List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Evaluation of different cleaning agents used for cleaning ultra filtration membranes fouled by surface water. Journal of Membrane Science, 2007, 304, 40-49.	8.2	157
2	Optimal design of a multi-product biorefinery system. Computers and Chemical Engineering, 2011, 35, 1752-1766.	3.8	144
3	Methanol production from captured CO2 using hydrogenation and reforming technologies_ environmental and economic evaluation. Journal of CO2 Utilization, 2019, 34, 1-11.	6.8	100
4	Dynamic hydrogen production from PV & wind direct electricity supply – Modeling and techno-economic assessment. International Journal of Hydrogen Energy, 2020, 45, 29938-29952.	7.1	100
5	Methanol production by CO2 hydrogenation: Analysis and simulation of reactor performance. International Journal of Hydrogen Energy, 2019, 44, 7915-7933.	7.1	90
6	Modeling alkaline water electrolysis for power-to-x applications: A scheduling approach. International Journal of Hydrogen Energy, 2021, 46, 9303-9313.	7.1	84
7	A systematic framework for the feasibility and technical evaluation of reactive distillation processes. Chemical Engineering and Processing: Process Intensification, 2012, 60, 55-64.	3.6	64
8	An outlook towards hydrogen supply chain networks in 2050 — Design of novel fuel infrastructures in Germany. Chemical Engineering Research and Design, 2018, 134, 90-103.	5.6	63
9	Polyphenol extraction from fresh tea leaves by pulsed electric field: A study of mechanisms. Chemical Engineering Research and Design, 2016, 109, 586-592.	5.6	48
10	Gas Holdup, Axial Dispersion, and Mass Transfer Studies in Bubble Columns. Industrial & Engineering Chemistry Research, 2012, 51, 14268-14278.	3.7	46
11	Development and implementation of supply chain optimization framework for CO 2 capture and storage in the Netherlands. Computers and Chemical Engineering, 2017, 102, 40-51.	3.8	42
12	lonic Liquid as a Selective Capture Method of CO ₂ from Different Sources: Comparison with MEA. ACS Sustainable Chemistry and Engineering, 2018, 6, 4845-4853.	6.7	38
13	An outlook towards 2030: Optimization and design of a CCUS supply chain in Germany. Computers and Chemical Engineering, 2019, 125, 499-513.	3.8	38
14	Statistical analysis of data from accelerated ageing tests of PES UF membranes. Journal of Membrane Science, 2007, 300, 111-116.	8.2	37
15	Optimization of CCUS supply chains in the UK: A strategic role for emissions reduction. Chemical Engineering Research and Design, 2020, 155, 211-228.	5.6	35
16	An integrated methodology for the economic and environmental assessment of a biorefinery supply chain. Chemical Engineering Research and Design, 2020, 160, 199-215.	5.6	34
17	Superstructure optimization of an integrated algae biorefinery. Computers and Chemical Engineering, 2019, 130, 106530.	3.8	33
18	Development of a dynamic model for cleaning ultra filtration membranes fouled by surface water. Journal of Membrane Science, 2007, 289, 26-31.	8.2	29

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19	Sustainable utilization and storage of carbon dioxide: Analysis and design of an innovative supply chain. Computers and Chemical Engineering, 2019, 131, 106569.	3.8	28
20	Phenol extraction with Cyanex 923: Kinetics of the solvent impregnated resin application. Reactive and Functional Polymers, 2009, 69, 264-271.	4.1	26
21	Expanding the lifetime of Li-ion batteries through optimization of charging profiles. Journal of Cleaner Production, 2019, 225, 928-938.	9.3	26
22	Scenario Analysis of Carbon Capture, Utilization (Particularly Producing Methane and Methanol), and Storage (CCUS) Systems. Industrial & Engineering Chemistry Research, 2020, 59, 6961-6976.	3.7	24
23	Modeling and optimization of a sequence of chemical cleaning cycles in dead-end ultrafiltration. Journal of Membrane Science, 2008, 308, 207-217.	8.2	20
24	Scheduling in the FMCG Industry: An Industrial Case Study. Industrial & Engineering Chemistry Research, 2012, 51, 7800-7815.	3.7	20
25	Balancing costs, safety and CO2 emissions in the design of hydrogen supply chains. Computers and Chemical Engineering, 2019, 129, 106493.	3.8	20
26	Modeling and optimization of membrane lifetime in dead-end ultra filtration. Journal of Membrane Science, 2008, 322, 46-51.	8.2	19
27	Dynamic optimization of chemical cleaning in dead-end ultra filtration. Journal of Membrane Science, 2008, 307, 309-313.	8.2	19
28	Solvent Swing Adsorption for the Recovery of Polyphenols from Black Tea. Industrial & Engineering Chemistry Research, 2015, 54, 434-442.	3.7	19
