometrical corrugation. Carbon, 2013, 55, 70-80.	10.3	440

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37	Monte Carlo simulation and experimental studies on the low temperature characterization of nitrogen adsorption on graphite. Carbon, 2013, 52, 158-170.	10.3	19
38	Carbon slit pore model incorporating surface energetical heterogeneity and geometrical corrugation. Adsorption, 2013, 19, 777-783.	3.0	272
39	In Situ Studies of Ion Transport in Microporous Supercapacitor Electrodes at Ultralow Temperatures. Advanced Functional Materials, 2012, 22, 1655-1662.	14.9	96
40	Effects of Temperature on Adsorption of Methanol on Graphitized Thermal Carbon Black: A Computer Simulation and Experimental Study. Journal of Physical Chemistry C, 2011, 115, 16142-16149.	3.1	23
41	Using a New Finite Slit Pore Model for NLDFT Analysis of Carbon Pore Structure. Adsorption Science and Technology, 2011, 29, 769-780.	3.2	24
42	Thermodynamics of CO2 adsorption on functionalized SBA-15 silica. NLDFT analysis of surface energetic heterogeneity. Physical Chemistry Chemical Physics, 2011, 13, 15468.	2.8	34
43	Toward Understanding Reactive Adsorption of Ammonia on Cu-MOF/Graphite Oxide Nanocomposites. Langmuir, 2011, 27, 13043-13051.	3.5	137
44	Tailoring the Pore Alignment for Rapid Ion Transport in Microporous Carbons. Journal of the American Chemical Society, 2010, 132, 3252-3253.	13.7	175
45	Tests of Pore-Size Distributions Deduced fromÂInversion of Simulated and Real Adsorption Data. Journal of Low Temperature Physics, 2009, 157, 410-428.	1.4	24
46	A Simple Two-Dimensional NLDFT Model of Gas Adsorption in Finite Carbon Pores. Application to Pore Structure Analysis. Journal of Physical Chemistry C, 2009, 113, 19382-19385.	3.1	156
47	Characterization of pore structure of carbon molecular sieves using DFT analysis of Ar and H2 adsorption data. Microporous and Mesoporous Materials, 2008, 108, 117-122.	4.4	47
48	Using DFT analysis of adsorption data of multiple gases including H2 for the comprehensive characterization of microporous carbons. Carbon, 2007, 45, 1066-1071.	10.3	51
49	Complementary study of microporous adsorbents with DFT and LBET. Applied Surface Science, 2007, 253, 5616-5621.	6.1	16
50	DFT-Based Prediction of High-Pressure H2Adsorption on Porous Carbons at Ambient Temperatures from Low-Pressure Adsorption Data Measured at 77 K. Journal of Physical Chemistry B, 2006, 110, 4531-4534.	2.6	52
51	Carbide-Derived Carbons: Effect of Pore Size on Hydrogen Uptake and Heat of Adsorption. Advanced Functional Materials, 2006, 16, 2288-2293.	14.9	379
52	Achieving High Density of Adsorbed Hydrogen in Microporous Metal Organic Frameworks. Advanced Materials, 2005, 17, 2703-2706.	21.0	125
53	Gas sorption properties of microporous metal organic frameworks. Journal of Solid State Chemistry, 2005, 178, 2527-2532.	2.9	170
54	Hydrogen adsorption on a single-walled carbon nanotube material: a comparative study of three different adsorption techniques. Nanotechnology, 2004, 15, 1503-1508.	2.6	48

