

# Shaheen A Al-Muhtaseb

## List of Publications by Year in Descending Order

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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.

88  
papers

3,886  
citations

24  
h-index

61  
g-index

90  
ext. papers

4,323  
ext. citations

6  
avg, IF

5.66  
L-index

#	Paper	IF	Citations
88	Prediction of solid-liquid-vapor phase equilibria of noble gases in nitrogen. <i>Arabian Journal of Chemistry</i> , <b>2022</b> , 15, 103866	5.9	0
87	A Rapid Method for Low Temperature Microencapsulation of Phase Change Materials (PCMs) Using a Coiled Tube Ultraviolet Reactor. <i>Energies</i> , <b>2021</b> , 14, 7867	3.1	1
86	Influence of Carbon Uniformity on Its Characteristics and Adsorption Capacities of CO <sub>2</sub> and CH <sub>4</sub> Gases. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 265	2.6	1
85	A review of the features and applications of ZIF-8 and its derivatives for separating CO <sub>2</sub> and isomers of C <sub>3</sub> - and C <sub>4</sub> - hydrocarbons. <i>Journal of Natural Gas Science and Engineering</i> , <b>2021</b> , 96, 104289	4.6	6
84	Hybrid online-flipped learning pedagogy for teaching laboratory courses to mitigate the pandemic COVID-19 confinement and enable effective sustainable delivery: investigation of attaining course learning outcome. <i>SN Social Sciences</i> , <b>2021</b> , 1, 113		4
83	An empirical correlation-based model to predict solid-fluid phase equilibria and phase separation of the ternary system CH <sub>4</sub> -CO <sub>2</sub> -H <sub>2</sub> S. <i>Journal of Natural Gas Science and Engineering</i> , <b>2021</b> , 94, 104120	4.6	3
82	Consequence of aging at Au/HTM/perovskite interface in triple cation 3D and 2D/3D hybrid perovskite solar cells. <i>Scientific Reports</i> , <b>2021</b> , 11, 33	4.9	7
81	Effect of sulfonated poly (ether ether ketone) on the sensitivity of polyvinylidene fluoride-based resistive humidity sensors. <i>Materials Today Communications</i> , <b>2020</b> , 25, 101601	2.5	1
80	Carbon Nanoparticles-Decorated Carbon Nanotubes. <i>Scientific Reports</i> , <b>2020</b> , 10, 4878	4.9	15
79	Using electric power to synthesize resorcinol-formaldehyde gels with enhanced characteristics. <i>International Journal of Energy Research</i> , <b>2020</b> , 44, 12259-12268	4.5	
78	Nano-gate opening pressures for the adsorption of isobutane, n-butane, propane, and propylene gases on bimetallic Co-Zn based zeolitic imidazolate frameworks. <i>Dalton Transactions</i> , <b>2019</b> , 48, 4685-4693	4.3	8
77	Effect of gas templating of resorcinol-formaldehyde xerogels on characteristics and performances of subsequent activated carbons. <i>Materials Chemistry and Physics</i> , <b>2019</b> , 234, 361-368	4.4	1
76	Adsorption Equilibrium and Kinetics of Nitrogen, Methane and Carbon Dioxide Gases onto ZIF-8, Cu10%/ZIF-8, and Cu30%/ZIF-8. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2019</b> , 58, 6653-6661	3.9	13
75	Adsorption of Carbon Dioxide, Methane, and Nitrogen Gases onto ZIF Compounds with Zinc, Cobalt, and Zinc/Cobalt Metal Centers. <i>Journal of Nanomaterials</i> , <b>2019</b> , 2019, 1-11	3.2	6
74	Influence of Chitosan Addition on Resorcinol/Formaldehyde Xerogel Structure. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 4582	2.6	3
73	The Effect of Chitosan Addition to Resorcinol/Formaldehyde Xerogels on the Characteristics of Resultant Activated Carbon. <i>Materials</i> , <b>2019</b> , 12,	3.5	1
72	On the nanogate-opening pressures of copper-doped zeolitic imidazolate framework ZIF-8 for the adsorption of propane, propylene, isobutane, and n-butane. <i>Journal of Materials Science</i> , <b>2019</b> , 54, 5513-5527	4.3	19

