

Mark J Biggs

List of Publications by Citations

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

79
papers

2,282
citations

29
h-index

45
g-index

84
ext. papers

2,554
ext. citations

6.6
avg, IF

5.24
L-index

#	Paper	IF	Citations
79	Partial breaking of the Coulombic ordering of ionic liquids confined in carbon nanopores. <i>Nature Materials</i> , 2017 , 16, 1225-1232	27	166
78	Molecular-level understanding of protein adsorption at the interface between water and a strongly interacting uncharged solid surface. <i>Journal of the American Chemical Society</i> , 2014 , 136, 5323-31	16.4	113
77	The effects of activated carbon surface features on the reactive adsorption of carbamazepine and sulfamethoxazole. <i>Carbon</i> , 2014 , 80, 419-432	10.4	112
76	Carbon Nanotubes for Dye-Sensitized Solar Cells. <i>Small</i> , 2015 , 11, 2963-89	11	103
75	Raman spectroscopy study of the transformation of the carbonaceous skeleton of a polymer-based nanoporous carbon along the thermal annealing pathway. <i>Carbon</i> , 2015 , 85, 147-158	10.4	101
74	Nanocarbons for mesoscopic perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 9020-9031	13	88
73	A High-Volumetric-Capacity Cathode Based on Interconnected Close-Packed N-Doped Porous Carbon Nanospheres for Long-Life Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2017 , 7, 1701082	21.8	79
72	Solar Power: Carbonaceous Dye-Sensitized Solar Cell Photoelectrodes (Adv. Sci. 3/2015). <i>Advanced Science</i> , 2015 , 2,	13.6	78
71	Carbon Nanotubes in TiO Nanofiber Photoelectrodes for High-Performance Perovskite Solar Cells. <i>Advanced Science</i> , 2017 , 4, 1600504	13.6	65
70	Solution processed graphene structures for perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2605-2616	13	62
69	Thermodynamic cycles of adsorption desalination system. <i>Applied Energy</i> , 2012 , 90, 316-322	10.7	57
68	Virtual porous carbons: what they are and what they can be used for. <i>Molecular Simulation</i> , 2006 , 32, 579-593	2	56
67	Transformations and destruction of nitrogen oxides (NO, NO ₂ and N ₂ O) in a pulsed corona discharge reactor?. <i>Fuel</i> , 2003 , 82, 1675-1684	7.1	52
66	The CO/CO ₂ product ratio for a porous char particle within an incipiently fluidized bed: a numerical study. <i>Chemical Engineering Science</i> , 1997 , 52, 941-952	4.4	50
65	Free energy of adsorption for a peptide at a liquid/solid interface via nonequilibrium molecular dynamics. <i>Langmuir</i> , 2013 , 29, 2919-26	4	49
64	Microfluidic hydrodynamic focusing based synthesis of POPC liposomes for model biological systems. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013 , 104, 276-81	6	43
63	Single-Walled Carbon Nanotubes Enhance the Efficiency and Stability of Mesoscopic Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 19945-19954	9.5	41

