Abhishek Dutta

List of Publications by Year
in descending order

94 papers	1,526 citations	393982 19 h-index	360668 35 g-index
94 all docs	94 docs citations	94 times ranked	1865 citing authors

#	Article	IF	Citations
1	Role of Fermentation in Improving Nutritional Quality of Soybean Meal â€" A Review. Asian-Australasian Journal of Animal Sciences, 2016, 29, 1523-1529.	2.4	185
2	Rheological characteristics and thermal degradation kinetics of beta-carotene in pumpkin puree. Journal of Food Engineering, 2006, 76, 538-546.	2.7	117
3	Experimental methods and modeling techniques for description of cell population heterogeneity. Biotechnology Advances, 2011, 29, 575-599.	6.0	108
4	Tuning algorithms for fractional order internal model controllers for time delay processes. International Journal of Control, 2016, 89, 579-593.	1.2	69
5	A review of the current environmental challenges of the steel industry and its value chain. Journal of Environmental Management, 2020, 259, 109782.	3.8	66
6	Rotating fluidized bed with a static geometry: Guidelines for design and operating conditions. Chemical Engineering Science, 2010, 65, 1678-1693.	1.9	51
7	Removal of Cr(VI) using a cyanobacterial consortium and assessment of biofuel production. International Biodeterioration and Biodegradation, 2017, 119, 211-224.	1.9	49
8	Inhibition of alkaline flocculation by algal organic matter for Chlorella vulgaris. Water Research, 2016, 88, 301-307.	5.3	47
9	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.	0.6	47
10	Applying the direct quadrature method of moments to improve multiphase FCC riser reactor simulation. Chemical Engineering Science, 2012, 83, 93-109.	1.9	35
11	Model-based and model-free learning strategies for wet clutch control. Mechatronics, 2014, 24, 1008-1020.	2.0	35
12	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.	0.6	35
13	COVID-19 waves: variant dynamics and control. Scientific Reports, 2022, 12, .	1.6	33
14	Cell mass and cell cycle dynamics of an asynchronous budding yeast population: Experimental observations, flow cytometry data analysis, and multiâ€scale modeling. Biotechnology and Bioengineering, 2013, 110, 812-826.	1.7	28
15	Sequestration of carbon dioxide and production of biomolecules using cyanobacteria. Journal of Environmental Management, 2018, 218, 234-244.	3.8	28
16	Bioremediation of methylene blue dye using Bacillus subtilis MTCC 441. Water Science and Technology, 2017, 75, 1572-1583.	1.2	23
17	Whole cell bioconversion of (+)â€valencene to (+)â€nootkatone by <i>Yarrowia lipolytica</i> using a three phase partitioning bioreactor. Journal of Chemical Technology and Biotechnology, 2016, 91, 1164-1172.	1.6	22
18	Numerical evaluation of direct interfacial uptake by a microbial consortium in an airlift bioreactor. International Biodeterioration and Biodegradation, 2017, 119, 542-551.	1.9	22

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19	Comparison of two-level NMPC and ILC strategies for wet-clutch control. Control Engineering Practice, 2014, 22, 114-124.	3.2	21
20	Experimental and Artificial Neural Network Modeling of a Upflow Anaerobic Contactor (UAC) for Biogas Production from Vinasse. International Journal of Chemical Reactor Engineering, 2016, 14, 1241-1254.	0.6	20
21	Microwave assisted extraction of mangiferin from Curcuma amada. 3 Biotech, 2012, 2, 27-30.	1.1	19
22	Adsorption of Cadmium from Aqueous Solutions onto Coffee Grounds and Wheat Straw: Equilibrium and Kinetic Study. Journal of Environmental Engineering, ASCE, 2016, 142, .	0.7	19
23	Numerical Modeling of Liquidâ€"Liquid Mass Transfer and the Influence of Mixing in Gas-Stirred Ladles. Jom, 2018, 70, 2109-2118.	0.9	19
24	Resource recovery from and management of wastewater in rural South Africa: Possibilities and practices. Journal of Water Process Engineering, 2021, 40, 101978.	2.6	18
25	Role of Ptâ€"Pd/Î³-Al2O3 on the HDS of 4,6-DMBT: Kinetic modeling & contribution analysis. Fuel Processing Technology, 2015, 132, 164-172.	3.7	17
26	Cadmium(II), Lead(II), and Copper(II) Biosorption on Bakerâ€™s Yeast (Saccharomyces cerevesiae). Journal of Environmental Engineering, ASCE, 2016, 142, .	0.7	17
27	Effect of diffusion on the conceptual design of a fixed-bed adsorber. Fuel, 2015, 149, 100-108.	3.4	16
28	Mathematical model of a three phase partitioning bioreactor for conversion of ketones using whole cells. Chemical Engineering Journal, 2015, 260, 765-775.	6.6	16
29	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.	0.7	15
30	A Cooperative Distributed Model Predictive Control Approach to Supply Chain Management. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2020, 50, 4894-4904.	5.9	15
31	Experimental and modeling studies on microwave-assisted extraction of mangiferin from Curcuma amada. 3 Biotech, 2014, 4, 107-120.	1.1	13
32	Analytical solution of population balance equation involving aggregation and breakage in terms of auxiliary equation method. Pramana - Journal of Physics, 2015, 84, 9-21.	0.9	13
33	Mass Transfer Study of a Batch Aluminum Degassing Ladle with Multiple Designs of Rotating Impellers. Jom, 2018, 70, 2958-2967.	0.9	13
34	Comparison of optimization approaches (response surface methodology and artificial neural) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 147 of Food Process Engineering, 2019, 42, e13124.	1.5	12
35	A Linear Driving Force (LDF) Approximation of Moisture Diffusion Kinetics in White Rice. International Journal of Food Engineering, 2008, 4, .	0.7	11
36	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

