M Nazmul Karim

List of Publications by Year in descending order

53 papers	1,780 citations	304743 22 h-index	276875 41 g-index
53 all docs	53 docs citations	53 times ranked	1942 citing authors

#	Article	IF	Citations
1	Soluble and insoluble solids contributions to high-solids enzymatic hydrolysis of lignocellulose. Bioresource Technology, 2008, 99, 8940-8948.	9.6	280
2	Model-Based Fed-Batch for High-Solids Enzymatic Cellulose Hydrolysis. Applied Biochemistry and Biotechnology, 2009, 152, 88-107.	2.9	196
3	Preparation of PDMS membrane using water as solvent for pervaporation separation of butanolâ€“water mixture. Green Chemistry, 2013, 15, 2180.	9.0	132
4	Fault detection using multiscale PCA-based moving window GLRT. Journal of Process Control, 2017, 54, 47-64.	3.3	104
5	Kernel PLS-based GLRT method for fault detection of chemical processes. Journal of Loss Prevention in the Process Industries, 2016, 43, 212-224.	3.3	98
6	A New Method for the Identification of Hammerstein Model**This paper was not presented at any IFAC meeting. This paper was recommended for publication in revised form by Associate Editor B.W. Bequette under the direction of Editor Yaman Arkun.. Automatica, 1997, 33, 1871-1875.	5.0	79
7	A PDMS membrane with high pervaporation performance for the separation of furfural and its potential in industrial application. Green Chemistry, 2014, 16, 1262-1273.	9.0	79
8	Effect of Shear Stress on Intrinsic CHO Culture State and Glycosylation of Recombinant Tissue-Type Plasminogen Activator Protein. Biotechnology Progress, 2008, 19, 1199-1209.	2.6	68
9	Model-predictive pH control using real-time NARX approach. AICHE Journal, 1994, 40, 269-282.	3.6	61
10	Comprehensive methodology for detection and diagnosis of oscillatory control loops. Control Engineering Practice, 2009, 17, 939-956.	5.5	55
11	Multiscale PLS-based GLRT for fault detection of chemical processes. Journal of Loss Prevention in the Process Industries, 2017, 46, 143-153.	3.3	52
12	Modeling Intrinsic Kinetics of Enzymatic Cellulose Hydrolysis. Biotechnology Progress, 2008, 23, 626-637.	2.6	51
13	Tubular bioreactor models that include Onsagerâ€“Curie scalar cross-phenomena to describe stress-dependent rates of cell proliferation. Biophysical Chemistry, 2008, 135, 41-50.	2.8	32
14	Probabilistic neural networks using Bayesian decision strategies and a modified Gompertz model for growth phase classification in the batch culture of Bacillus subtilis. Biochemical Engineering Journal, 2001, 7, 41-48.	3.6	31
15	Data-Based Modeling and Analysis of Bioprocesses: Some Real Experiences. Biotechnology Progress, 2003, 19, 1591-1605.	2.6	29
16	Multi-Scale Modeling of Heterogeneities in Mammalian Cell Culture Processes. Industrial & Engineering Chemistry Research, 2010, 49, 7990-8006.	3.7	29
17	Control of starvation-induced apoptosis in Chinese hamster ovary cell cultures. Biotechnology and Bioengineering, 2002, 78, 645-657.	3.3	28
18	Real-time design of an adaptive nonlinear predictive controller. International Journal of Control, 1994, 59, 863-889.	1.9	27