29	Influence of liquid back mixing on a kinetically controlled reactive distillation process. Chemical Engineering Science, 2012, 68, 184-191.	3.8	18
30	Product-driven process synthesis: Extraction of polyphenols from tea. Journal of Food Engineering, 2017, 196, 113-122.	5.2	18
31	Pilot-scale production process for high internal phase emulsions: Experimentation and modeling. Chemical Engineering Science, 2016, 148, 32-43.	3.8	17
32	Analysis and optimization of carbon supply chains integrated to a power to gas process in Italy. Journal of Cleaner Production, 2020, 269, 122172.	9.3	17
33	A generic superstructure modeling and optimization framework on the example of bi-criteria Power-to-Methanol process design. Computers and Chemical Engineering, 2021, 150, 107327.	3.8	17
34	Integration of carbon dioxide and hydrogen supply chains. Computer Aided Chemical Engineering, 2018, , 1413-1418.	0.5	16
35	Population balances combined with Computational Fluid Dynamics: A modeling approach for dispersive mixing in a high pressure homogenizer. Chemical Engineering Science, 2014, 117, 376-388.	3.8	15
36	Influence of Physical Properties and Process Conditions on Entrainment Behavior in a Static-Mixer Settler Setup. Industrial & Engineering Chemistry Research, 2013, 52, 2958-2968.	3.7	14

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37	A decision support platform for a bio-based supply chain: Application to the region of Lower Saxony and Bremen (Germany) Computers and Chemical Engineering, 2018, 115, 233-242.	3.8	14
38	Design of Renewable and System-Beneficial District Heating Systems Using a Dynamic Emission Factor for Grid-Sourced Electricity. Energies, 2020, 13, 619.	3.1	14
39	Pilot-scale experimental validation of unsaturated polyesters synthesis by reactive distillation. Chemical Engineering Journal, 2012, 213, 175-185.	12.7	13
40	Using product driven process synthesis in the biorefinery. Computers and Chemical Engineering, 2016, 91, 257-268.	3.8	13
41	Development of a multi-objective coagulation system for long-term fouling control in dead-end ultrafiltration. Journal of Membrane Science, 2008, 325, 823-830.	8.2	12
42	Modeling and optimization of green tea precipitation for the recovery of catechins. Separation and Purification Technology, 2014, 129, 129-136.	7.9	12
43	Power-to-Methanol at Refineries as a Precursor to Green Jet Fuel Production: a Simulation and Assessment Study. Computer Aided Chemical Engineering, 2020, , 1453-1458.	0.5	11
44	Evaluation of configuration alternatives for multi-product polyester synthesis by reactive distillation. Computers and Chemical Engineering, 2013, 52, 193-203.	3.8	9
45	A Process Synthesis Approach for Isolation of Isoflavones from Okara. Industrial & Engineering Chemistry Research, 2015, 54, 691-699.	3.7	9
46	Optimization of CCUS Supply Chains for Some European Countries under the Uncertainty. Processes, 2020, 8, 960.	2.8	9
47	Energy optimization in the process industries: Unit Commitment at systems level. Computer Aided Chemical Engineering, 2010, 28, 931-936.	0.5	8
48	Experimental density, viscosity, interfacial tension and water solubility of ethyl benzene-α-methyl benzyl alcohol–water system. Journal of Chemical Thermodynamics, 2013, 63, 31-37.	2.0	8
49	Product-driven process synthesis for the extraction of oil bodies from soybeans. Journal of Food Engineering, 2016, 185, 26-34.	5.2	7
50	Supply chain optimization for electricity-based jet fuel: The case study Germany. Applied Energy, 2022, 307, 117683.	10.1	7
51	Design of an Optimal Biorefinery. Computer Aided Chemical Engineering, 2011, , 371-376.	0.5	6
52	A combined lossy capacitor population balance model (LCPBM) for calculating the influence of frequency on electric field enhanced coalescence in a static-mixer settler setup. Chemical Engineering Science, 2013, 104, 727-741.	3.8	6
53	Integrated Product and Process Design for the Optimization of Mayonnaise Creaminess. Computer Aided Chemical Engineering, 2015, , 1133-1138.	0.5	6
54	Biogas Reforming as a Precursor for Integrated Algae Biorefineries: Simulation and Techno-Economic Analysis. Processes, 2021, 9, 1348.	2.8	6

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55	Integrated optimization of a waste water treatment plant using statistical analysis. Journal of Hazardous Materials, 2010, 179, 480-487.	12.4	5
56	Design of a wheat straw supply chain network in Lower Saxony, Germany through optimization. Computer Aided Chemical Engineering, 2017, , 871-876.	0.5	5
