

Athanassios K Stubos

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127
papers

4,254
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33
h-index

61
g-index

127
ext. papers

4,650
ext. citations

4.6
avg, IF

5.23
L-index

#	Paper	IF	Citations
127	Liquid-phase exfoliation of graphite towards solubilized graphenes. <i>Small</i> , 2009 , 5, 1841-5	11	460
126	Graphene fluoride: a stable stoichiometric graphene derivative and its chemical conversion to graphene. <i>Small</i> , 2010 , 6, 2885-91	11	337
125	Aqueous-phase exfoliation of graphite in the presence of polyvinylpyrrolidone for the production of water-soluble graphenes. <i>Solid State Communications</i> , 2009 , 149, 2172-2176	1.6	229
124	Effect of liquid films on the drying of porous media. <i>AIChE Journal</i> , 2004 , 50, 2721-2737	3.6	147
123	Why Li Doping in MOFs Enhances H ₂ Storage Capacity? A Multi-scale Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 7290-7294	3.8	136
122	Pore-network study of the characteristic periods in the drying of porous materials. <i>Journal of Colloid and Interface Science</i> , 2006 , 297, 738-48	9.3	123
121	A 2-D pore-network model of the drying of single-component liquids in porous media. <i>Advances in Water Resources</i> , 2001 , 24, 439-460	4.7	119
120	A lattice Boltzmann study of viscous coupling effects in immiscible two-phase flow in porous media. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007 , 300, 35-49	5.1	102
119	Determination of Micropore Size Distribution from Grand Canonical Monte Carlo Simulations and Experimental CO ₂ Isotherm Data. <i>Langmuir</i> , 1997 , 13, 2795-2802	4	92
118	Scaling theory of drying in porous media. <i>Physical Review E</i> , 1999 , 59, 4353-4365	2.4	85
117	Prediction of the phase equilibria of methane hydrates using the direct phase coexistence methodology. <i>Journal of Chemical Physics</i> , 2015 , 142, 044501	3.9	81
116	Experimental investigation of asphaltene deposition mechanism during oil flow in core samples. <i>Journal of Petroleum Science and Engineering</i> , 2007 , 57, 281-293	4.4	75
115	Evaluation of the Hydrogen-Storage Capacity of Pure H ₂ and Binary H ₂ -THF Hydrates with Monte Carlo Simulations. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 10294-10302	3.8	70
114	Coupling between external and internal mass transfer during drying of a porous medium. <i>Water Resources Research</i> , 2007 , 43,	5.4	70
113	On the optimization of hydrogen storage in metal hydride beds. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 737-751	6.7	69
112	Polymer-stable magnesium nanocomposites prepared by laser ablation for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11530-11535	6.7	68
111	High pressure gas permeability of microporous carbon membranes. <i>Microporous Materials</i> , 1997 , 8, 171-176		60

