

Jorge Otvio Trierweiler

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

119
papers

1,284
citations

19
h-index

31
g-index

123
ext. papers

1,491
ext. citations

3.2
avg, IF

4.94
L-index

#	Paper	IF	Citations
119	MPC model monitoring and diagnosis for non-square systems. <i>Journal of Process Control</i> , 2021 , 97, 26-44	3.9	1
118	Industrial datasets and a tool for SISO control loops data visualization and analysis. <i>Computers and Chemical Engineering</i> , 2021 , 146, 107198	4	1
117	MTX-LAB controlled by Multi-SISO PID controllers. <i>IFAC-PapersOnLine</i> , 2021 , 54, 457-462	0.7	
116	Model Update Based on Transient Measurements for Model Predictive Control and Hybrid Real-Time Optimization. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 3056-3065	3.9	3
115	Robust extended Kalman filter estimation with moving window through a quadratic programming formulation. <i>Computers and Chemical Engineering</i> , 2021 , 152, 107372	4	1
114	Analysis of total phenolic compounds and caffeine in teas using variable selection approach with two-dimensional fluorescence and infrared spectroscopy. <i>Microchemical Journal</i> , 2021 , 169, 106570	4.8	2
113	Anti-slug control design: Combining first principle modeling with a data-driven approach to obtain an easy-to-fit model-based control. <i>Journal of Petroleum Science and Engineering</i> , 2021 , 207, 109096	4.4	1
112	Determination of the concentration of total phenolic compounds in aged cachaça using two-dimensional fluorescence and mid-infrared spectroscopy. <i>Food Chemistry</i> , 2020 , 329, 127142	8.5	8
111	Study of three drying methods in production of nutritious flours from the fermentation slurry of orange-fleshed sweet potato. <i>Journal of Food Processing and Preservation</i> , 2020 , 44, e14658	2.1	0
110	Food waste biorefinery advocating circular economy: Bioethanol and distilled beverage from sweet potato. <i>Journal of Cleaner Production</i> , 2020 , 268, 121788	10.3	25
109	Conversion of furan over gallium and zinc promoted ZSM-5: The effect of metal and acid sites. <i>Fuel Processing Technology</i> , 2020 , 201, 106319	7.2	10
108	MILP Formulation for Solving and Initializing MINLP Problems Applied to Retrofit and Synthesis of Hydrogen Networks. <i>Processes</i> , 2020 , 8, 1102	2.9	2
107	Prediction of sulfur content in diesel fuel using fluorescence spectroscopy and a hybrid ant colony - Tabu Search algorithm with polynomial bases expansion. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2020 , 206, 104161	3.8	4
106	Channel oriented approach for multivariable model updating using historical data. <i>Computers and Chemical Engineering</i> , 2020 , 143, 107085	4	2
105	Continuous fast pyrolysis of rice husk in a fluidized bed reactor with high feed rates. <i>Chemical Engineering Communications</i> , 2020 , 1-11	2.2	2
104	Production of Partially Deoxygenated Pyrolysis Oil from Switchgrass via Ca(OH) ₂ , CaO, and Ca(COOH) ₂ Cofeeding. <i>Energy & Fuels</i> , 2020 , 34, 12616-12625	4.1	8
103	STATSCANDLEPLOT: A NEW WAY OF MONITORING OPERATIONAL PERFORMANCE INDICATORS. <i>Brazilian Journal of Chemical Engineering</i> , 2019 , 36, 393-408	1.7	

