

# Akkihebbal Krishnamurthy Suresh

## List of Publications by Year in descending order

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86  
papers

2,663  
citations

201385

27  
h-index

197535

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.	1.8	335
2	Extreme homeopathic dilutions retain starting materials: A nanoparticulate perspective. Homeopathy, 2010, 99, 231-242.	0.5	187
3	Crystal Transformation in Zeolitic-Imidazolate Framework. Crystal Growth and Design, 2014, 14, 6589-6598.	1.4	157
4	Chlorine attack on reverse osmosis membranes: Mechanisms and mitigation strategies. Journal of Membrane Science, 2017, 541, 108-126.	4.1	144
5	Simultaneous saccharification and fermentation of starch to lactic acid. Process Biochemistry, 1999, 35, 367-375.	1.8	107
6	Why Extreme Dilutions Reach Non-zero Asymptotes: A Nanoparticulate Hypothesis Based on Froth Flotation. Langmuir, 2012, 28, 15864-15875.	1.6	102
7	Anomalous Enhancement of Interphase Transport Rates by Nanoparticles: Effect of Magnetic Iron Oxide on Gas-Liquid Mass Transfer. Industrial & Engineering Chemistry Research, 2010, 49, 390-405.	1.8	75
8	New insights into kinetics and thermodynamics of interfacial polymerization. Chemical Engineering Science, 1998, 53, 2649-2663.	1.9	73
9	Microencapsulation in polyurea shell by interfacial polycondensation. AIChE Journal, 1990, 36, 431-438.	1.8	65
10	Interfacial polycondensation—Modeling of kinetics and film properties. Journal of Membrane Science, 2008, 325, 758-771.	4.1	65
11	CO <sub>2</sub> 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.	1.6	60
12	Release rates from semi-crystalline polymer microcapsules formed by interfacial polycondensation. Journal of Membrane Science, 1997, 125, 213-218.	4.1	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.	0.8	52
14	Mass transfer and solubility in autocatalytic oxidation of cyclohexane. AIChE Journal, 1988, 34, 55-68.	1.8	51
15	An experimental study of polyurea membrane formation by interfacial polycondensation. Journal of Membrane Science, 2009, 328, 246-256.	4.1	51
16	Autocatalytic oxidation of cyclohexane—modeling reaction kinetics. AIChE Journal, 1988, 34, 69-80.	1.8	48
17	Microencapsulation in polyurea shell: Kinetics and film structure. AIChE Journal, 1996, 42, 2616-2626.	1.8	44
18	Diacetyl production and growth of Lactobacillus rhamnosus on multiple substrates. World Journal of Microbiology and Biotechnology, 2003, 19, 509-514.	1.7	43

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19	Solidâ€“solid reaction kinetics: Formation of tricalcium aluminate. <i>AIChE Journal</i> , 2007, 53, 502-513.	1.8	41
20	Molecular weight distribution in interfacial polymerizationâ€“model development and verification. <i>Chemical Engineering Science</i> , 1997, 52, 3243-3255.	1.9	38
21	Impact of Strontium-Substitution on Oxygen Evolution Reaction of Lanthanum Nickelates in Alkaline Solution. <i>Journal of the Electrochemical Society</i> , 2018, 165, J3236-J3245.	1.3	34
22	Palladium catalysed oxidation of glycerolâ€“Effect of catalyst support. <i>Journal of Molecular Catalysis A</i> , 2016, 421, 45-56.	4.8	33
23	Macro-Level and Genetic-Level Responses of <i>Bacillus subtilis</i> to Shear Stress. <i>Biotechnology Progress</i> , 2003, 19, 1689-1696.	1.3	32
24	Metal nanoparticle induced hormetic activation: a novel mechanism of homeopathic medicines. <i>Homeopathy</i> , 2017, 106, 135-144.	0.5	32
25	Cobalt molybdenum oxide catalysts for selective oxidation of cyclohexane. <i>AIChE Journal</i> , 2016, 62, 4384-4402.	1.8	31
26	Effect of preculturing conditions on growth of <i>Lactobacillus rhamnosus</i> on medium containing glucose and citrate. <i>Microbiological Research</i> , 2004, 159, 35-42.	2.5	28
27	Establishing the interfacial nano-structure and elemental composition of homeopathic medicines based on inorganic salts: a scientific approach. <i>Homeopathy</i> , 2016, 105, 160-172.	0.5	28
28	A review on steel slag valorisation <i>via</i> mineral carbonation. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 1152-1178.	1.9	28
29	Cell (A549)â€“Particle ( <i>in vivo</i> ) interactions using Raman spectroscopy. <i>Biopolymers</i> , 2008, 89, 555-564.	1.2	27
30	Synthesis and Characterization of Chitosan-Grafted BPPO Ultrafiltration Composite Membranes with Enhanced Antifouling and Antibacterial Properties. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 14974-14981.	1.8	27
31	Study of cobalt molybdenum oxide supported on mesoporous silica for liquid phase cyclohexane oxidation. <i>Catalysis Today</i> , 2018, 310, 116-129.	2.2	25
32	Towards efficient calcium extraction from steel slag and carbon dioxide utilisation <i>via</i> pressure-swing mineral carbonation. <i>Reaction Chemistry and Engineering</i> , 2019, 4, 52-66.	1.9	25
33	Autocatalytic oxidation of cyclohexaneâ€“mass transfer and chemical reaction. <i>AIChE Journal</i> , 1988, 34, 81-93.	1.8	24
34	Understanding interfacial polycondensation: Experiments on polyurea system and comparison with theory. <i>Polymer</i> , 2010, 51, 1176-1190.	1.8	24
35	Understanding dissolution characteristics of steel slag for resource recovery. <i>Waste Management</i> , 2020, 117, 179-187.	3.7	23
36	Kinetics of interfacial polycondensation reactions â€“ Development of a new method and its validation. <i>Polymer</i> , 2017, 127, 28-44.	1.8	22