110	Enhanced hydrogen storage by spillover on metal-doped carbon foam: an experimental and computational study. <i>Nanoscale</i> , 2011 , 3, 933-6	7.7	58
109	Synthesis, characterization and gas sorption properties of a molecularly-derived graphite oxide-like foam. <i>Carbon</i> , 2007 , 45, 852-857	10.4	57
108	Phase change in porous media. <i>Current Opinion in Colloid and Interface Science</i> , 2001 , 6, 208-216	7.6	54
107	A hybrid process-based and stochastic reconstruction method of porous media. <i>Microporous and Mesoporous Materials</i> , 2008 , 110, 92-99	5.3	45
106	Modeling and optimization of multi-tubular metal hydride beds for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 9128-9140	6.7	44
105	Hydrogen storage in sH hydrates: a Monte Carlo study. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 14206-14214	7.1	44
104	Dynamic modelling and optimization of hydrogen storage in metal hydride beds. <i>Energy</i> , 2006 , 31, 2428-2446	7.9	44
103	The role of intermolecular interactions in the prediction of the phase equilibria of carbon dioxide hydrates. <i>Journal of Chemical Physics</i> , 2015 , 143, 094506	3.9	41
102	Material development and assessment of an energy storage concept based on the CaO-looping process. <i>Solar Energy</i> , 2017 , 150, 298-309	6.8	40
101	The effect of compositional changes on the structural and hydrogen storage properties of (LaTe)Ni ₅ type intermetallics towards compounds suitable for metal hydride hydrogen compression. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S268-S270	5.7	39
100	Pore geometry and transport properties in North Sea chalk. <i>Journal of Petroleum Science and Engineering</i> , 2000 , 25, 107-134	4.4	38
99	Simulation of self-diffusion of point-like and finite-size tracers in stochastically reconstructed Vycor porous glasses. <i>Journal of Chemical Physics</i> , 1999 , 111, 2735-2743	3.9	38
98	Metal hydride hydrogen compressors: Current developments & early markets. <i>Renewable Energy</i> , 2018 , 127, 850-862	8.1	37
97	The Structure of Adsorbed CO ₂ in Slitlike Micropores at Low and High Temperature and the Resulting Micropore Size Distribution Based on GCMC Simulations. <i>Journal of Colloid and Interface Science</i> , 2000 , 224, 272-290	9.3	37
96	Combination of small angle scattering and three-dimensional stochastic reconstruction for the study of adsorption-desorption processes in Vycor porous glass. <i>Journal of Chemical Physics</i> , 2000 , 112, 9881-9887	3.9	35
95	Digitally Reconstructed Porous Media: Transport and Sorption Properties. <i>Transport in Porous Media</i> , 2005 , 58, 43-62	3.1	34
94	Structural and Transport Properties of Alumina Porous Membranes from Process-Based and Statistical Reconstruction Techniques. <i>Journal of Colloid and Interface Science</i> , 2000 , 231, 158-167	9.3	32
93	Methane solubility in aqueous solutions under two-phase (H ₂ O) hydrate equilibrium conditions. <i>Fluid Phase Equilibria</i> , 2014 , 371, 106-120	2.5	30

92	Influence of combining rules on the cavity occupancy of clathrate hydrates by Monte Carlo simulations. <i>Molecular Physics</i> , 2014 , 112, 2258-2274	1.7	30
91	Preparation and characterisation of gas selective microporous carbon membranes. <i>Microporous and Mesoporous Materials</i> , 2007 , 99, 181-189	5.3	30
90	Numerical and experimental investigation of the diffusional release of a dispersed solute from polymeric multilaminate matrices. <i>Journal of Controlled Release</i> , 2001 , 70, 309-19	11.7	28
89	A network model for the permeability of condensable vapours through mesoporous media. <i>Journal of Membrane Science</i> , 1996 , 114, 215-225	9.6	28
88	Adsorption-desorption gas relative permeability through mesoporous media-network modelling and percolation theory. <i>Chemical Engineering Science</i> , 1998 , 53, 2353-2364	4.4	27
87	Experimental and computational investigation of the sII binary He-THF hydrate. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 1411-5	3.4	26
86	Fractal Characteristics and Scaling of the Drying Front in Porous Media: A Pore Network Study. <i>Drying Technology</i> , 2010 , 28, 981-990	2.6	26
85	Unexpected Behavior of Helium as Guest Gas in sII Binary Hydrates. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 1014-1017	6.4	26
84	Monte Carlo study of sII and sH argon hydrates with multiple occupancy of cages. <i>Molecular Simulation</i> , 2008 , 34, 1311-1320	2	26
83	Diffusion and Flow in Porous Domains Constructed Using Process-Based and Stochastic Techniques. <i>Journal of Porous Materials</i> , 2002 , 9, 141-154	2.4	26
82	A Lattice Boltzmann study of non-newtonian flow in digitally reconstructed porous domains. <i>Transport in Porous Media</i> , 2007 , 70, 279-292	3.1	25
81	Multiphase mass transport with partitioning and inter-phase transport in porous media. <i>Chemical Engineering Science</i> , 2006 , 61, 4650-4661	4.4	25
80	Structural alterations of fully hydrated human stratum corneum. <i>Physica B: Condensed Matter</i> , 2004 , 350, E603-E606	2.8	25
79	A study on structural and diffusion properties of porcine stratum corneum based on very small angle neutron scattering data. <i>Pharmaceutical Research</i> , 2000 , 17, 1085-91	4.5	25
78	Investigation of ZrFe 2 -type materials for metal hydride hydrogen compressor systems by substituting Fe with Cr or V. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 21380-21385	6.7	24
77	An improved predictive correlation for the induction time of CaCO ₃ scale formation during flow in porous media. <i>Journal of Colloid and Interface Science</i> , 2005 , 286, 7-13	9.3	24
76	Direct phase coexistence molecular dynamics study of the phase equilibria of the ternary methane-carbon dioxide-water hydrate system. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 23538-48	3.6	24
75	Novel design for high pressure, integral, differential, absolute, and relative multicomponent permeability measurements. <i>Review of Scientific Instruments</i> , 1996 , 67, 2545-2548	1.7	23