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19	Quantifying the metabolic capabilities of engineered Zymomonas mobilis using linear programming analysis. Microbial Cell Factories, 2007, 6, 8.	4.0	27
20	A novel method for furfural recovery via gas stripping assisted vapor permeation by a polydimethylsiloxane membrane. Scientific Reports, 2015, 5, 9428.	3.3	26
21	Modeling and Advanced Control of Recombinant Zymomonas mobilis Fed-Batch Fermentation. Biotechnology Progress, 2002, 18, 572-579.	2.6	24
22	Multivariable Iterative Extended Kalman Filter Based Adaptive Control: Case Study of Solid Substrate Fermentation. Industrial & Engineering Chemistry Research, 1994, 33, 878-888.	3.7	23
23	Economic viability of consolidated bioprocessing utilizing multiple biomass substrates for commercial-scale cellulosic bioethanol production. Biomass and Bioenergy, 2017, 103, 35-46.	5.7	22
24	Variable Site-Occupancy Classification of N-Linked Glycosylation Using Artificial Neural Networks. Biotechnology Progress, 2005, 21, 1653-1662.	2.6	19
25	Identification and Control of Dissolved Oxygen in Hybridoma Cell Culture in a Shear Sensitive Environment. Biotechnology Progress, 2001, 17, 634-642.	2.6	16
26	Optimization of fed-batch parameters and harvest time of CHO cell cultures for a glycosylated product with multiple mechanisms of inactivation. Biotechnology and Bioengineering, 2007, 98, 378-390.	3.3	16
27	Neural-Network-Based Identification of Tissue-Type Plasminogen Activator Protein Production and Glycosylation in CHO Cell Culture under Shear Environment. Biotechnology Progress, 2003, 19, 1828-1836.	2.6	15
28	Development of modified HCH-1 kinetic model for long-term enzymatic cellulose hydrolysis and comparison with literature models. Biotechnology for Biofuels, 2019, 12, 34.	6.2	14
29	Prediction and classification of different phases in a fermentation using neural networks. Biotechnology Letters, 1998, 12, 301-304.	0.5	13
30	Process monitoring using PCA-based GLR methods: A comparative study. Journal of Computational Science, 2018, 27, 227-246.	2.9	13
31	Experimental optimization of a real time fed-batch fermentation process using Markov decision process. , 1997, 55, 317-327.		12
32	Prediction of N-linked glycan branching patterns using artificial neural networks. Mathematical Biosciences, 2008, 211, 89-104.	1.9	12
33	Modelling of batch kinetics of aerobic carotenoid production using Saccharomyces cerevisiae. Biochemical Engineering Journal, 2016, 114, 226-236.	3.6	12
34	Potential of mean force for separation of the repeating units in cellulose and hemicellulose. Carbohydrate Research, 2011, 346, 867-871.	2.3	11
35	Countercurrent saccharification of lime-pretreated corn stover â€“ Part 1. Biomass and Bioenergy, 2017, 96, 28-37.	5.7	10
36	Separating isopropanol from its diluted solutions via a process of integrating gas stripping and vapor permeation. RSC Advances, 2015, 5, 24031-24037.	3.6	9

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37	Economic improvement of continuous pharmaceutical production via the optimal control of a multifeed bioreactor. Biotechnology Progress, 2017, 33, 902-912.	2.6	9
38	Effect of headspace gas composition on carboxylates production in open-culture fermentation of corn stover. Biomass and Bioenergy, 2019, 126, 57-61.	5.7	9
39	Design of an Unknown Input Observer for Leak Detection under Process Disturbances. Industrial & Engineering Chemistry Research, 2017, 56, 989-998.	3.7	7
40	Multi-Model MPC for Nonlinear Systems. Computer Aided Chemical Engineering, 2011, 29, 622-627.	0.5	5
41	Effect of dataset size on modeling and monitoring of chemical processes. Chemical Engineering Science, 2020, 227, 115928.	3.8	5
42	Estimation of Unmeasured States in a Bioreactor under Unknown Disturbances. Industrial & Engineering Chemistry Research, 2019, 58, 2235-2245.	3.7	4
43	Countercurrent enzymatic saccharification of pretreated corn stover part 2: LimeÂ+Âshock pretreated corn stover and commercial approach. Biomass and Bioenergy, 2017, 97, 43-52.	5.7	3
44	Detection of Multiple Leaks in a Natural Gas Pipeline Using Observer and Mixed-Integer Partial Differential Equation-Constrained Optimization. Industrial & Engineering Chemistry Research, 2017, 56, 11839-11846.	3.7	3
45	Development of a Culture Sub-population Induction Model: Signaling Pathways Synergy and Taxanes Production byTaxuscanadensis. Biotechnology Progress, 2006, 22, 1671-1682.	2.6	3
46	Kinetic modeling of countercurrent saccharification. Biotechnology for Biofuels, 2019, 12, 179.	6.2	2
47	Improved Multiscale Multivariate Process Monitoring Methods. , 2021, , .		2
48	An operating economics-driven perspective on monitoring and maintenance in multiple operating regimes: Application to monitor fouling in heat exchangers. Chemical Engineering Research and Design, 2022, 184, 233-245.	5.6	2
49	Separation and recovery of intracellular beta-carotene using a process synthesis framework. Computer Aided Chemical Engineering, 2017, 40, 2851-2856.	0.5	1
50	Growth-Phase Classification Using Backpropagation and Probabilistic Neural Networks. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 7568-7572.	0.4	0
51	Neural Network Based Identification of r-TPA Production and Glycosylation in CHO Cells. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 79-84.	0.4	0
52	Neural Network-Based Prediction of Variable Site-Occupancy of N-Linked Glycosylation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 309-314.	0.4	0
53	PREDICTION OF GLYCOSYLATION SITE-OCCUPANCY USING ARTIFICIAL NEURAL NETWORKS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 725-730.	0.4	0