Mark J Biggs

List of Publications by Year
in descending order

80	2,686	147566	189595
papers	citations	31 h-index	50 g-index

84	84	84	4069
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Partial breaking of the Coulombic ordering of ionic liquids confined in carbon nanopores. Nature Materials, 2017, 16, 1225-1232.	13.3	219
2	The effects of activated carbon surface features on the reactive adsorption of carbamazepine and sulfamethoxazole. Carbon, 2014, 80, 419-432.	5.4	154
3	Raman spectroscopy study of the transformation of the carbonaceous skeleton of a polymer-based nanoporous carbon along the thermal annealing pathway. Carbon, 2015, 85, 147-158.	5.4	145
4	Molecular-Level Understanding of Protein Adsorption at the Interface between Water and a Strongly Interacting Uncharged Solid Surface. Journal of the American Chemical Society, 2014, 136, 5323-5331.	6.6	139
5	Carbon Nanotubes for Dye-Sensitized Solar Cells. Small, 2015, 11, 2963-2989.	5.2	122
6	Nanocarbons for mesoscopic perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 9020-9031.	5.2	104
7	A Highâ€Volumetricâ€Capacity Cathode Based on Interconnected Closeâ€Packed Nâ€Doped Porous Carbon Nanospheres for Longâ€Life Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2017, 7, 1701082.	10.2	88
8	Carbon Nanotubes in TiO₂ Nanofiber Photoelectrodes for Highâ€Performance Perovskite Solar Cells. Advanced Science, 2017, 4, 1600504.	5.6	83
9	Solution processed graphene structures for perovskite solar cells. Journal of Materials Chemistry A, 2016, 4, 2605-2616.	5.2	73
10	Thermodynamic cycles of adsorption desalination system. Applied Energy, 2012, 90, 316-322.	5.1	71
11	Virtual porous carbons: what they are and what they can be used for. Molecular Simulation, 2006, 32, 579-593.	0.9	60
12	Carbon microspheres with embedded FeP nanoparticles as a cathode electrocatalyst in Li-S batteries. Chemical Engineering Journal, 2021, 406, 126823.	6.6	60
13	Transformations and destruction of nitrogen oxidesâ€”NO, NO2 and N2Oâ€”in a pulsed corona discharge reactorâ˜†. Fuel, 2003, 82, 1675-1684.	3.4	59
14	The COCO2 product ratio for a porous char particle within an incipiently fluidized bed: a numerical study. Chemical Engineering Science, 1997, 52, 941-952.	1.9	54
15	Free Energy of Adsorption for a Peptide at a Liquid/Solid Interface via Nonequilibrium Molecular Dynamics. Langmuir, 2013, 29, 2919-2926.	1.6	53
16	Microfluidic hydrodynamic focusing based synthesis of POPC liposomes for model biological systems. Colloids and Surfaces B: Biointerfaces, 2013, 104, 276-281.	2.5	49
17	Single-Walled Carbon Nanotubes Enhance the Efficiency and Stability of Mesoscopic Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 19945-19954.	4.0	49
18	Pore size distributions derived from adsorption isotherms, immersion calorimetry, and isosteric heats: A comparative study. Carbon, 2016, 96, 1106-1113.	5.4	47

