

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	Fast microwave assisted pyrolysis of biomass using microwave absorbent. <i>Bioresource Technology</i> , 2014, 156, 267-274.	4.8	166
2	Fast microwave-assisted pyrolysis of microalgae using microwave absorbent and HZSM-5 catalyst. <i>Bioresource Technology</i> , 2014, 166, 518-526.	4.8	137
3	Optimal heat exchanger network synthesis: A case study comparison. <i>Applied Thermal Engineering</i> , 2013, 51, 801-826.	3.0	102
4	Simultaneous synthesis of heat exchanger networks with operability considerations: Flexibility and controllability. <i>Computers and Chemical Engineering</i> , 2013, 55, 158-180.	2.0	58
5	RPN tuning strategy for model predictive control. <i>Journal of Process Control</i> , 2003, 13, 591-598.	1.7	54
6	Food waste biorefinery advocating circular economy: Bioethanol and distilled beverage from sweet potato. <i>Journal of Cleaner Production</i> , 2020, 268, 121788.	4.6	41
7	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
8	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
9	Water reuse in tannery beamhouse process. <i>Journal of Cleaner Production</i> , 2010, 18, 1545-1552.	4.6	35
10	Aspects concerning the use of biosensors for process control: experimental and simulation investigations. <i>Computers and Chemical Engineering</i> , 2003, 27, 1165-1173.	2.0	34
11	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.	2.5	34
12	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
13	Methodology for Detecting Model-Plant Mismatches Affecting Model Predictive Control Performance. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 12072-12085.	1.8	32
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.	2.0	30
15	Simultaneous cold hydrolysis and fermentation of fresh sweet potato. <i>Biomass and Bioenergy</i> , 2014, 70, 174-183.	2.9	30
16	Valve stiction estimation using global optimisation. <i>Control Engineering Practice</i> , 2012, 20, 379-385.	3.2	28
17	A heuristic Lagrangean approach for the synthesis of multiperiod heat exchanger networks. <i>Applied Thermal Engineering</i> , 2014, 63, 177-191.	3.0	28
18	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

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19	Deoxygenation of Biomass Pyrolysis Vapors via in Situ and ex Situ Thermal and Biochar Promoted Upgrading. <i>Energy & Fuels</i> , 2019, 33, 2197-2207.	2.5	26
20	A dynamic model for a FCC UOP stacked converter unit. <i>Computers and Chemical Engineering</i> , 2001, 25, 851-858.	2.0	24
21	Data-Based Method To Diagnose Valve Stiction with Variable Reference Signal. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 10316-10327.	1.8	24
22	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.	3.7	24
23	A case study for control structure selection: air separation plant. <i>Journal of Process Control</i> , 2000, 10, 237-243.	1.7	22
24	The Effect of Water on Furan Conversion over ZSM-5. <i>ChemCatChem</i> , 2014, 6, 2497-2500.	1.8	22
25	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
26	Comparison of linear and nonlinear model predictive control of wind turbines using LIDAR. , 2014, , .		19
27	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
28	Dynamic Behavior and Control in an Industrial Fluidized-Bed Polymerization Reactor. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 6058-6069.	1.8	18
29	Multivariable PID controller design for chemical processes by frequency response approximation. <i>Chemical Engineering Science</i> , 2013, 88, 1-15.	1.9	18
30	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
31	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.	4.2	17
32	Simulation and optimization of an industrial PSA unit. <i>Brazilian Journal of Chemical Engineering</i> , 2000, 17, 695-704.	0.7	15
33	Oscillation Detection and Diagnosis in Process Industries by Pattern Recognition Technique. <i>IFAC-PapersOnLine</i> , 2019, 52, 299-304.	0.5	14
34	Laboratory apparatus to evaluate microalgae production. <i>Brazilian Journal of Chemical Engineering</i> , 2013, 30, 487-497.	0.7	13
35	Perspectives and challenges in performance assessment of model predictive control. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 1225-1241.	0.9	13
36	Raman spectroscopy for monitoring carotenoids in processed <i>Bunchosia glandulifera</i> pulps. <i>Food Chemistry</i> , 2019, 294, 565-571.	4.2	13

