Akkihebbal Krishnamurthy Suresh

List of Publications by Year
in descending order

86 papers	2,663 citations	201674 27 h-index	197818 49 g-index
87 all docs	87 docs citations	87 times ranked	2793 citing authors

#	Article	IF	Citations
1	Engineering Aspects of Industrial Liquid-Phase Air Oxidation of Hydrocarbons. Industrial & Engineering Chemistry Research, 2000, 39, 3958-3997.	3.7	335
2	Extreme homeopathic dilutions retain starting materials: A nanoparticulate perspective. Homeopathy, 2010, 99, 231-242.	1.0	187
3	Crystal Transformation in Zeolitic-Imidazolate Framework. Crystal Growth and Design, 2014, 14, 6589-6598.	3.0	157
4	Chlorine attack on reverse osmosis membranes: Mechanisms and mitigation strategies. Journal of Membrane Science, 2017, 541, 108-126.	8.2	144
5	Simultaneous saccharification and fermentation of starch to lactic acid. Process Biochemistry, 1999, 35, 367-375.	3.7	107
6	Why Extreme Dilutions Reach Non-zero Asymptotes: A Nanoparticulate Hypothesis Based on Froth Flotation. Langmuir, 2012, 28, 15864-15875.	3.5	102
7	Anomalous Enhancement of Interphase Transport Rates by Nanoparticles: Effect of Magnetic Iron Oxide on Gasâ"Liquid Mass Transfer. Industrial & Engineering Chemistry Research, 2010, 49, 390-405.	3.7	75
8	New insights into kinetics and thermodynamics of interfacial polymerization. Chemical Engineering Science, 1998, 53, 2649-2663.	3.8	73
9	Microencapsulation in polyurea shell by interfacial polycondensation. AICHE Journal, 1990, 36, 431-438.	3.6	65
10	Interfacial polycondensationâ€"Modeling of kinetics and film properties. Journal of Membrane Science, 2008, 325, 758-771.	8.2	65
11	CO₂ absorption into amine solutions: a novel strategy for intensification based on the addition of ferrofluids. Journal of Chemical Technology and Biotechnology, 2008, 83, 1094-1100.	3.2	60
12	Release rates from semi-crystalline polymer microcapsules formed by interfacial polycondensation. Journal of Membrane Science, 1997, 125, 213-218.	8.2	57
13	Physicochemical characterization of an Indian traditional medicine, Jasada Bhasma: detection of nanoparticles containing non-stoichiometric zinc oxide. Journal of Nanoparticle Research, 2009, 11, 655-664.	1.9	52
14	Mass transfer and solubility in autocatalytic oxidation of cyclohexane. AICHE Journal, 1988, 34, 55-68.	3.6	51
15	An experimental study of polyurea membrane formation by interfacial polycondensation. Journal of Membrane Science, 2009, 328, 246-256.	8.2	51
16	Autocatalytic oxidation of cyclohexaneâ€"modeling reaction kinetics. AICHE Journal, 1988, 34, 69-80.	3.6	48
17	Microencapsulation in polyurea shell: Kinetics and film structure. AICHE Journal, 1996, 42, 2616-2626.	3.6	44
18	Diacetyl production and growth of Lactobacillus rhamnosus on multiple substrates. World Journal of Microbiology and Biotechnology, 2003, 19, 509-514.	3.6	43

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19	Solidâ€“solid reaction kinetics: Formation of tricalcium aluminate. AICHE Journal, 2007, 53, 502-513.	3.6	41
20	Molecular weight distribution in interfacial polymerizationâ€”model development and verification. Chemical Engineering Science, 1997, 52, 3243-3255.	3.8	38
21	Impact of Strontium-Substitution on Oxygen Evolution Reaction of Lanthanum Nickelates in Alkaline Solution. Journal of the Electrochemical Society, 2018, 165, J3236-J3245.	2.9	34
22	Palladium catalysed oxidation of glycerolâ€”Effect of catalyst support. Journal of Molecular Catalysis A, 2016, 421, 45-56.	4.8	33
23	Macro-Level and Genetic-Level Responses of Bacillus subtilis to Shear Stress. Biotechnology Progress, 2003, 19, 1689-1696.	2.6	32
24	Metal nanoparticle induced hormetic activation: a novel mechanism of homeopathic medicines. Homeopathy, 2017, 106, 135-144.	1.0	32
25	Cobalt molybdenum oxide catalysts for selective oxidation of cyclohexane. AICHE Journal, 2016, 62, 4384-4402.	3.6	31
26	Effect of preculturing conditions on growth of Lactobacillus rhamnosus on medium containing glucose and citrate. Microbiological Research, 2004, 159, 35-42.	5.3	28
27	Establishing the interfacial nano-structure and elemental composition of homeopathic medicines based on inorganic salts: a scientific approach. Homeopathy, 2016, 105, 160-172.	1.0	28
28	A review on steel slag valorisation via mineral carbonation. Reaction Chemistry and Engineering, 2021, 6, 1152-1178.	3.7	28
29	Cell (A549)â€“Particle (Jasada Bhasma) interactions using Raman spectroscopy. Biopolymers, 2008, 89, 555-564.	2.4	27
30	Synthesis and Characterization of Chitosan-Grafted BPPO Ultrafiltration Composite Membranes with Enhanced Antifouling and Antibacterial Properties. Industrial & Engineering Chemistry Research, 2014, 53, 14974-14981.	3.7	27
31	Study of cobalt molybdenum oxide supported on mesoporous silica for liquid phase cyclohexane oxidation. Catalysis Today, 2018, 310, 116-129.	4.4	25
32	Towards efficient calcium extraction from steel slag and carbon dioxide utilisation via pressure-swing mineral carbonation. Reaction Chemistry and Engineering, 2019, 4, 52-66.	3.7	25
33	Autocatalytic oxidation of cyclohexaneâ€”mass transfer and chemical reaction. AICHE Journal, 1988, 34, 81-93.	3.6	24
34	Understanding interfacial polycondensation: Experiments on polyurea system and comparison with theory. Polymer, 2010, 51, 1176-1190.	3.8	24
35	Understanding dissolution characteristics of steel slag for resource recovery. Waste Management, 2020, 117, 179-187.	7.4	23
36	Kinetics of interfacial polycondensation reactions â€“ Development of a new method and its validation. Polymer, 2017, 127, 28-44.	3.8	22

