

Vasanth Kumar Kannuchamy

List of Publications by Year in descending order

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78
papers

6,922
citations

109137

35
h-index

71532

76
g-index

78
all docs

78
docs citations

78
times ranked

7516
citing authors

#	ARTICLE	IF	CITATIONS
1	TOF-SIMS analysis of curcuminoids and curcumin crystals crystallized from their pure and impure solutions. <i>CrystEngComm</i> , 2022, 24, 2485-2504.	1.3	1
2	Probing adsorbent heterogeneity using Toth isotherms. <i>Journal of Materials Chemistry A</i> , 2021, 9, 944-962.	5.2	12
3	Deep neural networks in chemical engineering classrooms to accurately model adsorption equilibrium data. <i>Education for Chemical Engineers</i> , 2021, 36, 115-127.	2.8	18
4	Pure Curcumin Spherulites from Impure Solutions <i>via</i> Nonclassical Crystallization. <i>ACS Omega</i> , 2021, 6, 23884-23900.	1.6	10
5	Advanced Size Distribution Control in Batch Cooling Crystallization Using Ultrasound. <i>Organic Process Research and Development</i> , 2019, 23, 935-944.	1.3	4
6	Characterization of the adsorption site energies and heterogeneous surfaces of porous materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10104-10137.	5.2	187
7	Nanoporous Materials for the Onboard Storage of Natural Gas. <i>Chemical Reviews</i> , 2017, 117, 1796-1825.	23.0	241
8	Salt Templating with Pore Padding: Hierarchical Pore Tailoring towards Functionalised Porous Carbons. <i>ChemSusChem</i> , 2017, 10, 199-209.	3.6	24
9	Understanding the Hydrophilicity and Water Adsorption Behavior of Nanoporous Nitrogen-Doped Carbons. <i>Journal of Physical Chemistry C</i> , 2016, 120, 18167-18179.	1.5	46
10	Bio-inspired carbon electro-catalysts for the oxygen reduction reaction. <i>Journal of Energy Chemistry</i> , 2016, 25, 228-235.	7.1	25
11	Insights on the physical adsorption of hydrogen and methane in UiO series of MOFs using molecular simulations. <i>Computational and Theoretical Chemistry</i> , 2015, 1061, 36-45.	1.1	18
12	Effect of Nitrogen Doping on the CO ₂ Adsorption Behavior in Nanoporous Carbon Structures: A Molecular Simulation Study. <i>Journal of Physical Chemistry C</i> , 2015, 119, 22310-22321.	1.5	108
13	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.	1.7	4
14	Co-adsorption of N ₂ in the presence of CH ₄ within carbon nanospaces: evidence from molecular simulations. <i>Nanotechnology</i> , 2013, 24, 035401.	1.3	20
15	Effect of pore structure on the selectivity of carbon materials for the separation of CO ₂ /H ₂ mixtures: new insights from molecular simulation. <i>RSC Advances</i> , 2012, 2, 9671.	1.7	21
16	A site energy distribution function for the characterization of the continuous distribution of binding sites for gases on a heterogeneous surface. <i>RSC Advances</i> , 2012, 2, 784-788.	1.7	4
17	Effect of Pore Morphology on the Adsorption of Methane/Hydrogen Mixtures on Carbon Micropores. <i>Journal of Physical Chemistry C</i> , 2012, 116, 11820-11829.	1.5	61
18	Site Energy Distribution Function for the Sips Isotherm by the Condensation Approximation Method and Its Application to Characterization of Porous Materials. <i>Journal of Chemical & Engineering Data</i> , 2011, 56, 2218-2224.	1.0	27

