Gerrit van Straten

List of Publications by Year
in descending order

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Version: 2024-02-01

94 papers	2,648 citations	201674 27 h-index	206112 48 g-index

94 all docs	94 docs citations	94 times ranked	2637 citing authors

#	Article	IF	Citations
1	Effects of Increasing Salinity by Drip Irrigation on Total Grain Weight Show High Yield Potential of Putative Salt-Tolerant Mutagenized Wheat Lines. Sustainability, 2022, 14, 5061.	3.2	2
2	Estimating cultivar-specific salt tolerance model parameters from multi-annual field tests for identification of salt tolerant potato cultivars. Agricultural Water Management, 2021, 252, 106902.	5.6	9
3	An improved methodology to evaluate crop salt tolerance from field trials. Agricultural Water Management, 2019, 213, 375-387.	5.6	27
4	Moisture Dependent Diffusion and Shrinkage in Yam during Drying. International Journal of Food Engineering, 2018, 14, .	1.5	0
5	Distributed mathematical model supporting design and construction of solar collectors for drying. Drying Technology, 2017, 35, 1675-1687.	3.1	6
6	Optimal Day-to-Night Greenhouse Heat Storage: Square-Wave Weather. IFAC-PapersOnLine, 2016, 49, 375-380.	0.9	0
7	Quantitative modeling and analytic assessment of the transcription dynamics of the XlnR regulon in Aspergillus niger. BMC Systems Biology, 2015, 10, 13.	3.0	2
8	Logistic analysis of algae cultivation. Bioresource Technology, 2015, 179, 314-322.	9.6	19
9	Moisture Sorption Isotherms of Broccoli Interpreted with the Flory-Huggins Free Volume Theory. Food Biophysics, 2014, 9, 1-9.	3.0	24
10	Scenario evaluation of open pond microalgae production. Algal Research, 2013, 2, 358-368.	4.6	95
11	Improving dryer energy efficiency and controllability simultaneously by process modification. Computers and Chemical Engineering, 2013, 59, 138-144.	3.8	5
12	Scenario analysis of large scale algae production in tubular photobioreactors. Applied Energy, 2013, 105, 395-406.	10.1	99
13	Synergistic Process Design: Reducing Drying Energy Consumption by Optimal Adsorbent Selection. Industrial & Engineering Chemistry Research, 2013, 52, 6201-6210.	3.7	8
14	A Mixed Integer Formulation for Energy-efficient Multistage Adsorption Dryer Design. Drying Technology, 2012, 30, 873-883.	3.1	10
15	Reducing drying energy consumption by adsorbent property optimization in multistage systems. Computer Aided Chemical Engineering, 2012, 31, 1346-1350.	0.5	0
16	Evaluation of Design Strategies for Time Course Experiments in Genetic Networks: Case Study of the XlnR Regulon in Aspergillus niger. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2012, 9, 1316-1325.	3.0	4
17	On-line detection of toxic components using a microbial fuel cell-based biosensor. Journal of Process Control, 2012, 22, 1755-1761.	3.3	74
18	Anomalies in moisture transport during broccoli drying monitored by MRI?. Faraday Discussions, 2012, 158, 65.	3.2	30

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19	On the controllability and energy sensitivity of heat-integrated desiccant adsorption dryers. Chemical Engineering Science, 2012, 80, 134-147.	3.8	7
20	Effect of Toxic Components on Microbial Fuel Cell-Polarization Curves and Estimation of the Type of Toxic Inhibition. Biosensors, 2012, 2, 255-268.	4.7	35
21	Improving dryer controllability & energy efficiency. Computer Aided Chemical Engineering, 2012, , 847-851.	0.5	1
22	Improving Adsorption Dryer Energy Efficiency by Simultaneous Optimization and Heat Integration. Drying Technology, 2011, 29, 1459-1471.	3.1	20
23	Low Temperature Drying With Air Dehumidified by Zeolite for Food Products: Energy Efficiency Aspect Analysis. International Journal of Food Engineering, 2011, 7, .	1.5	14
24	Kinetic models for detection of toxicity in a microbial fuel cell based biosensor. Biosensors and Bioelectronics, 2011, 26, 3115-3120.	10.1	56
25	Modeling and analysis of the dynamic behavior of the XlnR regulon in Aspergillus niger. BMC Systems Biology, 2011, 5, S14.	3.0	11
26	Modelâ€Based Energy Efficiency Optimization of a Lowâ€Temperature Adsorption Dryer. Chemical Engineering and Technology, 2011, 34, 1723-1732.	1.5	10
27	Autonomous navigation using a robot platform in a sugar beet field. Biosystems Engineering, 2011, 109, 357-368.	4.3	81
28	Design scenarios for flat panel photobioreactors. Applied Energy, 2011, 88, 3342-3353.	10.1	155
29	Evaluation of design strategies for time course experiments in genetic networks. , 2011, , .		0
30	A path following algorithm for mobile robots. Autonomous Robots, 2010, 29, 85-97.	4.8	33
31	Physics-based model for a water-saving greenhouse. Biosystems Engineering, 2010, 105, 149-159.	4.3	13
32	Energy Efficiency of Multi-Stage Adsorption Drying for Low-Temperature Drying. Drying Technology, 2009, 27, 555-564.	3.1	16
33	Assessment of a Two-Stage Zeolite Dryer for Energy-Efficient Drying. Drying Technology, 2009, 27, 1205-1216.	3.1	19
34	Towards an adaptive model for greenhouse control. Computers and Electronics in Agriculture, 2009, 67, 1-8.	7.7	44
35	Darcian permeability constant as indicator for shear stresses in regular scaffold systems for tissue engineering. Biomechanics and Modeling in Mechanobiology, 2009, 8, 499-507.	2.8	61
36	Scaling-up vaccine production: implementation aspects of a biomass growth observer and controller. Bioprocess and Biosystems Engineering, 2009, 32, 289-299.	3.4	4

