

Jacek Jagiello

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/7531818/jacek-jagiello-publications-by-year.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

108
papers

6,397
citations

42
h-index

78
g-index

110
ext. papers

6,946
ext. citations

7.3
avg, IF

5.99
L-index

#	Paper	IF	Citations
108	Carbon materials porosity analysis using DFT models for potential application in the recovery of methane from its low-concentration mixtures. <i>Chemical Engineering Journal</i> , 2022 , 436, 135259	14.7	1
107	Pore development during CO ₂ and H ₂ O activation associated with the catalytic role of inherent inorganics in sewage sludge char and its performance during the reforming of volatiles. <i>Chemical Engineering Journal</i> , 2022 , 446, 137298	14.7	0
106	Comprehensive Analysis of Hierarchical Porous Carbons Using a Dual-Shape 2D-NLDFT Model with an Adjustable Slit-Cylinder Pore Shape Boundary. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 49472-49489	9.5	49489
105	Alternative view of oxygen reduction on porous carbon electrocatalysts: the substance of complex oxygen-surface interactions. <i>IScience</i> , 2021 , 24, 102216	6.1	6
104	Assessing the contribution of micropores and mesopores from nitrogen adsorption on nanoporous carbons: Application to pore size analysis. <i>Carbon</i> , 2021 , 183, 150-157	10.4	7
103	Effect of the Incorporation of Functionalized Cellulose Nanocrystals into UiO-66 on Composite Porosity and Surface Heterogeneity Alterations. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1902098	4.6	6
102	Evaluation of the textural properties of ultramicroporous carbons using experimental and theoretical methods. <i>Carbon</i> , 2020 , 157, 495-505	10.4	7
101	Exploiting the adsorption of simple gases O ₂ and H ₂ with minimal quadrupole moments for the dual gas characterization of nanoporous carbons using 2D-NLDFT models. <i>Carbon</i> , 2020 , 160, 164-175	10.4	23
100	Crystallizing Atomic Xenon in a Flexible MOF to Probe and Understand Its Temperature-Dependent Breathing Behavior and Unusual Gas Adsorption Phenomenon. <i>Journal of the American Chemical Society</i> , 2020 , 142, 20088-20097	16.4	18
99	Development of a simple NLDFT model for the analysis of adsorption isotherms on zeolite templated carbon (ZTC). <i>Carbon</i> , 2020 , 169, 205-213	10.4	4
98	Enhancing the gas adsorption capacities of UiO-66 by nanographite addition. <i>Microporous and Mesoporous Materials</i> , 2020 , 309, 110571	5.3	4
97	Consistency of carbon nanopore characteristics derived from adsorption of simple gases and 2D-NLDFT models. Advantages of using adsorption isotherms of oxygen (O) at 77 K. <i>Journal of Colloid and Interface Science</i> , 2019 , 542, 151-158	9.3	22
96	Enhanced resolution of ultra micropore size determination of biochars and activated carbons by dual gas analysis using N ₂ and CO ₂ with 2D-NLDFT adsorption models. <i>Carbon</i> , 2019 , 144, 206-215	10.4	50
95	Tetracycline removal with activated carbons produced by hydrothermal carbonisation of Agave americana fibres and mimosa tannin. <i>Industrial Crops and Products</i> , 2018 , 115, 146-157	5.9	58
94	Physical meaning of the parameters used in fractal kinetic and generalised adsorption models of BrouersBotolongo. <i>Adsorption</i> , 2018 , 24, 11-27	2.6	26
93	Exploring the effect of ultramicropore distribution on gravimetric capacitance of nanoporous carbons. <i>Electrochimica Acta</i> , 2018 , 275, 236-247	6.7	23
92	Hierarchically Engineered Mesoporous Metal-Organic Frameworks toward Cell-free Immobilized Enzyme Systems. <i>CheM</i> , 2018 , 4, 1022-1034	16.2	187