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37	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.	1.8	13
38	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.	0.7	12
39	Observability analysis and model formulation for nonlinear state estimation. <i>Applied Mathematical Modelling</i> , 2014, 38, 5407-5420.	2.2	12
40	Oscillation Detection in Process Industries by a Machine Learning-Based Approach. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 14180-14192.	1.8	11
41	Robust Tuning for Classical MPC through the Multi-scenarios Approach. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 3146-3158.	1.8	11
42	Production of Partially Deoxygenated Pyrolysis Oil from Switchgrass via $\text{Ca}(\text{OH})_2$, CaO , and $\text{Ca}(\text{COOH})_2$ Cofeeding. <i>Energy & Fuels</i> , 2020, 34, 12616-12625.	2.5	11
43	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.	2.3	11
44	Tanneries: from waste to sustainability. <i>Brazilian Archives of Biology and Technology</i> , 2005, 48, 281-289.	0.5	10
45	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
46	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
47	Heat integration of an Olefins Plant: Pinch Analysis and mathematical optimization working together. <i>Brazilian Journal of Chemical Engineering</i> , 2011, 28, 101-116.	0.7	9
48	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
49	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
50	Signal Preprocessing for Stiction Detection Methods. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 302-315.	1.8	9
51	10% increase in oil production through a field applied APC in a Petrobras ultra-deepwater well. <i>Control Engineering Practice</i> , 2019, 91, 104108.	3.2	9
52	Multivariable control strategy based on bifurcation analysis of an industrial gas-phase polymerization reactor. <i>Journal of Process Control</i> , 2009, 19, 530-538.	1.7	8
53	Diagnosis of Poor Performance in Model Predictive Controllers: Unmeasured Disturbance versus Model-Plant Mismatch. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 11566-11582.	1.8	8
54	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

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55	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
56	State estimators for better bioprocesses operation. Computer Aided Chemical Engineering, 2012, , 1267-1271.	0.3	7
57	Classification of Diesel Fuel Using Two-Dimensional Fluorescence Spectroscopy. Energy & Fuels, 2017, 31, 8942-8950.	2.5	7
58	Model Predictive Control Tuning Strategy for Non-Square Systems and Range Controlled Variables Based on Multi-Scenarios Approach. Industrial & Engineering Chemistry Research, 2017, 56, 11496-11506.	1.8	7
59	Tuning of Fractional Order PID Controllers based on the Frequency Response Approximation Method. IFAC-PapersOnLine, 2019, 52, 982-987.	0.5	7
60	Oscillation detection in process industries “ Part II: Industrial application. Journal of Process Control, 2019, 78, 139-154.	1.7	7
61	Model assessment of MPCs with control ranges: An industrial application in a delayed coking unit. Control Engineering Practice, 2019, 84, 261-273.	3.2	7
62	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
63	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
64	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
65	The Importance of Nominal Operating Point Selection in Self-Optimizing Control. Industrial & Engineering Chemistry Research, 2016, 55, 7381-7393.	1.8	6
66	Preheating Followed by Simultaneous Viscosity Reduction, Hydrolysis, and Fermentation: Simplifying the Process of Ethanol Production from Sweet Potato. Bioenergy Research, 2019, 12, 94-102.	2.2	6
67	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
68	Sulfur Determination in Diesel using 2D Fluorescence Spectroscopy and Linear Models. IFAC-PapersOnLine, 2015, 48, 415-420.	0.5	5
69	Assessment of Model-Plant Mismatch by the Nominal Sensitivity Function for Unconstrained MPC. IFAC-PapersOnLine, 2015, 48, 753-758.	0.5	5
70	Are complex black-box models for Permanent Downhole Gauge pressure estimation necessary?. Journal of Petroleum Science and Engineering, 2019, 173, 715-732.	2.1	5
71	MILP Formulation for Solving and Initializing MINLP Problems Applied to Retrofit and Synthesis of Hydrogen Networks. Processes, 2020, 8, 1102.	1.3	5
72	Industrial datasets and a tool for SISO control loops data visualization and analysis. Computers and Chemical Engineering, 2021, 146, 107198.	2.0	5

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73	Control Strategy for a <i>Zymomonas mobilis</i> Bioreactor Used in Ethanol Production. <i>Computer Aided Chemical Engineering</i> , 2009, 27, 1605-1610.	0.3	4
74	Bypass Design for Control and Optimization of Heat Exchanger Networks. <i>Computer Aided Chemical Engineering</i> , 2009, 27, 1665-1670.	0.3	4
75	Industrial Production of Polymeric Nanoparticles: Alternatives and Economic Analysis. , 2011, , 123-138.		4
76	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.	0.5	4
77	MPC Model Assessment of Highly Coupled Systems. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 12880-12895.	1.8	4
78	The Effect of the Sampling Period on Stiction Detection Methods. <i>IFAC-PapersOnLine</i> , 2017, 50, 2848-2853.	0.5	4
79	Determination of Remaining Useful Life in Cyclic Processes. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 22048-22063.	1.8	4
80	Locating poor models in MPC applications. <i>Computers and Chemical Engineering</i> , 2019, 130, 106545.	2.0	4
81	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
82	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
83	Robust extended Kalman filter estimation with moving window through a quadratic programming formulation. <i>Computers and Chemical Engineering</i> , 2021, 152, 107372.	2.0	4
84	Numerical Pitfalls by State Covariance Computation. <i>Computer Aided Chemical Engineering</i> , 2009, 27, 1215-1220.	0.3	3
85	Local Thermodynamic Models Networks for Dynamic Process Simulation. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 8529-8541.	1.8	3
86	SynFlex. <i>Computer Aided Chemical Engineering</i> , 2011, 29, 1924-1928.	0.3	3
87	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.	0.4	3
88	Systematic Approaches for PI System Data Compression Tuning. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2012, 45, 309-313.	0.4	3
89	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.	0.4	3
90	Model Performance Assessment of a Predictive Controller for Propylene/Propane Separation. <i>IFAC-PapersOnLine</i> , 2016, 49, 978-983.	0.5	3