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37	MULTIâ€OBJECTIVE OPTIMIZATION TO IMPROVE THE PRODUCT RANGE OF BAKING SYSTEMS. Journal of Food Process Engineering, 2009, 32, 709-729.	2.9	22
38	Online automatic tuning and control for fed-batch cultivation. Bioprocess and Biosystems Engineering, 2008, 31, 453-467.	3.4	16
39	Observer design and tuning for biomass growth and kLa using online and offline measurements. Journal of Process Control, 2008, 18, 621-631.	3.3	12
40	Product quality driven design of bakery operations using dynamic optimization. Journal of Food Engineering, 2008, 86, 399-413.	5.2	31
41	Uncertainty analysis of a storage facility under optimal control. Biosystems Engineering, 2008, 99, 67-75.	4.3	1
42	Assessment of near infrared and â€œsoftware sensorâ€•for biomass monitoring and control. Chemometrics and Intelligent Laboratory Systems, 2008, 94, 166-174.	3.5	25
43	Control vector parameterization with sensitivity based refinement applied to baking optimization. Food and Bioproducts Processing, 2008, 86, 130-141.	3.6	29
44	Decision support for dynamic greenhouse climate control strategies. Computers and Electronics in Agriculture, 2008, 60, 18-30.	7.7	47
45	A vision based row detection system for sugar beet. Computers and Electronics in Agriculture, 2008, 60, 87-95.	7.7	123
46	Methodic design of a measurement and control system for climate control in horticulture. Computers and Electronics in Agriculture, 2008, 64, 162-172.	7.7	16
47	Computational Fluid Dynamics for Multistage Adsorption Dryer Design. Drying Technology, 2008, 26, 487-502.	3.1	15
48	Potential of Conceptual Design Methodology for Food Process Innovation. Food Science and Technology International, 2008, 14, 139-149.	2.2	3
49	Bio- and Ecological Systems: Challenges, Accomplishments and Forecasts â€œStatus report prepared by the IFAC Coordinating Committee on Bio- and Ecological Systemsâ€• IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 3458-3469.	0.4	0
50	Quality prediction of bakery products in the initial phase of process design. Innovative Food Science and Emerging Technologies, 2007, 8, 285-298.	5.6	65
51	Multistage Zeolite Drying for Energy-Efficient Drying. Drying Technology, 2007, 25, 1053-1067.	3.1	36
52	Process Integration for Food Drying with Air Dehumidified by Zeolites. Drying Technology, 2007, 25, 225-239.	3.1	44
53	Constant specific growth rate in fed-batch cultivation of Bordetella pertussis using adaptive control. Journal of Biotechnology, 2006, 125, 252-268.	3.8	48
54	A MODEL FOR THE CLIMATE OF AN INNOVATIVE CLOSED GREENHOUSE FOR MODEL BASED CONTROL. Acta Horticulturae, 2006, , 323-330.	0.2	1

