

Abhishek Dutta

List of Publications by Year in descending order

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Version: 2024-02-01

94
papers

1,526
citations

394421
19
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361022
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94
all docs

94
docs citations

94
times ranked

1865
citing authors

#	ARTICLE	IF	CITATIONS
1	Flat sheet metakaolin ceramic membrane for water desalination via direct contact membrane distillation. Journal of Water Reuse and Desalination, 2022, 12, 131-156.	2.3	0
2	Mathematical modelling of the liquid/liquid mass transfer behaviour in gas stirred ladles. Ironmaking and Steelmaking, 2022, 49, 1057-1067.	2.1	1
3	COVID-19 waves: variant dynamics and control. Scientific Reports, 2022, 12, .	3.3	33
4	Numerical Modelling Assisted Design of a Compact Ultrafiltration (UF) Flat Sheet Membrane Module. Membranes, 2021, 11, 54.	3.0	6
5	Special Issue on "Process Modeling in Pyrometallurgical Engineering" Processes, 2021, 9, 252.	2.8	0
6	Resource recovery from and management of wastewater in rural South Africa: Possibilities and practices. Journal of Water Process Engineering, 2021, 40, 101978.	5.6	18
7	Numerical Study of Electrostatic Desalting Process Based on Droplet Collision Time. Processes, 2021, 9, 1226.	2.8	5
8	Robust design of a multirotor aerial vehicle. Scientific Reports, 2021, 11, 21137.	3.3	1
9	A Cooperative Distributed Model Predictive Control Approach to Supply Chain Management. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 4894-4904.	9.3	15
10	A review of the current environmental challenges of the steel industry and its value chain. Journal of Environmental Management, 2020, 259, 109782.	7.8	66
11	Numerical Modeling of Equal and Differentiated Gas Injection in Ladles: Effect on Mixing Time and Slag Eye. Processes, 2020, 8, 917.	2.8	11
12	Design and Control of an Underwater Launch System. IEEE Access, 2020, 8, 38633-38649.	4.2	5
13	Removal of Hexavalent Chromium from Synthetic Wastewater Using Alginate Immobilized Cyanobacteria: Experiment and Mathematical Modeling. Environmental Engineering Science, 2020, 37, 283-294.	1.6	9
14	Numerical modeling of water uptake in white rice (Oryza sativa L.) using variable diffusivity approach. Biosystems Engineering, 2020, 191, 116-128.	4.3	11
15	Fabrication and Characterization of Metakaolin Based Flat Sheet Membrane for Membrane Distillation. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2020, , 651-661.	0.3	0
16	Post-combustion artificial neural network modeling of nickel-producing multiple hearth furnace. International Journal of Chemical Reactor Engineering, 2020, 18, .	1.1	1
17	Stabilizing COVID-19 Infections in US by Feedback Control based Test and Quarantine. , 2020, , .		6
18	Cyborgs: Neuromuscular Control of Insects. , 2019, , .		9