91	2D-NLDFT adsorption models for porous oxides with corrugated cylindrical pores. <i>Journal of Colloid and Interface Science</i> , 2018 , 532, 588-597	9.3	16
90	Hierarchical Structures: Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion (Adv. Funct. Mater. 31/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 5768-5768	15.6	
89	Direct structural evidence of commensurate-to-incommensurate transition of hydrocarbon adsorption in a microporous metal organic framework. <i>Chemical Science</i> , 2016 , 7, 759-765	9.4	24
88	Quantifying the Complex Pore Architecture of Hierarchical Faujasite Zeolites and the Impact on Diffusion. <i>Advanced Functional Materials</i> , 2016 , 26, 5621-5630	15.6	44
87	Structural analysis of IPC zeolites and related materials using positron annihilation spectroscopy and high-resolution argon adsorption. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 15269-77	3.6	17
86	Adsorption Properties of Activated Carbons Prepared from Waste CDs and DVDs. <i>ACS Sustainable Chemistry and Engineering</i> , 2015 , 3, 733-742	8.3	52
85	Carbons with narrow pore size distribution prepared by simultaneous carbonization and self-activation of tobacco stems and their application to supercapacitors. <i>Carbon</i> , 2015 , 81, 148-157	10.4	112
84	Enhanced reactive adsorption of H ₂ S on CuBTC/ S- and N-doped GO composites. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8194-8204	13	48
83	Dual gas analysis of microporous carbons using 2D-NLDFT heterogeneous surface model and combined adsorption data of N ₂ and CO ₂ . <i>Carbon</i> , 2015 , 91, 330-337	10.4	95
82	Adsorption of pentane isomers on metal-organic frameworks Cu-BTC and Fe-BTC. <i>Catalysis Today</i> , 2015 , 243, 69-75	5.3	25
81	Effects of CO ₂ activation of carbon aerogels leading to ultrahigh micro-meso porosity. <i>Microporous and Mesoporous Materials</i> , 2015 , 209, 18-22	5.3	30
80	Unified method for the total pore volume and pore size distribution of hierarchical zeolites from argon adsorption and mercury intrusion. <i>Langmuir</i> , 2015 , 31, 1242-7	4	35
79	Insight into the mechanism of CO ₂ adsorption on CuBTC and its composites with graphite oxide or aminated graphite oxide. <i>Chemical Engineering Journal</i> , 2014 , 239, 399-407	14.7	52
78	The first example of commensurate adsorption of atomic gas in a MOF and effective separation of xenon from other noble gases. <i>Chemical Science</i> , 2014 , 5, 620-624	9.4	175
77	Complexity of CO ₂ adsorption on nanoporous sulfur-doped carbons ¶s surface chemistry an important factor?. <i>Carbon</i> , 2014 , 74, 207-217	10.4	82
76	2D-NLDFT adsorption models for carbon slit-shaped pores with surface energetical heterogeneity and geometrical corrugation. <i>Carbon</i> , 2013 , 55, 70-80	10.4	346
75	Monte Carlo simulation and experimental studies on the low temperature characterization of nitrogen adsorption on graphite. <i>Carbon</i> , 2013 , 52, 158-170	10.4	18
74	Carbon slit pore model incorporating surface energetical heterogeneity and geometrical corrugation. <i>Adsorption</i> , 2013 , 19, 777-783	2.6	223

