Maria Soledad Diaz

List of Publications by Year
in descending order

55 papers	662 citations	759233 12 h-index	610901 24 g-index
55 all docs	55 docs citations	55 times ranked	803 citing authors

#	Article	IF	Citations
1	Optimization of an integrated algae-based biorefinery for the production of biodiesel, astaxanthin and PHB. Energy, 2017, 139, 1159-1172.	8.8	89
2	An MPEC formulation for dynamic optimization of distillation operations. Computers and Chemical Engineering, 2004, 28, 2037-2052.	3.8	76
3	Citrus peel oil deterpenation with supercritical fluids. Journal of Supercritical Fluids, 2005, 35, 49-61.	3.2	65
4	Optimal design and planning of biodiesel supply chain with land competition. Computers and Chemical Engineering, 2012, 47, 170-182.	3.8	56
5	Optimal Shutdown Policy for Maintenance of Cracking Furnaces in Ethylene Plants. Industrial & Engineering Chemistry Research, 2006, 45, 2748-2757.	3.7	41
6	Global sensitivity analysis in the development of first principle-based eutrophication models. Environmental Modelling and Software, 2010, 25, 1539-1551.	4.5	31
7	Multiscale strategic planning model for the design of integrated ethanol and gasoline supply chain. AICHE Journal, 2013, 59, 4655-4672.	3.6	26
8	Dynamic modelling and optimisation of cryogenic systems. Applied Thermal Engineering, 2007, 27, 1182-1190.	6.0	23
9	Determination of biogeochemical parameters in eutrophication models with simultaneous dynamic optimization approaches. Computers and Chemical Engineering, 2009, 33, 1760-1769.	3.8	23
10	Design and optimization of poly(hydroxyalkanoate)s production plants using alternative substrates. Bioresource Technology, 2019, 289, 121699.	9.6	21
11	Addressing the control problem of algae growth in water reservoirs with advanced dynamic optimization approaches. Computers and Chemical Engineering, 2009, 33, 2063-2074.	3.8	19
12	Global sensitivity analysis in dynamic metabolic networks. Computers and Chemical Engineering, 2010, 34, 770-781.	3.8	16
13	Dynamic Modeling and Parameter Estimation for Unit Operations in Lignocellulosic Bioethanol Production. Industrial & Engineering Chemistry Research, 2013, 52, 4146-4160.	3.7	13
14	Modeling phytoplankton community in reservoirs. A comparison between taxonomic and functional groups-based models. Journal of Environmental Management, 2016, 165, 31-52.	7.8	12
15	Sustainable and economic analysis of marine macroalgae based chemicals production - Process design and optimization. Journal of Cleaner Production, 2020, 276, 122792.	9.3	12
16	Minimizing Costs in Near-Critical Bioethanol Extraction and Dehydration Processes. Energy & Fuels, 2012, 26, 3785-3795.	5.1	11
17	Surrogate-model based MILP for the optimal design of ethylene production from shale gas. Computers and Chemical Engineering, 2020, 141, 107015.	3.8	10
18	Accelerating the parameters identifiability procedure: Set by set selection. Computers and Chemical Engineering, 2013, 55, 181-197.	3.8	9

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19	Modeling and simulation tools for supercritical fluid processes. Computer Aided Chemical Engineering, 2000, 8, 319-324.	0.5	8
20	Parameter estimation in kinetic models for large scale biotechnological systems with advanced mathematical programming techniques. Biochemical Engineering Journal, 2014, 83, 104-115.	3.6	8
21	Mathematical modelling for ecohydrological management of an endangered endorheic salt lake in the semiarid Pampean region, Argentina. Journal of Hydrology, 2018, 563, 778-789.	5.4	8
22	Optimal design of ethylene and propylene coproduction plants with generalized disjunctive programming and state equipment network models. Computers and Chemical Engineering, 2021, 149, 107295.	3.8	8
23	Parameter Estimation in Kinetic Models for Large Scale Metabolic Networks with Advanced Mathematical Programming Techniques. Computer Aided Chemical Engineering, 2010, , 355-360.	0.5	6
24	Biological Wastewater Treatment. Computer Aided Chemical Engineering, 2012, 30, 212-216.	0.5	6
25	Toward Economically and Environmentally Optimal Operations in Natural Gas Based Petrochemical Sites. Industrial & Engineering Chemistry Research, 2018, 57, 5999-6012.	3.7	6
26	Simultaneous Parameters Identifiability and Estimation of anE. coliMetabolic Network Model. BioMed Research International, 2015, 2015, 1-21.	1.9	5
27	Optimal Design of Poly (3-hydroxybutyrate) Production using alternative Carbon Sources. Computer Aided Chemical Engineering, 2017, , 877-882.	0.5	4
28	Integrated mathematical models for drinking water reservoirs and constructed wetlands as a tool for restoration planning. Journal of Hydrology, 2020, 586, 124867.	5.4	4
29	Simultaneous design of macroalgae-based integrated biorefineries and their heat exchanger network. Computers and Chemical Engineering, 2022, 164, 107885.	3.8	4
30	Supply chain optimisation in a petrochemical complex. Computer Aided Chemical Engineering, 2004, 18, 997-1002.	0.5	3
31	Developing a lake eutrophication model and determining biogeochemical parameters: A large scale parameter estimation problem. Computer Aided Chemical Engineering, 2008, 25, 1113-1118.	0.5	3
32	Global Sensitivity Analysis in dynamic metabolic networks. Computer Aided Chemical Engineering, 2009, , 1075-1080.	0.5	3
33	Optimizing cyanobacteria metabolic network for ethanol production. Computer Aided Chemical Engineering, 2011, 29, 1366-1370.	0.5	3
34	Water Resources Management with Dynamic Optimization Strategies and Integrated Models of Lakes and Artificial Wetlands. Computer Aided Chemical Engineering, 2015, , 2543-2548.	0.5	3
35	Nutraceuticals Production Under a Water-Food-Energy-Waste Integration Concept. Computer Aided Chemical Engineering, 2018, 44, 1933-1938.	0.5	3
36	Coproduction of Ethylene and Propylene based on Ethane and Propane Feedstocks. Computer Aided Chemical Engineering, 2020, , 907-912.	0.5	3

