MÃ¡rcio Af Martins

List of Publications by Year
in descending order

44 papers	434 citations	687220 13 h-index	794469 19 g-index
44 all docs	44 docs citations	44 times ranked	293 citing authors

#	Article	IF	Citations
1	A PSO-based optimal tuning strategy for constrained multivariable predictive controllers with model uncertainty. ISA Transactions, 2014, 53, 560-567.	3.1	51
2	A robustly stabilizing model predictive control strategy of stable and unstable processes. Automatica, 2016, 67, 132-143.	3.0	31
3	Robust model predictive control of integrating time delay processes. Journal of Process Control, 2013, 23, 917-932.	1.7	29
4	Artificial Intelligence-oriented economic non-linear model predictive control applied to a pressure swing adsorption unit: Syngas purification as a case study. Separation and Purification Technology, 2021, 276, 119333.	3.9	24
5	Robust model predictive control of an industrial partial combustion fluidized-bed catalytic cracking converter. Chemical Engineering Research and Design, 2014, 92, 917-930.	2.7	23
6	Wave resource characterization through in-situ measurement followed by artificial neural networks' modeling. Renewable Energy, 2018, 115, 1055-1066.	4.3	23
7	New objective function for data reconciliation in water balance from industrial processes. Journal of Cleaner Production, 2010, 18, 1184-1189.	4.6	21
8	Optimization of a True Moving Bed unit and determination of its feasible operating region using a novel Sliding Particle Swarm Optimization. Computers and Industrial Engineering, 2019, 135, 368-381.	3.4	17
9	Big Data-Based Optimization of a Pressure Swing Adsorption Unit for Syngas Purification: On Mapping Uncertainties from a Metaheuristic Technique. Industrial & Engineering Chemistry Research, 2020, 59, 14037-14047.	1.8	17
10	Chromatographic studies of n-Propyl Propionate: Adsorption equilibrium, modelling and uncertainties determination. Computers and Chemical Engineering, 2018, 119, 371-382.	2.0	15
11	Artificial Intelligence and Cyber-Physical Systems: A Review and Perspectives for the Future in the Chemical Industry. AI, 2021, 2, 429-443.	2.1	14
12	Generalized expressions of second and third order for the evaluation of standard measurement uncertainty. Measurement: Journal of the International Measurement Confederation, 2011, 44, 1526-1530.	2.5	13
13	Dynamics of a True Moving Bed separation process: Linear model identification and advanced process control. Journal of Chromatography A, 2017, 1504, 112-123.	1.8	13
14	An efficient cooperative-distributed model predictive controller with stability and feasibility guarantees for constrained linear systems. Systems and Control Letters, 2020, 141, 104701.	1.3	13
15	A novel standpoint of Pressure Swing Adsorption processes multi-objective optimization: An approach based on feasible operation region mapping. Chemical Engineering Research and Design, 2022, 178, 590-601.	2.7	12
16	Optimal fragrances formulation using a deep learning neural network architecture: A novel systematic approach. Computers and Chemical Engineering, 2021, 150, 107344.	2.0	11
17	A robustly model predictive control strategy applied in the control of a simulated industrial polyethylene polymerization process. Computers and Chemical Engineering, 2020, 133, 106664.	2.0	9
18	An implementable stabilizing model predictive controller applied to a rotary flexible link: An experimental case study. Control Engineering Practice, 2020, 99, 104396.	3.2	9

