José A Caballero

List of Publications by Year
in descending order

41 papers	1,371 citations	394286 19 h-index	330025 37 g-index
41 all docs	41 docs citations	41 times ranked	884 citing authors

#	Article	IF	Citations
1	An algorithm for the use of surrogate models in modular flowsheet optimization. AICHE Journal, 2008, 54, 2633-2650.	1.8	226
2	Design of distillation sequences: from conventional to fully thermally coupled distillation systems. Computers and Chemical Engineering, 2004, 28, 2307-2329.	2.0	138
3	Generalized Disjunctive Programming Model for the Optimal Synthesis of Thermally Linked Distillation Columns. Industrial & Engineering Chemistry Research, 2001, 40, 2260-2274.	1.8	100
4	Structural Considerations and Modeling in the Synthesis of Heat-Integratedâ˜Thermally Coupled Distillation Sequences. Industrial & Engineering Chemistry Research, 2006, 45, 8454-8474.	1.8	94
5	Mathematical considerations for nonisothermal kinetics in thermal decomposition. Journal of Analytical and Applied Pyrolysis, 2005, 73, 85-100.	2.6	76
6	Synthesis of complex thermally coupled distillation systems including divided wall columns. AICHE Journal, 2013, 59, 1139-1159.	1.8	65
7	Optimal synthesis of thermally coupled distillation sequences using a novel MILP approach. Computers and Chemical Engineering, 2014, 61, 118-135.	2.0	65
8	New kinetic model for thermal decomposition of heterogeneous materials. Industrial & Engineering Chemistry Research, 1995, 34, 806-812.	1.8	63
9	Rigorous design of distillation columns using surrogate models based on <scp>K</scp>riging interpolation. AICHE Journal, 2015, 61, 2169-2187.	1.8	60
10	Rigorous Design of Distillation Columns:â€‰ Integration of Disjunctive Programming and Process Simulators. Industrial & Engineering Chemistry Research, 2005, 44, 6760-6775.	1.8	59
11	Thermodynamically equivalent configurations for thermally coupled distillation. AICHE Journal, 2003, 49, 2864-2884.	1.8	40
12	Systematic approach for the life cycle multi-objective optimization of buildings combining objective reduction and surrogate modeling. Energy and Buildings, 2016, 130, 506-518.	3.1	38
13	An alternative disjunctive optimization model for heat integration with variable temperatures. Computers and Chemical Engineering, 2013, 56, 12-26.	2.0	35
14	Strategies for the robust simulation of thermally coupled distillation sequences. Computers and Chemical Engineering, 2012, 36, 149-159.	2.0	34
15	A new technique for recovering energy in thermally coupled distillation using vapor recompression cycles. AICHE Journal, 2013, 59, 3767-3781.	1.8	34
16	Large scale optimization of a sour water stripping plant using surrogate models. Computers and Chemical Engineering, 2016, 92, 143-162.	2.0	30
17	A novel disjunctive model for the simultaneous optimization and heat integration. Computers and Chemical Engineering, 2017, 96, 149-168.	2.0	27
18	Hybrid simulation-equation based synthesis of chemical processes. Chemical Engineering Research and Design, 2018, 132, 766-784.	2.7	21

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19	Simultaneous environmental and economic process synthesis of isobutane alkylation. Journal of Cleaner Production, 2014, 81, 270-280.	4.6	19
20	Integration of different models in the design of chemical processes: Application to the design of a power plant. Applied Energy, 2014, 124, 256-273.	5.1	19
21	Multiobjective Early Design of Complex Distillation Sequences Considering Economic and Inherent Safety Criteria. Industrial & Engineering Chemistry Research, 2018, 57, 6992-7007.	1.8	19
22	New approach to thermal analysis kinetics by considering several first order reactions. Thermochimica Acta, 2011, 525, 40-49.	1.2	17
23	Kriging-assisted constrained optimization of single-mixed refrigerant natural gas liquefaction process. Chemical Engineering Science, 2021, 241, 116699.	1.9	12
24	Framework for embedding black-box simulation into mathematical programming via kriging surrogate model applied to natural gas liquefaction process optimization. Applied Energy, 2022, 310, 118537.	5.1	11
25	Optimization of Distillation Processes. , 2014, , 437-496.		10
26	Disjunctive-Genetic Programming Approach to Synthesis of Process Networks. Industrial & Engineering Chemistry Research, 2011, 50, 6213-6228.	1.8	9
27	Logic-Based Methods for Generating and Optimizing Thermally Coupled Distillation Systems. Computer Aided Chemical Engineering, 2002, 10, 169-174.	0.3	8
28	Simulation-based optimization of distillation processes using an extended cutting plane algorithm. Computers and Chemical Engineering, 2022, 159, 107655.	2.0	8
29	Thermally Coupled Distillation. Computer Aided Chemical Engineering, 2009, 27, 59-64.	0.3	7
30	Structural considerations in zeotropic distillation sequences with multiple feeds. Computers and Chemical Engineering, 2021, 154, 107475.	2.0	6
31	Mathematical Programming Approach for the Design of Intensified Thermally Coupled Distillation Sequences.. Computer Aided Chemical Engineering, 2016, , 355-360.	0.3	4
32	Design and optimization of energy-efficient single mixed refrigerant LNG liquefaction process. Brazilian Journal of Chemical Engineering, 2021, 38, 669-682.	0.7	4
33	Logic-Sequential Approach to the Synthesis of Complex Thermally Coupled Distillation Systems.. Computer Aided Chemical Engineering, 2011, , 211-215.	0.3	4
34	Synthesis of integrated distillation systems. Computer Aided Chemical Engineering, 2003, , 59-64.	0.3	3
35	Systematic Methods for Inherently Safer Process Design: Comparison among Inherent Safety Indexes by Dimensionality Reduction. Computer Aided Chemical Engineering, 2017, , 1237-1242.	0.3	2
36	Modelling and optimization framework for the multi-objective design of buildings. Computer Aided Chemical Engineering, 2016, , 883-888.	0.3	1

#	Article	IF	Citations
37	Efficient Energy Integration and Design of Distillation Separation Sequences. Computer Aided Chemical Engineering, 2021, , 2083-2088.	0.3	1
38	A Sequential Algorithm for the Rigorous Design of Thermally Coupled Distillation Sequences. Computer Aided Chemical Engineering, 2015, 37, 1019-1024.	0.3	1
39	Synthesis of Complex Distillation Sequences with Multiple Feeds. Computer Aided Chemical Engineering, 2020, 48, 811-816.	0.3	1
40	Logic based algorithms for the rigorous design of thermally coupled distillation sequences. Computer Aided Chemical Engineering, 2007, , 351-356.	0.3	0
41	Isobutane Alkylation Process Synthesis by means of Hybrid Simulation-Multiobjective Optimization. Computer Aided Chemical Engineering, 2014, 33, 1369-1374.	0.3	0