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19	Molecular Simulation of Hydrogen Physisorption and Chemisorption in Nanoporous Carbon Structures. <i>Adsorption Science and Technology</i> , 2011, 29, 799-817.	1.5	36
20	A site energy distribution function from Toth isotherm for adsorption of gases on heterogeneous surfaces. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 5753.	1.3	55
21	Heat of adsorption and binding affinity for hydrogen on pitch-based activated carbons. <i>Chemical Engineering Journal</i> , 2011, 168, 972-978.	6.6	21
22	On the initial reaction rate of Peleg's model for rehydration kinetics. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2011, 42, 278-280.	2.7	9
23	A continuous site energy distribution function from Redlich-Peterson isotherm for adsorption on heterogeneous surfaces. <i>Chemical Physics Letters</i> , 2010, 492, 187-192.	1.2	38
24	Adsorption on Heterogeneous Surfaces: Site Energy Distribution Functions from Fritz-Schl�nder Isotherms. <i>ChemPhysChem</i> , 2010, 11, 2555-2560.	1.0	6
25	Kinetics and thermodynamics of sucrose crystal growth in the presence of a non-ionic surfactant. <i>Surface Science</i> , 2010, 604, 981-987.	0.8	12
26	Neural network and principal component analysis for modeling of hydrogen adsorption isotherms on KOH activated pitch-based carbons containing different heteroatoms. <i>Chemical Engineering Journal</i> , 2010, 159, 272-279.	6.6	16
27	Hybrid isotherms for adsorption and capillary condensation of N ₂ at 77K on porous and non-porous materials. <i>Chemical Engineering Journal</i> , 2010, 162, 424-429.	6.6	49
28	A Continuous Binding Site Affinity Distribution Function from the Freundlich Isotherm for the Supercritical Adsorption of Hydrogen on Activated Carbon. <i>Journal of Physical Chemistry C</i> , 2010, 114, 13759-13765.	1.5	15
29	A Pseudo Second-Order Kinetic Expression for Dissolution Kinetic Profiles of Solids in Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 7257-7262.	1.8	18
30	Equilibrium and thermodynamics of dye removal from aqueous solution by adsorption using rubber wood saw dust. <i>International Journal of Environmental Technology and Management</i> , 2009, 10, 295.	0.1	8
31	Modelling the solid-liquid adsorption processes using artificial neural networks trained by pseudo second order kinetics. <i>Chemical Engineering Journal</i> , 2009, 148, 20-25.	6.6	63
32	On the effect of a non-ionic surfactant on the surface of sucrose crystals and on the crystal growth process by inverse gas chromatography. <i>Journal of Chromatography A</i> , 2009, 1216, 8528-8534.	1.8	15
33	Regression Analysis for the Two-Step Growth Kinetics of Crystals in Pure Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 7852-7859.	1.8	8
34	Simple Kinetic Expressions to Study the Transport Process during the Growth of Crystals in Solution. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 11236-11240.	1.8	7
35	Simple kinetic models to explain the change in dislocation activity of crystals during a growth process. <i>Philosophical Magazine Letters</i> , 2009, 89, 599-604.	0.5	0
36	A Semiempirical Kinetics for Modeling and Simulation of the Crystal Growth Process in Pure Solutions. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 5105-5110.	1.8	2