74	On the limitation of the van der Waals-Platteeuw-based thermodynamic models for hydrates with multiple occupancy of cavities. <i>Molecular Physics</i> , 2012 , 110, 1213-1221	1.7	22
73	Microscale characterisation of stochastically reconstructed carbon fiber-based Gas Diffusion Layers; effects of anisotropy and resin content. <i>Journal of Power Sources</i> , 2016 , 320, 153-167	8.9	21
72	Low Peclet mass transport in assemblages of spherical particles for two different adsorption mechanisms. <i>Journal of Colloid and Interface Science</i> , 2003 , 264, 20-9	9.3	21
71	Storage of Methane in Clathrate Hydrates: Monte Carlo Simulations of sl Hydrates and Comparison with Experimental Measurements. <i>Journal of Chemical & Engineering Data</i> , 2016 , 61, 2886-2896	2.8	20
70	Application of effective medium approximation for the determination of the permeability of condensable vapours through mesoporous media. <i>Chemical Engineering Science</i> , 1997 , 52, 2837-2844	4.4	20
69	Characterization of nanoporous carbons by combining CO ₂ and H ₂ sorption data with the Monte Carlo simulations. <i>Applied Surface Science</i> , 2007 , 253, 5715-5720	6.7	20
68	Thermal coupling potential of Solid Oxide Fuel Cells with metal hydride tanks: Thermodynamic and design considerations towards integrated systems. <i>Journal of Power Sources</i> , 2014 , 269, 440-450	8.9	18
67	A novel experimental technique for the measurement of the single-phase gas relative permeability of porous solids. <i>Measurement Science and Technology</i> , 1997 , 8, 168-173	2	18
66	Use of natural geochemical tracers to improve reservoir simulation models. <i>Journal of Petroleum Science and Engineering</i> , 2005 , 48, 241-253	4.4	18
65	AERODYNAMICALLY GENERATED ACOUSTIC RESONANCE IN A PIPE WITH ANNULAR FLOW RESTRICTORS. <i>Journal of Fluids and Structures</i> , 1999 , 13, 755-778	3.1	18
64	Molecular dynamics simulations of pure methane and carbon dioxide hydrates: lattice constants and derivative properties. <i>Molecular Physics</i> , 2016 , 114, 2672-2687	1.7	17
63	Synthesis and characterisation of nanoporous carbon-metal composites for hydrogen storage. <i>Microporous and Mesoporous Materials</i> , 2012 , 154, 74-81	5.3	17
62	Origin of Hysteresis of Gas Adsorption in Disordered Porous Media: Lattice Gas Model versus Percolation Theory. <i>Langmuir</i> , 2003 , 19, 3338-3344	4	17
61	Newtonian and Power-Law fluid flow in a T-junction of rectangular ducts. <i>Theoretical and Computational Fluid Dynamics</i> , 2014 , 28, 233-256	2.3	16
60	Simulation Study of Sorption of CO ₂ and N ₂ with Application to the Characterization of Carbon Adsorbents. <i>Molecular Simulation</i> , 2001 , 27, 441-456	2	16
59	Hydrogen sorption properties of Pd-doped carbon molecular sieves. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9830-9836	6.7	15
58	The effect of lattice constant on the storage capacity of hydrogen hydrates: a Monte Carlo study. <i>Molecular Physics</i> , 2016 , 114, 2664-2671	1.7	15
57	Lattice constants of pure methane and carbon dioxide hydrates at low temperatures. Implementing quantum corrections to classical molecular dynamics studies. <i>Journal of Chemical Physics</i> , 2016 , 144, 1243-1252	3.9	15