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55	Dealing with bio- and ecological complexity: Challenges and opportunities. Annual Reviews in Control, 2006, 30, 91-101.	7.9	10
56	An Autonomous Weeding Robot for Organic Farming. , 2006, , 579-590.		0
57	ISE and Chemfet sensors in greenhouse cultivation. Sensors and Actuators B: Chemical, 2005, 105, 74-80.	7.8	39
58	WATERGY, TOWARDS A CLOSED GREENHOUSE IN SEMI-ARID REGIONS - EXPERIMENT WITH A HEAT EXCHANGER. Acta Horticulturae, 2005, , 845-852.	0.2	6
59	Direct product quality control for energy efficient climate controlled transport of agro-material. Journal of Process Control, 2005, 15, 235-246.	3.3	9
60	Optimisation of product quality and minimisation of its variation in climate controlled operations. Computers and Electronics in Agriculture, 2005, 48, 103-122.	7.7	6
61	An improved experimental and regression methodology for sorption isotherms. Journal of the Science of Food and Agriculture, 2005, 85, 175-185.	3.5	35
62	Sorption isotherms, GAB parameters and isosteric heat of sorption. Journal of the Science of Food and Agriculture, 2005, 85, 1805-1814.	3.5	246
63	RECEDING HORIZON OPTIMAL CONTROL OF A SOLAR GREENHOUSE. Acta Horticulturae, 2005, , 797-806.	0.2	12
64	The sesquiterpene Î±-copaene is induced in tomato leaves infected byBotrytis cinerea. Journal of Plant Interactions, 2005, 1, 163-170.	2.1	19
65	WATERGY: INFRASTRUCTURE FOR PROCESS CONTROL IN A CLOSED GREENHOUSE IN SEMI-ARID REGIONS. Acta Horticulturae, 2005, , 821-828.	0.2	6
66	HYDRION-LINE, TOWARDS A CLOSED SYSTEM FOR WATER AND NUTRIENTS: FEEDBACK CONTROL OF WATER AND NUTRIENTS IN THE DRAIN. Acta Horticulturae, 2005, , 259-266.	0.2	14
67	Field robot event, Wageningen, 5â€“6 June 2003. Computers and Electronics in Agriculture, 2004, 42, 51-58.	7.7	7
68	Benchmarking procedure for full-scale activated sludge plants. Control Engineering Practice, 2004, 12, 315-322.	5.5	9
69	Test of ACW-gradient optimisation algorithm in computation of an optimal control policy for achieving acceptable nitrate concentration of greenhouse lettuce. Mathematics and Computers in Simulation, 2004, 65, 117-126.	4.4	8
70	THE NICOLET LETTUCE MODEL: A THEME WITH VARIATIONS. Acta Horticulturae, 2004, , 71-78.	0.2	3
71	Optimal control of nitrate in lettuce by a hybrid approach: differential evolution and adjustable control weight gradient algorithms. Computers and Electronics in Agriculture, 2003, 40, 179-197.	7.7	31
72	Efficient Differential Evolution algorithms for multimodal optimal control problems. Applied Soft Computing Journal, 2003, 3, 97-122.	7.2	97

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73	Forward and backward uncertainty propagation: an oxidation ditch modelling example. Water Research, 2003, 37, 429-435.	11.3	9
74	Estimation of uncertainties in the performance indices of an oxidation ditch benchmark. Journal of Chemical Technology and Biotechnology, 2002, 77, 1058-1067.	3.2	7
75	A modelling and control structure for product quality control in climate-controlled processing of agro-material. Control Engineering Practice, 2002, 10, 533-548.	5.5	9
76	Oxygen transfer rate estimation in oxidation ditches from clean water measurements. Water Research, 2001, 35, 2058-2064.	11.3	18
77	Sensitivity analysis in oxidation ditch modelling: the effect of variations in stoichiometric, kinetic and operating parameters on the performance indices. Journal of Chemical Technology and Biotechnology, 2001, 76, 430-438.	3.2	17
78	Towards user accepted optimal control of greenhouse climate. Computers and Electronics in Agriculture, 2000, 26, 221-238.	7.7	70
79	Identification and simulated control of greenhouse closed water supply systems. Computers and Electronics in Agriculture, 2000, 26, 361-374.	7.7	18
80	Control of fluid bed tea dryers: controller performance under varying operating conditions. Computers and Electronics in Agriculture, 2000, 29, 217-231.	7.7	12
81	CALIBRATION AND SENSITIVITY ANALYSIS OF A DYNAMIC MODEL FOR CONTROL OF NITRATE IN LETTUCE. Acta Horticulturae, 1999, , 149-156.	0.2	9
82	A recursively identified model for short-term predictions of NH4/NO3 â€“ concentrations in alternating activated sludge processes. Journal of Process Control, 1999, 9, 87-100.	3.3	24
83	l1-norm optimal control of N-removal in an activated sludge process. Control Engineering Practice, 1999, 7, 63-70.	5.5	4
84	Robust optimal receding horizon control of the thermal sterilization of canned foods. Journal of Food Engineering, 1999, 40, 207-218.	5.2	28
85	An evolutionary strategy for fed-batch bioreactor optimization; concepts and performance. Journal of Biotechnology, 1999, 67, 173-187.	3.8	128
86	Acceptance of optimal operation and control methods for greenhouse cultivation. Annual Reviews in Control, 1999, 23, 83-90.	7.9	16
87	Analysis of endogenous process behavior in activated sludge. , 1998, 57, 155-163.		24
88	Estimation of BODst, respiration rate and kinetics of activated sludge. Water Research, 1997, 31, 2278-2286.	11.3	14
89	Comparison of optimization methods for fed-batch cultures of hybridoma cells. Bioprocess and Biosystems Engineering, 1997, 17, 99.	0.5	27
90	EXPERIMENTAL RESULTS OF RECEDING HORIZON OPTIMAL CONTROL OF GREENHOUSE CLIMATE. Acta Horticulturae, 1996, , 229-238.	0.2	26

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91	CLIMATE CONTROL OF NATURAL VENTILATED PIG HOUSES. Acta Horticulturae, 1996, , 81-88.	0.2	1
92	Progress in process operation by goal oriented advanced control. Annual Reviews in Control, 1996, 20, 209-223.	7.9	3
93	Sensitivity Analysis of a Dynamic Growth Model of Lettuce. Biosystems Engineering, 1994, 59, 19-31.	0.4	27
94	Uncertainty and arbitrariness in ecosystems modelling: A lake modelling example. Ecological Modelling, 1981, 13, 87-110.	2.5	72