102	Locating poor models in MPC applications. <i>Computers and Chemical Engineering</i> , 2019 , 130, 106545	4	4
101	A SIMPLE EQUATION FOR TOTAL REDUCING SUGARS (TRS) ESTIMATION ON SWEET POTATO AND ETHANOL YIELD POTENTIAL. <i>Brazilian Journal of Chemical Engineering</i> , 2019 , 36, 33-41	1.7	5
100	K-RANK: AN EVOLUTION OF Y-RANK FOR MULTIPLE SOLUTIONS PROBLEM. <i>Brazilian Journal of Chemical Engineering</i> , 2019 , 36, 409-419	1.7	2
99	Tuning of Fractional Order PID Controllers based on the Frequency Response Approximation Method. <i>IFAC-PapersOnLine</i> , 2019 , 52, 982-987	0.7	3
98	A novel PID autotuning approach: how to correct bad tuning by closed-loop performance assessment. <i>IFAC-PapersOnLine</i> , 2019 , 52, 184-189	0.7	3
97	Oscillation Detection and Diagnosis in Process Industries by Pattern Recognition Technique. <i>IFAC-PapersOnLine</i> , 2019 , 52, 299-304	0.7	8
96	PDG Pressure Estimation in Offshore Oil Well: Extended Kalman Filter vs. Artificial Neural Networks. <i>IFAC-PapersOnLine</i> , 2019 , 52, 508-513	0.7	2
95	A new approach to estimate the Minimum Variance Control law for Nonminimum phase Multivariable Systems. <i>IFAC-PapersOnLine</i> , 2019 , 52, 886-891	0.7	0
94	MIMO PID tuning for nonminimum phase systems: setting attainable limits for a stable behaviour. <i>IFAC-PapersOnLine</i> , 2019 , 52, 964-969	0.7	0
93	Robust Tuning for Classical MPC through the Multi-scenarios Approach. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 3146-3158	3.9	11
92	Oscillation detection in process industries [Part I: Review of the detection methods. <i>Journal of Process Control</i> , 2019 , 78, 108-123	3.9	18
91	Oscillation detection in process industries [Part II: Industrial application. <i>Journal of Process Control</i> , 2019 , 78, 139-154	3.9	2
90	Raman spectroscopy for monitoring carotenoids in processed <i>Bunchosia glandulifera</i> pulps. <i>Food Chemistry</i> , 2019 , 294, 565-571	8.5	8
89	Deoxygenation of Biomass Pyrolysis Vapors via in Situ and ex Situ Thermal and Biochar Promoted Upgrading. <i>Energy & Fuels</i> , 2019 , 33, 2197-2207	4.1	21
88	10% increase in oil production through a field applied APC in a Petrobras ultra-deepwater well. <i>Control Engineering Practice</i> , 2019 , 91, 104108	3.9	5
87	Oscillation Detection in Process Industries by a Machine Learning-Based Approach. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 14180-14192	3.9	6
86	Comparison of Kalman filter-based approaches for permanent downhole gauge pressure estimation in offshore oil production. <i>Journal of Petroleum Science and Engineering</i> , 2019 , 182, 106254	4.4	2
85	Determination of Remaining Useful Life in Cyclic Processes. <i>Industrial & Engineering Chemistry Research</i> , 2019 , 58, 22048-22063	3.9	2