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37	Neural Network Prediction of Interfacial Tension at Crystal/Solution Interface. Industrial & Engineering Chemistry Research, 2009, 48, 4160-4164.	1.8	28
38	Isotherms and thermodynamics by linear and non-linear regression analysis for the sorption of methylene blue onto activated carbon: Comparison of various error functions. Journal of Hazardous Materials, 2008, 151, 794-804.	6.5	166
39	Comparison of various error functions in predicting the optimum isotherm by linear and non-linear regression analysis for the sorption of basic red 9 by activated carbon. Journal of Hazardous Materials, 2008, 150, 158-165.	6.5	105
40	Comments on "Photocatalytic properties of TiO ₂ modified with platinum and silver nanoparticles in the degradation of oxalic acid in aqueous solution". Applied Catalysis B: Environmental, 2008, 79, 108-109.	10.8	29
41	Comments on "Removal of Congo red from aqueous solution by anilinepropylsilica xerogel" by Pavan FA, Dias SLP, Lima EC, Benvenuti EV. Dyes and Pigments 2008;76:64-9. Dyes and Pigments, 2008, 77, 481-482.	2.0	4
42	Langmuir-Hinshelwood kinetics - A theoretical study. Catalysis Communications, 2008, 9, 82-84.	1.6	592
43	Neural Network Modeling and Simulation of the Solid/Liquid Activated Carbon Adsorption Process. Industrial & Engineering Chemistry Research, 2008, 47, 486-490.	1.8	32
44	Modelling of the Batch Sucrose Crystallization Kinetics Using Artificial Neural Networks: Comparison with Conventional Regression Analysis. Industrial & Engineering Chemistry Research, 2008, 47, 4917-4923.	1.8	17
45	Modeling the Diffusion Mechanism and the Reaction Kinetics for the Photocatalytic Degradation of Acid Red 151 Aqueous Solutions by ZnO: Comparison of Linear and Non-Linear Methods. Journal of Advanced Oxidation Technologies, 2007, 10, .	0.5	0
46	Isotherms for Malachite Green onto rubber wood (Hevea brasiliensis) sawdust: Comparison of linear and non-linear methods. Dyes and Pigments, 2007, 72, 124-129.	2.0	103
47	Batch adsorber design for different solution volume/adsorbent mass ratios using the experimental equilibrium data with fixed solution volume/adsorbent mass ratio of malachite green onto orange peel. Dyes and Pigments, 2007, 74, 590-594.	2.0	68
48	Optimum sorption isotherm by linear and non-linear methods for malachite green onto lemon peel. Dyes and Pigments, 2007, 74, 595-597.	2.0	218
49	Reply to "Comments on "An adsorption and kinetic study of lac dyeing on silk" by Yuh-Shan Ho: Discussion on pseudo second order kinetic expression. Dyes and Pigments, 2007, 75, 253-254.	2.0	3
50	Pseudo-second order models for the adsorption of safranin onto activated carbon: Comparison of linear and non-linear regression methods. Journal of Hazardous Materials, 2007, 142, 564-567.	6.5	93
51	Equilibrium, kinetics and mechanism modeling and simulation of basic and acid dyes sorption onto jute fiber carbon: Eosin yellow, malachite green and crystal violet single component systems. Journal of Hazardous Materials, 2007, 143, 311-327.	6.5	237
52	Mass transfer, kinetics and equilibrium studies for the biosorption of methylene blue using Paspalum notatum. Journal of Hazardous Materials, 2007, 146, 214-226.	6.5	155
53	Comments on "adsorption of 4-chlorophenol from aqueous solutions by xad-4 resin: Isotherm, kinetic, and thermodynamic analysis". Journal of Hazardous Materials, 2007, 143, 598-599.	6.5	12
54	Comments on "Equilibrium and kinetic studies for the biosorption system of copper(II) ion from aqueous solution using Tectona grandis L.f. leaves powder". Journal of Hazardous Materials, 2007, 146, 428-429.	6.5	7