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37	Oxygen supply without gas-liquid film resistance to <i>Xanthomonas campestris</i> cultivation. , 1998, 59, 714-723.		21
38	Hydrophobic interpenetrating polyamide-PDMS membranes for desalination, pesticides removal and enhanced chlorine tolerance. <i>Chemosphere</i> , 2020, 258, 127179.	4.2	19
39	Catalyzed oxidation of cyclohexane in the liquid phase. <i>AIChE Journal</i> , 1990, 36, 137-140.	1.8	17
40	An optimal model for representing the kinetics of growth and product formation by <i>Lactobacillus rhamnosus</i> on multiple substrates. <i>Journal of Bioscience and Bioengineering</i> , 2003, 96, 481-486.	1.1	17
41	Intracellular reactive oxygen species mediate suppression of sporulation in <i>Bacillus subtilis</i> under shear stress. <i>Biotechnology and Bioengineering</i> , 2004, 87, 81-89.	1.7	17
42	Intermediate conversion kinetics in ticalcium aluminate formation. <i>AIChE Journal</i> , 2007, 53, 2399-2410.	1.8	15
43	A comprehensive model for kinetics and development of film structure in interfacial polycondensation. <i>Polymer</i> , 2009, 50, 5851-5864.	1.8	15
44	Evaluation of quaternary phosphonium-based polymer membranes for desalination application. <i>Desalination</i> , 2012, 292, 119-123.	4.0	15
45	Electrochemical reduction of CO <sub>2</sub> on activated copper: Influence of surface area. <i>Materials Research Bulletin</i> , 2020, 123, 110702.	2.7	15
46	Free radical aspects of <i>Xanthomonas campestris</i> cultivation with liquid phase oxygen supply strategy. <i>Process Biochemistry</i> , 2003, 38, 1301-1310.	1.8	14
47	Temperature-dependent physical properties in physical gas absorption. <i>Chemical Engineering Science</i> , 1983, 38, 127-133.	1.9	13
48	A study of the effect of JB particles on <i>Saccharomyces cerevisiae</i> (yeast) cells by Raman spectroscopy. <i>Journal of Raman Spectroscopy</i> , 2008, 39, 1859-1868.	1.2	13
49	Solid-solid reactions in series: A modeling and experimental study. <i>AIChE Journal</i> , 2009, 55, 2399-2413.	1.8	12
50	(R)-PAC Biosynthesis in [BMIM][PF <sub>6</sub> ]/Aqueous Biphasic System Using <i>Saccharomyces cerevisiae</i> BY4741 Cells. <i>Applied Biochemistry and Biotechnology</i> , 2015, 175, 1771-1788.	1.4	12
51	Probing the thickness and roughness of the functional layer in thin film composite membranes. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 26464-26474.	3.8	12
52	Mass-Transfer Rate Enhancement in Nanofluids: Packed Column Studies and a Design Basis. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 7670-7680.	1.8	12
53	Modeling Liquid-Phase Cyclohexane Oxidation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2007, 46, 6891-6898.	1.8	11
54	Kinetics of steel slag dissolution: from experiments to modelling. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20180830.	1.0	11

