

# Jorge Otávio Trierweiler

## List of Publications by Year in descending order

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122  
papers

1,678  
citations

331259

21  
h-index

360668

35  
g-index

123  
all docs

123  
docs citations

123  
times ranked

1666  
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuous fast pyrolysis of rice husk in a fluidized bed reactor with high feed rates. Chemical Engineering Communications, 2021, 208, 1553-1563.	1.5	6
2	MPC model monitoring and diagnosis for non-square systems. Journal of Process Control, 2021, 97, 26-44.	1.7	2
3	Industrial datasets and a tool for SISO control loops data visualization and analysis. Computers and Chemical Engineering, 2021, 146, 107198.	2.0	5
4	Economic performance tracking for nonsquare <scp>MPCs</scp> based on a two-layer approach. Canadian Journal of Chemical Engineering, 2021, 99, .	0.9	0
5	MTX-LAB controlled by Multi-SISO PID controllers. IFAC-PapersOnLine, 2021, 54, 457-462.	0.5	0
6	Model Update Based on Transient Measurements for Model Predictive Control and Hybrid Real-Time Optimization. Industrial & Engineering Chemistry Research, 2021, 60, 3056-3065.	1.8	13
7	Robust extended Kalman filter estimation with moving window through a quadratic programming formulation. Computers and Chemical Engineering, 2021, 152, 107372.	2.0	4
8	Analysis of total phenolic compounds and caffeine in teas using variable selection approach with two-dimensional fluorescence and infrared spectroscopy. Microchemical Journal, 2021, 169, 106570.	2.3	11
9	Anti-slug control design: Combining first principle modeling with a data-driven approach to obtain an easy-to-fit model-based control. Journal of Petroleum Science and Engineering, 2021, 207, 109096.	2.1	1
10	Conversion of furan over gallium and zinc promoted ZSM-5: The effect of metal and acid sites. Fuel Processing Technology, 2020, 201, 106319.	3.7	24
11	MILP Formulation for Solving and Initializing MINLP Problems Applied to Retrofit and Synthesis of Hydrogen Networks. Processes, 2020, 8, 1102.	1.3	5
12	Prediction of sulfur content in diesel fuel using fluorescence spectroscopy and a hybrid ant colony - Tabu Search algorithm with polynomial bases expansion. Chemometrics and Intelligent Laboratory Systems, 2020, 206, 104161.	1.8	7
13	Channel oriented approach for multivariable model updating using historical data. Computers and Chemical Engineering, 2020, 143, 107085.	2.0	2
14	Production of Partially Deoxygenated Pyrolysis Oil from Switchgrass via Ca(OH) <sub>2</sub> , CaO, and Ca(COOH) <sub>2</sub> Cofeeding. Energy & Fuels, 2020, 34, 12616-12625.	2.5	11
15	Determination of the concentration of total phenolic compounds in aged cachaça using two-dimensional fluorescence and mid-infrared spectroscopy. Food Chemistry, 2020, 329, 127142.	4.2	17
16	Study of three drying methods in production of nutritious flours from the fermentation slurry of orange-fleshed sweet potato. Journal of Food Processing and Preservation, 2020, 44, e14658.	0.9	3
17	Food waste biorefinery advocating circular economy: Bioethanol and distilled beverage from sweet potato. Journal of Cleaner Production, 2020, 268, 121788.	4.6	41
18	10% increase in oil production through a field applied APC in a Petrobras ultra-deepwater well. Control Engineering Practice, 2019, 91, 104108.	3.2	9

