

Renju Zacharia

List of Publications by Year in descending order

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Version: 2024-02-01

37
papers

2,768
citations

331670

21
h-index

330143

37
g-index

40
all docs

40
docs citations

40
times ranked

4397
citing authors

#	ARTICLE	IF	CITATIONS
1	Interlayer cohesive energy of graphite from thermal desorption of polyaromatic hydrocarbons. <i>Physical Review B</i> , 2004, 69, .	3.2	972
2	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.	2.6	205
3	Biotransformation of carbon dioxide in bioelectrochemical systems: State of the art and future prospects. <i>Journal of Power Sources</i> , 2017, 356, 256-273.	7.8	194
4	Thermal desorption of gases and solvents from graphite and carbon nanotube surfaces. <i>Carbon</i> , 2006, 44, 2931-2942.	10.3	160
5	Bio-regeneration of activated carbon: A comprehensive review. <i>Separation and Purification Technology</i> , 2018, 197, 345-359.	7.9	158
6	Outlook and challenges for hydrogen storage in nanoporous materials. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	129
7	Volumetric hydrogen sorption capacity of monoliths prepared by mechanical densification of MOF-177. <i>Journal of Materials Chemistry</i> , 2010, 20, 2145.	6.7	122
8	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.	2.6	102
9	Hydrogen storage of nanostructured TiO ₂ -impregnated carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 961-966.	7.1	83
10	Hydrogen uptake of palladium-embedded MWCNTs produced by impregnation and condensed phase reduction method. <i>Chemical Physics Letters</i> , 2007, 441, 261-267.	2.6	73
11	Review of Solid State Hydrogen Storage Methods Adopting Different Kinds of Novel Materials. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-18.	2.7	69
12	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.	2.3	41
13	Surface adsorption and micropore filling of the hydrogen in activated MWCNTs. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 6710-6718.	7.1	40
14	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.	4.4	35
15	Intrinsic linear scaling of hydrogen storage capacity of carbon nanotubes with the specific surface area. <i>Catalysis Today</i> , 2007, 120, 426-431.	4.4	32
16	Hydrogen storage in a two-liter adsorbent prototype tank for fuel cell driven vehicles. <i>Applied Energy</i> , 2019, 250, 333-343.	10.1	28
17	Hyperstoichiometric hydrogen storage in monodispersed palladium nanoparticles. <i>Chemical Physics Letters</i> , 2007, 438, 78-84.	2.6	27
18	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.	5.5	26

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19	Modified potential theory for modeling supercritical gas adsorption. International Journal of Hydrogen Energy, 2012, 37, 9137-9147.	7.1	26
20	Application of Carbon Nanomaterial as a Microwave Absorber. Journal of Nanoscience and Nanotechnology, 2005, 5, 2117-2120.	0.9	24
21	Performance comparison of adsorption isotherm models for supercritical hydrogen sorption on MOFs. Fluid Phase Equilibria, 2014, 363, 74-85.	2.5	24
22	Multicomponent adsorption of biogas compositions containing CO ₂ , CH ₄ and N ₂ on Maxsorb and Cu-BTC using extended Langmuir and Doong&Yang models. Adsorption, 2015, 21, 433-443.	3.0	21
23	How the activation process modifies the hydrogen storage behavior of biomass-derived activated carbons. Journal of Porous Materials, 2018, 25, 221-234.	2.6	21
24	Thermodynamics and kinetics of CH ₄ /CO ₂ binary mixture separation by metal-organic frameworks from isotope exchange and adsorption break-through. Microporous and Mesoporous Materials, 2018, 263, 165-172.	4.4	21
25	Synthesis, characterization and hydrogen adsorption on metal-organic frameworks Al, Cr, Fe and Cu-BTC. Chemical Engineering Journal, 2011, 171, 517-525.	12.7	20
26	Effect of para&ortho conversion on hydrogen storage system performance. International Journal of Hydrogen Energy, 2014, 39, 11651-11660.	7.1	18
27	Synthesis, characterization and hydrogen adsorption properties of metal&organic framework Al-TCBPB. International Journal of Hydrogen Energy, 2012, 37, 5100-5107.	7.1	15
28	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.	9.0	15
29	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, 288-295.	0.9	13
30	Simulation of Binary CO ₂ /CH ₄ Mixture Breakthrough Profiles in MIL-53 (Al). Journal of Nanomaterials, 2015, 2015, 1-15.	2.7	13
31	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.	7.1	12
32	Soft-Templated Mesoporous Carbons: Chemistry and Structural Characteristics. ACS Symposium Series, 2014, , 61-83.	0.5	10
33	Potential theory for prediction of high-pressure gas mixture adsorption on activated carbon and MOFs. Separation and Purification Technology, 2014, 135, 229-242.	7.9	9
34	Charge&discharge 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.	7.1	4
35	Perspectives on an Advanced Hydrogen Storage System: Platinum-Carbon Nanotube Nanocomposite Materials. Materials Research Society Symposia Proceedings, 2006, 973, 1.	0.1	2
36	Development of a scalable and versatile multicomponent real-gas mixing system. Separation and Purification Technology, 2013, 118, 639-644.	7.9	2

#	ARTICLE	IF	CITATIONS
37	Nanomaterials for Renewable Energy Storage: Synthesis, Characterization, and Applications. Journal of Nanomaterials, 2015, 2015, 1-2.	2.7	2