Renju Zacharia

List of Publications by Citations

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	Interlayer cohesive energy of graphite from thermal desorption of polyaromatic hydrocarbons. *Physical Review B*, **2004**, 69,	3.3	846
36	Enhancement of hydrogen storage capacity of carbon nanotubes via spill-over from vanadium and palladium nanoparticles. *Chemical Physics Letters*, **2005**, 412, 369-375	2.5	186
35	Biotransformation of carbon dioxide in bioelectrochemical systems: State of the art and future prospects. *Journal of Power Sources*, **2017**, 356, 256-273	8.9	152
34	Thermal desorption of gases and solvents from graphite and carbon nanotube surfaces. *Carbon*, **2006**, 44, 2931-2942	10.4	139
33	Volumetric hydrogen sorption capacity of monoliths prepared by mechanical densification of MOF-177. *Journal of Materials Chemistry*, **2010**, 20, 2145		101
32	Bio-regeneration of activated carbon: A comprehensive review. *Separation and Purification Technology*, **2018**, 197, 345-359	8.3	97
31	Outlook and challenges for hydrogen storage in nanoporous materials. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	92
30	Spillover of physisorbed hydrogen from sputter-deposited arrays of platinum nanoparticles to multi-walled carbon nanotubes. *Chemical Physics Letters*, **2007**, 434, 286-291	2.5	89
29	Hydrogen storage of nanostructured TiO2-impregnated carbon nanotubes. *International Journal of Hydrogen Energy*, **2009**, 34, 961-966	6.7	75
28	Hydrogen uptake of palladium-embedded MWCNTs produced by impregnation and condensed phase reduction method. *Chemical Physics Letters*, **2007**, 441, 261-267	2.5	68
27	Review of Solid State Hydrogen Storage Methods Adopting Different Kinds of Novel Materials. *Journal of Nanomaterials*, **2015**, 2015, 1-18	3.2	41
26	Surface adsorption and micropore filling of the hydrogen in activated MWCNTs. *International Journal of Hydrogen Energy*, **2008**, 33, 6710-6718	6.7	33
25	Isosteric heat of hydrogen adsorption on MOFs: comparison between adsorption calorimetry, sorption isosteric method, and analytical models. *Applied Physics A: Materials Science and Processing* , **2015**, 121, 1417-1424	2.6	32
24	Intrinsic linear scaling of hydrogen storage capacity of carbon nanotubes with the specific surface area. *Catalysis Today*, **2007**, 120, 426-431	5.3	30
23	Hyperstoichiometric hydrogen storage in monodispersed palladium nanoparticles. *Chemical Physics Letters*, **2007**, 438, 78-84	2.5	26
22	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. *Microporous and Mesoporous Materials*, **2015**, 217, 1-5	5.3	25
21	Comparative study of dehydrogenation of sodium aluminum hydride wet-doped with ScCl3, TiCl3, VCl3, and MnCl2. *Journal of Alloys and Compounds*, **2009**, 471, L16-L22	5.7	23

20	Modified potential theory for modeling supercritical gas adsorption. *International Journal of Hydrogen Energy*, **2012**, 37, 9137-9147	6.7	22
19	Performance comparison of adsorption isotherm models for supercritical hydrogen sorption on MOFs. *Fluid Phase Equilibria*, **2014**, 363, 74-85	2.5	21
18	Application of carbon nanomaterial as a microwave absorber. *Journal of Nanoscience and Nanotechnology*, **2005**, 5, 2117-20	1.3	19
17	Synthesis, characterization and hydrogen adsorption on metal-organic frameworks Al, Cr, Fe and Ga-BTB. *Chemical Engineering Journal*, **2011**, 171, 517-525	14.7	18
16	Hydrogen storage in a two-liter adsorbent prototype tank for fuel cell driven vehicles. *Applied Energy*, **2019**, 250, 333-343	10.7	16
15	Effect of para□rtho conversion on hydrogen storage system performance. *International Journal of Hydrogen Energy*, **2014**, 39, 11651-11660	6.7	16
14	Multicomponent adsorption of biogas compositions containing CO2, CH4 and N2 on Maxsorb and Cu-BTC using extended Langmuir and Doong□ang models. *Adsorption*, **2015**, 21, 433-443	2.6	15
13	Thermodynamics and kinetics of CH4/CO2 binary mixture separation by metal-organic frameworks from isotope exchange and adsorption break-through. *Microporous and Mesoporous Materials*, **2018**, 263, 165-172	5.3	15
12	Synthesis, characterization and hydrogen adsorption properties of metal□rganic framework Al-TCBPB. *International Journal of Hydrogen Energy*, **2012**, 37, 5100-5107	6.7	13
11	How the activation process modifies the hydrogen storage behavior of biomass-derived activated carbons. *Journal of Porous Materials*, **2018**, 25, 221-234	2.4	12
10	Simulation of Binary CO2/CH4Mixture Breakthrough Profiles in MIL-53 (Al). *Journal of Nanomaterials*, **2015**, 2015, 1-15	3.2	12
9	Investigation of the hydrogen adsorbed density inside the pores of MOF-5 from path integral grand canonical Monte Carlo at supercritical and subcritical temperature. *Science Bulletin*, **2016**, 61, 594-600	10.6	11
8	Effect of flowthrough cooling heat removal on the performances of MOF-5 cryo-adsorptive hydrogen reservoir for bulk storage applications. *International Journal of Hydrogen Energy*, **2015**, 40, 9314-9325	6.7	10
7	Application of the Taguchi analytical method for optimization of effective parameters of the chemical vapor deposition process controlling the production of nanotubes/nanobeads. *Journal of Nanoscience and Nanotechnology*, **2005**, 5, 288-95	1.3	10
6	Potential theory for prediction of high-pressure gas mixture adsorption on activated carbon and MOFs. *Separation and Purification Technology*, **2014**, 135, 229-242	8.3	7
5	Soft-Templated Mesoporous Carbons: Chemistry and Structural Characteristics. *ACS Symposium Series*, **2014**, 61-83	0.4	7
4	Charge□ischarge cycling, flowthrough cooling and para - ortho conversion for cooling bulk hydrogen storage tank filled with MOF-5. *International Journal of Hydrogen Energy*, **2016**, 41, 1044-1052	6.7	2
3	Development of a scalable and versatile multicomponent real-gas mixing system. *Separation and Purification Technology*, **2013**, 118, 639-644	8.3	2

2	Nanomaterials for Renewable Energy Storage: Synthesis, Characterization, and Applications. *Journal of Nanomaterials*, **2015**, 2015, 1-2	3.2	2
1	Perspectives on an Advanced Hydrogen Storage System: Platinum-Carbon Nanotube Nanocomposite Materials. *Materials Research Society Symposia Proceedings*, **2006**, 973, 1		2