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19	Cyborg Insects Could Someday Save Your Life. IEEE Pulse, 2019, 10, 24-25.	0.3	8
20	Comparison of optimization approaches (response surface methodology and artificial neural) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 of Food Process Engineering, 2019, 42, e13124.	2.9	12
21	Effect of drag correlation and bubbleâ€induced turbulence closure on the gas holdâ€up in a bubble column reactor. Journal of Chemical Technology and Biotechnology, 2019, 94, 2944-2954.	3.2	9
22	Population balances in partitioning bioreactors: Cell heterogeneity. Advances in Chemical Engineering, 2019, 54, 75-109.	0.9	0
23	A Novel Multiphase Methodology Simulating Three Phase Flows in a Steel Ladle. Processes, 2019, 7, 175.	2.8	7
24	Modeling the Viability of a Refrigeration-Based Atmospheric Water Generator under the Present-Day Climate., 2019, , .		1
25	Start-up of a pilot scale anaerobic reactor for the biogas production from the pineapple processing industries of Belgium. Renewable Energy, 2019, 134, 241-246.	8.9	11
26	Soaking of soybean meal: evaluation of physicochemical properties and kinetic studies. Journal of Food Measurement and Characterization, 2019, 13, 390-403.	3.2	8
27	An Improved Analytical Solution of Population Balance Equation Involving Aggregation and Breakage via Fibonacci and Lucas Approximation Method. International Journal of Chemical Reactor Engineering, 2019, 17, .	1.1	2
28	A COMPARATIVE STUDY OF MULTI OBJECTIVE OPTIMIZATION ALGORITHMS FOR A CELLULAR AUTOMATA MODEL. Revista Mexicana De Ingeniera Quimica, 2019, 19, 299-311.	0.4	4
29	Sequestration of carbon dioxide and production of biomolecules using cyanobacteria. Journal of Environmental Management, 2018, 218, 234-244.	7.8	28
30	Population Balances Involving Aggregation and Breakage Through Homotopy Approaches. International Journal of Chemical Reactor Engineering, 2018, 16, .	1.1	3
31	Simultaneous Diesel and Oxygen Transfer Rate on the Production of an Oil-degrading Consortium in an Airlift Bioreactor: High-dispersed Phase Concentration. International Journal of Chemical Reactor Engineering, 2018, 16, .	1.1	7
32	Experimental and Numerical Study of the Hydrodynamics of a Thin Film Reactor (TFR) for the Decarboxylation of Anacardic Acid. International Journal of Chemical Reactor Engineering, 2018, 16, .	1.1	2
33	Performance of upflow anaerobic sludge blanket (UASB) reactor and other anaerobic reactor configurations for wastewater treatment: a comparative review and critical updates. Journal of Water Supply: Research and Technology - AQUA, 2018, 67, 858-884.	1.4	35
34	Selenium removal from mining and process wastewater: a systematic review of available technologies. Journal of Water Supply: Research and Technology - AQUA, 2018, 67, 903-918.	1.4	47
35	Mass Transfer Study of a Batch Aluminum Degassing Ladle with Multiple Designs of Rotating Impellers. Jom, 2018, 70, 2958-2967.	1.9	13
36	Numerical Modeling of Liquidâ€Liquid Mass Transfer and the Influence of Mixing in Gas-Stirred Ladles. Jom, 2018, 70, 2109-2118.	1.9	19