73	In Situ Studies of Ion Transport in Microporous Supercapacitor Electrodes at Ultralow Temperatures. <i>Advanced Functional Materials</i> , 2012 , 22, 1655-1662	15.6	81
72	Thermodynamics of CO ₂ adsorption on functionalized SBA-15 silica. NLDFT analysis of surface energetic heterogeneity. <i>Physical Chemistry Chemical Physics</i> , 2011 , 13, 15468-75	3.6	31
71	Toward understanding reactive adsorption of ammonia on Cu-MOF/graphite oxide nanocomposites. <i>Langmuir</i> , 2011 , 27, 13043-51	4	117
70	Effects of Temperature on Adsorption of Methanol on Graphitized Thermal Carbon Black: A Computer Simulation and Experimental Study. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 16142-16149	3.8	22
69	Using a New Finite Slit Pore Model for NLDFT Analysis of Carbon Pore Structure. <i>Adsorption Science and Technology</i> , 2011 , 29, 769-780	3.6	22
68	Tailoring the pore alignment for rapid ion transport in microporous carbons. <i>Journal of the American Chemical Society</i> , 2010 , 132, 3252-3	16.4	164
67	Tests of Pore-Size Distributions Deduced from Inversion of Simulated and Real Adsorption Data. <i>Journal of Low Temperature Physics</i> , 2009 , 157, 410-428	1.3	22
66	A Simple Two-Dimensional NLDFT Model of Gas Adsorption in Finite Carbon Pores. Application to Pore Structure Analysis. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 19382-19385	3.8	140
65	Characterization of pore structure of carbon molecular sieves using DFT analysis of Ar and H ₂ adsorption data. <i>Microporous and Mesoporous Materials</i> , 2008 , 108, 117-122	5.3	41
64	Using DFT analysis of adsorption data of multiple gases including H ₂ for the comprehensive characterization of microporous carbons. <i>Carbon</i> , 2007 , 45, 1066-1071	10.4	42
63	Complementary study of microporous adsorbents with DFT and LBET. <i>Applied Surface Science</i> , 2007 , 253, 5616-5621	6.7	14
62	Carbide-Derived Carbons: Effect of Pore Size on Hydrogen Uptake and Heat of Adsorption. <i>Advanced Functional Materials</i> , 2006 , 16, 2288-2293	15.6	335
61	DFT-based prediction of high-pressure H ₂ adsorption on porous carbons at ambient temperatures from low-pressure adsorption data measured at 77 K. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 4531-4	3.4	50
60	Achieving High Density of Adsorbed Hydrogen in Microporous Metal Organic Frameworks. <i>Advanced Materials</i> , 2005 , 17, 2703-2706	24	119
59	Gas sorption properties of microporous metal organic frameworks. <i>Journal of Solid State Chemistry</i> , 2005 , 178, 2527-2532	3.3	160
58	Hydrogen adsorption on a single-walled carbon nanotube material: a comparative study of three different adsorption techniques. <i>Nanotechnology</i> , 2004 , 15, 1503-1508	3.4	45
57	Comparison of DFT characterization methods based on N ₂ , Ar, CO ₂ , and H ₂ adsorption applied to carbons with various pore size distributions. <i>Carbon</i> , 2004 , 42, 1227-1232	10.4	364
56	Hydrogen adsorption studies on single wall carbon nanotubes. <i>Carbon</i> , 2004 , 42, 1243-1248	10.4	140

55	High-resolution adsorption of nitrogen on mesoporous alumina. <i>Langmuir</i> , 2004 , 20, 7532-9	4	32
54	Porosity, Surface Area, Surface Energy, and Hydrogen Adsorption in Nanostructured Carbons. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 15820-15826	3.4	107
53	Surface functionality and porosity of activated carbons obtained from chemical activation of wood. <i>Carbon</i> , 2000 , 38, 669-674	10.4	170
52	Effect of Mineral Host on Surface Acidity of Hydroxy-Cr Intercalated Clays. <i>Clays and Clay Minerals</i> , 1997 , 45, 110-113	2.1	3
51	Surface chemical heterogeneity of pillared hydrotalcites. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1996 , 92, 1243		10
50	Adsorption of Sulfur Hexafluoride and Propane at Temperatures near Ambient on Pillared Clays. <i>Journal of Chemical & Engineering Data</i> , 1996 , 41, 880-884	2.8	28
49	Pore Structure of Carbon/Mineral Nanocomposites and Derived Carbons Obtained by Template Carbonization. <i>Chemistry of Materials</i> , 1996 , 8, 2023-2029	9.6	71
48	Changes in the acidic properties of pillared taeniolites on heat treatment or alkene decomposition. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1996 , 92, 4631-4635		2
47	Study of Nanocomposites Obtained by Carbonization of Different Organic Precursors within Taeniolite Matrices. <i>Clays and Clay Minerals</i> , 1996 , 44, 237-243	2.1	9
46	Sorption and desorption of lithium ions from activated carbons. <i>Carbon</i> , 1996 , 34, 481-487	10.4	29
45	Thermodynamically Consistent Analysis of Silica Surface Heterogeneity Using Alkane and Alkene Adsorption Isotherms. <i>Kluwer International Series in Engineering and Computer Science</i> , 1996 , 417-424		2
44	Proton affinity distributions: A scientific basis for the design and construction of supported metal catalysts. <i>Studies in Surface Science and Catalysis</i> , 1995 , 91, 237-252	1.8	6
43	Sieving Properties of Carbons Obtained by Template Carbonization of Polyfurfuryl Alcohol within Mineral Matrixes. <i>Langmuir</i> , 1995 , 11, 3964-3969	4	40
42	Adsorption near Ambient Temperatures of Methane, Carbon Tetrafluoride, and Sulfur Hexafluoride on Commercial Activated Carbons. <i>Journal of Chemical & Engineering Data</i> , 1995 , 40, 1288-1292	2.8	54
41	Hydrotalcite-like structures as molecular containers for preparation of microporous carbons. <i>Applied Clay Science</i> , 1995 , 10, 177-186	5.2	19
40	Surface acidity of pillared taeniolites in terms of their proton affinity distributions. <i>The Journal of Physical Chemistry</i> , 1995 , 99, 13522-13527		32
39	Micropore structure of template-derived carbons studied using adsorption of gases with different molecular diameters. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1995 , 91, 2929-2933		32
38	Determination of Proton Affinity Distributions for Chemical Systems in Aqueous Environments Using a Stable Numerical Solution of the Adsorption Integral Equation. <i>Journal of Colloid and Interface Science</i> , 1995 , 172, 341-346	9.3	85

