Christopher L E Swartz

List of Publications by Year
in descending order

Version: 2024-02-01

62	864	471509 17	526287 27
papers	citations	h-index	g-index

62	62	62	507
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamic Modeling of an Industrial Electric Arc Furnace. Industrial & Engineering Chemistry Research, 2005, 44, 8067-8083.	3.7	68
2	Optimization-based assessment of design limitations to air separation plant agility in demand response scenarios. Journal of Process Control, 2015, 33, 37-48.	3.3	62
3	Dynamic modeling and collocationâ€based model reduction of cryogenic air separation units. AICHE Journal, 2016, 62, 1602-1615.	3.6	48
4	Optimal Dynamic Operation of a High-Purity Air Separation Plant under Varying Market Conditions. Industrial & Engineering Chemistry Research, 2016, 55, 9956-9970.	3.7	41
5	Dynamic optimization of electric arc furnace operation. AICHE Journal, 2007, 53, 640-653.	3.6	39
6	Sensitivity analysis of LP-MPC cascade control systems. Journal of Process Control, 2009, 19, 16-24.	3.3	36
7	Multi-rate modeling and economic model predictive control of the electric arc furnace. Journal of Process Control, 2016, 40, 50-61.	3.3	34
8	Dynamic realâ€time optimization with closedâ€loop prediction. AICHE Journal, 2017, 63, 3896-3911.	3.6	29
9	Robust decision making for hybrid process supply chain systems via model predictive control. Computers and Chemical Engineering, 2014, 62, 37-55.	3.8	28
10	Flexibility analysis of process supply chain networks. Computers and Chemical Engineering, 2016, 84, 409-421.	3.8	26
11	Real-time energy management for electric arc furnace operation. Journal of Process Control, 2019, 74, 50-62.	3.3	25
12	Design under uncertainty using parallel multiperiod dynamic optimization. AICHE Journal, 2014, 60, 3151-3168.	3.6	24
13	Design for dynamic operation - A review and new perspectives for an increasingly dynamic plant operating environment. Computers and Chemical Engineering, 2019, 128, 329-339.	3.8	24
14	Approximation of closed-loop prediction for dynamic real-time optimization calculations. Computers and Chemical Engineering, 2017, 103, 23-38.	3.8	22
15	A mixed-integer formulation for back-off under constrained predictive control. Computers and Chemical Engineering, 2008, 32, 2409-2419.	3.8	21
16	Production scheduling in dynamic real-time optimization with closed-loop prediction. Journal of Process Control, 2020, 89, 95-107.	3.3	21
17	Dynamic real-time optimization of distributed MPC systems using rigorous closed-loop prediction. Computers and Chemical Engineering, 2019, 122, 356-371.	3.8	20
18	Dynamic Modeling and Simulation of Basic Oxygen Furnace (BOF) Operation. Processes, 2020, 8, 483.	2.8	20

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19	Optimal operation of process plants under partial shutdown conditions. AICHE Journal, 2013, 59, 4151-4168.	3.6	16
20	Handling multiâ€rate and missing data in variable duration economic model predictive control of batch processes. AICHE Journal, 2017, 63, 2705-2718.	3.6	16
21	Robust online scheduling for optimal short-term operation of cascaded hydropower systems under uncertainty. Journal of Process Control, 2021, 98, 52-65.	3.3	16
22	Preemptive dynamic operation of cryogenic air separation units. AICHE Journal, 2017, 63, 3845-3859.	3.6	15
23	Approximation techniques for dynamic real-time optimization (DRTO) of distributed MPC systems. Computers and Chemical Engineering, 2018, 118, 195-209.	3.8	13
24	Uncertainty management via online scheduling for optimal short-term operation of cascaded hydropower systems. Computers and Chemical Engineering, 2020, 134, 106677.	3.8	13
25	Optimization of Primary Steelmaking Purchasing and Operation under Raw Material Uncertainty. Industrial & Engineering Chemistry Research, 2013, 52, 12383-12398.	3.7	11
26	A Bilevel Programming Formulation for Dynamic Real-time Optimizationâˆ—â€”This work is sponsored by the McMaster Advanced Control Consortium (MACC) and the Ministry of Higher Education (MOHE), Malaysia. IFAC-PapersOnLine, 2015, 48, 906-911.	0.9	11
27	Handling sensor faults in economic model predictive control of batch processes. AICHE Journal, 2019, 65, 617-628.	3.6	11
28	The Optimal Design of a Distillation System for the Flexible Polygeneration of Dimethyl Ether and Methanol Under Uncertainty. Frontiers in Energy Research, 2018, 6, .	2.3	11
29	Simultaneous Solution Strategies for Inclusion of Input Saturation in the Optimal Design of Dynamically Operable Plants. Optimization and Engineering, 2004, 5, 5-24.	2.4	10
30	The utilization of closedâ€loop prediction for dynamic realâ€time optimization. Canadian Journal of Chemical Engineering, 2017, 95, 1968-1978.	1.7	9
31	Closed-loop Formulation for Nonlinear Dynamic Real-time Optimization**This work is sponsored by the McMaster Advanced Control Consortium (MACC) and the Ministry of Higher Education (MOHE), Malaysia. IFAC-PapersOnLine, 2016, 49, 406-411.	0.9	8
32	A dynamic optimization framework for basic oxygen furnace operation. Chemical Engineering Science, 2021, 241, 116653.	3.8	8
33	The use of controller parametrization in the integration of design control. Computer Aided Chemical Engineering, 2004, 17, 239-263.	0.5	7
34	A Multi-rate Moving Horizon Estimation Framework for Electric Arc Furnace Operation**This work is supported by the McMaster Steel Research Center (SRC) and the McMaster Advanced Control Consortium (MACC).. IFAC-PapersOnLine, 2016, 49, 1175-1180.	0.9	7
35	Optimal response under partial plant shutdown with discontinuous dynamic models. Computers and Chemical Engineering, 2016, 86, 120-135.	3.8	7
36	Real-Time Dynamic Optimization-Based Advisory System for Electric Arc Furnace Operation. Industrial & Engineering Chemistry Research, 2018, 57, 13177-13190.	3.7	7