57	Surface-Response Analysis for the Optimization of a Carbon Dioxide Absorption Process Using [hmim][Tf2N]. Processes, 2020, 8, 1063.	2.8	5
58	Reactive Distillation: An Attractive Alternative for the Synthesis of Unsaturated Polyester. Macromolecular Symposia, 2011, 302, 46-55.	0.7	4
59	Cyclic distillation - towards energy efficient binary distillation. Computer Aided Chemical Engineering, 2012, , 697-701.	0.5	4
60	Modelling of packed bed adsorption columns for the separation of green tea catechins. Separation Science and Technology, 2016, 51, 2339-2347.	2.5	4
61	Development of a conceptual process for CO 2 capture from flue gases using ionic liquid. Computer Aided Chemical Engineering, 2017, 40, 2623-2628.	0.5	4
62	Steady state analysis of structured liquids in a penetrometer. Journal of Food Engineering, 2018, 218, 50-60.	5.2	4
63	Optimization of energy storage and system flexibility in the context of the energy transition: Germany's power grid as a case study. BMC Energy, 2019, 1, .	6.3	4
64	Dynamic Modeling and Control of a Simulated Carbon Capture Process for Sustainable Power-to-X. Applied Sciences (Switzerland), 2021, 11, 9574.	2.5	4
65	Extended rate-based model validation for polyester synthesis by reactive distillation. Computer Aided Chemical Engineering, 2012, 30, 1182-1186.	0.5	3
66	Integrating Planning and Scheduling in an Oil Refinery with a Rolling Horizon Approach. Computer Aided Chemical Engineering, 2014, 33, 439-444.	0.5	3
67	Multi-objective optimization of energy networks under demand uncertainty. Computer Aided Chemical Engineering, 2016, , 2319-2324.	0.5	3
68	An optimization model for a biorefinery system based on process design and logistics. Computer Aided Chemical Engineering, 2019, 46, 265-270.	0.5	3
69	Innovative application of statistical analysis for the optimization of CO2 absorption from flue gas with ionic liquid. Computer Aided Chemical Engineering, 2019, 46, 151-156.	0.5	3
70	Shaping the future energy markets with hybrid multimicrogrids by sequential least squares programming. ChemistrySelect, 2023, 8, 121-156.	1.5	3
71	OUTDOOR $\hat{a} \in An$ open-source superstructure construction and optimization tool. Computer Aided Chemical Engineering, 2021, , 413-418.	0.5	3
72	Design of hydrogen supply chains under demand uncertainty– a case study of passenger transport in Germany. ChemistrySelect, 2023, 8, 741-762.	1.5	3

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73	Renewable Fuels from Integrated Power- and Biomass-to-X Processes: A Superstructure Optimization Study. Processes, 2022, 10, 1298.	2.8	3
74	Simultaneous Optimization of Planning and Scheduling in an Oil Refinery. Computer Aided Chemical Engineering, 2011, 29, 925-929.	0.5	2
75	Integrated Operation and Design of a Simulated Moving Bed Reactor. Computer Aided Chemical Engineering, 2012, 30, 642-646.	0.5	2
76	Methodology for Assessment and Optimization of Industrial Eco-Systems. Challenges, 2012, 3, 49-69.	1.7	2
77	A Modeling Approach for Dispersive Mixing of Oil in Water Emulsions. Computer Aided Chemical Engineering, 2013, 32, 841-846.	0.5	2
78	Sustainable Design and Operation of a Reactive Distillation System Used for the Production of Cosmetic Ingredients. Computer Aided Chemical Engineering, 2015, 36, 85-107.	0.5	2
79	Fast Fourier Transforms for Microgrid Climate Computing. Computer Aided Chemical Engineering, 2019, , 1657-1662.	0.5	2
80	Taking green anti-fouling strategies in dead-end ultrafiltration to the next level. Chemical Engineering Research and Design, 2009, 87, 1589-1595.	5.6	1
81	Synthesis tool for separation processes in the pharmaceutical industry. Computer Aided Chemical Engineering, 2011, 29, 276-280.	0.5	1
82	Modeling the liquid back mixing characteristics for a kinetically controlled reactive distillation process. Computer Aided Chemical Engineering, 2011, 29, 11-15.	0.5	1
83	Process Design for Extraction of Soybean Oil Bodies by Applying the Product Driven Process Synthesis Methodology. Computer Aided Chemical Engineering, 2014, , 193-198.	0.5	1
84	Balancing Costs, Safety and CO2 Emissions in the Design of Hydrogen Supply Chains. Computer Aided Chemical Engineering, 2018, 43, 603-608.	0.5	1
85	Agile Operation of Renewable Methanol Synthesis under Fluctuating Power Inputs. Computer Aided Chemical Engineering, 2020, , 1381-1386.	0.5	1
86	2. Performance products in a challenging environment. , 2020, , 9-88.		1
87	Certainty through uncertainty: stochastic optimization of grid-integrated large-scale energy storage in Germany. ChemistrySelect, 2020, .	1.5	1