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37	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.	4.3	11
38	Numerical Modeling of Equal and Differentiated Gas Injection in Ladles: Effect on Mixing Time and Slag Eye. Processes, 2020, 8, 917.	1.3	11
39	Numerical modeling of water uptake in white rice (Oryza sativa L.) using variable diffusivity approach. Biosystems Engineering, 2020, 191, 116-128.	1.9	11
40	Ultrastructural and physicochemical characteristics of rice under various conditions of puffing. Journal of Food Science and Technology, 2015, 52, 7037-7047.	1.4	9
41	Cyborgs: Neuromuscular Control of Insects. , 2019, , .		9
42	Effect of drag correlation and bubble‐induced turbulence closure on the gas hold‐up in a bubble column reactor. Journal of Chemical Technology and Biotechnology, 2019, 94, 2944-2954.	1.6	9
43	Removal of Hexavalent Chromium from Synthetic Wastewater Using Alginate Immobilized Cyanobacteria: Experiment and Mathematical Modeling. Environmental Engineering Science, 2020, 37, 283-294.	0.8	9
44	A pragmatic approach to distributed nonlinear model predictive control: Application to a hydrostatic drivetrain. Optimal Control Applications and Methods, 2015, 36, 369-380.	1.3	8
45	Hydrodesulfurization of Dibenzothiophene in a Micro Trickle Bed Catalytic Reactor under Operating Conditions from Reactive Distillation. International Journal of Chemical Reactor Engineering, 2016, 14, 769-783.	0.6	8
46	Cyborg Insects Could Someday Save Your Life. IEEE Pulse, 2019, 10, 24-25.	0.1	8
47	Soaking of soybean meal: evaluation of physicochemical properties and kinetic studies. Journal of Food Measurement and Characterization, 2019, 13, 390-403.	1.6	8
48	Nonlinear predictive control of an evaporator for bioethanol production. , 2013, , .		7
49	Elucidating Kinetic, Adsorption and Partitioning Phenomena from a Single Well Tracer Method: Laboratory and Bench Scale Studies. International Journal of Chemical Reactor Engineering, 2016, 14, 1149-1168.	0.6	7
50	Synthesis and characterization of solid-phase super acid catalysts and their application for isomerization of n-alkanes. Chemical Engineering Communications, 2017, 204, 1341-1356.	1.5	7
51	Stealthy output injection attacks on control systems with bounded variables. International Journal of Control, 2017, 90, 1389-1402.	1.2	7
52	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, .	0.6	7
53	A Novel Multiphase Methodology Simulating Three Phase Flows in a Steel Ladle. Processes, 2019, 7, 175.	1.3	7
54	One-Pot Isomerization of n-Alkanes by Super Acidic Solids: Sulfated Aluminum-Zirconium Binary Oxides. International Journal of Chemical Reactor Engineering, 2016, 14, 795-807.	0.6	6