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19	Oscillation Detection in Process Industries by a Machine Learning-Based Approach. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 14180-14192.	1.8	11
20	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.	2.1	3
21	Determination of Remaining Useful Life in Cyclic Processes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 22048-22063.	1.8	4
22	STATSCANDLEPLOT: A NEW WAY OF MONITORING OPERATIONAL PERFORMANCE INDICATORS. <i>Brazilian Journal of Chemical Engineering</i> , 2019, 36, 393-408.	0.7	0
23	Locating poor models in MPC applications. <i>Computers and Chemical Engineering</i> , 2019, 130, 106545.	2.0	4
24	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.	0.7	10
25	K-RANK: AN EVOLUTION OF Y-RANK FOR MULTIPLE SOLUTIONS PROBLEM. <i>Brazilian Journal of Chemical Engineering</i> , 2019, 36, 409-419.	0.7	4
26	Tuning of Fractional Order PID Controllers based on the Frequency Response Approximation Method. <i>IFAC-PapersOnLine</i> , 2019, 52, 982-987.	0.5	7
27	A novel PID autotuning approach: how to correct bad tuning by closed-loop performance assessment. <i>IFAC-PapersOnLine</i> , 2019, 52, 184-189.	0.5	4
28	Oscillation Detection and Diagnosis in Process Industries by Pattern Recognition Technique. <i>IFAC-PapersOnLine</i> , 2019, 52, 299-304.	0.5	14
29	PDG Pressure Estimation in Offshore Oil Well: Extended Kalman Filter vs. Artificial Neural Networks. <i>IFAC-PapersOnLine</i> , 2019, 52, 508-513.	0.5	2
30	A new approach to estimate the Minimum Variance Control law for Nonminimum phase Multivariable Systems. <i>IFAC-PapersOnLine</i> , 2019, 52, 886-891.	0.5	1
31	MIMO PID tuning for nonminimum phase systems: setting attainable limits for a stable behaviour. <i>IFAC-PapersOnLine</i> , 2019, 52, 964-969.	0.5	2
32	Robust Tuning for Classical MPC through the Multi-scenarios Approach. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 3146-3158.	1.8	11
33	Oscillation detection in process industries – Part I: Review of the detection methods. <i>Journal of Process Control</i> , 2019, 78, 108-123.	1.7	33
34	Oscillation detection in process industries – Part II: Industrial application. <i>Journal of Process Control</i> , 2019, 78, 139-154.	1.7	7
35	Raman spectroscopy for monitoring carotenoids in processed <i>Bunchosia glandulifera</i> pulps. <i>Food Chemistry</i> , 2019, 294, 565-571.	4.2	13
36	Deoxygenation of Biomass Pyrolysis Vapors via in Situ and ex Situ Thermal and Biochar Promoted Upgrading. <i>Energy &amp; Fuels</i> , 2019, 33, 2197-2207.	2.5	26

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37	Model assessment of MPCs with control ranges: An industrial application in a delayed coking unit. <i>Control Engineering Practice</i> , 2019, 84, 261-273.	3.2	7
38	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.	2.2	6
39	Are complex black-box models for Permanent Downhole Gauge pressure estimation necessary?. <i>Journal of Petroleum Science and Engineering</i> , 2019, 173, 715-732.	2.1	5
40	Slugging attenuation using Nonlinear Model Predictive Control in offshore oil production. <i>Journal of Petroleum Science and Engineering</i> , 2018, 165, 187-198.	2.1	8
41	Fluidized Bed Catalytic Pyrolysis of Eucalyptus over HZSM-5: Effect of Acid Density and Gallium Modification on Catalyst Deactivation. <i>Energy &amp; Fuels</i> , 2018, 32, 1771-1778.	2.5	34
42	Stiction detection in low sampling rate signals. <i>Canadian Journal of Chemical Engineering</i> , 2018, 96, 1735-1745.	0.9	3
43	Development of a quantitative approach using Raman spectroscopy for carotenoids determination in processed sweet potato. <i>Food Chemistry</i> , 2018, 245, 1224-1231.	4.2	27
44	Signal Preprocessing for Stiction Detection Methods. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 302-315.	1.8	9
45	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.	2.0	3
46	New methodology for parameter estimation of offshore slug models with Hopf bifurcation. <i>Computers and Chemical Engineering</i> , 2018, 117, 247-255.	2.0	1
47	Oil production increase in unstable gas lift systems through nonlinear model predictive control. <i>Journal of Process Control</i> , 2018, 69, 58-69.	1.7	19
48	Orange-Fleshed Sweet Potato Flour Obtained by Drying in Microwave and Hot Air. <i>Journal of Food Processing and Preservation</i> , 2017, 41, e12744.	0.9	9
49	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.	2.0	18
50	Classification of Diesel Fuel Using Two-Dimensional Fluorescence Spectroscopy. <i>Energy &amp; Fuels</i> , 2017, 31, 8942-8950.	2.5	7
51	Model Predictive Control Tuning Strategy for Non-Square Systems and Range Controlled Variables Based on Multi-Scenarios Approach. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 11496-11506.	1.8	7
52	The Effect of the Sampling Period on Stiction Detection Methods. <i>IFAC-PapersOnLine</i> , 2017, 50, 2848-2853.	0.5	4
53	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.	0.9	20
54	Perspectives and challenges in performance assessment of model predictive control. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 1225-1241.	0.9	13