56	Identification of conditions for increased methane storage capacity in sII and sH clathrate hydrates from Monte Carlo simulations. <i>Journal of Chemical Thermodynamics</i> , 2018 , 117, 128-137	2.9	14
55	High-temperature activated AB ₂ nanopowders for metal hydride hydrogen compression. <i>International Journal of Energy Research</i> , 2014 , 38, 477-486	4.5	14
54	A two-phase model for controlled drug release from biphasic polymer hydrogels. <i>Journal of Controlled Release</i> , 1998 , 51, 313-25	11.7	14
53	An integrated radiotracer approach for the laboratory evaluation of scale inhibitors performance in geological environments. <i>Chemical Engineering Science</i> , 2006 , 61, 7057-7067	4.4	14
52	A neutron-diffraction study of the effect of hydration on stratum corneum structure. <i>Applied Physics A: Materials Science and Processing</i> , 2002 , 74, s1245-s1247	2.6	14
51	A complete transport validated model on a zeolite membrane for carbon dioxide permeance and capture. <i>Applied Thermal Engineering</i> , 2015 , 74, 36-46	5.8	13
50	Techno-economic analysis of RES & hydrogen technologies integration in remote island power system. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11646-11654	6.7	13
49	Synthesis and characterisation of a mesoporous carbon/calcium borohydride nanocomposite for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 16631-16635	6.7	13
48	Scale prediction in liquid flow through porous media: A geochemical model for the simulation of CaCO ₃ deposition at the near-well region. <i>Journal of Geochemical Exploration</i> , 2011 , 108, 115-125	3.8	13
47	Water adsorption and small angle X-ray scattering studies on the effect of coal thermal treatment. <i>Carbon</i> , 1996 , 34, 775-781	10.4	13
46	Storage of H ₂ in Clathrate Hydrates: Evaluation of Different Force-Fields used in Monte Carlo Simulations. <i>Molecular Physics</i> , 2017 , 115, 1274-1285	1.7	12
45	Two- and three-phase equilibrium experimental measurements for the ternary CH ₄ + CO ₂ + H ₂ O mixture. <i>Fluid Phase Equilibria</i> , 2017 , 451, 96-105	2.5	12
44	Structural and Electronic Properties of the Hydrogenated ZrCr ₂ Laves Phases. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 4221-4227	3.8	12
43	Using clathrate hydrates for gas storage and gas-mixture separations: experimental and computational studies at multiple length scales. <i>Molecular Physics</i> , 2018 , 116, 2041-2060	1.7	12
42	Recent Advances in Experimental Measurements of Mixed-Gas Three-Phase Hydrate Equilibria for Gas Mixture Separation and Energy-Related Applications. <i>Journal of Chemical & Engineering Data</i> , 2019 , 64, 4991-5016	2.8	11
41	Monte Carlo simulations of the separation of a binary gas mixture (CH ₄ + CO ₂) using hydrates. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 28026-28038	3.6	11
40	Influence of combining rules on the cavity occupancy of clathrate hydrates using van der Waals-Platteeuw-theory-based modelling. <i>Chemical Engineering Research and Design</i> , 2014 , 92, 2992-3007	5.5	10
39	Monte Carlo study of sI hydrogen hydrates. <i>Molecular Simulation</i> , 2010 , 36, 736-744	2	10