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55	Palladium catalyzed liquid phase oxidation of glycerol under alkaline conditions - Kinetic analysis and modelling. <i>Chemical Engineering Journal</i> , 2022, 438, 135424.	6.6	11
56	Kinetics of Solidâ€“Solid Reactions: Influence of the Number of Contact Points. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 11659-11667.	1.8	9
57	Safety and bioactivity studies of Jasad Bhasma and its in-process intermediate in Swiss mice. <i>Journal of Ethnopharmacology</i> , 2017, 197, 73-86.	2.0	9
58	A new kinetic model for bulk polymerization of vinyl chloride based on two-phase hypothesis. <i>European Polymer Journal</i> , 1982, 18, 607-616.	2.6	8
59	A contactâ€“point based approach for the analysis of reactions among solid particles. <i>AIChE Journal</i> , 2011, 57, 1329-1338.	1.8	8
60	Development of high flux thin-film composite membrane for water desalination: a statistical study using response surface methodology. <i>Desalination and Water Treatment</i> , 2014, 52, 5219-5228.	1.0	8
61	Kinetics of interfacial hydrolysis of an aromatic acid chloride. <i>Chemical Engineering Research and Design</i> , 2019, 146, 154-161.	2.7	8
62	Mass transfer during reaction - cyclohexane oxidation. <i>Chemical Engineering Science</i> , 1986, 41, 741-746.	1.9	7
63	Isobutane oxidation in the liquid and supercritical phases: comparison of features. <i>Journal of Supercritical Fluids</i> , 1998, 12, 165-176.	1.6	7
64	Industrial Experience with Object-Oriented Modelling. <i>Chemical Engineering Research and Design</i> , 2004, 82, 527-552.	2.7	7
65	Synthesis of silicalite-poly(furfuryl alcohol) composite membranes for oxygen enrichment from air. <i>Nanoscale Research Letters</i> , 2011, 6, 637.	3.1	7
66	Some mechanistic insights into the action of facilitating agents on gas permeation through glassy polymeric membranes. <i>AIChE Journal</i> , 2018, 64, 186-199.	1.8	7
67	Pilot-scale testing of direct contact cooler for the removal of SO <sub>x</sub> and NO <sub>x</sub> from the flue gas of pressurized oxy-coal combustion. <i>Chemical Engineering Journal</i> , 2021, 414, 128757.	6.6	7
68	Rate oscillations in cyclohexane oxidation. <i>AIChE Journal</i> , 1991, 37, 1242-1244.	1.8	5
69	Indian Traditional Medicine Jasad Bhasma and Other Zinc-Containing Nanoparticles Alleviate Reactive Oxygen Species-Mediated Cell Damage in <i>Saccharomyces cerevisiae</i> . <i>International Journal of Green Nanotechnology Biomedicine</i> , 2009, 1, 69-89.	0.4	5
70	Electrochemical Reduction of CO <sub>2</sub> on Copper Oxidized by Electrochemical Methods. <i>ECS Transactions</i> , 2017, 75, 19-31.	0.3	5
71	Validation of Mixed Potential Theory Using Formic Acid and Ferric Ion as a Redox Couple. <i>ECS Transactions</i> , 2017, 75, 39-47.	0.3	5
72	Diffusion controlled instantaneous chemical reaction in a thin tube containing fine reactant particles. <i>Chemical Engineering Science</i> , 1997, 52, 3311-3319.	1.9	4

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73	Understanding Pt-Rh Synergy in a Three-Way Catalytic Converter. <i>International Journal of Chemical Reactor Engineering</i> , 2013, 11, 535-542.	0.6	4
74	A review of machines and devices to potentize homeopathic medicines. <i>Homeopathy</i> , 2017, 106, 240-249.	0.5	4
75	Modelling solid-solid reactions: Contact-point approach. <i>Chemical Engineering Journal</i> , 2019, 377, 120570.	6.6	4
76	Reactions in solid particles—A reappraisal of models. <i>AIChE Journal</i> , 2012, 58, 3161-3166.	1.8	3
77	A statistical study of the effect of preparation conditions on the structure and performance of thin film composite reverse osmosis membranes. <i>Desalination and Water Treatment</i> , 2016, 57, 2924-2941.	1.0	3
78	Data on of interfacial hydrolysis kinetics of an aromatic acid chloride. <i>Data in Brief</i> , 2019, 26, 104337.	0.5	3
79	Dilution-Induced Physico-Chemical Changes of Metal Oxide Nanoparticles Due to Homeopathic Preparation Steps of Trituration and Succussion. <i>Homeopathy</i> , 2020, 109, 065-078.	0.5	3
80	Intrinsic kinetics of interfacial polycondensation reactions—the reaction of mPDA with TMC. <i>Polymer</i> , 2020, 210, 122982.	1.8	3
81	A critique of thermokinetic analysis in solids processing: Cement industry as a case study. <i>Thermochimica Acta</i> , 2015, 618, 56-66.	1.2	2
82	High oxygen evolution reaction activity on lithiated nickel oxides - Activity descriptors. <i>Electrochimica Acta</i> , 2019, 318, 809-819.	2.6	2
83	Reactive Dissolution of Particle Clusters. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 4050-4057.	1.8	1
84	Generalized Estimating Equation Approach for Analyzing the Effects of Metal-Derived Products on Survival and Hatching of Zebrafish Embryos. <i>Zebrafish</i> , 2014, 11, 353-364.	0.5	1
85	Correlation of Chemical and Electrochemical Catalysis-Importance of Half Reactions: The Case of Catalytic Oxidation of Ferrous Sulfate by Molecular Oxygen. <i>Journal of the Electrochemical Society</i> , 2018, 165, H196-H204.	1.3	1
86	Traditional Method of Bhasma Preparation Generates Stressed, Polycrystalline, Nano and Submicron Sized Particles as Revealed by Physicochemical Studies of <i>Suwarnamakshik Bhasma</i> . <i>Advanced Science Letters</i> , 2014, 20, 1211-1218.	0.2	1