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55	The Importance of Nominal Operating Point Selection in Self-Optimizing Control. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 7381-7393.	1.8	6
56	Model Performance Assessment of a Predictive Controller for Propylene/Propane Separation. <i>IFAC-PapersOnLine</i> , 2016, 49, 978-983.	0.5	3
57	Variability Reduction Estimation for SISO Systems through Unmeasured Disturbance Estimation. <i>IFAC-PapersOnLine</i> , 2016, 49, 377-382.	0.5	0
58	MPC Model Assessment of Highly Coupled Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 12880-12895.	1.8	4
59	Data-Based Method To Diagnose Valve Stiction with Variable Reference Signal. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 10316-10327.	1.8	24
60	Diagnosis of Poor Performance in Model Predictive Controllers: Unmeasured Disturbance versus Model-Plant Mismatch. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 11566-11582.	1.8	8
61	Sulfur Determination in Diesel using 2D Fluorescence Spectroscopy and Linear Models. <i>IFAC-PapersOnLine</i> , 2015, 48, 415-420.	0.5	5
62	Assessment of Model-Plant Mismatch by the Nominal Sensitivity Function for Unconstrained MPC. <i>IFAC-PapersOnLine</i> , 2015, 48, 753-758.	0.5	5
63	PLANTWIDE PERIODICAL DISTURBANCES ISOLATION AND ELIMINATION IN A PETROCHEMICAL UNIT. <i>Brazilian Journal of Chemical Engineering</i> , 2015, 32, 919-927.	0.7	0
64	Methodology for Detecting Model-Plant Mismatches Affecting Model Predictive Control Performance. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 12072-12085.	1.8	32
65	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.	1.8	10
66	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.	0.5	9
67	ESTUDO COMPARATIVO DE METODOLOGIAS PARA AVALIAÇÃO DE MODELOS DE CONTROLADORES PREDITIVOS APLICADAS A UMA UNIDADE DE COQUEAMENTO RETARDADO (COMPARATIVE STUDY OF) <i>Engvista</i> , 2015, 17, 463.	1.0	1
68	Growth of microalgae <i>Scenedesmus</i> sp in ethanol vinasse. <i>Brazilian Archives of Biology and Technology</i> , 2014, 57, 630-635.	0.5	40
69	State estimation of chemical engineering systems tending to multiple solutions. <i>Brazilian Journal of Chemical Engineering</i> , 2014, 31, 771-785.	0.7	2
70	Wheat flour characterization using NIR and spectral filter based on Ant Colony Optimization. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2014, 132, 133-140.	1.8	37
71	Simultaneous cold hydrolysis and fermentation of fresh sweet potato. <i>Biomass and Bioenergy</i> , 2014, 70, 174-183.	2.9	30
72	The Effect of Water on Furan Conversion over ZSM-5. <i>ChemCatChem</i> , 2014, 6, 2497-2500.	1.8	22

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73	Comparison of linear and nonlinear model predictive control of wind turbines using LIDAR. , 2014, , .		19
74	Observability analysis and model formulation for nonlinear state estimation. Applied Mathematical Modelling, 2014, 38, 5407-5420.	2.2	12
75	A heuristic Lagrangean approach for the synthesis of multiperiod heat exchanger networks. Applied Thermal Engineering, 2014, 63, 177-191.	3.0	28
76	Fast microwave-assisted pyrolysis of microalgae using microwave absorbent and HZSM-5 catalyst. Bioresource Technology, 2014, 166, 518-526.	4.8	137
77	Fast microwave assisted pyrolysis of biomass using microwave absorbent. Bioresource Technology, 2014, 156, 267-274.	4.8	166
78	Optimal heat exchanger network synthesis: A case study comparison. Applied Thermal Engineering, 2013, 51, 801-826.	3.0	102
79	Simultaneous synthesis of heat exchanger networks with operability considerations: Flexibility and controllability. Computers and Chemical Engineering, 2013, 55, 158-180.	2.0	58
80	Multivariable PID controller design for chemical processes by frequency response approximation. Chemical Engineering Science, 2013, 88, 1-15.	1.9	18
81	Influence of NaNO <sub>3</sub> concentration and incident light intensity on Nannochloropsis oculata lipid accumulation. Brazilian Archives of Biology and Technology, 2013, 56, 673-678.	0.5	4
82	Evaluation of wavelength selection methods for 2D fluorescence spectra applied to bioprocesses characterization. Brazilian Journal of Chemical Engineering, 2013, 30, 289-298.	0.7	6
83	Laboratory apparatus to evaluate microalgae production. Brazilian Journal of Chemical Engineering, 2013, 30, 487-497.	0.7	13
84	State estimators for better bioprocesses operation. Computer Aided Chemical Engineering, 2012, , 1267-1271.	0.3	7
85	Estimation of Kinetic Parameters of a Polymerization Reactor using Real Data. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 685-690.	0.4	3
86	Systematic Approaches for PI Systemã,,ç Data Compression Tuning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 309-313.	0.4	3
87	A New Approach for Practical Identifiability Analysis Applied to Dynamic Phenomenological Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 691-696.	0.4	6
88	Spline Dynamic Matrix: a Novel Representation of Dynamic Models. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 632-637.	0.4	0
89	Fluorescence Spectroscopy as a Tool for Ethanol Fermentation On-line Monitoring. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 940-945.	0.4	3
90	Valve stiction estimation using global optimisation. Control Engineering Practice, 2012, 20, 379-385.	3.2	28