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37	Oxygen supply without gasâ€“liquid film resistance toXanthomonas campestris cultivation. , 1998, 59, 714-723.		21
38	Hydrophobic interpenetrating polyamide-PDMS membranes for desalination, pesticides removal and enhanced chlorine tolerance. Chemosphere, 2020, 258, 127179.	8.2	19
39	Catalyzed oxidation of cyclohexane in the liquid phase. AICHE Journal, 1990, 36, 137-140.	3.6	17
40	An optimal model for representing the kinetics of growth and product formation by Lactobacillus rhamnosus on multiple substrates. Journal of Bioscience and Bioengineering, 2003, 96, 481-486.	2.2	17
41	Intracellular reactive oxygen species mediate suppression of sporulation inBacillus subtilis under shear stress. Biotechnology and Bioengineering, 2004, 87, 81-89.	3.3	17
42	Intermediate conversion kinetics in ticalcium aluminate formation. AICHE Journal, 2007, 53, 2399-2410.	3.6	15
43	A comprehensive model for kinetics and development of film structure in interfacial polycondensation. Polymer, 2009, 50, 5851-5864.	3.8	15
44	Evaluation of quaternary phosphonium-based polymer membranes for desalination application. Desalination, 2012, 292, 119-123.	8.2	15
45	Electrochemical reduction of CO2 on activated copper: Influence of surface area. Materials Research Bulletin, 2020, 123, 110702.	5.2	15
46	Free radical aspects of Xanthomonas campestris cultivation with liquid phase oxygen supply strategy. Process Biochemistry, 2003, 38, 1301-1310.	3.7	14
47	Temperature-dependent physical properties in physical gas absorption. Chemical Engineering Science, 1983, 38, 127-133.	3.8	13
48	A study of the effect of JB particles on Saccharomyces cerevisiae (yeast) cells by Raman spectroscopy. Journal of Raman Spectroscopy, 2008, 39, 1859-1868.	2.5	13
49	Solidâ€solid reactions in series: A modeling and experimental study. AICHE Journal, 2009, 55, 2399-2413.	3.6	12
50	(R)-PAC Biosynthesis in [BMIM][PF6]/Aqueous Biphasic System Using Saccharomyces cerevisiae BY4741 Cells. Applied Biochemistry and Biotechnology, 2015, 175, 1771-1788.	2.9	12
51	Probing the thickness and roughness of the functional layer in thin film composite membranes. International Journal of Hydrogen Energy, 2017, 42, 26464-26474.	7.1	12
52	Mass-Transfer Rate Enhancement in Nanofluids: Packed Column Studies and a Design Basis. Industrial & Engineering Chemistry Research, 2019, 58, 7670-7680.	3.7	12
53	Modeling Liquid-Phase Cyclohexane Oxidation. Industrial & Engineering Chemistry Research, 2007, 46, 6891-6898.	3.7	11
54	Kinetics of steel slag dissolution: from experiments to modelling. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20180830.	2.1	11