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37	Bioremediation of methylene blue dye using <i>Bacillus subtilis</i> MTCC 441. <i>Water Science and Technology</i> , 2017, 75, 1572-1583.	2.5	23
38	Removal of Cr(VI) using a cyanobacterial consortium and assessment of biofuel production. <i>International Biodeterioration and Biodegradation</i> , 2017, 119, 211-224.	3.9	49
39	Confiscating Flight Control System by Stealthy Output Injection Attack. <i>Journal of Aerospace Information Systems</i> , 2017, 14, 203-213.	1.4	6
40	Synthesis and characterization of solid-phase super acid catalysts and their application for isomerization of <i>n</i> -alkanes. <i>Chemical Engineering Communications</i> , 2017, 204, 1341-1356.	2.6	7
41	Stealthy output injection attacks on control systems with bounded variables. <i>International Journal of Control</i> , 2017, 90, 1389-1402.	1.9	7
42	Numerical evaluation of direct interfacial uptake by a microbial consortium in an airlift bioreactor. <i>International Biodeterioration and Biodegradation</i> , 2017, 119, 542-551.	3.9	22
43	Role of Fermentation in Improving Nutritional Quality of Soybean Meal – A Review. <i>Asian-Australasian Journal of Animal Sciences</i> , 2016, 29, 1523-1529.	2.4	185
44	Experimental and Artificial Neural Network Modeling of a Upflow Anaerobic Contactor (UAC) for Biogas Production from Vinasse. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 1241-1254.	1.1	20
45	One-Pot Isomerization of <i>n</i> -Alkanes by Super Acidic Solids: Sulfated Aluminum-Zirconium Binary Oxides. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 795-807.	1.1	6
46	Elucidating Kinetic, Adsorption and Partitioning Phenomena from a Single Well Tracer Method: Laboratory and Bench Scale Studies. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 1149-1168.	1.1	7
47	Cadmium(II), Lead(II), and Copper(II) Biosorption on Baker's Yeast (<i>Saccharomyces cerevisiae</i>). <i>Journal of Environmental Engineering, ASCE</i> , 2016, 142, .	1.4	17
48	Whole cell bioconversion of (+)- α -valencene to (+)- α -nootkatone by <i>Yarrowia lipolytica</i> using a three phase partitioning bioreactor. <i>Journal of Chemical Technology and Biotechnology</i> , 2016, 91, 1164-1172.	3.2	22
49	Prediction of Thermodynamic Consistency of Vapour-liquid Equilibrium of a Two-Phase System in the Presence of the Salting-in and Salting-out Effects. <i>Indian Chemical Engineer</i> , 2016, 58, 106-117.	1.5	0
50	Hydrodesulfurization of Dibenzothiophene in a Micro Trickle Bed Catalytic Reactor under Operating Conditions from Reactive Distillation. <i>International Journal of Chemical Reactor Engineering</i> , 2016, 14, 769-783.	1.1	8
51	Inhibition of alkaline flocculation by algal organic matter for <i>Chlorella vulgaris</i> . <i>Water Research</i> , 2016, 88, 301-307.	11.3	47
52	Tuning algorithms for fractional order internal model controllers for time delay processes. <i>International Journal of Control</i> , 2016, 89, 579-593.	1.9	69
53	Robust penalty adaptive model predictive control (PAMPC) of constrained, underdamped, noncollocated systems. <i>JVC/Journal of Vibration and Control</i> , 2016, 22, 549-558.	2.6	4
54	Adsorption of Cadmium from Aqueous Solutions onto Coffee Grounds and Wheat Straw: Equilibrium and Kinetic Study. <i>Journal of Environmental Engineering, ASCE</i> , 2016, 142, .	1.4	19

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55	A pragmatic approach to distributed nonlinear model predictive control: Application to a hydrostatic drivetrain. Optimal Control Applications and Methods, 2015, 36, 369-380.	2.1	8
56	Analytical solution of population balance equation involving aggregation and breakage in terms of auxiliary equation method. Pramana - Journal of Physics, 2015, 84, 9-21.	1.8	13
57	Role of Pt-Pd/Al ₂ O ₃ on the HDS of 4,6-DMBT: Kinetic modeling & contribution analysis. Fuel Processing Technology, 2015, 132, 164-172.	7.2	17
58	A generalized cellular automata approach to modeling first order enzyme kinetics. Sadhana - Academy Proceedings in Engineering Sciences, 2015, 40, 411-423.	1.3	2
59	Ultrastructural and physicochemical characteristics of rice under various conditions of puffing. Journal of Food Science and Technology, 2015, 52, 7037-7047.	2.8	9
60	Effect of diffusion on the conceptual design of a fixed-bed adsorber. Fuel, 2015, 149, 100-108.	6.4	16
61	Mathematical model of a three phase partitioning bioreactor for conversion of ketones using whole cells. Chemical Engineering Journal, 2015, 260, 765-775.	12.7	16
62	Robust and two-level (nonlinear) predictive control of switched dynamical systems with unknown references for optimal wet-clutch engagement. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2014, 228, 233-244.	1.0	15
63	Model-based and model-free learning strategies for wet clutch control. Mechatronics, 2014, 24, 1008-1020.	3.3	35
64	Experimental and modeling studies on microwave-assisted extraction of mangiferin from Curcuma amada. 3 Biotech, 2014, 4, 107-120.	2.2	13
65	An improved cellular automata model of enzyme kinetics based on genetic algorithm. Chemical Engineering Science, 2014, 110, 105-118.	3.8	2
66	Comparison of two-level NMPC and ILC strategies for wet-clutch control. Control Engineering Practice, 2014, 22, 114-124.	5.5	21
67	Certification of a class of industrial predictive controllers without terminal conditions. , 2014, , .		5
68	Implementation of a fractional PD controller tuned by genetic algorithm for a Stewart platform. , 2013, , .		4
69	Cell mass and cell cycle dynamics of an asynchronous budding yeast population: Experimental observations, flow cytometry data analysis, and multi-scale modeling. Biotechnology and Bioengineering, 2013, 110, 812-826.	3.3	28
70	Penalty adaptive model predictive control (PAMPC) of constrained, underdamped, non-collocated mechatronic systems. , 2013, , .		1
71	Implementation of Homotopy Perturbation Method to Solve a Population Balance Model in Fluidized Bed. International Journal of Chemical Reactor Engineering, 2013, 11, 271-282.	1.1	3
72	Nonlinear predictive control of an evaporator for bioethanol production. , 2013, , .		7