62	Pore size distributions derived from adsorption isotherms, immersion calorimetry, and isosteric heats: A comparative study. <i>Carbon</i> , 2016 , 96, 1106-1113	10.4	41
61	Carbonaceous Dye-Sensitized Solar Cell Photoelectrodes. <i>Advanced Science</i> , 2015 , 2, 1400025	13.6	37
60	Experimental implementation and validation of thermodynamic cycles of adsorption-based desalination. <i>Applied Energy</i> , 2012 , 98, 190-197	10.7	35
59	Effect of visible light and electrode wetting on the capacitive performance of S- and N-doped nanoporous carbons: Importance of surface chemistry. <i>Carbon</i> , 2014 , 78, 540-558	10.4	34
58	Explicit numerical simulation of suspension flow with deposition in porous media: influence of local flow field variation on deposition processes predicted by trajectory methods. <i>Chemical Engineering Science</i> , 2003 , 58, 1271-1288	4.4	33
57	Thermodynamic analysis of an adsorption-based desalination cycle. <i>Chemical Engineering Research and Design</i> , 2010 , 88, 1541-1547	5.5	32
56	Molecular simulation evidence for solidlike adsorbate in complex carbonaceous micropore structures. <i>Langmuir</i> , 2004 , 20, 5786-800	4	32
55	A pore network model for diffusion in nanoporous carbons: Validation by molecular dynamics simulation. <i>Chemical Engineering Science</i> , 2008 , 63, 3319-3327	4.4	31
54	Incorporation of graphene into SnO ₂ photoanodes for dye-sensitized solar cells. <i>Applied Surface Science</i> , 2016 , 387, 690-697	6.7	31
53	Dynamic model for the optimisation of adsorption-based desalination processes. <i>Applied Thermal Engineering</i> , 2014 , 66, 464-473	5.8	30
52	Evaluation of methods for determining the pore size distribution and pore-network connectivity of porous carbons. <i>Langmuir</i> , 2007 , 23, 8430-40	4	29
51	Carbon microspheres with embedded FeP nanoparticles as a cathode electrocatalyst in Li-S batteries. <i>Chemical Engineering Journal</i> , 2021 , 406, 126823	14.7	29
50	Characterizations of Activated Carbon-Methanol Adsorption Pair Including the Heat of Adsorptions. <i>Journal of Chemical & Engineering Data</i> , 2015 , 60, 1727-1731	2.8	28
49	Experimental study of a liquid fluidization in a microfluidic channel. <i>AIChE Journal</i> , 2013 , 59, 361-364	3.6	28
48	Granular temperature in a gas fluidized bed. <i>Granular Matter</i> , 2008 , 10, 63-73	2.6	26
47	Thermodynamic analysis of an adsorption-based desalination cycle (part II): Effect of evaporator temperature on performance. <i>Chemical Engineering Research and Design</i> , 2011 , 89, 2168-2175	5.5	24
46	Analysis of Adsorbate-Adsorbate and Adsorbate-Adsorbent Interactions to Decode Isosteric Heats of Gas Adsorption. <i>ChemPhysChem</i> , 2015 , 16, 3797-805	3.2	23
45	Granular temperature distribution in a gas fluidized bed of hollow microparticles prior to onset of bubbling. <i>Europhysics Letters</i> , 2006 , 74, 268-274	1.6	22

44	Absolute assessment of adsorption-based porous solid characterization methods: comparison methods. <i>Langmuir</i> , 2004 , 20, 7123-38	4	21
43	Sulfur-Doped Graphene with Iron Pyrite (FeS ₂) as an Efficient and Stable Electrocatalyst for the Iodine Reduction Reaction in Dye-Sensitized Solar Cells. <i>Solar Rrl</i> , 2017 , 1, 1700011	7.1	20
42	Combustion of a porous char particle in an incipiently fluidized bed. <i>Fuel</i> , 1998 , 77, 1549-1560	7.1	20
41	Mass diffusion of atomic fluids in random micropore spaces using equilibrium molecular dynamics. <i>Physical Review A</i> , 1992 , 46, 3312-3318	2.6	19
40	A multi-method study of the transformation of the carbonaceous skeleton of a polymer-based nanoporous carbon along the activation pathway. <i>Carbon</i> , 2015 , 85, 119-134	10.4	18
39	Effect of pore wall model on prediction of diffusion coefficients for graphitic slit pores. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 2519-27	3.6	18
38	Explicit numerical simulation of fluids in reconstructed porous media. <i>Chemical Engineering Science</i> , 2002 , 57, 1955-1968	4.4	18
37	Control of the pore size distribution and its spatial homogeneity in particulate activated carbon. <i>Carbon</i> , 2014 , 78, 113-120	10.4	17
36	Free-standing compact cathodes for high volumetric and gravimetric capacity LiS batteries. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 19924-19933	13	17
35	Ab initio protein fold prediction using evolutionary algorithms: influence of design and control parameters on performance. <i>Journal of Computational Chemistry</i> , 2006 , 27, 1177-95	3.5	17
34	Particle dynamics and granular temperatures in dense fluidized beds as revealed by diffusing wave spectroscopy. <i>Advanced Powder Technology</i> , 2009 , 20, 227-233	4.6	16
33	Particle dynamics in a dense vibrated fluidized bed as revealed by diffusing wave spectroscopy. <i>Powder Technology</i> , 2008 , 182, 192-201	5.2	16
32	Control of the spatial homogeneity of pore surface chemistry in particulate activated carbon. <i>Carbon</i> , 2015 , 95, 144-149	10.4	13
31	Cobalt(II) Tetraaminophthalocyanine-modified Multiwall Carbon Nanotubes as an Efficient Sulfur Redox Catalyst for Lithium-Sulfur Batteries. <i>ChemSusChem</i> , 2020 , 13, 3034-3044	8.3	13
30	Study of Conformational Switching in Polyalanine at Solid Surfaces Using Molecular Simulation□ <i>Journal of Physical Chemistry C</i> , 2007 , 111, 15839-15847	3.8	13
29	Oxygen reduction on chemically heterogeneous iron-containing nanoporous carbon: The effects of specific surface functionalities. <i>Microporous and Mesoporous Materials</i> , 2016 , 221, 137-149	5.3	12
28	Immersion Calorimetry: Molecular Packing Effects in Micropores. <i>ChemPhysChem</i> , 2015 , 16, 3984-91	3.2	11
27	Mass diffusion of diatomic fluids in random micropore spaces using equilibrium molecular dynamics. <i>Physical Review E</i> , 1994 , 49, 531-537	2.4	11

