Darci Odloak

List of Publications by Year
in descending order

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85 papers	1,561 citations	257101 24 h-index	329751 37 g-index
85 all docs	85 docs citations	85 times ranked	857 citing authors

#	Article	IF	Citations
1	A stable MPC with zone control. Journal of Process Control, 2009, 19, 110-122.	1.7	95
2	Observer-based fault diagnosis in chemical plants. Chemical Engineering Journal, 2005, 112, 93-108.	6.6	87
3	Real time optimization (RTO) with model predictive control (MPC). Computers and Chemical Engineering, 2010, 34, 1999-2006.	2.0	81
4	MPC for tracking zone regions. Journal of Process Control, 2010, 20, 506-516.	1.7	71
5	Constrained multivariable control of fluid catalytic cracking converters. Journal of Process Control, 1995, 5, 29-39.	1.7	68
6	Extended robust model predictive control. AICHE Journal, 2004, 50, 1824-1836.	1.8	61
7	One-layer real time optimization of LPG production in the FCC unit: procedure, advantages and disadvantages. Computers and Chemical Engineering, 1998, 22, S191-S198.	2.0	60
8	Industrial implementation of a real-time optimization strategy for maximizing production of LPG in a FCC unit. Computers and Chemical Engineering, 2000, 24, 525-531.	2.0	59
9	MPC for stable linear systems with model uncertainty. Automatica, 2003, 39, 569-583.	3.0	58
10	Multi-model predictive control of an industrial C3/C4 splitter. Control Engineering Practice, 2003, 11, 765-779.	3.2	55
11	Infinite horizon MPC with non-minimal state space feedback. Journal of Process Control, 2009, 19, 473-481.	1.7	44
12	An infinite horizon model predictive control for stable and integrating processes. Computers and Chemical Engineering, 2003, 27, 1113-1128.	2.0	38
13	Robust integration of real time optimization with linear model predictive control. Computers and Chemical Engineering, 2010, 34, 1937-1944.	2.0	34
14	Closed-loop model re-identification of processes under MPC with zone control. Control Engineering Practice, 2009, 17, 551-563.	3.2	33
15	Predictive control applied to heat-exchanger networks. Chemical Engineering and Processing: Process Intensification, 2006, 45, 661-671.	1.8	32
16	A robustly stabilizing model predictive control strategy of stable and unstable processes. Automatica, 2016, 67, 132-143.	3.0	31
17	Robust model predictive control of a pilot plant distillation column. Control Engineering Practice, 2013, 21, 231-241.	3.2	30
18	Robust model predictive control of integrating time delay processes. Journal of Process Control, 2013, 23, 917-932.	1.7	29

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19	A gradient-based strategy for the one-layer RTO+MPC controller. Journal of Process Control, 2014, 24, 435-447.	1.7	29
20	Model predictive control suitable for closed-loop re-identification. Systems and Control Letters, 2014, 69, 23-33.	1.3	29
21	A stable model predictive control for integrating processes. Computers and Chemical Engineering, 2005, 29, 1089-1099.	2.0	28
22	Reference trajectory tuning of model predictive control. Control Engineering Practice, 2016, 50, 1-11.	3.2	28
23	Tuning the Model Predictive Control of a Crude Distillation Unit. ISA Transactions, 2016, 60, 178-190.	3.1	27
24	Enlarging the domain of attraction of stable MPC controllers, maintaining the output performance. Automatica, 2009, 45, 1080-1085.	3.0	26
25	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
26	Output feedback MPC with guaranteed robust stability. Journal of Process Control, 2000, 10, 557-572.	1.7	22
27	Extended robust model predictive control of integrating systems. AICHE Journal, 2007, 53, 1758-1769.	1.8	22
28	Application of an extended IHMPC to an unstable reactor system: Study of feasibility and performance. Journal of Process Control, 2011, 21, 1493-1503.	1.7	21
29	Optimizing model predictive control of an industrial distillation column. Control Engineering Practice, 2011, 19, 1137-1146.	3.2	21
30	Optimization and control of a continuous polymerization reactor. Brazilian Journal of Chemical Engineering, 2012, 29, 807-820.	0.7	19
31	Robust model predictive control of integrating processes. Journal of Process Control, 2003, 13, 101-114.	1.7	18
32	Linear matrix inequality-based robust model predictive control for time-delayed systems. IET Control Theory and Applications, 2012, 6, 37.	1.2	18
33	Closed-loop stable model predictive control of integrating systems with dead time. Journal of Process Control, 2012, 22, 1209-1218.	1.7	16
34	Robust model predictive controller with output feedback and target tracking. IET Control Theory and Applications, 2010, 4, 1377-1390.	1.2	15
35	Robust MPC for systems with output feedback and input saturation. Journal of Process Control, 2005, 15, 837-846.	1.7	14
36	A new treatment of inconsistent quadratic programs in a SQP-based algorithm. Computers and Chemical Engineering, 1998, 22, 1623-1651.	2.0	13