71	Influence of doped metal center on morphology and pore structure of ZIF-8. <i>MRS Communications</i> , <b>2019</b> , 9, 288-291	2.7	5
70	Degradation analysis in mixed (MAPbI3 and MAPbBr3) perovskite solar cells under thermal stress. <i>Journal of Materials Science: Materials in Electronics</i> , <b>2019</b> , 30, 1354-1359	2.1	9
69	Stability in 3D and 2D/3D hybrid perovskite solar cells studied by EFISHG and IS techniques under light and heat soaking. <i>Organic Electronics</i> , <b>2019</b> , 66, 7-12	3.5	14
68	Enhancement of electrical and optical performance of N719 by co-sensitization. <i>Optical Materials</i> , <b>2018</b> , 78, 201-206	3.3	3
67	Dataset on the new recipe for the preparation of nanoporous carbon nanorods using resorcinol-formaldehyde xerogels. <i>Data in Brief</i> , <b>2018</b> , 18, 827-830	1.2	
66	Adsorption process of n-alkanes onto BAX-1100 activated carbon: Theoretical estimation of isosteric heat of adsorption and energy distribution of heterogeneous surfaces. <i>Journal of Molecular Liquids</i> , <b>2018</b> , 252, 399-407	6	9
65	Limits and possible solutions in quantum dot organic solar cells. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 82, 1551-1564	16.2	20
64	Gas templating of resorcinol-formaldehyde xerogels. <i>Journal of Non-Crystalline Solids</i> , <b>2018</b> , 498, 64-71	3.9	3
63	Silica and carbon decorated silica nanosheet impact on primary human immune cells. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2018</b> , 172, 779-789	6	2
62	Efficacy of using slurry of metal-coated microencapsulated PCM for cooling in a micro-channel heat exchanger. <i>Applied Thermal Engineering</i> , <b>2017</b> , 122, 11-18	5.8	51
61	Novel controlled synthesis of nanoporous carbon nanorods from resorcinol-formaldehyde xerogels. <i>Materials Letters</i> , <b>2017</b> , 201, 181-184	3.3	2
60	Screening alternatives for producing paraffinic phase change materials for thermal energy storage in buildings. <i>International Journal of Energy Research</i> , <b>2017</b> , 41, 1932-1940	4.5	7
59	Optimization of ITO glass/TiO2 based DSSC photo-anodes through electrophoretic deposition and sintering techniques. <i>Ceramics International</i> , <b>2017</b> , 43, 10540-10545	5.1	18
58	Selective adsorption of carbon dioxide, methane and nitrogen using resorcinol-formaldehyde-xerogel activated carbon. <i>Adsorption</i> , <b>2017</b> , 23, 933-944	2.6	12
57	Dopant-Free Hole-Transporting Materials for Stable and Efficient Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2017</b> , 29, 1606555	24	151
56	Growth of MAPbBr3 perovskite crystals and its interfacial properties with Al and Ag contacts for perovskite solar cells. <i>Optical Materials</i> , <b>2017</b> , 73, 50-55	3.3	11
55	Instability in CHNHPbI perovskite solar cells due to elemental migration and chemical composition changes. <i>Scientific Reports</i> , <b>2017</b> , 7, 15406	4.9	65
54	High-pressure CO2/N2 and CO2/CH4 separation using dense polysulfone-supported ionic liquid membranes. <i>Journal of Natural Gas Science and Engineering</i> , <b>2016</b> , 36, 472-485	4.6	18