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55	Confiscating Flight Control System by Stealthy Output Injection Attack. Journal of Aerospace Information Systems, 2017, 14, 203-213.	1.0	6
56	Numerical Modelling Assisted Design of a Compact Ultrafiltration (UF) Flat Sheet Membrane Module. Membranes, 2021, 11, 54.	1.4	6
57	Stabilizing COVID-19 Infections in US by Feedback Control based Test and Quarantine. , 2020, , .		6
58	Investigating kernel structures for Ca-induced activated sludge aggregation using an inverse problem methodology. Chemical Engineering Science, 2012, 70, 176-187.	1.9	5
59	Certification of a class of industrial predictive controllers without terminal conditions. , 2014, , .		5
60	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
61	Design and Control of an Underwater Launch System. IEEE Access, 2020, 8, 38633-38649.	2.6	5
62	Numerical Study of Electrostatic Desalting Process Based on Droplet Collision Time. Processes, 2021, 9, 1226.	1.3	5
63	A specifications based PID autotuner. , 2012, , .		4
64	Robust nonlinear extended prediction self-adaptive control (NEPSAC) of continuous bioreactors. , 2012, , .		4
65	Implementation of a fractional PD controller tuned by genetic algorithm for a Steward platform. , 2013, , .		4
66	Robust penalty adaptive model predictive control (PAMPC) of constrained, underdamped, noncollocated systems. JVC/Journal of Vibration and Control, 2016, 22, 549-558.	1.5	4
67	A COMPARATIVE STUDY OF MULTI OBJECTIVE OPTIMIZATION ALGORITHMS FOR A CELLULAR AUTOMATA MODEL. Revista Mexicana De Ingeniera Quimica, 2019, 19, 299-311.	0.2	4
68	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
69	Implementation of Homotopy Perturbation Method to Solve a Population Balance Model in Fluidized Bed. International Journal of Chemical Reactor Engineering, 2013, 11, 271-282.	0.6	3
70	Population Balances Involving Aggregation and Breakage Through Homotopy Approaches. International Journal of Chemical Reactor Engineering, 2018, 16, .	0.6	3
71	A sensitivity analysis study of enzyme inhibition kinetics through Cellular Automata. , 2010, , .		2
72	Robust predictive control design for optimal wet-clutch engagement. , 2012, , .		2

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73	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
74	An improved cellular automata model of enzyme kinetics based on genetic algorithm. Chemical Engineering Science, 2014, 110, 105-118.	1.9	2
75	A generalized cellular automata approach to modeling first order enzyme kinetics. Sadhana - Academy Proceedings in Engineering Sciences, 2015, 40, 411-423.	0.8	2
76	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, .	0.6	2
77	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, .	0.6	2
78	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
79	Penalty adaptive model predictive control (PAMPC) of constrained, underdamped, non-collocated mechatronic systems. , 2013, , .		1
80	Modeling the Viability of a Refrigeration-Based Atmospheric Water Generator under the Present-Day Climate. , 2019, , .		1
81	Robust design of a multirotor aerial vehicle. Scientific Reports, 2021, 11, 21137.	1.6	1
82	Post-combustion artificial neural network modeling of nickel-producing multiple hearth furnace. International Journal of Chemical Reactor Engineering, 2020, 18, .	0.6	1
83	Mathematical modelling of the liquid/liquid mass transfer behaviour in gas stirred ladles. Ironmaking and Steelmaking, 2022, 49, 1057-1067.	1.1	1
84	Moisture absorption and swelling kinetics in bean seeds: A Generalized Maxwell-Stefan approach. , 2010, , .		0
85	Development of a software tool for in silico biodiesel production from rapeseed oil. , 2011, , .		0
86	Fine Tuning of a Wet Clutch Engagement by Means of a Genetic Algorithm. International Federation for Information Processing, 2012, , 58-67.	0.4	0
87	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
88	Prediction of Thermodynamic Consistency of Vapour-liquid Equilibrium of a Two-Phase System in the Presence of the Salting-in and Salting-out Effects. Indian Chemical Engineer, 2016, 58, 106-117.	0.9	0
89	Population balances in partitioning bioreactors: Cell heterogeneity. Advances in Chemical Engineering, 2019, 54, 75-109.	0.5	0
90	Special Issue on â€œProcess Modeling in Pyrometallurgical Engineeringâ€ Processes, 2021, 9, 252.	1.3	0

#	ARTICLE	IF	CITATIONS
91	Understanding segregation and mixing effects in a riser using the quadrature method of moments. , 2009, , .		0
92	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.	0.2	0
93	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
94	Flat sheet metakaolin ceramic membrane for water desalination via direct contact membrane distillation. Journal of Water Reuse and Desalination, 2022, 12, 131-156.	1.2	0