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19	Experimental implementation and validation of thermodynamic cycles of adsorption-based desalination. Applied Energy, 2012, 98, 190-197.	5.1	44
20	Dynamic model for the optimisation of adsorption-based desalination processes. Applied Thermal Engineering, 2014, 66, 464-473.	3.0	42
21	Thermodynamic analysis of an adsorption-based desalination cycle. Chemical Engineering Research and Design, 2010, 88, 1541-1547.	2.7	41
22	Carbonaceous Dyeâ€Sensitized Solar Cell Photoelectrodes. Advanced Science, 2015, 2, 1400025.	5.6	39
23	Incorporation of graphene into SnO2 photoanodes for dye-sensitized solar cells. Applied Surface Science, 2016, 387, 690-697.	3.1	38
24	Effect of visible light and electrode wetting on the capacitive performance of S- and N-doped nanoporous carbons: Importance of surface chemistry. Carbon, 2014, 78, 540-558.	5.4	37
25	A pore network model for diffusion in nanoporous carbons: Validation by molecular dynamics simulation. Chemical Engineering Science, 2008, 63, 3319-3327.	1.9	36
26	Analysis of Adsorbateâ€“Adsorbate and Adsorbateâ€“Adsorbent Interactions to Decode Isosteric Heats of Gas Adsorption. ChemPhysChem, 2015, 16, 3797-3805.	1.0	36
27	Explicit numerical simulation of suspension flow with deposition in porous media: influence of local flow field variation on deposition processes predicted by trajectory methods. Chemical Engineering Science, 2003, 58, 1271-1288.	1.9	35
28	Molecular Simulation Evidence for Solidlike Adsorbate in Complex Carbonaceous Micropore Structures. Langmuir, 2004, 20, 5786-5800.	1.6	35
29	Evaluation of Methods for Determining the Pore Size Distribution and Pore-Network Connectivity of Porous Carbons. Langmuir, 2007, 23, 8430-8440.	1.6	34
30	Experimental study of a liquid fluidization in a microfluidic channel. AICHE Journal, 2013, 59, 361-364.	1.8	34
31	Thermodynamic analysis of an adsorption-based desalination cycle (part II): Effect of evaporator temperature on performance. Chemical Engineering Research and Design, 2011, 89, 2168-2175.	2.7	31
32	Characterizations of Activated Carbonâ€“Methanol Adsorption Pair Including the Heat of Adsorptions. Journal of Chemical & Engineering Data, 2015, 60, 1727-1731.	1.0	31
33	Granular temperature in a gas fluidized bed. Granular Matter, 2008, 10, 63-73.	1.1	27
34	Cobalt(II) Tetraaminophthalocyanineâ€modified Multiwall Carbon Nanotubes as an Efficient Sulfur Redox Catalyst for Lithiumâ€“Sulfur Batteries. ChemSusChem, 2020, 13, 3034-3044.	3.6	27
35	Combustion of a porous char particle in an incipiently fluidized bed. Fuel, 1998, 77, 1549-1560.	3.4	26
36	Sulfurâ€Doped Graphene with Iron Pyrite (FeS₂) as an Efficient and Stable Electrocatalyst for the Iodine Reduction Reaction in Dyeâ€Sensitized Solar Cells. Solar Rrl, 2017, 1, 1700011.	3.1	25

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37	Granular temperature distribution in a gas fluidized bed of hollow microparticles prior to onset of bubbling. Europhysics Letters, 2006, 74, 268-274.	0.7	23
38	Absolute Assessment of Adsorption-Based Porous Solid Characterization Methods:Â Comparison Methods. Langmuir, 2004, 20, 7123-7138.	1.6	22
39	Free-standing compact cathodes for high volumetric and gravimetric capacity Liâ€“S batteries. Journal of Materials Chemistry A, 2017, 5, 19924-19933.	5.2	21
40	Mass diffusion of atomic fluids in random micropore spaces using equilibrium molecular dynamics. Physical Review A, 1992, 46, 3312-3318.	1.0	20
41	Control of the pore size distribution and its spatial homogeneity in particulate activated carbon. Carbon, 2014, 78, 113-120.	5.4	20
42	Explicit numerical simulation of fluids in reconstructed porous media. Chemical Engineering Science, 2002, 57, 1955-1968.	1.9	19
43	Effect of pore wall model on prediction of diffusion coefficients for graphitic slit pores. Physical Chemistry Chemical Physics, 2008, 10, 2519.	1.3	19
44	Particle dynamics in a dense vibrated fluidized bed as revealed by diffusing wave spectroscopy. Powder Technology, 2008, 182, 192-201.	2.1	18
45	Particle dynamics and granular temperatures in dense fluidized beds as revealed by diffusing wave spectroscopy. Advanced Powder Technology, 2009, 20, 227-233.	2.0	18
46	A multi-method study of the transformation of the carbonaceous skeleton of a polymer-based nanoporous carbon along the activation pathway. Carbon, 2015, 85, 119-134.	5.4	18
47	Ab initio protein fold prediction using evolutionary algorithms: Influence of design and control parameters on performance. Journal of Computational Chemistry, 2006, 27, 1177-1195.	1.5	17
48	Immersion Calorimetry: Molecular Packing Effects in Micropores. ChemPhysChem, 2015, 16, 3984-3991.	1.0	14
49	Study of Conformational Switching in Polyalanine at Solid Surfaces Using Molecular Simulation. Journal of Physical Chemistry C, 2007, 111, 15839-15847.	1.5	13
50	Control of the spatial homogeneity of pore surface chemistry in particulate activated carbon. Carbon, 2015, 95, 144-149.	5.4	13
51	Oxygen reduction on chemically heterogeneous iron-containing nanoporous carbon: The effects of specific surface functionalities. Microporous and Mesoporous Materials, 2016, 221, 137-149.	2.2	13
52	Mathematical modelling of oscillations in the temperature of freely moving burning carbonaceous particles in bubbling fluidized beds. Fuel, 1993, 72, 805-811.	3.4	11
53	Mass diffusion of diatomic fluids in random micropore spaces using equilibrium molecular dynamics. Physical Review E, 1994, 49, 531-537.	0.8	11
54	Uncertainty in pore size distribution derived from adsorption isotherms: II. Adsorption integral approach. Microporous and Mesoporous Materials, 2015, 214, 217-223.	2.2	11