37	Ropore structure development in poly(sodium-4-styrenesulfonate) derived carbons. <i>Carbon</i> , 1995 , 33, 1047-1052	10.4	9
36	Sorption Properties of Carbon Composite Materials Formed from Layered Clay Minerals. <i>Clays and Clay Minerals</i> , 1994 , 42, 1-6	2.1	22
35	Study of carbon microstructure by using inverse gas chromatography. <i>Carbon</i> , 1994 , 32, 687-691	10.4	25
34	Study of carbon-smectite composites and carbons obtained by in situ carbonization of polyfurfuryl alcohol. <i>Carbon</i> , 1994 , 32, 659-664	10.4	51
33	Characterization of acidity of pillared clays by proton affinity distribution and DRIFT spectroscopy. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1994 , 90, 3573-3578		23
32	Adsorption energy and structural heterogeneity of activated carbons. <i>Studies in Surface Science and Catalysis</i> , 1994 , 87, 679-688	1.8	5
31	Stable Numerical Solution of the Adsorption Integral Equation Using Splines. <i>Langmuir</i> , 1994 , 10, 2778-2785		343
30	Relationship between energetic and structural heterogeneity of microporous carbons determined on the basis of adsorption potentials in model micropores. <i>Langmuir</i> , 1993 , 9, 2513-2517	4	59
29	Heterogeneity of proton binding sites at the oxide/solution interface. <i>Langmuir</i> , 1993 , 9, 1754-1765	4	148
28	Effect of surface chemical groups on energetic heterogeneity of activated carbons. <i>Langmuir</i> , 1993 , 9, 2518-2522	4	55
27	Characterization of the surfaces of activated carbons in terms of their acidity constant distributions. <i>Carbon</i> , 1993 , 31, 1193-1202	10.4	169
26	Application of inverse gas chromatography to the study of the surface properties of modified layered minerals. <i>Microporous Materials</i> , 1993 , 1, 73-79		40
25	Comparison of methods to assess surface acidic groups on activated carbons. <i>Analytical Chemistry</i> , 1992 , 64, 891-895	7.8	94
24	Inverse Gas Chromatography Study of Modified Smectite Surfaces. <i>Clays and Clay Minerals</i> , 1992 , 40, 306-310	2.1	50
23	Chemical and structural properties of clay minerals modified by inorganic and organic material. <i>Clay Minerals</i> , 1992 , 27, 435-444	1.3	22
22	Effect of WO ₃ loading on the surface acidity of WO ₃ /Al ₂ O ₃ composite oxides. <i>Applied Catalysis A: General</i> , 1992 , 84, 123-139	5.1	31
21	A study of the activity of chemical groups on carbonaceous and model surfaces by infinite dilution chromatography. <i>Chromatographia</i> , 1992 , 33, 441-444	2.1	8
20	Thermodynamic description of the process of gas liberation from a coal bed. <i>Fuel</i> , 1992 , 71, 431-435	7.1	29