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55	Comments on "Removal of lead from aqueous solution using <i>Syzygium cumini</i> L.: Equilibrium and kinetic studies", <i>Journal of Hazardous Materials</i> , 2007, 147, 677-678.	6.5	6
56	Comments on "Biosorption of nickel from protonated rice bran", <i>Journal of Hazardous Materials</i> , 2007, 147, 679-679.	6.5	2
57	Sorption isotherm for safranin onto rice husk: Comparison of linear and non-linear methods. <i>Dyes and Pigments</i> , 2007, 72, 130-133.	2.0	124
58	Biosorption of malachite green, a cationic dye onto <i>Pithophora</i> sp., a fresh water algae. <i>Dyes and Pigments</i> , 2006, 69, 102-107.	2.0	140
59	Reply to the comments on "Study on biosorption of Cr(VI) by <i>Mucor hiemalis</i> " by Y.-S. Ho, <i>Biochem. Eng. J.</i> 26 (2005) 82-83. <i>Biochemical Engineering Journal</i> , 2006, 30, 222-223.	1.8	3
60	Isotherm parameters for basic dyes onto activated carbon: Comparison of linear and non-linear method. <i>Journal of Hazardous Materials</i> , 2006, 129, 147-150.	6.5	116
61	Equilibrium data, isotherm parameters and process design for partial and complete isotherm of methylene blue onto activated carbon. <i>Journal of Hazardous Materials</i> , 2006, 134, 237-244.	6.5	95
62	Selection of optimum sorption kinetics: Comparison of linear and non-linear method. <i>Journal of Hazardous Materials</i> , 2006, 134, 277-279.	6.5	85
63	Pseudo second order kinetics and pseudo isotherms for malachite green onto activated carbon: Comparison of linear and non-linear regression methods. <i>Journal of Hazardous Materials</i> , 2006, 136, 721-726.	6.5	118
64	A note on the comments by Dr. Y.S. Ho on "Remediation of soil contaminated with the heavy metal (Cd ²⁺)", <i>Journal of Hazardous Materials</i> , 2006, 136, 993-994.	6.5	6
65	A note on the comments by Dr. Y.S. Ho on "Nitrate removal from aqueous solution by adsorption onto various materials", <i>Journal of Hazardous Materials</i> , 2006, 136, 995-996.	6.5	5
66	Comments on "Equilibrium studies for the adsorption of Acid dye onto modified hectorite", <i>Journal of Hazardous Materials</i> , 2006, 137, 1252-1253.	6.5	6
67	Comments on "Adsorption of acid dye onto organobentonite", <i>Journal of Hazardous Materials</i> , 2006, 137, 638-639.	6.5	35
68	Linear and non-linear regression analysis for the sorption kinetics of methylene blue onto activated carbon. <i>Journal of Hazardous Materials</i> , 2006, 137, 1538-1544.	6.5	338
69	Relation between some two- and three-parameter isotherm models for the sorption of methylene blue onto lemon peel. <i>Journal of Hazardous Materials</i> , 2006, 138, 633-635.	6.5	111
70	Reply to Comments on "Chitosan functionalized with 2[-bis-(pyridylmethyl) aminomethyl]4-methyl-6-formyl-phenol: Equilibrium and kinetics of copper(II) adsorption" by Yuh-Shan Ho: Discussion on pseudo second order kinetic expression. <i>Polymer</i> , 2006, 47, 1772-1773.	1.8	3
71	Pseudo second order kinetic models for safranin onto rice husk: Comparison of linear and non-linear regression analysis. <i>Process Biochemistry</i> , 2006, 41, 1198-1202.	1.8	55
72	Comparative analysis of linear and non-linear method of estimating the sorption isotherm parameters for malachite green onto activated carbon. <i>Journal of Hazardous Materials</i> , 2006, 136, 197-202.	6.5	135

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73	Adsorption of malachite green onto Pithophora sp., a fresh water algae: Equilibrium and kinetic modelling. <i>Process Biochemistry</i> , 2005, 40, 2865-2872.	1.8	218
74	Comparison of linear and non-linear method in estimating the sorption isotherm parameters for safranin onto activated carbon. <i>Journal of Hazardous Materials</i> , 2005, 123, 288-292.	6.5	101
75	Modeling the mechanism involved during the sorption of methylene blue onto fly ash. <i>Journal of Colloid and Interface Science</i> , 2005, 284, 14-21.	5.0	494
76	Equilibrium, kinetics, mechanism, and process design for the sorption of methylene blue onto rice husk. <i>Journal of Colloid and Interface Science</i> , 2005, 286, 90-100.	5.0	1,300
77	Removal of methylene blue by mango seed kernel powder. <i>Biochemical Engineering Journal</i> , 2005, 27, 83-93.	1.8	253
78	Prediction of optimum sorption isotherm: Comparison of linear and non-linear method. <i>Journal of Hazardous Materials</i> , 2005, 126, 198-201.	6.5	95