38	Combination of small angle neutron scattering data and mesoscopic simulation techniques as a tool for the structural characterization and prediction of properties of bi-phasic media. <i>Chemical Physics</i> , 2005 , 317, 298-311	2.3	10
37	A generic physical model for a thermally integrated high-temperature PEM fuel cell and sodium alanate tank system. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 14551-14561	6.7	9
36	Solubility of Methane and Carbon Dioxide in the Aqueous Phase of the Ternary (Methane + Carbon Dioxide + Water) Mixture: Experimental Measurements and Molecular Dynamics Simulations. <i>Journal of Chemical & Engineering Data</i> , 2018 , 63, 1027-1035	2.8	9
35	Comparing hydrogen sorption in different Pd-doped pristine and surface-modified nanoporous carbons. <i>Carbon</i> , 2016 , 98, 1-14	10.4	9
34	A hydrogen sorption study on a Pd-doped CMK-3 type ordered mesoporous carbon. <i>Adsorption</i> , 2013 , 19, 803-811	2.6	9
33	Review on the Safe Use of Ammonia Fuel Cells in the Maritime Industry. <i>Energies</i> , 2021 , 14, 3023	3.1	9
32	Simulated Annealing as a Method for the Determination of the Spatial Distribution of a Condensable Adsorbate in Mesoporous Materials. <i>Langmuir</i> , 2003 , 19, 3333-3337	4	8
31	Development of a novel experimental apparatus for hydrate equilibrium measurements. <i>Fluid Phase Equilibria</i> , 2016 , 424, 152-161	2.5	7
30	Multiscale modeling and optimization of H ₂ storage using nanoporous adsorbents. <i>AIChE Journal</i> , 2006 , 52, 2964-2977	3.6	7
29	Low to moderate Peclet mass transport in assemblages of spherical particles for a realistic adsorption-desorption mechanism. <i>Powder Technology</i> , 2005 , 159, 173-179	5.2	7
28	On the identification of representative samples from large data sets, with application to synoptic climatology. <i>Theoretical and Applied Climatology</i> , 2005 , 82, 177-182	3	7
27	A Monte Carlo study on the structure of carbon dioxide adsorbed in microporous carbons.. <i>Studies in Surface Science and Catalysis</i> , 2002 , 144, 545-552	1.8	7
26	Numerical investigation on the operation and energy demand of a seven-stage metal hydride hydrogen compression system for Hydrogen Refuelling Stations. <i>Renewable Energy</i> , 2020 , 147, 164-178	8.1	7
25	Adsorption-Desorption Flow of Condensable Vapors through Mesoporous Media: Network Modeling and Percolation Theory. <i>Journal of Colloid and Interface Science</i> , 2000 , 223, 89-101	9.3	6
24	Hydrogenation properties of the TiB _x structures. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 12268-12278	6.7	5
23	Evaporation of a Stagnant Liquid. <i>Industrial & Engineering Chemistry Research</i> , 2000 , 39, 1505-1513	3.9	5
22	Thermal characteristics of an air-cooled open-cathode proton exchange membrane fuel cell stack via numerical investigation. <i>International Journal of Energy Research</i> , 2020 , 44, 11597-11613	4.5	5
21	The required level of isosteric heat for the adsorptive/storage delivery of H ₂ in the UiO series of MOFs. <i>RSC Advances</i> , 2014 , 4, 44848-44851	3.7	4