#	Article	IF	Citations
19	From an Optimal Point to an Optimal Region: A Novel Methodology for Optimization of Multimodal Constrained Problems and a Novel Constrained Sliding Particle Swarm Optimization Strategy. Mathematics, 2021, 9, 1808.	1.1	9
20	An Automatic Tuning Method for Model Predictive Control Strategies. Industrial & Engineering Chemistry Research, 2019, 58, 21602-21613.	1.8	8
21	Transient analysis of true/simulated moving bed reactors: A case study on the synthesis of n-Propyl propionate. Computers and Chemical Engineering, 2020, 137, 106820.	2.0	7
22	An Adaptive Infinite Horizon Model Predictive Control Strategy Applied to an ESP-lifted Oil Well System. IFAC-PapersOnLine, 2021, 54, 176-181.	0.5	7
23	Global Approach for Simulated Moving Bed Model Identification: Design of Experiments, Uncertainty Evaluation, and Optimization Strategy Assessment. Industrial & Engineering Chemistry Research, 2021, 60, 7904-7916.	1.8	7
24	From a Pareto Front to Pareto Regions: A Novel Standpoint for Multiobjective Optimization. Mathematics, 2021, 9, 3152.	1.1	7
25	One-layer gradient-based MPCâ€‰+â€‰RTO strategy for unstable processes: a case study of a CSTR system. Brazilian Journal of Chemical Engineering, 2020, 37, 173-188.	0.7	6
26	Bayesian recursive estimation of linear dynamic system states from measurement information. Measurement: Journal of the International Measurement Confederation, 2012, 45, 1558-1563.	2.5	4
27	Improving the centrifugal compressor map through rigorous thermodynamic modeling: An analysis on a natural gas compression station pipeline. Journal of Natural Gas Science and Engineering, 2021, 92, 104006.	2.1	4
28	Stable distributed MPC with zone control and input targets. Computers and Chemical Engineering, 2021, 155, 107507.	2.0	4
29	A long short-term memory based Quasi-Virtual Analyzer for dynamic real-time soft sensing of a Simulated Moving Bed unit. Applied Soft Computing Journal, 2022, 116, 108318.	4.1	4
30	An MPC auto-tuning framework for tracking economic goals of an ESP-lifted oil well. Journal of Petroleum Science and Engineering, 2022, 217, 110867.	2.1	4
31	ComparaÃ§Ã£o entre os mÃ©todos linear e nÃ£o linear para a avaliaÃ§Ã£o da incerteza de mediÃ§Ã£o. Controle and Automacao, 2010, 21, 557-576.	0.2	3
32	Uncertainty evaluation for multivariate industrial processes. Computer Aided Chemical Engineering, 2012, , 365-369.	0.3	2
33	A novel Bayesian approach to reliability modeling: The benefits of uncertainty evaluation in the model selection procedure. Quality and Reliability Engineering International, 2018, 34, 1127-1141.	1.4	2
34	Novel Switch Stabilizing Model Predictive Control Strategy Applied in the Control of a Simulated Moving Bed for the Separation of Bi-Naphthol Enantiomers. Industrial & Engineering Chemistry Research, 2020, 59, 1979-1988.	1.8	2
35	A Robust Model Predictive Controller applied to a Pressure Swing Adsorption Process: An Analysis Based on a Linear Model Mismatch. IFAC-PapersOnLine, 2021, 54, 219-224.	0.5	2
36	On application of a zone IHMPC to an ESP-lifted oil well system. , 0, , .		2

#	Article	IF	Citations
37	An implementable zone NMPC applied to an ESP-lifted oil well system: Handling the lack of measurements with nonlinear state estimator coupling. Journal of Petroleum Science and Engineering, 2022, 216, 110816.	2.1	2
38	Abnormal Operation Tracking through Big-Data-Based Gramâ€“Schmidt Orthogonalization: Production of n-Propyl Propionate in a Simulated Moving-Bed Reactor: A Case Study. Industrial & Engineering Chemistry Research, 2021, 60, 4060-4071.	1.8	1
39	A stabilizing cooperative-distributed gradient-based economic model predictive control strategy for constrained linear systems. Journal of Process Control, 2022, 112, 36-48.	1.7	1
40	Implementable MPC-based surge avoidance nonlinear control strategies for non-ideally modeled natural gas compression systems. Journal of Natural Gas Science and Engineering, 2022, 102, 104573.	2.1	1
41	MÃ©todos clÃ¡ssicos para a avaliaÃ§Ã£o da incerteza de mediÃ§Ã£o em sistemas multivariÃ¡veis. Controle and Automacao, 2012, 23, 430-438.	0.2	0
42	Infinite horizon MPC applied to an industrial FCC converter. , 2013, , .		0
43	Understanding the behavior of an effluent generation indicator throughout uncertainty analysis. Applied Water Science, 2020, 10, 1.	2.8	0
44	A One-Layer Stabilizing Model Predictive Control Strategy of Integrating Systems with Repeated Poles. Journal of Control, Automation and Electrical Systems, 2022, 33, 369-381.	1.2	0