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55	Comparison of DFT characterization methods based on N2, Ar, CO2, and H2 adsorption applied to carbons with various pore size distributions. Carbon, 2004, 42, 1227-1232.	10.3	417
56	Hydrogen adsorption studies on single wall carbon nanotubes. Carbon, 2004, 42, 1243-1248.	10.3	154
57	High-Resolution Adsorption of Nitrogen on Mesoporous Alumina. Langmuir, 2004, 20, 7532-7539.	3.5	32
58	Porosity, Surface Area, Surface Energy, and Hydrogen Adsorption in Nanostructured Carbons. Journal of Physical Chemistry B, 2004, 108, 15820-15826.	2.6	112
59	Surface functionality and porosity of activated carbons obtained from chemical activation of wood. Carbon, 2000, 38, 669-674.	10.3	193
60	Effect of Mineral Host on Surface Acidity of Hydroxy-Cr Intercalated Clays. Clays and Clay Minerals, 1997, 45, 110-113.	1.3	3
61	Surface chemical heterogeneity of pillared hydrotalcites. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 1243.	1.7	12
62	Adsorption of Sulfur Hexafluoride and Propane at Temperatures near Ambient on Pillared Clays. Journal of Chemical & Engineering Data, 1996, 41, 880-884.	1.9	31
63	Pore Structure of Carbonâˆ’Mineral Nanocomposites and Derived Carbons Obtained by Template Carbonization. Chemistry of Materials, 1996, 8, 2023-2029.	6.7	75
64	Changes in the acidic properties of pillared taeniolites on heat treatment or alkene decomposition. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 4631-4635.	1.7	2
65	Study of Nanocomposites Obtained by Carbonization of Different Organic Precursors within Taeniolite Matrices. Clays and Clay Minerals, 1996, 44, 237-243.	1.3	11
66	Sorption and desorption of lithium ions from activated carbons. Carbon, 1996, 34, 481-487.	10.3	35
67	Thermodynamically Consistent Analysis of Silica Surface Heterogeneity Using Alkane and Alkene Adsorption Isotherms. Kluwer International Series in Engineering and Computer Science, 1996, , 417-424.	0.2	2
68	Determination of Proton Affinity Distributions for Chemical Systems in Aqueous Environments Using a Stable Numerical Solution of the Adsorption Integral Equation. Journal of Colloid and Interface Science, 1995, 172, 341-346.	9.4	89
69	Ropore structure development in poly(sodium-4-styrenesulfonate) derived carbons. Carbon, 1995, 33, 1047-1052.	10.3	10
70	Proton affinity distributions: A scientific basis for the design and construction of supported metal catalysts. Studies in Surface Science and Catalysis, 1995, 91, 237-252.	1.5	11
71	Sieving Properties of Carbons Obtained by Template Carbonization of Polyfurfuryl Alcohol within Mineral Matrixes. Langmuir, 1995, 11, 3964-3969.	3.5	45
72	Adsorption near Ambient Temperatures of Methane, Carbon Tetrafluoride, and Sulfur Hexafluoride on Commercial Activated Carbons. Journal of Chemical & Engineering Data, 1995, 40, 1288-1292.	1.9	55

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73	Hydrotalcite-like structures as molecular containers for preparation of microporous carbons. Applied Clay Science, 1995, 10, 177-186.	5.2	21
74	Surface acidity of pillared taeniolites in terms of their proton affinity distributions. The Journal of Physical Chemistry, 1995, 99, 13522-13527.	2.9	32
75	Micropore structure of template-derived carbons studied using adsorption of gases with different molecular diameters. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 2929-2933.	1.7	36
76	Sorption Properties of Carbon Composite Materials Formed from Layered Clay Minerals. Clays and Clay Minerals, 1994, 42, 1-6.	1.3	28
77	Study of carbon microstructure by using inverse gas chromatography. Carbon, 1994, 32, 687-691.	10.3	27
78	Study of carbon-smectite composites and carbons obtained by in situ carbonization of polyfurfuryl alcohol. Carbon, 1994, 32, 659-664.	10.3	54
79	Characterization of acidity of pillared clays by proton affinity distribution and DRIFT spectroscopy. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 3573-3578.	1.7	26
80	Adsorption energy and structural heterogeneity of activated carbons. Studies in Surface Science and Catalysis, 1994, 87, 679-688.	1.5	6
81	Stable Numerical Solution of the Adsorption Integral Equation Using Splines. Langmuir, 1994, 10, 2778-2785.	3.5	385
82	Characterization of the surfaces of activated carbons in terms of their acidity constant distributions. Carbon, 1993, 31, 1193-1202.	10.3	187
83	Application of inverse gas chromatography to the study of the surface properties of modified layered minerals. Microporous Materials, 1993, 1, 73-79.	1.6	47
84	Relationship between energetic and structural heterogeneity of microporous carbons determined on the basis of adsorption potentials in model micropores. Langmuir, 1993, 9, 2513-2517.	3.5	62
85	Heterogeneity of proton binding sites at the oxide/solution interface. Langmuir, 1993, 9, 1754-1765.	3.5	162
86	Effect of surface chemical groups on energetic heterogeneity of activated carbons. Langmuir, 1993, 9, 2518-2522.	3.5	56
87	Comparison of methods to assess surface acidic groups on activated carbons. Analytical Chemistry, 1992, 64, 891-895.	6.5	105
88	Inverse Gas Chromatography Study of Modified Smectite Surfaces. Clays and Clay Minerals, 1992, 40, 306-310.	1.3	51
89	Chemical and structural properties of clay minerals modified by inorganic and organic material. Clay Minerals, 1992, 27, 435-444.	0.6	27
90	Effect of WO3 loading on the surface acidity of WO3/Al2O3 composite oxides. Applied Catalysis A: General, 1992, 84, 123-139.	4.3	37