53	New insights on estimating pore size distribution of latex particles: Statistical mechanics approach and modeling. <i>Microporous and Mesoporous Materials</i> , <b>2016</b> , 224, 360-371	5.3	13
52	Innovative method of metal coating of microcapsules containing phase change materials. <i>Solar Energy</i> , <b>2016</b> , 129, 54-64	6.8	61
51	Removal of crystal violet from wastewater using resorcinol-formaldehyde carbon xerogels. <i>Separation Science and Technology</i> , <b>2016</b> , 51, 403-415	2.5	8
50	Assessment of Ce Zr Hf O <sub>2</sub> based oxides as potential solar thermochemical CO <sub>2</sub> splitting materials. <i>Ceramics International</i> , <b>2016</b> , 42, 9354-9362	5.1	47
49	Weakly Conjugated Hybrid Zinc Porphyrin Sensitizers for Solid-State Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 5550-5559	15.6	23
48	High performance CO <sub>2</sub> filtration and sequestration by using bromomethyl benzene linked microporous networks. <i>RSC Advances</i> , <b>2016</b> , 6, 66324-66335	3.7	6
47	Quasi-Solid-State Dye-Sensitized Solar Cells Based on Ru(II) Polypyridine Sensitizers. <i>Energy Technology</i> , <b>2016</b> , 4, 380-384	3.5	4
46	Solar hydrogen production via erbium oxide based thermochemical water splitting cycle. <i>Journal of Renewable and Sustainable Energy</i> , <b>2016</b> , 8, 034702	2.5	42
45	Membranes for CO <sub>2</sub> Separation <b>2016</b> , 237-292		1
44	Investigation of Ester- and Amide-Linker-Based Porous Organic Polymers for Carbon Dioxide Capture and Separation at Wide Temperatures and Pressures. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 20772-85	9.5	43
43	Supercooling elimination of phase change materials (PCMs) microcapsules. <i>Energy</i> , <b>2015</b> , 87, 654-662	7.9	95
42	Unravel the Impact of Anchoring Groups on the Photovoltaic Performances of Diketopyrrolopyrrole Sensitizers for Dye-Sensitized Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2015</b> , 3, 2389-2396	8.3	56
41	Emulsion stability and cross-linking of PMMA microcapsules containing phase change materials. <i>Solar Energy Materials and Solar Cells</i> , <b>2015</b> , 132, 311-318	6.4	113
40	Energetic investigation of the adsorption process of CH <sub>4</sub> , C <sub>2</sub> H <sub>6</sub> and N <sub>2</sub> on activated carbon: Numerical and statistical physics treatment. <i>Physica B: Condensed Matter</i> , <b>2014</b> , 433, 55-61	2.8	6
39	Adsorption Energy and Pore-Size Distributions of Activated Carbons Calculated Using Hill's Model. <i>Adsorption Science and Technology</i> , <b>2014</b> , 32, 571-590	3.6	6
38	Controlled thermal oxidative crosslinking of polymers of intrinsic microporosity towards tunable molecular sieve membranes. <i>Nature Communications</i> , <b>2014</b> , 5, 4813	17.4	199
37	Photo-oxidative enhancement of polymeric molecular sieve membranes. <i>Nature Communications</i> , <b>2013</b> , 4, 1918	17.4	94
36	Carbon dioxide sequestration and methane removal from exhaust gases using resorcinol-formaldehyde activated carbon xerogel. <i>Adsorption</i> , <b>2013</b> , 19, 967-977	2.6	18

35	Influence of Micro- and Mesoporosity of Resorcinol-Formaldehyde Xerogels on Adsorption. <i>Environmental Engineering Science</i> , <b>2013</b> , 30, 381-386	2	2
34	Nanofeatures of resorcinol-formaldehyde carbon microspheres. <i>Materials Letters</i> , <b>2012</b> , 87, 31-34	3.3	11
33	Zeolitic imidazolate framework (ZIF-8) based polymer nanocomposite membranes for gas separation. <i>Energy and Environmental Science</i> , <b>2012</b> , 5, 8359	35.4	535
32	Collective osmotic shock in ordered materials. <i>Nature Materials</i> , <b>2011</b> , 11, 53-7	27	54
31	Impact of synthesis conditions on meso- and macropore structures of resorcinol-formaldehyde xerogels. <i>Journal of Materials Science</i> , <b>2011</b> , 46, 7760-7769	4.3	22
30	Advances in tailoring resorcinol-formaldehyde organic and carbon gels. <i>Advanced Materials</i> , <b>2011</b> , 23, 2887-903	24	320
29	Adsorption and Desorption Equilibria of Nitrogen, Methane, Ethane, and Ethylene on Date-Pit Activated Carbon. <i>Journal of Chemical &amp; Engineering Data</i> , <b>2010</b> , 55, 313-319	2.8	22
28	Biodegradation of phenol by <i>Pseudomonas putida</i> immobilized in polyvinyl alcohol (PVA) gel. <i>Journal of Hazardous Materials</i> , <b>2009</b> , 164, 720-5	12.8	245
27	Removal of aluminum from aqueous solutions by adsorption on date-pit and BDH activated carbons. <i>Journal of Hazardous Materials</i> , <b>2008</b> , 158, 300-7	12.8	68
26	Role of catalyst type in the selective separation of olefinic and paraffinic hydrocarbons using xerogel-based adsorbents. <i>Carbon</i> , <b>2008</b> , 46, 1003-1009	10.4	14
25	Adsorption Equilibria of Nitrogen, Methane, and Ethane on BDH-Activated Carbon. <i>Journal of Chemical &amp; Engineering Data</i> , <b>2007</b> , 52, 60-65	2.8	24
24	Effects of Adsorbent Characteristics on Adiabatic Vacuum Swing Adsorption Processes for Solvent Vapor Recovery. <i>Chemical Engineering and Technology</i> , <b>2006</b> , 29, 1323-1332	2	1
23	New Methodology for the Measurement and Analysis of Adsorption Dynamics: Butane on Activated Carbon. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2004</b> , 43, 7075-7082	3.9	1
22	Preparation and Properties of Resorcinol-Formaldehyde Organic and Carbon Gels. <i>Advanced Materials</i> , <b>2003</b> , 15, 101-114	24	831
21	Thermal Treatment of Sol-Gel Derived Nickel Oxide Xerogels. <i>Journal of Sol-Gel Science and Technology</i> , <b>2003</b> , 28, 133-141	2.3	10
20	Practical Modeling of Metal Hydride Hydrogen Storage Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 1713-1722	3.9	22
19	Sol-Gel-Derived Carbon Aerogels and Xerogels: Design of Experiments Approach to Materials Synthesis. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2002</b> , 41, 3151-3162	3.9	61
18	Adsorption of C <sub>1-7</sub> Normal Alkanes on BAX-Activated Carbon. 2. Statistically Optimized Approach for Deriving Thermodynamic Properties from the Adsorption Isotherm. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 319-337	3.9	9

