Vasanth Kumar Kannuchamy

List of Publications by Year
in descending order

78 papers	6,922 citations	109321 35 h-index	71685 76 g-index
78 all docs	78 docs citations	78 times ranked	7516 citing authors

#	Article	IF	Citations
1	Equilibrium, kinetics, mechanism, and process design for the sorption of methylene blue onto rice husk. Journal of Colloid and Interface Science, 2005, 286, 90-100.	9.4	1,300
2	Langmuirâ€"Hinshelwood kinetics â€" A theoretical study. Catalysis Communications, 2008, 9, 82-84.	3.3	592
3	Modeling the mechanism involved during the sorption of methylene blue onto fly ash. Journal of Colloid and Interface Science, 2005, 284, 14-21.	9.4	494
4	Linear and non-linear regression analysis for the sorption kinetics of methylene blue onto activated carbon. Journal of Hazardous Materials, 2006, 137, 1538-1544.	12.4	338
5	Removal of methylene blue by mango seed kernel powder. Biochemical Engineering Journal, 2005, 27, 83-93.	3.6	253
6	Nanoporous Materials for the Onboard Storage of Natural Gas. Chemical Reviews, 2017, 117, 1796-1825.	47.7	241
7	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.	12.4	237
8	Adsorption of malachite green onto Pithophora sp., a fresh water algae: Equilibrium and kinetic modelling. Process Biochemistry, 2005, 40, 2865-2872.	3.7	218
9	Optimum sorption isotherm by linear and non-linear methods for malachite green onto lemon peel. Dyes and Pigments, 2007, 74, 595-597.	3.7	218
10	Characterization of the adsorption site energies and heterogeneous surfaces of porous materials. Journal of Materials Chemistry A, 2019, 7, 10104-10137.	10.3	187
11	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.	12.4	166
12	Mass transfer, kinetics and equilibrium studies for the biosorption of methylene blue using Paspalum notatum. Journal of Hazardous Materials, 2007, 146, 214-226.	12.4	155
13	Biosorption of malachite green, a cationic dye onto Pithophora sp., a fresh water algae. Dyes and Pigments, 2006, 69, 102-107.	3.7	140
14	Comparative analysis of linear and non-linear method of estimating the sorption isotherm parameters for malachite green onto activated carbon. Journal of Hazardous Materials, 2006, 136, 197-202.	12.4	135
15	Sorption isotherm for safranin onto rice husk: Comparison of linear and non-linear methods. Dyes and Pigments, 2007, 72, 130-133.	3.7	124
16	Pseudo second order kinetics and pseudo isotherms for malachite green onto activated carbon: Comparison of linear and non-linear regression methods. Journal of Hazardous Materials, 2006, 136, 721-726.	12.4	118
17	Isotherm parameters for basic dyes onto activated carbon: Comparison of linear and non-linear method. Journal of Hazardous Materials, 2006, 129, 147-150.	12.4	116
18	Relation between some two- and three-parameter isotherm models for the sorption of methylene blue onto lemon peel. Journal of Hazardous Materials, 2006, 138, 633-635.	12.4	111

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19	Effect of Nitrogen Doping on the CO₂ Adsorption Behavior in Nanoporous Carbon Structures: A Molecular Simulation Study. Journal of Physical Chemistry C, 2015, 119, 22310-22321.	3.1	108
20	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.	12.4	105
21	Isotherms for Malachite Green onto rubber wood (Hevea brasiliensis) sawdust: Comparison of linear and non-linear methods. Dyes and Pigments, 2007, 72, 124-129.	3.7	103
22	Comparison of linear and non-linear method in estimating the sorption isotherm parameters for safranin onto activated carbon. Journal of Hazardous Materials, 2005, 123, 288-292.	12.4	101
23	Prediction of optimum sorption isotherm: Comparison of linear and non-linear method. Journal of Hazardous Materials, 2005, 126, 198-201.	12.4	95
24	Equilibrium data, isotherm parameters and process design for partial and complete isotherm of methylene blue onto activated carbon. Journal of Hazardous Materials, 2006, 134, 237-244.	12.4	95
25	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.	12.4	93
26	Selection of optimum sorption kinetics: Comparison of linear and non-linear method. Journal of Hazardous Materials, 2006, 134, 277-279.	12.4	85
27	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.	3.7	68
28	Modelling the solidâ€“liquid adsorption processes using artificial neural networks trained by pseudo second order kinetics. Chemical Engineering Journal, 2009, 148, 20-25.	12.7	63
29	Effect of Pore Morphology on the Adsorption of Methane/Hydrogen Mixtures on Carbon Micropores. Journal of Physical Chemistry C, 2012, 116, 11820-11829.	3.1	61
30	Pseudo second order kinetic models for safranin onto rice husk: Comparison of linear and non-linear regression analysis. Process Biochemistry, 2006, 41, 1198-1202.	3.7	55
31	A site energy distribution function from Toth isotherm for adsorption of gases on heterogeneous surfaces. Physical Chemistry Chemical Physics, 2011, 13, 5753.	2.8	55
32	Hybrid isotherms for adsorption and capillary condensation of N2 at 77K on porous and non-porous materials. Chemical Engineering Journal, 2010, 162, 424-429.	12.7	49
33	Understanding the Hydrophilicity and Water Adsorption Behavior of Nanoporous Nitrogen-Doped Carbons. Journal of Physical Chemistry C, 2016, 120, 18167-18179.	3.1	46
34	A continuous site energy distribution function from Redlichâ€“Peterson isotherm for adsorption on heterogeneous surfaces. Chemical Physics Letters, 2010, 492, 187-192.	2.6	38
35	Molecular Simulation of Hydrogen Physisorption and Chemisorption in Nanoporous Carbon Structures. Adsorption Science and Technology, 2011, 29, 799-817.	3.2	36
36	Comments on â€œAdsorption of acid dye onto organobentoniteâ€. Journal of Hazardous Materials, 2006, 137, 638-639.	12.4	35