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91	A study of the activity of chemical groups on carbonaceous and model surfaces by infinite dilution chromatography. Chromatographia, 1992, 33, 441-444.	1.3	8
92	Thermodynamic description of the process of gas liberation from a coal bed. Fuel, 1992, 71, 431-435.	6.4	32
93	Thermodynamic study of high-pressure adsorption of methane on activated carbons: The effect of oxidation on pore structure and adsorption energy heterogeneity. Carbon, 1992, 30, 507-512.	10.3	18
94	Application of inverse gas chromatography at infinite dilution to study the effects of oxidation of activated carbons. Carbon, 1992, 30, 63-69.	10.3	49
95	Inverse gas chromatographic studies on silica: infinite dilution and finite concentration measurements. Langmuir, 1991, 7, 2243-2247.	3.5	30
96	A new method of evaluation of specific surface area of solids using inverse gas chromatography at infinite dilution. Journal of Colloid and Interface Science, 1991, 142, 232-235.	9.4	5
97	Local exact and approximate solutions of the adsorption integral equation with a kernel of a Langmuir-like isotherm: Determination of adsorption energy distribution. Journal of Colloid and Interface Science, 1991, 146, 415-424.	9.4	32
98	A study of the acidic properties of pure and composite oxides by inverse gas chromatography at infinite dilution. Journal of Catalysis, 1991, 131, 433-444.	6.2	11
99	Surface energy and adsorption energy distribution measurements on some carbon blacks. Carbon, 1991, 29, 1135-1143.	10.3	45
100	Characterization of specific interactions capacity of solid surfaces by adsorption of alkanes and alkenes. Part II: Adsorption on crystalline silica layer surfaces. Chromatographia, 1990, 29, 35-38.	1.3	9
101	Characterization of silicas by inverse gas chromatography at finite concentration: Determination of the adsorption energy distribution function. Journal of Colloid and Interface Science, 1990, 137, 128-136.	9.4	71
102	Characterization of specific interaction capacity of solid surfaces by adsorption of alkanes and alkenes. Part I: Adsorption on open surfaces. Chromatographia, 1989, 28, 588-592.	1.3	35
103	Virial-type thermal equation of gasâ€"solid adsorption. Chemical Engineering Science, 1989, 44, 797-801.	3.8	319
104	A Simple Approach to the 2D Mobile Adsorption of Gases on Heterogeneous Solid Surfaces Exhibiting Random Surface Topography. Adsorption Science and Technology, 1989, 6, 35-51.	3.2	5
105	Adsorption of organics on thermally treated solids obtained from colloidal silica. Collection of Czechoslovak Chemical Communications, 1987, 52, 572-581.	1.0	4
106	Low-pressure adsorption of gases on heterogeneous solid surfaces and the virial description formalism. Journal of Colloid and Interface Science, 1985, 104, 297-310.	9.4	8
107	Adsorption of ammonia in zeolites and SiO2-molecular sieves. The distribution of adsorption energy in Na-X and NaH-Y zeolites. Zeolites, 1983, 3, 199-204.	0.5	9
108	Physical adsorption of gases on heterogeneous solid surfaces: Evaluation of the adsorption energy distribution from adsorption isotherms and heats of adsorption. Journal of Colloid and Interface Science, 1982, 87, 478-491.	9.4	102

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109	Low-temperature adsorption of gases on heterogeneous solid surfaces: Effects of surface topography. Journal of Low Temperature Physics, 1982, 48, 307-320.	1.4	24
110	Low-temperature adsorption of gases on heterogeneous solid surfaces: Surfaces with random topography. Journal of Low Temperature Physics, 1981, 45, 1-19.	1.4	35