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91	Stiction detection in low sampling rate signals. Canadian Journal of Chemical Engineering, 2018, 96, 1735-1745.	0.9	3
92	Parameter estimation of models with limit cycle based on the reformulation of the objective function. Computers and Chemical Engineering, 2018, 109, 236-248.	2.0	3
93	Comparison of Kalman filter-based approaches for permanent downhole gauge pressure estimation in offshore oil production. Journal of Petroleum Science and Engineering, 2019, 182, 106254.	2.1	3
94	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
95	Alternative Process for Production of Sweet Potato Distilled Beverage. Brazilian Archives of Biology and Technology, 0, 63, .	0.5	3
96	A Novel Technique to Estimate Valve Stiction Based on Pattern Recognition. Computer Aided Chemical Engineering, 2009, , 1191-1196.	0.3	2
97	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
98	State estimation of chemical engineering systems tending to multiple solutions. Brazilian Journal of Chemical Engineering, 2014, 31, 771-785.	0.7	2
99	PDG Pressure Estimation in Offshore Oil Well: Extended Kalman Filter vs. Artificial Neural Networks. IFAC-PapersOnLine, 2019, 52, 508-513.	0.5	2
100	MIMO PID tuning for nonminimum phase systems: setting attainable limits for a stable behaviour. IFAC-PapersOnLine, 2019, 52, 964-969.	0.5	2
101	Channel oriented approach for multivariable model updating using historical data. Computers and Chemical Engineering, 2020, 143, 107085.	2.0	2
102	MPC model monitoring and diagnosis for non-square systems. Journal of Process Control, 2021, 97, 26-44.	1.7	2
103	Dynamic behaviour and control of an industrial fluidised-bed polymerisation reactor. Computer Aided Chemical Engineering, 2005, , 409-414.	0.3	1
104	Data treatment and analysis for on-line dynamic process optimization. Computer Aided Chemical Engineering, 2008, 25, 519-524.	0.3	1
105	New methodology for parameter estimation of offshore slug models with Hopf bifurcation. Computers and Chemical Engineering, 2018, 117, 247-255.	2.0	1
106	A new approach to estimate the Minimum Variance Control law for Nonminimum phase Multivariable Systems. IFAC-PapersOnLine, 2019, 52, 886-891.	0.5	1
107	Reliable and straightforward PID tuning rules for highly underdamped systems. Brazilian Journal of Chemical Engineering, 0, , 1.	0.7	1
108	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

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109	ESTUDO COMPARATIVO DE METODOLOGIAS PARA AVALIAÇÃO DE MODELOS DE CONTROLADORES PREDITIVOS APLICADAS A UMA UNIDADE DE COQUEAMENTO RETARDADO (COMPARATIVE STUDY OF) Tj ETQq1 1,0,784314 rgBT /Ove Engevista, 2015, 17, 463.	0,1	1
110	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
111	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
112	Title is missing!. Journal of Process Control, 2007, 17, 189.	1.7	0
113	Modeling and Simulation of Nanoparticles Formation Process: A Diffusive Approach. Computer Aided Chemical Engineering, 2009, 27, 999-1004.	0.3	0
114	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
115	PLANTWIDE PERIODICAL DISTURBANCES ISOLATION AND ELIMINATION IN A PETROCHEMICAL UNIT. Brazilian Journal of Chemical Engineering, 2015, 32, 919-927.	0.7	0
116	Variability Reduction Estimation for SISO Systems through Unmeasured Disturbance Estimation. IFAC-PapersOnLine, 2016, 49, 377-382.	0.5	0
117	STATSCANDLEPLOT: A NEW WAY OF MONITORING OPERATIONAL PERFORMANCE INDICATORS. Brazilian Journal of Chemical Engineering, 2019, 36, 393-408.	0.7	0
118	Economic performance tracking for nonsquare <scp>MPCs</scp> based on a two-layer approach. Canadian Journal of Chemical Engineering, 2021, 99, .	0.9	0
119	MTX-LAB controlled by Multi-SISO PID controllers. IFAC-PapersOnLine, 2021, 54, 457-462.	0.5	0
120	Application of linear and nonlinear mathematical programming to retrofit hydrogen networks. Brazilian Journal of Chemical Engineering, 0, , 1.	0.7	0
121	Practical aspects on nonlinear state estimation. Computer Aided Chemical Engineering, 2012, 30, 1272-1276.	0.3	0
122	ROBUST DECENTRALIZED CONTROL OF A CSTR WITH COMPLEX REACTION SCHEME. , 1995, , 69-74.		0