17	Adsorption of C <sub>10</sub> -C <sub>17</sub> Normal Alkanes on BAX Activated Carbon. 1. Potential Theory Correlation and Adsorbent Characterization. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2001</b> , 40, 338-346	3.9	24
16	Modelling and prediction of the solubility of acid gases in diethanolamine solutions. <i>High Temperatures - High Pressures</i> , <b>2000</b> , 32, 261-270	1.3	2
15	On the Correlation of Modified Antoine's Adsorption Isotherm Models with Experimental Data. <i>Langmuir</i> , <b>2000</b> , 16, 8536-8538	4	2
14	Roles of Surface Heterogeneity and Lateral Interactions on the Isosteric Heat of Adsorption and Adsorbed Phase Heat Capacity. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 2467-2479	3.4	55
13	New Model That Describes Adsorption of Laterally Interacting Gas Mixtures on Random Heterogeneous Surfaces. 2. Correlation of Complex Binary and Prediction of Multicomponent Adsorption Equilibria. <i>Langmuir</i> , <b>1999</b> , 15, 7732-7744	4	8
12	A Statistical Mechanical Perspective on the Temperature Dependence of the Isosteric Heat of Adsorption and Adsorbed Phase Heat Capacity. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 8104-8115	3.4	10
11	New Model That Describes Adsorption of Laterally Interacting Gas Mixtures on Random Heterogeneous Surfaces. 1. Parametric Study and Correlation with Binary Data. <i>Langmuir</i> , <b>1998</b> , 14, 6528-6538 <sup>12</sup>	4	12
10	New Virial-Type Model for Predicting Single- and Multicomponent Isosteric Heats of Adsorption. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>1998</b> , 37, 684-696	3.9	18
9	Further Modification of the Antoine Equation for Correlation of Adsorption Equilibria. <i>Langmuir</i> , <b>1998</b> , 14, 5317-5323	4	5
8	Phase Equilibria of the Ternary System Water + Propionic Acid + 2-Butanol. <i>Separation Science and Technology</i> , <b>1997</b> , 32, 1463-1476	2.5	13
7	Extraction of Aromatics from Petroleum Naphtha Reformate by a 1-Cyclohexyl-2-pyrrolidone/Ethylene Carbonate Mixed Solvent. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>1997</b> , 36, 414-418	3.9	13
6	Liquid-Liquid Equilibria of the Ternary System Water + Acetic Acid + 1-Hexanol. <i>Journal of Chemical &amp; Engineering Data</i> , <b>1997</b> , 42, 183-186	2.8	55
5	Liquid-liquid equilibria for the extraction of aromatics from naphtha reformat by dimethylformamide/ethylene glycol mixed solvent. <i>Fluid Phase Equilibria</i> , <b>1997</b> , 129, 175-186	2.5	20
4	Liquid-Liquid Equilibria of the Ternary System Water + Acetic Acid + 2-Methyl-2-butanol. <i>Journal of Chemical &amp; Engineering Data</i> , <b>1996</b> , 41, 1311-1314	2.8	26
3	Phase Equilibria of the Ternary System Water + Acetic Acid + 1-Pentanol. <i>Journal of Chemical &amp; Engineering Data</i> , <b>1996</b> , 41, 562-565	2.8	15
2	A comparison between four cubic equations of state in predicting the inversion curve and spinodal curve loci of methane. <i>Thermochimica Acta</i> , <b>1996</b> , 287, 43-52	2.9	7
1	Phase equilibria of the ternary system water/acetic acid/2-pentanol. <i>Fluid Phase Equilibria</i> , <b>1996</b> , 123, 189-203	2.5	25