20	DRYING KINETICS OF A MULTICOMPONENT MIXTURE OF ORGANIC SOLVENTS. <i>Drying Technology</i> , 1999 , 17, 2107-2122	2.6	4
19	A Practical Methodology to Estimate the H ₂ Storage Capacity of Pure and Binary Hydrates Based on Monte Carlo Simulations. <i>Journal of Chemical & Engineering Data</i> , 2020 , 65, 1289-1299	2.8	4
18	Modeling and simulation supporting the application of fuel cell & hydrogen technologies. <i>Journal of Computational Science</i> , 2018 , 27, 10-20	3.4	3
17	Structural, microchemistry, and hydrogenation properties of TiMn _{0.4} Fe _{0.2} V _{0.4} , TiMn _{0.1} Fe _{0.2} V _{0.7} and Ti _{0.4} Zr _{0.6} Mn _{0.4} Fe _{0.2} V _{0.4} metal hydrides. <i>Journal of Nanoscience and Nanotechnology</i> , 2012 , 12, 4688-96	1.3	3
16	Application of the Lattice-Boltzmann method to the modeling of population blob dynamics in 2D porous domains. <i>Computers and Mathematics With Applications</i> , 2010 , 59, 2315-2325	2.7	3
15	Atomistic simulation of sorption in model pores with reduced spatial periodicity. <i>Applied Surface Science</i> , 2007 , 253, 5606-5609	6.7	3
14	Transport of organic components from immobile and bypassed oil in porous media. <i>AIChE Journal</i> , 2003 , 49, 1085-1094	3.6	3
13	The effect of Peclet on the Sherwood number in high porosity granular media. <i>Studies in Surface Science and Catalysis</i> , 2002 , 144, 753-760	1.8	3
12	Study on the operation and energy demand of dual-stage Metal Hydride Hydrogen Compressors under effective thermal management. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 29272-29287	6.7	3
11	Enhanced (text {CO}_2) selectivity within the cavity of gmelinite frameworks. <i>Adsorption</i> , 2018 , 24, 371-379	3.7	2
10	Determination of the spatial distribution of multiple fluid phases in porous media by ultra-small-angle neutron scattering. <i>Applied Surface Science</i> , 2010 , 256, 5329-5333	6.7	2
9	Study of Calcium Carbonate Precipitation in the Near-Well Region Using ⁴⁷ Ca as Tracer. <i>SPE Production and Operations</i> , 2006 , 21, 33-39	0.6	2
8	Determining the specific surface area of Metal Organic Frameworks based on a computational approach. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017 , 526, 14-19	5.1	1
7	Ceramic membranes - characterization and applications. <i>Studies in Surface Science and Catalysis</i> , 1999 , 120, 687-713	1.8	1
6	Gas Solubility in Aqueous Solutions Under Two-Phase (H ₂ O) Hydrate Equilibrium Conditions 2015 , 205-212		
5	Synthesis and characterization of TiFe _(0.7-x) Mn _(0.3) V _(x) (x = 0.05, and 0.1) and Ti _(1-y) Ta _(y) Fe _(0.7) Mn _(0.3) (y = 0.2, and 0.4) nanostructured metal hydrides for low temperature applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2012 , 12, 9067-75	1.3	
4	Multi-scale modelling and optimization of hydrogen storage systems using advanced solid materials. <i>Computer Aided Chemical Engineering</i> , 2006 , 21, 185-190	0.6	
3	Structural Characterisation and Applications of Ceramic Membranes for Gas Separations. <i>Studies in Surface Science and Catalysis</i> , 2000 , 128, 429-438	1.8	

- 2 PEEL ADHESION PROPERTIES OF AIR-DRIED PHARMACEUTICAL PRESSURE SENSITIVE ADHESIVE. 2.6
Drying Technology, **1999**, 17, 2093-2106
- 1 A Lattice Boltzmann Method for Non Ideal Gases Based on the Gradient Theory of Interfaces. 0.6
Computer Aided Chemical Engineering, **2011**, 29, 1598-1602