84	Model assessment of MPCs with control ranges: An industrial application in a delayed coking unit. <i>Control Engineering Practice</i> , 2019 , 84, 261-273	3.9	6
83	Preheating Followed by Simultaneous Viscosity Reduction, Hydrolysis, and Fermentation: Simplifying the Process of Ethanol Production from Sweet Potato. <i>Bioenergy Research</i> , 2019 , 12, 94-102	3.1	5
82	Are complex black-box models for Permanent Downhole Gauge pressure estimation necessary?. <i>Journal of Petroleum Science and Engineering</i> , 2019 , 173, 715-732	4.4	4
81	Slugging attenuation using Nonlinear Model Predictive Control in offshore oil production. <i>Journal of Petroleum Science and Engineering</i> , 2018 , 165, 187-198	4.4	6
80	Fluidized Bed Catalytic Pyrolysis of Eucalyptus over HZSM-5: Effect of Acid Density and Gallium Modification on Catalyst Deactivation. <i>Energy & Fuels</i> , 2018 , 32, 1771-1778	4.1	26
79	Stiction detection in low sampling rate signals. <i>Canadian Journal of Chemical Engineering</i> , 2018 , 96, 1735-1745	3	3
78	Oil production increase in unstable gas lift systems through nonlinear model predictive control. <i>Journal of Process Control</i> , 2018 , 69, 58-69	3.9	9
77	Development of a quantitative approach using Raman spectroscopy for carotenoids determination in processed sweet potato. <i>Food Chemistry</i> , 2018 , 245, 1224-1231	8.5	19
76	Signal Preprocessing for Stiction Detection Methods. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 302-315	3.9	8
75	Parameter estimation of models with limit cycle based on the reformulation of the objective function. <i>Computers and Chemical Engineering</i> , 2018 , 109, 236-248	4	3
74	New methodology for parameter estimation of offshore slug models with Hopf bifurcation. <i>Computers and Chemical Engineering</i> , 2018 , 117, 247-255	4	1
73	Orange-Fleshed Sweet Potato Flour Obtained by Drying in Microwave and Hot Air. <i>Journal of Food Processing and Preservation</i> , 2017 , 41, e12744	2.1	6
72	Fast Offshore Wells Model (FOWM): A practical dynamic model for multiphase oil production systems in deepwater and ultra-deepwater scenarios. <i>Computers and Chemical Engineering</i> , 2017 , 99, 304-313	4	14
71	Classification of Diesel Fuel Using Two-Dimensional Fluorescence Spectroscopy. <i>Energy & Fuels</i> , 2017 , 31, 8942-8950	4.1	5
70	Model Predictive Control Tuning Strategy for Non-Square Systems and Range Controlled Variables Based on Multi-Scenarios Approach. <i>Industrial & Engineering Chemistry Research</i> , 2017 , 56, 11496-11506	3.9	5
69	The Effect of the Sampling Period on Stiction Detection Methods. <i>IFAC-PapersOnLine</i> , 2017 , 50, 2848-2853	3.7	4
68	MPC Model Assessment of Highly Coupled Systems. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 12880-12895	3.9	4
67	Data-Based Method To Diagnose Valve Stiction with Variable Reference Signal. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 10316-10327	3.9	18

66	Diagnosis of Poor Performance in Model Predictive Controllers: Unmeasured Disturbance versus Model-Plant Mismatch. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 11566-11582	3.9	6
65	Ethanol production from sweet potato: The effect of ripening, comparison of two heating methods, and cost analysis. <i>Canadian Journal of Chemical Engineering</i> , 2016 , 94, 716-724	2.3	14
64	Perspectives and challenges in performance assessment of model predictive control. <i>Canadian Journal of Chemical Engineering</i> , 2016 , 94, 1225-1241	2.3	11
63	The Importance of Nominal Operating Point Selection in Self-Optimizing Control. <i>Industrial & Engineering Chemistry Research</i> , 2016 , 55, 7381-7393	3.9	4
62	Model Performance Assessment of a Predictive Controller for Propylene/Propane Separation. <i>IFAC-PapersOnLine</i> , 2016 , 49, 978-983	0.7	2
61	Variability Reduction Estimation for SISO Systems through Unmeasured Disturbance Estimation. <i>IFAC-PapersOnLine</i> , 2016 , 49, 377-382	0.7	
60	Development of Ant Colony Optimization (ACO) Algorithms Based on Statistical Analysis and Hypothesis Testing for Variable Selection. <i>IFAC-PapersOnLine</i> , 2015 , 48, 900-905	0.7	7
59	Sulfur Determination in Diesel using 2D Fluorescence Spectroscopy and Linear Models. <i>IFAC-PapersOnLine</i> , 2015 , 48, 415-420	0.7	4
58	Assessment of Model-Plant Mismatch by the Nominal Sensitivity Function for Unconstrained MPC. <i>IFAC-PapersOnLine</i> , 2015 , 48, 753-758	0.7	3
57	PLANTWIDE PERIODICAL DISTURBANCES ISOLATION AND ELIMINATION IN A PETROCHEMICAL UNIT. <i>Brazilian Journal of Chemical Engineering</i> , 2015 , 32, 919-927	1.7	
56	Methodology for Detecting Model-Plant Mismatches Affecting Model Predictive Control Performance. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 12072-12085	3.9	29
55	NIR pre-selection data using modified changeable size moving window partial least squares and pure spectral chemometrical modeling with ant colony optimization for wheat flour characterization. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2015 , 142, 78-86	3.8	8
54	Simultaneous cold hydrolysis and fermentation of fresh sweet potato. <i>Biomass and Bioenergy</i> , 2014 , 70, 174-183	5.3	26
53	The Effect of Water on Furan Conversion over ZSM-5. <i>ChemCatChem</i> , 2014 , 6, 2497-2500	5.2	13
52	Comparison of linear and nonlinear model predictive control of wind turbines using LIDAR 2014 ,		16
51	Observability analysis and model formulation for nonlinear state estimation. <i>Applied Mathematical Modelling</i> , 2014 , 38, 5407-5420	4.5	7
50	A heuristic Lagrangean approach for the synthesis of multiperiod heat exchanger networks. <i>Applied Thermal Engineering</i> , 2014 , 63, 177-191	5.8	25
49	Fast microwave-assisted pyrolysis of microalgae using microwave absorbent and HZSM-5 catalyst. <i>Bioresource Technology</i> , 2014 , 166, 518-26	11	117