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73	A specifications based PID autotuner. , 2012, , .		4
74	Robust predictive control design for optimal wet-clutch engagement. , 2012, , .		2
75	Quantifying additive uncertainty in an identified multivariable model for closed loop control of depth of anesthesia*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 577-582.	0.4	1
76	Reducing the Bullwhip Effect in Supply Chain Management by Applying a Model Predictive Control Ordering Policy. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 481-486.	0.4	3
77	Switched Nonlinear Predictive Control with Adaptive References for Engagement of Wet Clutches. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 460-465.	0.4	2
78	Switched Predictive Control Design for Optimal Wet-clutch Engagement. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 241-246.	0.4	11
79	Applying the direct quadrature method of moments to improve multiphase FCC riser reactor simulation. Chemical Engineering Science, 2012, 83, 93-109.	3.8	35
80	Robust nonlinear extended prediction self-adaptive control (NEPSAC) of continuous bioreactors. , 2012, , .		4
81	Fine Tuning of a Wet Clutch Engagement by Means of a Genetic Algorithm. International Federation for Information Processing, 2012, , 58-67.	0.4	0
82	Position and Velocity Predictions of the Piston in a Wet Clutch System during Engagement by Using a Neural Network Modeling. International Federation for Information Processing, 2012, , 474-482.	0.4	0
83	Investigating kernel structures for Ca-induced activated sludge aggregation using an inverse problem methodology. Chemical Engineering Science, 2012, 70, 176-187.	3.8	5
84	Microwave assisted extraction of mangiferin from Curcuma amada. 3 Biotech, 2012, 2, 27-30.	2.2	19
85	Development of a software tool for in silico biodiesel production from rapeseed oil. , 2011, , .		0
86	Experimental methods and modeling techniques for description of cell population heterogeneity. Biotechnology Advances, 2011, 29, 575-599.	11.7	108
87	Investigating kernel structures for shear and Ca-induced activated sludge aggregation using a population balance model with an inverse problem methodology. Communications in Agricultural and Applied Biological Sciences, 2011, 76, 29-32.	0.0	0
88	A sensitivity analysis study of enzyme inhibition kinetics through Cellular Automata. , 2010, , .		2
89	Rotating fluidized bed with a static geometry: Guidelines for design and operating conditions. Chemical Engineering Science, 2010, 65, 1678-1693.	3.8	51
90	Moisture absorption and swelling kinetics in bean seeds: A Generalized Maxwell-Stefan approach. , 2010, , .		0

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91	Understanding segregation and mixing effects in a riser using the quadrature method of moments. , 2009, , .		0
92	A Linear Driving Force (LDF) Approximation of Moisture Diffusion Kinetics in White Rice. International Journal of Food Engineering, 2008, 4, .	1.5	11
93	Rheological characteristics and thermal degradation kinetics of beta-carotene in pumpkin puree. Journal of Food Engineering, 2006, 76, 538-546.	5.2	117
94	Effect of 1-D Nano-Confinement on the Kinetics of a Click-Chemistry Surface Reaction Used in Biosensors. Solid State Phenomena, 0, 282, 182-189.	0.3	5