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37	A robust LQR-MPC control strategy with input constraints and control zones. Journal of Process Control, 2018, 64, 89-99.	1.7	13
38	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
39	Stable MPC for tracking with maximal domain of attraction. Journal of Process Control, 2011, 21, 573-584.	1.7	12
40	Using kriging models for real-time process optimisation. Computer Aided Chemical Engineering, 2008, 25, 361-366.	0.3	11
41	One-layer gradient-based MPC + RTO of a propylene/propane splitter. Computers and Chemical Engineering, 2017, 106, 160-170.	2.0	11
42	Model Reduction Using Proper Orthogonal Decomposition and Predictive Control of Distributed Reactor System. Journal of Control Science and Engineering, 2013, 2013, 1-19.	0.8	10
43	INTEGRATING REAL TIME OPTIMIZATION AND MODEL PREDICTIVE CONTROL OF A CRUDE DISTILLATION UNIT. Brazilian Journal of Chemical Engineering, 2019, 36, 1205-1222.	0.7	10
44	Model Predictive Control for changing economic targets. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 384-391.	0.4	9
45	Modeling interleukin-2-based immunotherapy in AIDS pathogenesis. Journal of Theoretical Biology, 2013, 335, 57-78.	0.8	9
46	Infinite Horizon MPC of a Heat-exchanger Network. Chemical Engineering Research and Design, 2006, 84, 1041-1050.	2.7	8
47	Rescue therapy planning based on HIV genotyping testing. Chemical Engineering Science, 2013, 93, 445-466.	1.9	8
48	An Automatic Tuning Method for Model Predictive Control Strategies. Industrial & Engineering Chemistry Research, 2019, 58, 21602-21613.	1.8	8
49	A gradient-based strategy for integrating Real Time Optimizer (RTO) with Model Predictive Control (MPC). IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 33-38.	0.4	6
50	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
51	Stable Model Predictive Control for Integrating Systems with Optimizing Targets. Industrial & Engineering Chemistry Research, 2009, 48, 9141-9150.	1.8	5
52	Combine operations research with molecular biology to stretch pharmacogenomics and personalized medicineâ€”A case study on HIV/AIDS. Computers and Chemical Engineering, 2015, 80, 114-129.	2.0	5
53	LMI-Based Multi-model Predictive Control of an Industrial C3/C4 Splitter. Journal of Control, Automation and Electrical Systems, 2013, 24, 420-429.	1.2	4
54	Reduction of the QP-MPC cascade structure to a single layer MPC. Journal of Process Control, 2014, 24, 1627-1638.	1.7	4

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55	Human immunomodulation and initial HIV spread. Computers and Chemical Engineering, 2016, 84, 255-280.	2.0	4
56	Stable distributed MPC with zone control and input targets. Computers and Chemical Engineering, 2021, 155, 107507.	2.0	4
57	Steady-state simulation and optimization of an air cooled chiller. Case Studies in Thermal Engineering, 2022, 36, 102142.	2.8	4
58	Control of the Neutralization Process with the Generic Model Algorithm. Chemical Engineering and Technology, 1998, 21, 369.	0.9	3
59	An application of metamodels for process optimization. Computer Aided Chemical Engineering, 2006, , 1449-1454.	0.3	3
60	Diagnosis of Abnormal Situations in a Continuous Solution Polymerization Reactor. Macromolecular Theory and Simulations, 2007, 16, 247-261.	0.6	3
61	Stable IHMPC for Unstable Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 6950-6955.	0.4	3
62	Robust Model Predictive Control for Time Delayed Systems with Optimizing Targets and Zone Control. , 0, , .		3
63	Integration of RTO with MPC through the gradient of a convex function. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 268-273.	0.4	3
64	Study of the implementation of a robust MPC in a propylene/propane splitter using rigorous dynamic simulation. Canadian Journal of Chemical Engineering, 2014, 92, 1213-1224.	0.9	3
65	Application of Model Predictive Control to a Continuous Multipleâ€Effect Crystallizer. Chemical Engineering and Technology, 2018, 41, 1406-1416.	0.9	3
66	State Estimation of Gas-Lifted Oil Well Using Nonlinear Filters. Sensors, 2022, 22, 4875.	2.1	3
67	An extended Linear Quadratic Regulator with zone control and input targets. Journal of Process Control, 2015, 29, 33-44.	1.7	2
68	Multi-model MPC with output feedback. Brazilian Journal of Chemical Engineering, 2014, 31, 131-144.	0.7	2
69	Stabilization of Artificial Gas Lift System Using Nonlinear Model Predictive Control with input Target and Control Zones. , 2020, , .		2
70	Robust Integration of RTO and MPC. Computer Aided Chemical Engineering, 2009, , 119-126.	0.3	1
71	Real Time Optimization (RTO) with Model Predictive Control (MPC). Computer Aided Chemical Engineering, 2009, 27, 1365-1370.	0.3	1
72	Internal Excitation Approaches for Closed-loop Identification of Processes Controlled by MPC. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 458-463.	0.4	1

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73	Robust MPC with Output Feedback of Integrating Systems. Journal of Control Science and Engineering, 2012, 2012, 1-10.	0.8	1
74	A zone control strategy for stochastic model predictive control. , 2016, , .		1
75	Hybrid RTO with zone control MPC applied to a Gas-lift system. , 2020, , .		1
76	Stochastic Multilayer Optimization for an Acrylic Acid Reactor. ACS Omega, 2021, 6, 26150-26169.	1.6	1
77	A terminal state contractive nonlinear MPC with output zones and input targets. IFAC-PapersOnLine, 2020, 53, 6025-6030.	0.5	1
78	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
79	Application of IHMPC to an unstable reactor system: study of feasibility and performance. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 284-289.	0.4	0
80	Closed-loop re-identification of an industrial debutanizer column. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 862-867.	0.4	0
81	Infinite horizon MPC applied to an industrial FCC converter. , 2013, , .		0
82	Using Dynsimr to study the implementation of advanced control in a Propylene/Propane Splitter*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 33-38.	0.4	0
83	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
84	Predictive Control of an Industrial Toluene Distillation Column with Economic Objective. , 2011, , .		0
85	An infinite horizon model predictive control for stable, integrating and unstable systems. , 0, , .		0