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37	Neural Network Modeling and Simulation of the Solid/Liquid Activated Carbon Adsorption Process. Industrial & Engineering Chemistry Research, 2008, 47, 486-490.	3.7	32
38	Comments on â€œPhotocatalytic properties of TiO2 modified with platinum and silver nanoparticles in the degradation of oxalic acid in aqueous solutionâ€• Applied Catalysis B: Environmental, 2008, 79, 108-109.	20.2	29
39	Neural Network Prediction of Interfacial Tension at Crystal/Solution Interface. Industrial & Engineering Chemistry Research, 2009, 48, 4160-4164.	3.7	28
40	Site Energy Distribution Function for the Sips Isotherm by the Condensation Approximation Method and Its Application to Characterization of Porous Materials. Journal of Chemical & Engineering Data, 2011, 56, 2218-2224.	1.9	27
41	Bio-inspired carbon electro-catalysts for the oxygen reduction reaction. Journal of Energy Chemistry, 2016, 25, 228-235.	12.9	25
42	Salt Templating with Pore Padding: Hierarchical Pore Tailoring towards Functionalised Porous Carbons. ChemSusChem, 2017, 10, 199-209.	6.8	24
43	Heat of adsorption and binding affinity for hydrogen on pitch-based activated carbons. Chemical Engineering Journal, 2011, 168, 972-978.	12.7	21
44	Effect of pore structure on the selectivity of carbon materials for the separation of CO2/H2 mixtures: new insights from molecular simulation. RSC Advances, 2012, 2, 9671.	3.6	21
45	Co-adsorption of N₂in the presence of CH₄within carbon nanospaces: evidence from molecular simulations. Nanotechnology, 2013, 24, 035401.	2.6	20
46	A Pseudo Second-Order Kinetic Expression for Dissolution Kinetic Profiles of Solids in Solutions. Industrial & Engineering Chemistry Research, 2010, 49, 7257-7262.	3.7	18
47	Insights on the physical adsorption of hydrogen and methane in UiO series of MOFs using molecular simulations. Computational and Theoretical Chemistry, 2015, 1061, 36-45.	2.5	18
48	Deep neural networks in chemical engineering classrooms to accurately model adsorption equilibrium data. Education for Chemical Engineers, 2021, 36, 115-127.	4.8	18
49	Modelling of the Batch Sucrose Crystallization Kinetics Using Artificial Neural Networks: Comparison with Conventional Regression Analysis. Industrial & Engineering Chemistry Research, 2008, 47, 4917-4923.	3.7	17
50	Neural network and principal component analysis for modeling of hydrogen adsorption isotherms on KOH activated pitch-based carbons containing different heteroatoms. Chemical Engineering Journal, 2010, 159, 272-279.	12.7	16
51	On the effect of a non-ionic surfactant on the surface of sucrose crystals and on the crystal growth process by inverse gas chromatography. Journal of Chromatography A, 2009, 1216, 8528-8534.	3.7	15
52	A Continuous Binding Site Affinity Distribution Function from the Freundlich Isotherm for the Supercritical Adsorption of Hydrogen on Activated Carbon. Journal of Physical Chemistry C, 2010, 114, 13759-13765.	3.1	15
53	Comments on â€œadsorption of 4-chlorophenol from aqueous solutions by xad-4 resin: Isotherm, kinetic, and thermodynamic analysisâ€• Journal of Hazardous Materials, 2007, 143, 598-599.	12.4	12
54	Kinetics and thermodynamics of sucrose crystal growth in the presence of a non-ionic surfactant. Surface Science, 2010, 604, 981-987.	1.9	12