88	Multi-objective optimization of CCUS supply chains for European countries with higher carbon dioxide emissions. ChemistrySelect, 2023, 8, 1593-1620.	1.5	1
89	Process intensification and digital twin– the potential for the energy transition in process industries. ChemistrySelect, 2023, 8, 4859-4877.	1.5	1
90	Ice Cream Scheduling. Computer Aided Chemical Engineering, 2011, 29, 915-919.	0.5	0

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91	Linking Scheduling to Control in an Oil Refinery. Computer Aided Chemical Engineering, 2012, , 887-891.	0.5	Ο
92	Sustainable design of a reactive distillation system. Computer Aided Chemical Engineering, 2012, 30, 61-65.	0.5	0
93	A Neural Network Application in the Design of Emulsion-Based Products. Computer Aided Chemical Engineering, 2012, , 692-696.	0.5	Ο
94	Integrated optimization of the adsorption of theaflavins from black tea on macroporous resins. Computer Aided Chemical Engineering, 2012, 31, 725-729.	0.5	0
95	Chemicals from biomass: integrating bioprocesses into chemical production complexes for sustainable development. Green Processing and Synthesis, 2013, 2, .	3.4	Ο
96	Enhanced configurations for polyesters synthesis by reactive distillation. Computer Aided Chemical Engineering, 2013, 32, 457-462.	0.5	0
97	Entrainment Reduction in a Static-Mixer Settler Setup by Electric Field Enhanced Coalescence. Separation Science and Technology, 2014, 49, 186-196.	2.5	0
98	Multi-objective optimization for the production of fructose in a simulated moving bed reactor. Computer Aided Chemical Engineering, 2015, , 347-352.	0.5	0
99	Using Product Driven Process Synthesis in the Biorefinery. Computer Aided Chemical Engineering, 2015, , 1253-1258.	0.5	Ο
100	Process Integration as an Effective Route Towards Sustainable Oil Refinery Development. Computer Aided Chemical Engineering, 2018, 43, 609-614.	0.5	0
101	Process design and techno-economic analysis of a pineapple wine production plant under the context of the Choco-Colombia region. Computer Aided Chemical Engineering, 2019, 46, 277-282.	0.5	Ο
102	Giving added value to products from biomass: the role of mathematical programming in the product-driven process synthesis framework. Computer Aided Chemical Engineering, 2019, 46, 1591-1596.	0.5	0
103	Analysis and Optimization of Carbon Supply Chains Integrated to a Power to Gas Plant in Italy. Computer Aided Chemical Engineering, 2020, , 325-330.	0.5	0
104	3. A structured approach for product-driven process design of consumer products. , 2020, , 89-118.		0
105	Dynamic modeling of fouling over multiple biofuel production cycles in a membrane reactor. Chemical Product and Process Modeling, 2020, .	0.9	Ο
106	Supply chain optimization framework for CO ₂ capture, utilization, and storage in Germany. ChemistrySelect, 2023, 8, 1685-1711.	1.5	0
107	Exergy analysis of an atmospheric residue desulphurization hydrotreating process for a crude oil refinery. ChemistrySelect, 2023, 8, 1621-1657.	1.5	0
108	Methods for Integrating and Handling Complex Optimization Problems in the Process Industries. Recent Patents on Chemical Engineering, 2009, 2, 123-127.	0.5	0

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109	Modeling Techniques For Integration Of Process Systems. , 2009, , .		0
110	Methods for Integrating and Handling Complex Optimization Problems in the Process Industries. Recent Patents on Chemical Engineering, 2010, 2, 123-127.	0.5	0
111	Probabilistic design approach to build the litheness in an integrated process scheme. Computer Aided Chemical Engineering, 2012, 31, 720-724.	0.5	Ο
112	A Supply Chain Optimization Framework For CO2 Emission Reduction: Case Of The Netherlands. , 2016, ,		0
113	Model-based Optimization of Battery Energy Storage Systems. Computer Aided Chemical Engineering, 2017, , 2563-2568.	0.5	Ο
114	Optimization of electrolysis and carbon capture processes for sustainable production of chemicals through Power-to-X. ChemistrySelect, 2022, .	1.5	0
115	Development of future-proof supply concepts for sector-coupled district heating systems based on scenario-analysis. ChemistrySelect, 2022, .	1.5	Ο
116	Integrating multi-objective superstructure optimization and multi-criteria assessment: a novel methodology for sustainable process design. ChemistrySelect, 2022, .	1.5	0
117	The role of bioprocess systems engineering in extracting chemicals and energy from microalgae. ChemistrySelect, 2022, .	1.5	0
118	Power to the city: Assessing the rooftop solar photovoltaic potential in multiple cities of Ecuador. ChemistrySelect, 2022, .	1.5	0