48	Fast microwave assisted pyrolysis of biomass using microwave absorbent. <i>Bioresource Technology</i> , 2014 , 156, 267-74	11	141
47	Growth of microalgae <i>Scenedesmus</i> sp in ethanol vinasse. <i>Brazilian Archives of Biology and Technology</i> , 2014 , 57, 630-635	1.8	34
46	State estimation of chemical engineering systems tending to multiple solutions. <i>Brazilian Journal of Chemical Engineering</i> , 2014 , 31, 771-785	1.7	2
45	Wheat flour characterization using NIR and spectral filter based on Ant Colony Optimization. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2014 , 132, 133-140	3.8	25
44	Optimal heat exchanger network synthesis: A case study comparison. <i>Applied Thermal Engineering</i> , 2013 , 51, 801-826	5.8	91
43	Simultaneous synthesis of heat exchanger networks with operability considerations: Flexibility and controllability. <i>Computers and Chemical Engineering</i> , 2013 , 55, 158-180	4	50
42	Multivariable PID controller design for chemical processes by frequency response approximation. <i>Chemical Engineering Science</i> , 2013 , 88, 1-15	4.4	17
41	Influence of NaNO ₃ concentration and incident light intensity on <i>Nannochloropsis oculata</i> lipid accumulation. <i>Brazilian Archives of Biology and Technology</i> , 2013 , 56, 673-678	1.8	3
40	Evaluation of wavelength selection methods for 2D fluorescence spectra applied to bioprocesses characterization. <i>Brazilian Journal of Chemical Engineering</i> , 2013 , 30, 289-298	1.7	5
39	Laboratory apparatus to evaluate microalgae production. <i>Brazilian Journal of Chemical Engineering</i> , 2013 , 30, 487-497	1.7	9
38	Valve stiction estimation using global optimisation. <i>Control Engineering Practice</i> , 2012 , 20, 379-385	3.9	22
37	State estimators for better bioprocesses operation. <i>Computer Aided Chemical Engineering</i> , 2012 , 1267-1276		5
36	Estimation of Kinetic Parameters of a Polymerization Reactor using Real Data. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 685-690		2
35	Systematic Approaches for PI System Data Compression Tuning. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 309-313		1
34	A New Approach for Practical Identifiability Analysis Applied to Dynamic Phenomenological Models. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 691-696		3
33	Spline Dynamic Matrix: a Novel Representation of Dynamic Models. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 632-637		
32	Fluorescence Spectroscopy as a Tool for Ethanol Fermentation On-line Monitoring. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012 , 45, 940-945		2
31	Practical aspects on nonlinear state estimation. <i>Computer Aided Chemical Engineering</i> , 2012 , 30, 1272-1276		