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55	Probing adsorbent heterogeneity using Toth isotherms. Journal of Materials Chemistry A, 2021, 9, 944-962.	10.3	12
56	Pure Curcumin Spherulites from Impure Solutions <i>via</i> Nonclassical Crystallization. ACS Omega, 2021, 6, 23884-23900.	3.5	10
57	On the initial reaction rate of Peleg's model for rehydration kinetics. Journal of the Taiwan Institute of Chemical Engineers, 2011, 42, 278-280.	5.3	9
58	Equilibrium and thermodynamics of dye removal from aqueous solution by adsorption using rubber wood saw dust. International Journal of Environmental Technology and Management, 2009, 10, 295.	0.2	8
59	Regression Analysis for the Two-Step Growth Kinetics of Crystals in Pure Solutions. Industrial & Engineering Chemistry Research, 2009, 48, 7852-7859.	3.7	8
60	Comments on â€œEquilibrium and kinetic studies for the biosorption system of copper(II) ion from aqueous solution using Tectona grandis L.f. leaves powderâ€ Journal of Hazardous Materials, 2007, 146, 428-429.	12.4	7
61	Simple Kinetic Expressions to Study the Transport Process during the Growth of Crystals in Solution. Industrial & Engineering Chemistry Research, 2009, 48, 11236-11240.	3.7	7
62	A note on the comments by Dr. Y.S. Ho on â€œRemediation of soil contaminated with the heavy metal (Cd2+)â€ Journal of Hazardous Materials, 2006, 136, 993-994.	12.4	6
63	Comments on â€œEquilibrium studies for the adsorption of Acid dye onto modified hectoriteâ€ Journal of Hazardous Materials, 2006, 137, 1252-1253.	12.4	6
64	Comments on â€œRemoval of lead from aqueous solution using Syzygium cumini L.: Equilibrium and kinetic studiesâ€ Journal of Hazardous Materials, 2007, 147, 677-678.	12.4	6
65	Adsorption on Heterogeneous Surfaces: Site Energy Distribution Functions from Fritzâ€"SchlÃ¼ender Isotherms. ChemPhysChem, 2010, 11, 2555-2560.	2.1	6
66	A note on the comments by Dr. Y.S. Ho on â€œNitrate removal from aqueous solution by adsorption onto various materialsâ€ Journal of Hazardous Materials, 2006, 136, 995-996.	12.4	5
67	Comments on â€œRemoval of Congo red from aqueous solution by anilinepropylsilica xerogelâ€•by Pavan FA, Dias SLP, Lima EC, Benvenutti EV. Dyes and Pigments 2008;76:64â€"9. Dyes and Pigments, 2008, 77, 481-482.	3.7	4
68	A site energy distribution function for the characterization of the continuous distribution of binding sites for gases on a heterogeneous surface. RSC Advances, 2012, 2, 784-788.	3.6	4
69	The required level of isosteric heat for the adsorptive/storage delivery of H₂ in the UiO series of MOFs. RSC Advances, 2014, 4, 44848-44851.	3.6	4
70	Advanced Size Distribution Control in Batch Cooling Crystallization Using Ultrasound. Organic Process Research and Development, 2019, 23, 935-944.	2.7	4
71	Reply to the comments on â€œStudy on biosorption of Cr(VI) by Mucor hiemalisâ€•by Y.-S. Ho, Biochem. Eng. J. 26 (2005) 82â€"83. Biochemical Engineering Journal, 2006, 30, 222-223.	3.6	3
72	Reply to Comments on â€˜Chitosan functionalized with 2[-bis-(pyridylmethyl) aminomethyl]4-methyl-6-formyl-phenol: Equilibrium and kinetics of copper(II) adsorptionâ€™ by Yuh-Shan Ho: Discussion on pseudo second order kinetic expression. Polymer, 2006, 47, 1772-1773.	3.8	3

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73	Reply to â€˜Comments on â€œAn adsorption and kinetic study of lac dyeing on silkâ€â€™ by Yuh-Shan Ho: Discussion on pseudo second order kinetic expression. Dyes and Pigments, 2007, 75, 253-254.	3.7	3
74	Comments on â€œBiosorption of nickel from protonated rice branâ€• Journal of Hazardous Materials, 2007, 147, 679-679.	12.4	2
75	A Semiempirical Kinetics for Modeling and Simulation of the Crystal Growth Process in Pure Solutions. Industrial & Engineering Chemistry Research, 2009, 48, 5105-5110.	3.7	2
76	TOF-SIMS analysis of curcuminoids and curcumin crystals crystallized from their pure and impure solutions. CrystEngComm, 2022, 24, 2485-2504.	2.6	1
77	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
78	Simple kinetic models to explain the change in dislocation activity of crystals during a growth process. Philosophical Magazine Letters, 2009, 89, 599-604.	1.2	0