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37	Closedâ€loop dynamic realâ€time optimization with stabilizing model predictive control. AICHE Journal, 2021, 67, e17308.	3.6	7
38	Dynamic real-time optimization for nonlinear systems with Lyapunov stabilizing MPC. Journal of Process Control, 2022, 114, 1-15.	3.3	7
39	NONLINEAR PREDICTIVE CONTROL OF AN ELECTRIC ARC FURNACE. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 285-290.	0.4	6
40	Dynamic Operability Analysis of Process Supply Chains for Forest Industry Transformation. Industrial & Engineering Chemistry Research, 2014, 53, 9825-9840.	3.7	6
41	Supply Chain Monitoring Using Principal Component Analysis. Industrial & Engineering Chemistry Research, 2020, 59, 12487-12503.	3.7	6
42	Input saturation effects in optimizing controlâ€”inclusion within a simultaneous optimization framework. Computers and Chemical Engineering, 2004, 28, 1347-1360.	3.8	5
43	Supply chain design with time-limited transportation contracts. Computers and Chemical Engineering, 2019, 131, 106579.	3.8	5
44	Reference Trajectory Optimization Under Constrained Predictive Control. Canadian Journal of Chemical Engineering, 2007, 85, 454-464.	1.7	4
45	Design for dynamic performance: Application to an air separation unit. , 2011, , .		4
46	A parallel structure exploiting nonlinear programming algorithm for multiperiod dynamic optimization. Computers and Chemical Engineering, 2017, 103, 151-164.	3.8	4
47	Optimization-based Online Decision Support Tool for Electric Arc Furnace Operation * *This work is supported by the McMaster Steel Research Center (SRC) and the McMaster Advanced Control Consortium (MACC).. IFAC-PapersOnLine, 2017, 50, 10784-10789.	0.9	4
48	Multiperiod refinery optimization for mitigating the impact of process unit shutdowns. Computers and Chemical Engineering, 2022, 164, 107873.	3.8	4
49	An optimization framework for scheduling of converter aisle operation in a nickel smelting plant. Computers and Chemical Engineering, 2018, 119, 195-214.	3.8	3
50	Robust model predictive control with embedded multi-scenario closed-loop prediction. Computers and Chemical Engineering, 2021, 149, 107283.	3.8	3
51	Coordination of Distributed MPC Systems via Dynamic Real-time Optimization * *This work is sponsored by the McMaster Advanced Control Consortium (MACC) and the Ministry of Higher Education (MOHE), Malaysia. IFAC-PapersOnLine, 2017, 50, 6184-6189.	0.9	2
52	Robust model predictive control via multi-scenario reference trajectory optimization with closed-loop prediction. Journal of Process Control, 2021, 100, 80-92.	3.3	2
53	Coordination of distributed MPC systems through dynamic real-time optimization with closed-loop prediction. Computer Aided Chemical Engineering, 2017, 40, 1603-1608.	0.5	2
54	Optimization of a multiperiod refinery planning problem under uncertainty. AICHE Journal, 2022, 68, .	3.6	2

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55	Model-based control of multi-unit systems under partial shutdown conditions. , 2009, , .		1
56	Multi-Period Dynamic Optimization for Large-Scale Differential-Algebraic Process Models under Uncertainty. Processes, 2015, 3, 541-567.	2.8	1
57	Coordination of distributed MPC systems using a nonlinear dynamic plant model with closed-loop prediction. Computer Aided Chemical Engineering, 2018, 44, 571-576.	0.5	1
58	Robust Multi-Scenario Dynamic Real-Time Optimization with Embedded Closed-Loop Model Predictive Control. IFAC-PapersOnLine, 2021, 54, 481-486.	0.9	1
59	Economic model predictive control of the electric arc furnace using data-driven multi-rate models. , 2016, , .		0
60	Handling multi-rate and missing data in system identification. , 2017, , .		0
61	Economic Coordination of Distributed Nonlinear MPC Systems using Closed-loop Prediction of a Nonlinear Dynamic Plant. IFAC-PapersOnLine, 2018, 51, 35-40.	0.9	0
62	Design for dynamic operation â€“ A review and new perspectives for a dynamic manufacturing environment. Computer Aided Chemical Engineering, 2018, 44, 43-52.	0.5	0