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55	Tin Oxide Lightâ€Scattering Layer for Titania Photoanodes in Dyeâ€Sensitized Solar Cells. Energy Technology, 2016, 4, 959-966.	1.8	11
56	Isosteric Heats of Adsorption of Gases and Vapors on a Microporous Carbonaceous Material. Journal of Chemical & Engineering Data, 2018, 63, 3107-3116.	1.0	11
57	Granular temperature in a liquid fluidized bed as revealed by diffusing wave spectroscopy. Chemical Engineering Science, 2009, 64, 1102-1110.	1.9	10
58	Explicit numerical simulation-based study of the hydrodynamics of micro-packed beds. Chemical Engineering Science, 2016, 145, 71-79.	1.9	9
59	Experimental study of efficient mixing in a micro-fluidized bed. Applied Thermal Engineering, 2017, 127, 1642-1649.	3.0	9
60	Decoding gas-solid interaction effects on adsorption isotherm shape: I. Non-polar adsorptives. Microporous and Mesoporous Materials, 2018, 264, 76-83.	2.2	9
61	Solvent Effect on Supramolecular Self-Assembly of Chlorophylls a on Chemically Reduced Graphene Oxide. Langmuir, 2020, 36, 13575-13582.	1.6	9
62	Particle dynamics in a vibrated submerged granular bed as revealed by diffusing wave spectroscopy. Journal Physics D: Applied Physics, 2009, 42, 245404.	1.3	8
63	Uncertainty in pore size distribution derived from adsorption isotherms: I. Classical methods. Microporous and Mesoporous Materials, 2015, 214, 210-216.	2.2	8
64	Detection of Ring and Adatom Defects in Activated Disordered Carbon via Fluctuation Nanobeam Electron Diffraction. Small, 2020, 16, 2000828.	5.2	8
65	A new method for reconstruction of the structure of micro-packed beds of spherical particles from desktop X-ray microtomography images. Part A. Initial structure generation and porosity determination. Chemical Engineering Science, 2016, 146, 337-345.	1.9	6
66	Simultaneously â€˜pushingâ€™ and â€˜pullingâ€™ graphene oxide into low-polar solvents through a designed interface. Nanotechnology, 2018, 29, 315707.	1.3	6
67	On Use of the Amber Potential with the Langevin Dipole Method. Journal of Physical Chemistry B, 2007, 111, 7591-7602.	1.2	5
68	On Potential Energy Models for EA-based Ab Initio Protein Structure Prediction. Evolutionary Computation, 2010, 18, 255-275.	2.3	5
69	Decoding gas-solid interaction effects on adsorption isotherm shape: II. Polar adsorptives. Microporous and Mesoporous Materials, 2019, 278, 232-240.	2.2	5
70	TNAMD: Implementation of TIGER2 in NAMD. Computer Physics Communications, 2010, 181, 2082-2085.	3.0	3
71	Granular pressure in a liquidâ€fluidized bed as revealed by diffusing wave spectroscopy. AICHE Journal, 2012, 58, 1069-1075.	1.8	3
72	Recent Progress of Research and Development of Adsorption Desalination. Journal of Chemical Engineering of Japan, 2014, 47, 303-308.	0.3	3

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73	Characterizing the Switching Transitions of an Adsorbed Peptide by Mapping the Potential Energy Surface. Journal of Physical Chemistry B, 2017, 121, 11455-11464.	1.2	3
74	Energy Landscape Mapping and Replica Exchange Molecular Dynamics of an Adsorbed Peptide. Journal of Physical Chemistry B, 2020, 124, 2527-2538.	1.2	2
75	Switching in of Ac-(Ala)10-NHMe at a solid surface. Nanomedicine: Nanotechnology, Biology, and Medicine, 2008, 4, 262-265.	1.7	0
76	Chemeca 2010. Energy & Fuels, 2011, 25, 2753-2753.	2.5	0
77	Low Energy Adsorption Desalination Technology. Advanced Materials Research, 0, 347-353, 601-606.	0.3	0
78	Editorial to Chemeca 2010 Special Issue. Powder Technology, 2012, 223, 1-2.	2.1	0
79	Solar Power: Carbonaceous Dye-Sensitized Solar Cell Photoelectrodes (Adv. Sci. 3/2015). Advanced Science, 2015, 2, .	5.6	0
80	Back Cover: Solar RRL 3â€4âˆ•2017. Solar Rrl, 2017, 1, 1770113.	3.1	0