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55	Palladium catalyzed liquid phase oxidation of glycerol under alkaline conditions - Kinetic analysis and modelling. Chemical Engineering Journal, 2022, 438, 135424.	12.7	11
56	Kinetics of Solidâ€“Solid Reactions: Influence of the Number of Contact Points. Industrial & Engineering Chemistry Research, 2014, 53, 11659-11667.	3.7	9
57	Safety and bioactivity studies of Jasad Bhasma and its in-process intermediate in Swiss mice. Journal of Ethnopharmacology, 2017, 197, 73-86.	4.1	9
58	A new kinetic model for bulk polymerization of vinyl chloride based on two-phase hypothesis. European Polymer Journal, 1982, 18, 607-616.	5.4	8
59	A contactâ€point based approach for the analysis of reactions among solid particles. AICHE Journal, 2011, 57, 1329-1338.	3.6	8
60	Development of high flux thin-film composite membrane for water desalination: a statistical study using response surface methodology. Desalination and Water Treatment, 2014, 52, 5219-5228.	1.0	8
61	Kinetics of interfacial hydrolysis of an aromatic acid chloride. Chemical Engineering Research and Design, 2019, 146, 154-161.	5.6	8
62	Mass transfer during reaction - cyclohexane oxidation. Chemical Engineering Science, 1986, 41, 741-746.	3.8	7
63	Isobutane oxidation in the liquid and supercritical phases: comparison of features. Journal of Supercritical Fluids, 1998, 12, 165-176.	3.2	7
64	Industrial Experience with Object-Oriented Modelling. Chemical Engineering Research and Design, 2004, 82, 527-552.	5.6	7
65	Synthesis of silicalite-poly(furfuryl alcohol) composite membranes for oxygen enrichment from air. Nanoscale Research Letters, 2011, 6, 637.	5.7	7
66	Some mechanistic insights into the action of facilitating agents on gas permeation through glassy polymeric membranes. AICHE Journal, 2018, 64, 186-199.	3.6	7
67	Pilot-scale testing of direct contact cooler for the removal of SOx and NOx from the flue gas of pressurized oxy-coal combustion. Chemical Engineering Journal, 2021, 414, 128757.	12.7	7
68	Rate oscillations in cyclohexane oxidation. AICHE Journal, 1991, 37, 1242-1244.	3.6	5
69	Indian Traditional Medicine Jasada Bhasma and Other Zinc-Containing Nanoparticles Alleviate Reactive Oxygen Species-Mediated Cell Damage in Saccharomyces cerevisiae. International Journal of Green Nanotechnology Biomedicine, 2009, 1, 69-89.	0.4	5
70	Electrochemical Reduction of CO2on Copper Oxidized by Electrochemical Methods. ECS Transactions, 2017, 75, 19-31.	0.5	5
71	Validation of Mixed Potential Theory Using Formic Acid and Ferric Ion as a Redox Couple. ECS Transactions, 2017, 75, 39-47.	0.5	5
72	Diffusion controlled instantaneous chemical reaction in a thin tube containing fine reactant particles. Chemical Engineering Science, 1997, 52, 3311-3319.	3.8	4

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73	Understanding Ptâ€“Rh Synergy in a Three-Way Catalytic Converter. International Journal of Chemical Reactor Engineering, 2013, 11, 535-542.	1.1	4
74	A review of machines and devices to potentize homeopathic medicines. Homeopathy, 2017, 106, 240-249.	1.0	4
75	Modelling solid-solid reactions: Contact-point approach. Chemical Engineering Journal, 2019, 377, 120570.	12.7	4
76	Reactions in solid particlesâ€”A reappraisal of models. AICHE Journal, 2012, 58, 3161-3166.	3.6	3
77	A statistical study of the effect of preparation conditions on the structure and performance of thin film composite reverse osmosis membranes. Desalination and Water Treatment, 2016, 57, 2924-2941.	1.0	3
78	Data on of interfacial hydrolysis kinetics of an aromatic acid chloride. Data in Brief, 2019, 26, 104337.	1.0	3
79	Dilution-Induced Physico-Chemical Changes of Metal Oxide Nanoparticles Due to Homeopathic Preparation Steps of Trituration and Succussion. Homeopathy, 2020, 109, 065-078.	1.0	3
80	Intrinsic kinetics of interfacial polycondensation reactionsâ€“ the reaction of mPDA with TMC. Polymer, 2020, 210, 122982.	3.8	3
81	A critique of thermokinetic analysis in solids processing: Cement industry as a case study. Thermochimica Acta, 2015, 618, 56-66.	2.7	2
82	High oxygen evolution reaction activity on lithiated nickel oxides - Activity descriptors. Electrochimica Acta, 2019, 318, 809-819.	5.2	2
83	Reactive Dissolution of Particle Clusters. Industrial & Engineering Chemistry Research, 2001, 40, 4050-4057.	3.7	1
84	Generalized Estimating Equation Approach for Analyzing the Effects of Metal-Derived Products on Survival and Hatching of Zebrafish Embryos. Zebrafish, 2014, 11, 353-364.	1.1	1
85	Correlation of Chemical and Electrochemical Catalysis-Importance of Half Reactions: The Case of Catalytic Oxidation of Ferrous Sulfate by Molecular Oxygen. Journal of the Electrochemical Society, 2018, 165, H196-H204.	2.9	1
86	Traditional Method of Bhasma Preparation Generates Stressed, Polycrystalline, Nano and Submicron Sized Particles as Revealed by Physicochemical Studies of Suwarnamakshik Bhasma. Advanced Science Letters, 2014, 20, 1211-1218.	0.2	1