30	SynFlex: A Computational Framework for Synthesis of Flexible Heat Exchanger Networks. <i>Computer Aided Chemical Engineering</i> , 2011 , 29, 1924-1928	0.6	2
29	Heat integration of an Olefins Plant: Pinch Analysis and mathematical optimization working together. <i>Brazilian Journal of Chemical Engineering</i> , 2011 , 28, 101-116	1.7	8
28	Industrial Production of Polymeric Nanoparticles: Alternatives and Economic Analysis 2011 , 123-138		4
27	Water reuse in tannery beamhouse process. <i>Journal of Cleaner Production</i> , 2010 , 18, 1545-1552	10.3	34
26	Control Strategy for a <i>Zymomonas mobilis</i> Bioreactor Used in Ethanol Production. <i>Computer Aided Chemical Engineering</i> , 2009 , 27, 1605-1610	0.6	3
25	Modeling and Simulation of Nanoparticles Formation Process: A Diffusive Approach. <i>Computer Aided Chemical Engineering</i> , 2009 , 27, 999-1004	0.6	
24	Numerical Pitfalls by State Covariance Computation. <i>Computer Aided Chemical Engineering</i> , 2009 , 27, 1215-1220	0.6	3
23	Multivariable control strategy based on bifurcation analysis of an industrial gas-phase polymerization reactor. <i>Journal of Process Control</i> , 2009 , 19, 530-538	3.9	7
22	Local Thermodynamic Models Networks for Dynamic Process Simulation. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 8529-8541	3.9	3
21	Bypass Design for Control and Optimization of Heat Exchanger Networks. <i>Computer Aided Chemical Engineering</i> , 2009 , 27, 1665-1670	0.6	3
20	A Novel Technique to Estimate Valve Stiction Based on Pattern Recognition. <i>Computer Aided Chemical Engineering</i> , 2009 , 1191-1196	0.6	2
19	Analysis, Control, and Operational Optimization of a <i>Zymomonas mobilis</i> Reactor with Equilibrium Multiplicity. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2009 , 42, 159-164		2
18	Dynamic Behavior and Control in an Industrial Fluidized-Bed Polymerization Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2008 , 47, 6058-6069	3.9	12
17	Data treatment and analysis for on-line dynamic process optimization. <i>Computer Aided Chemical Engineering</i> , 2008 , 25, 519-524	0.6	1
16	A SIMPLE WAY TO GENERATE DYNAMIC MODELS FROM STATIC SIMULATIONS. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2007 , 40, 421-426		
15	Dynamic behaviour and control of an industrial fluidised-bed polymerisation reactor. <i>Computer Aided Chemical Engineering</i> , 2005 , 409-414	0.6	0
14	A feedforward feedback substrate controller based on a Kalman filter for a fed-batch cultivation of <i>Escherichia coli</i> producing phytase. <i>Computers and Chemical Engineering</i> , 2005 , 29, 1113-1120	4	28
13	Tanneries: from waste to sustainability. <i>Brazilian Archives of Biology and Technology</i> , 2005 , 48, 281-289	1.8	7

12	A Novel Tool for Multi-Model PID Controller Design. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2004 , 37, 251-256		6
11	Aspects concerning the use of biosensors for process control: experimental and simulation investigations. <i>Computers and Chemical Engineering</i> , 2003 , 27, 1165-1173	4	28
10	RPN tuning strategy for model predictive control. <i>Journal of Process Control</i> , 2003 , 13, 591-598	3.9	46
9	Application of the RPN methodology for quantification of the operability of the quadruple-tank process. <i>Brazilian Journal of Chemical Engineering</i> , 2002 , 19, 195-206	1.7	7
8	A dynamic model for a FCC UOP stacked converter unit. <i>Computers and Chemical Engineering</i> , 2001 , 25, 851-858	4	21
7	A case study for control structure selection: air separation plant. <i>Journal of Process Control</i> , 2000 , 10, 237-243	3.9	18
6	Simulation and optimization of an industrial PSA unit. <i>Brazilian Journal of Chemical Engineering</i> , 2000 , 17, 695-704	1.7	14
5	A Case Study for Control Structure Selection: Linde Air Separation Plant. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 1998 , 31, 93-98		
4	ROBUST DECENTRALIZED CONTROL OF A CSTR WITH COMPLEX REACTION SCHEME 1995 , 69-74		
3	Alternative Process for Production of Sweet Potato Distilled Beverage. <i>Brazilian Archives of Biology and Technology</i> ,63,	1.8	2
2	Reliable and straightforward PID tuning rules for highly underdamped systems. <i>Brazilian Journal of Chemical Engineering</i> ,1	1.7	0
1	Application of linear and nonlinear mathematical programming to retrofit hydrogen networks. <i>Brazilian Journal of Chemical Engineering</i> ,1	1.7	