

Renju Zacharia

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.

37
papers

2,287
citations

19
h-index

40
g-index

40
ext. papers

2,535
ext. citations

5.3
avg, IF

4.89
L-index

#	Paper	IF	Citations
37	Hydrogen storage in a two-liter adsorbent prototype tank for fuel cell driven vehicles. <i>Applied Energy</i> , 2019 , 250, 333-343	10.7	16
36	Bio-regeneration of activated carbon: A comprehensive review. <i>Separation and Purification Technology</i> , 2018 , 197, 345-359	8.3	97
35	How the activation process modifies the hydrogen storage behavior of biomass-derived activated carbons. <i>Journal of Porous Materials</i> , 2018 , 25, 221-234	2.4	12
34	Thermodynamics and kinetics of CH ₄ /CO ₂ binary mixture separation by metal-organic frameworks from isotope exchange and adsorption break-through. <i>Microporous and Mesoporous Materials</i> , 2018 , 263, 165-172	5.3	15
33	Biotransformation of carbon dioxide in bioelectrochemical systems: State of the art and future prospects. <i>Journal of Power Sources</i> , 2017 , 356, 256-273	8.9	152
32	Investigation of the hydrogen adsorbed density inside the pores of MOF-5 from path integral grand canonical Monte Carlo at supercritical and subcritical temperature. <i>Science Bulletin</i> , 2016 , 61, 594-600	10.6	11
31	Charge/discharge cycling, flowthrough cooling and para - ortho conversion for cooling bulk hydrogen storage tank filled with MOF-5. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 1044-1052	6.7	2
30	Outlook and challenges for hydrogen storage in nanoporous materials. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	92
29	Effect of flowthrough cooling heat removal on the performances of MOF-5 cryo-adsorptive hydrogen reservoir for bulk storage applications. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 9314-9325	6.7	10
28	Specific heat capacities of MOF-5, Cu-BTC, Fe-BTC, MOF-177 and MIL-53 (Al) over wide temperature ranges: Measurements and application of empirical group contribution method. <i>Microporous and Mesoporous Materials</i> , 2015 , 217, 1-5	5.3	25
27	Multicomponent adsorption of biogas compositions containing CO ₂ , CH ₄ and N ₂ on Maxsorb and Cu-BTC using extended Langmuir and Doong-Vang models. <i>Adsorption</i> , 2015 , 21, 433-443	2.6	15
26	Isosteric heat of hydrogen adsorption on MOFs: comparison between adsorption calorimetry, sorption isosteric method, and analytical models. <i>Applied Physics A: Materials Science and Processing</i> , 2015 , 121, 1417-1424	2.6	32
25	Simulation of Binary CO ₂ /CH ₄ Mixture Breakthrough Profiles in MIL-53 (Al). <i>Journal of Nanomaterials</i> , 2015 , 2015, 1-15	3.2	12
24	Nanomaterials for Renewable Energy Storage: Synthesis, Characterization, and Applications. <i>Journal of Nanomaterials</i> , 2015 , 2015, 1-2	3.2	2
23	Review of Solid State Hydrogen Storage Methods Adopting Different Kinds of Novel Materials. <i>Journal of Nanomaterials</i> , 2015 , 2015, 1-18	3.2	41
22	Effect of para-ortho conversion on hydrogen storage system performance. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 11651-11660	6.7	16
21	Performance comparison of adsorption isotherm models for supercritical hydrogen sorption on MOFs. <i>Fluid Phase Equilibria</i> , 2014 , 363, 74-85	2.5	21

20	Potential theory for prediction of high-pressure gas mixture adsorption on activated carbon and MOFs. <i>Separation and Purification Technology</i> , 2014 , 135, 229-242	8.3	7
19	Soft-Templated Mesoporous Carbons: Chemistry and Structural Characteristics. <i>ACS Symposium Series</i> , 2014 , 61-83	0.4	7
18	Development of a scalable and versatile multicomponent real-gas mixing system. <i>Separation and Purification Technology</i> , 2013 , 118, 639-644	8.3	2
17	Modified potential theory for modeling supercritical gas adsorption. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 9137-9147	6.7	22
16	Synthesis, characterization and hydrogen adsorption properties of metal-organic framework Al-TCBPB. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 5100-5107	6.7	13
15	Synthesis, characterization and hydrogen adsorption on metal-organic frameworks Al, Cr, Fe and Ga-BTB. <i>Chemical Engineering Journal</i> , 2011 , 171, 517-525	14.7	18
14	Volumetric hydrogen sorption capacity of monoliths prepared by mechanical densification of MOF-177. <i>Journal of Materials Chemistry</i> , 2010 , 20, 2145		101
13	Hydrogen storage of nanostructured TiO ₂ -impregnated carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 961-966	6.7	75
12	Comparative study of dehydrogenation of sodium aluminum hydride wet-doped with ScCl ₃ , TiCl ₃ , VCl ₃ , and MnCl ₂ . <i>Journal of Alloys and Compounds</i> , 2009 , 471, L16-L22	5.7	23
11	Surface adsorption and micropore filling of the hydrogen in activated MWCNTs. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 6710-6718	6.7	33
10	Spillover of physisorbed hydrogen from sputter-deposited arrays of platinum nanoparticles to multi-walled carbon nanotubes. <i>Chemical Physics Letters</i> , 2007 , 434, 286-291	2.5	89
9	Hyperstoichiometric hydrogen storage in monodispersed palladium nanoparticles. <i>Chemical Physics Letters</i> , 2007 , 438, 78-84	2.5	26
8	Hydrogen uptake of palladium-embedded MWCNTs produced by impregnation and condensed phase reduction method. <i>Chemical Physics Letters</i> , 2007 , 441, 261-267	2.5	68
7	Intrinsic linear scaling of hydrogen storage capacity of carbon nanotubes with the specific surface area. <i>Catalysis Today</i> , 2007 , 120, 426-431	5.3	30
6	Perspectives on an Advanced Hydrogen Storage System: Platinum-Carbon Nanotube Nanocomposite Materials. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 973, 1		2
5	Thermal desorption of gases and solvents from graphite and carbon nanotube surfaces. <i>Carbon</i> , 2006 , 44, 2931-2942	10.4	139
4	Application of the Taguchi analytical method for optimization of effective parameters of the chemical vapor deposition process controlling the production of nanotubes/nanobeads. <i>Journal of Nanoscience and Nanotechnology</i> , 2005 , 5, 288-95	1.3	10
3	Enhancement of hydrogen storage capacity of carbon nanotubes via spill-over from vanadium and palladium nanoparticles. <i>Chemical Physics Letters</i> , 2005 , 412, 369-375	2.5	186

- 2 Application of carbon nanomaterial as a microwave absorber. *Journal of Nanoscience and Nanotechnology*, **2005**, 5, 2117-20 1.3 19
- 1 Interlayer cohesive energy of graphite from thermal desorption of polyaromatic hydrocarbons. *Physical Review B*, **2004**, 69, 3.3 846