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91	Practical aspects on nonlinear state estimation. Computer Aided Chemical Engineering, 2012, 30, 1272-1276.	0.3	0
92	SynFlex. Computer Aided Chemical Engineering, 2011, 29, 1924-1928.	0.3	3
93	Heat integration of an Olefins Plant: Pinch Analysis and mathematical optimization working together. Brazilian Journal of Chemical Engineering, 2011, 28, 101-116.	0.7	9
94	Industrial Production of Polymeric Nanoparticles: Alternatives and Economic Analysis. , 2011, , 123-138.		4
95	Water reuse in tannery beamhouse process. Journal of Cleaner Production, 2010, 18, 1545-1552.	4.6	35
96	Control Strategy for a Zymomonas mobilis Bioreactor Used in Ethanol Production. Computer Aided Chemical Engineering, 2009, 27, 1605-1610.	0.3	4
97	Modeling and Simulation of Nanoparticles Formation Process: A Diffusive Approach. Computer Aided Chemical Engineering, 2009, 27, 999-1004.	0.3	0
98	Numerical Pitfalls by State Covariance Computation. Computer Aided Chemical Engineering, 2009, 27, 1215-1220.	0.3	3
99	Multivariable control strategy based on bifurcation analysis of an industrial gas-phase polymerization reactor. Journal of Process Control, 2009, 19, 530-538.	1.7	8
100	Local Thermodynamic Models Networks for Dynamic Process Simulation. Industrial & Engineering Chemistry Research, 2009, 48, 8529-8541.	1.8	3
101	Bypass Design for Control and Optimization of Heat Exchanger Networks. Computer Aided Chemical Engineering, 2009, 27, 1665-1670.	0.3	4
102	A Novel Technique to Estimate Valve Stiction Based on Pattern Recognition. Computer Aided Chemical Engineering, 2009, , 1191-1196.	0.3	2
103	Analysis, Control, and Operational Optimization of a Zymomonas mobilis Reactor with Equilibrium Multiplicity. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 159-164.	0.4	2
104	Dynamic Behavior and Control in an Industrial Fluidized-Bed Polymerization Reactor. Industrial & Engineering Chemistry Research, 2008, 47, 6058-6069.	1.8	18
105	Data treatment and analysis for on-line dynamic process optimization. Computer Aided Chemical Engineering, 2008, 25, 519-524.	0.3	1
106	A SIMPLE WAY TO GENERATE DYNAMIC MODELS FROM STATIC SIMULATIONS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 421-426.	0.4	0
107	Title is missing!. Journal of Process Control, 2007, 17, 189.	1.7	0
108	Dynamic behaviour and control of an industrial fluidised-bed polymerisation reactor. Computer Aided Chemical Engineering, 2005, , 409-414.	0.3	1

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109	A feedforward feedback substrate controller based on a Kalman filter for a fed-batch cultivation of Escherichia coli producing phytase. Computers and Chemical Engineering, 2005, 29, 1113-1120.	2.0	30
110	Tanneries: from waste to sustainability. Brazilian Archives of Biology and Technology, 2005, 48, 281-289.	0.5	10
111	A Novel Tool for Multi-Model PID Controller Design. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2004, 37, 251-256.	0.4	7
112	Aspects concerning the use of biosensors for process control: experimental and simulation investigations. Computers and Chemical Engineering, 2003, 27, 1165-1173.	2.0	34
113	RPN tuning strategy for model predictive control. Journal of Process Control, 2003, 13, 591-598.	1.7	54
114	Application of the RPN methodology for quantification of the operability of the quadruple-tank process. Brazilian Journal of Chemical Engineering, 2002, 19, 195-206.	0.7	12
115	A dynamic model for a FCC UOP stacked converter unit. Computers and Chemical Engineering, 2001, 25, 851-858.	2.0	24
116	A case study for control structure selection: air separation plant. Journal of Process Control, 2000, 10, 237-243.	1.7	22
117	Simulation and optimization of an industrial PSA unit. Brazilian Journal of Chemical Engineering, 2000, 17, 695-704.	0.7	15
118	A Case Study for Control Structure Selection: Linde Air Separation Plant. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 93-98.	0.4	0
119	ROBUST DECENTRALIZED CONTROL OF A CSTR WITH COMPLEX REACTION SCHEME. , 1995, , 69-74.		0
120	Reliable and straightforward PID tuning rules for highly underdamped systems. Brazilian Journal of Chemical Engineering, 0, , 1.	0.7	1
121	Application of linear and nonlinear mathematical programming to retrofit hydrogen networks. Brazilian Journal of Chemical Engineering, 0, , 1.	0.7	0
122	Alternative Process for Production of Sweet Potato Distilled Beverage. Brazilian Archives of Biology and Technology, 0, 63, .	0.5	3