19	Thermodynamic study of high-pressure adsorption of methane on activated carbons: The effect of oxidation on pore structure and adsorption energy heterogeneity. <i>Carbon</i> , 1992 , 30, 507-512	10.4	13
18	Application of inverse gas chromatography at infinite dilution to study the effects of oxidation of activated carbons. <i>Carbon</i> , 1992 , 30, 63-69	10.4	47
17	A new method of evaluation of specific surface area of solids using inverse gas chromatography at infinite dilution. <i>Journal of Colloid and Interface Science</i> , 1991 , 142, 232-235	9.3	5
16	Local exact and approximate solutions of the adsorption integral equation with a kernel of a Langmuir-like isotherm: Determination of adsorption energy distribution. <i>Journal of Colloid and Interface Science</i> , 1991 , 146, 415-424	9.3	31
15	A study of the acidic properties of pure and composite oxides by inverse gas chromatography at infinite dilution. <i>Journal of Catalysis</i> , 1991 , 131, 433-444	7.3	10
14	Surface energy and adsorption energy distribution measurements on some carbon blacks. <i>Carbon</i> , 1991 , 29, 1135-1143	10.4	39
13	Inverse gas chromatographic studies on silica: infinite dilution and finite concentration measurements. <i>Langmuir</i> , 1991 , 7, 2243-2247	4	27
12	Characterization of specific interactions capacity of solid surfaces by adsorption of alkanes and alkenes. Part II: Adsorption on crystalline silica layer surfaces. <i>Chromatographia</i> , 1990 , 29, 35-38	2.1	9
11	Characterization of silicas by inverse gas chromatography at finite concentration: Determination of the adsorption energy distribution function. <i>Journal of Colloid and Interface Science</i> , 1990 , 137, 128-136	9.3	66
10	Characterization of specific interaction capacity of solid surfaces by adsorption of alkanes and alkenes. Part I: Adsorption on open surfaces. <i>Chromatographia</i> , 1989 , 28, 588-592	2.1	31
9	Virial-type thermal equation of gas-solid adsorption. <i>Chemical Engineering Science</i> , 1989 , 44, 797-801	4.4	285
8	A Simple Approach to the 2D Mobile Adsorption of Gases on Heterogeneous Solid Surfaces Exhibiting Random Surface Topography. <i>Adsorption Science and Technology</i> , 1989 , 6, 35-51	3.6	5
7	Adsorption of organics on thermally treated solids obtained from colloidal silica. <i>Collection of Czechoslovak Chemical Communications</i> , 1987 , 52, 572-581		4
6	Low-pressure adsorption of gases on heterogeneous solid surfaces and the virial description formalism. <i>Journal of Colloid and Interface Science</i> , 1985 , 104, 297-310	9.3	7
5	Adsorption of ammonia in zeolites and SiO ₂ -molecular sieves. The distribution of adsorption energy in Na-X and NaH-Y zeolites. <i>Zeolites</i> , 1983 , 3, 199-204		6
4	Physical adsorption of gases on heterogeneous solid surfaces: Evaluation of the adsorption energy distribution from adsorption isotherms and heats of adsorption. <i>Journal of Colloid and Interface Science</i> , 1982 , 87, 478-491	9.3	97
3	Low-temperature adsorption of gases on heterogeneous solid surfaces: Effects of surface topography. <i>Journal of Low Temperature Physics</i> , 1982 , 48, 307-320	1.3	22
2	Low-temperature adsorption of gases on heterogeneous solid surfaces: Surfaces with random topography. <i>Journal of Low Temperature Physics</i> , 1981 , 45, 1-19	1.3	33

- 1 Confirmation of pore formation mechanisms in biochars and activated carbons by dual isotherm analysis. *Materials Advances*,

3:3 1