26	Mathematical modelling of oscillations in the temperature of freely moving burning carbonaceous particles in bubbling fluidized beds. <i>Fuel</i> , 1993 , 72, 805-811	7.1	11
25	Uncertainty in pore size distribution derived from adsorption isotherms: II. Adsorption integral approach. <i>Microporous and Mesoporous Materials</i> , 2015 , 214, 217-223	5.3	10
24	Granular temperature in a liquid fluidized bed as revealed by diffusing wave spectroscopy. <i>Chemical Engineering Science</i> , 2009 , 64, 1102-1110	4.4	10
23	Tin Oxide Light-Scattering Layer for Titania Photoanodes in Dye-Sensitized Solar Cells. <i>Energy Technology</i> , 2016 , 4, 959-966	3.5	10
22	Uncertainty in pore size distribution derived from adsorption isotherms: I. Classical methods. <i>Microporous and Mesoporous Materials</i> , 2015 , 214, 210-216	5.3	8
21	Isosteric Heats of Adsorption of Gases and Vapors on a Microporous Carbonaceous Material. <i>Journal of Chemical & Engineering Data</i> , 2018 , 63, 3107-3116	2.8	8
20	Particle dynamics in a vibrated submerged granular bed as revealed by diffusing wave spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2009 , 42, 245404	3	8
19	Decoding gas-solid interaction effects on adsorption isotherm shape: I. Non-polar adsorptives. <i>Microporous and Mesoporous Materials</i> , 2018 , 264, 76-83	5.3	7
18	Explicit numerical simulation-based study of the hydrodynamics of micro-packed beds. <i>Chemical Engineering Science</i> , 2016 , 145, 71-79	4.4	6
17	Solvent Effect on Supramolecular Self-Assembly of Chlorophylls a on Chemically Reduced Graphene Oxide. <i>Langmuir</i> , 2020 , 36, 13575-13582	4	6
16	Detection of Ring and Adatom Defects in Activated Disordered Carbon via Fluctuation Nanobeam Electron Diffraction. <i>Small</i> , 2020 , 16, e2000828	11	5
15	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. <i>Chemical Engineering Science</i> , 2016 , 146, 337-345	4.4	5
14	Experimental study of efficient mixing in a micro-fluidized bed. <i>Applied Thermal Engineering</i> , 2017 , 127, 1642-1649	5.8	5
13	On use of the Amber potential with the Langevin dipole method. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 7591-602	3.4	5
12	On potential energy models for EA-based ab initio protein structure prediction. <i>Evolutionary Computation</i> , 2010 , 18, 255-75	4.3	4
11	Decoding gas-solid interaction effects on adsorption isotherm shape: II. Polar adsorptives. <i>Microporous and Mesoporous Materials</i> , 2019 , 278, 232-240	5.3	4
10	Simultaneously Pushing and Pulling Graphene oxide into low-polar solvents through a designed interface. <i>Nanotechnology</i> , 2018 , 29, 315707	3.4	4
9	Granular pressure in a liquid-fluidized bed as revealed by diffusing wave spectroscopy. <i>AIChE Journal</i> , 2012 , 58, 1069-1075	3.6	3

8	TNAMD: Implementation of TIGER2 in NAMD. <i>Computer Physics Communications</i> , 2010 , 181, 2082-2085	4.2	3
7	Recent Progress of Research and Development of Adsorption Desalination. <i>Journal of Chemical Engineering of Japan</i> , 2014 , 47, 303-308	0.8	2
6	Characterizing the Switching Transitions of an Adsorbed Peptide by Mapping the Potential Energy Surface. <i>Journal of Physical Chemistry B</i> , 2017 , 121, 11455-11464	3.4	2
5	Energy Landscape Mapping and Replica Exchange Molecular Dynamics of an Adsorbed Peptide. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 2527-2538	3.4	1
4	Back Cover: Solar RRL 3-40017. <i>Solar Rrl</i> , 2017 , 1, 1770113	7.1	
3	Low Energy Adsorption Desalination Technology. <i>Advanced Materials Research</i> , 2011 , 347-353, 601-606	0.5	
2	Switching in of Ac-(Ala) ₁₀ -NHMe at a solid surface. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2008 , 4, 262-5	6	
1	Revisiting the EELS analyses and its coupling with multi-wavelength Raman spectroscopy: the case of hydrogenated amorphous carbon thin films 2016 , 744-745		