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37	Simultaneous optimization and heat integration of a macroalgae-based biorefinery. Computer Aided Chemical Engineering, 2021, 50, 1581-1586.	0.5	3
38	Energy Consumption Minimization in Bioethanol Dehydration with Supercritical Fluids. Computer Aided Chemical Engineering, 2009, 27, 1833-1838.	0.5	2
39	Cost Minimization in Noncatalytic Biodiesel Production Plants. Computer Aided Chemical Engineering, 2009, 27, 861-866.	0.5	2
40	Addressing Long-Term Biorestoration in Eutrophic Lakes as an Optimal Control Problem, Under Different Scenarios. Computer Aided Chemical Engineering, 2009, 27, 1749-1754.	0.5	2
41	Dynamic Flux Balance Analysis in Cyanobacteria for Ethanol Production with Simultaneous Optimization Approaches. Computer Aided Chemical Engineering, 2014, 33, 1165-1170.	0.5	2
42	Multi-Objective Optimisation in a Petrochemical Complex with LCA considerations. Computer Aided Chemical Engineering, 2016, , 1497-1502.	0.5	2
43	Bioethanol Production with Cyanobacteria by a Two-Stage Fermentation Strategy. Computer Aided Chemical Engineering, 2019, , 499-504.	0.5	2
44	Process optimization and scheduling of parallel furnaces shutdown in large-scale plants. Computer Aided Chemical Engineering, 2006, , 1833-1838.	0.5	1
45	Middle term optimal control problem in eutrophic lakes through advanced mathematical programming approaches. Computer Aided Chemical Engineering, 2009, , 1153-1158.	0.5	1
46	Dynamic optimization of an Intensive Energetically Integrated Large-Scale Process. Computer Aided Chemical Engineering, 2010, 28, 469-474.	0.5	1
47	Design of Optimal Reactive Distillation Processes for ETBE Production using Rigorous Thermodynamic Models. Computer Aided Chemical Engineering, 2014, , 1591-1596.	0.5	1
48	Metabolic Network design of Synechocystis sp. PCC 6803 to obtain bioethanol under autotrophic conditions. Computer Aided Chemical Engineering, 2017, 40, 2857-2862.	0.5	1
49	Photosynthetic Bioplastics Production with Cyanobacteria by Coupled Growth-Production Mutants. Computer Aided Chemical Engineering, 2021, 50, 1917-1922.	0.5	1
50	Large-scale dynamic optimization of an integrated cryogenic process. Computer Aided Chemical Engineering, 2006, , 1477-1482.	0.5	0
51	Design of Stable Large-Scale Metabolic Networks. Computer Aided Chemical Engineering, 2009, 27, 1755-1760.	0.5	0
52	Determination of biorestoration strategies in eutrophic water bodies through the formulation of an optimal control problem based on a 3D ecological model. Computer Aided Chemical Engineering, 2011, 29, 1281-1285.	0.5	0
53	Design of stable metabolic networks. Engineering in Life Sciences, 2017, 17, 908-915.	3.6	0
54	Modelling and advanced dynamic optimisation strategies for hydrological and water quality management in continental water bodies. Computer Aided Chemical Engineering, 2018, 43, 271-277.	0.5	0

#	Article	IF	Citations
55	Sustainable long‐term mitigation of floods and droughts in semiarid regions: Integrated optimal management strategies for a salt lake basin. Ecohydrology, 0, , .	2.4	0