

Costin Sorin Bildea

List of Publications by Year in descending order

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162
docs citations

162
times ranked

1514
citing authors

#	ARTICLE	IF	CITATIONS
1	A new class of control structures for heterogeneous reactive distillation processes. Chemical Engineering and Processing: Process Intensification, 2022, 171, 108672.	1.8	3
2	Rethinking the design of a 2-methoxy-2-methyl-heptane process by unraveling the true thermodynamics and kinetics. Chemical Engineering Research and Design, 2022, 177, 789-800.	2.7	1
3	Design and control of novel reaction-separation-recycle processes for the production of 4-hydroxybutyl acrylate. Chemical Engineering Research and Design, 2022, 177, 801-814.	2.7	0
4	Different spectrophotometric methods for simultaneous quantification of lycopene and β -carotene from a binary mixture. LWT - Food Science and Technology, 2022, 160, 113238.	2.5	11
5	Valuable Natural Antioxidant Products Recovered from Tomatoes by Green Extraction. Molecules, 2022, 27, 4191.	1.7	5
6	Sustainable process design for manufacturing acrylic acid from glycerol. Chemical Engineering Research and Design, 2021, 166, 121-134.	2.7	12
7	Novel Eco-Efficient Process for Methyl Methacrylate Production. Industrial & Engineering Chemistry Research, 2021, 60, 1290-1301.	1.8	8
8	Novel Two-Stage Process for Manufacturing Butadiene from Ethanol. Industrial & Engineering Chemistry Research, 2021, 60, 8475-8492.	1.8	9
9	Isobaric Vapor Liquid Equilibrium Determination for 1,3,5-Trimethylbenzene + Ethanol and 1,3,5-Trimethylbenzene + n-Butanol Binary Systems. Periodica Polytechnica: Chemical Engineering, 2020, 64, 446-456.	0.5	0
10	Advanced Characterization of Silica-Encapsulated Aluminum Pigments. Periodica Polytechnica: Chemical Engineering, 2020, 65, 61-71.	0.5	2
11	High-purity DMC Production by Indirect Alcoholysis of Urea: Optimal Design and Control. Computer Aided Chemical Engineering, 2020, 48, 931-936.	0.3	2
12	Conceptual Design of Novel Processes for 4-Hydroxybutyl Acrylate Production. Computer Aided Chemical Engineering, 2020, 48, 1267-1272.	0.3	1
13	Eco-Efficient Separation of Mono- and Dichloroacetic Acid by Thermally Coupled Extractive Distillation. Chemical Engineering and Technology, 2020, 43, 2403-2417.	0.9	4
14	Novel eco-efficient process for dimethyl carbonate production by indirect alcoholysis of urea. Chemical Engineering Research and Design, 2020, 160, 486-498.	2.7	13
15	Application of cyclic operation to acetic / water separation. Computer Aided Chemical Engineering, 2019, 46, 1351-1356.	0.3	2
16	Methanol-To-Olefin Process. , 2019, , 147-182.		0
17	Isobutene Dimerization. , 2019, , 217-248.		0
18	Bioethanol and Biobutanol. , 2019, , 285-327.		0

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19	Dimethyl Ether. , 2019, , 363-398.		2
20	Acetic Acid. , 2019, , 483-519.		1
21	Styrene Manufacturing. , 2019, , 443-481.		2
22	One-point temperature control of reactive distillation: A thermodynamics-based assessment. Computer Aided Chemical Engineering, 2019, 46, 1201-1206.	0.3	1
23	Propylene by Olefin Metathesis. , 2019, , 183-215.		0
24	Acrylic Monomers. , 2019, , 571-647.		0
25	From substrate to biofuel in the acetoneâ€“butanolâ€“ethanol process. , 2019, , 59-82.		1
26	Dynamics and control of a heat pump assisted azeotropic dividing-wall column for biobutanol purification. Chemical Engineering Research and Design, 2019, 146, 416-426.	2.7	17
27	Energy Efficient Styrene Process: Design and Plantwide Control. Industrial & Engineering Chemistry Research, 2019, 58, 4890-4905.	1.8	16
28	Multi-product reactive distillation process for higher acrylates production. Computer Aided Chemical Engineering, 2019, 46, 217-222.	0.3	0
29	The Treatment of Aluminium Pigments with Inorganic Polymers for Environment-Friendly Applications. Revista De Chimie (discontinued), 2019, 69, 3353-3360.	0.2	2
30	Dynamics and control of a heat pump assisted azeotropic dividing-wall column (HP-A-DWC) for biobutanol purification. Computer Aided Chemical Engineering, 2019, 46, 1339-1344.	0.3	4
31	Eco-efficient Downstream Processing of Biobutanol by Enhanced Process Intensification and Integration. ACS Sustainable Chemistry and Engineering, 2018, 6, 5452-5461.	3.2	57
32	Reactionâ€“Separationâ€“Recycle Processes for 2-Ethylhexyl Acrylate Production: Design, Control, and Economic Evaluation. Industrial & Engineering Chemistry Research, 2018, 57, 2609-2627.	1.8	11
33	Energy efficient methanol-to-olefins process. Chemical Engineering Research and Design, 2018, 131, 41-54.	2.7	41
34	Process for 2-Ethylhexyl Acrylate Production Using Reactive Distillation: Design, Control, and Economic Evaluation. Industrial & Engineering Chemistry Research, 2018, 57, 15773-15784.	1.8	10
35	Coupling exothermic and endothermic reactionsâ€“ application to combined aniline production/methylâ€“cyclohexane dehydrogenation. Asia-Pacific Journal of Chemical Engineering, 2018, 13, e2210.	0.8	4
36	Heat pump assisted azeotropic DWC for enhanced biobutanol separation. Computer Aided Chemical Engineering, 2018, 43, 791-796.	0.3	4

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37	Design, Control and Economics of a Process for Isobutyl Acrylate Production. Computer Aided Chemical Engineering, 2018, 43, 711-716.	0.3	1
38	Intensified Downstream Processing in Biofuels Production. RSC Green Chemistry, 2018, , 62-85.	0.0	2
39	Dynamics and control of a heat pump assisted extractive dividing-wall column for bioethanol dehydration. Chemical Engineering Research and Design, 2017, 119, 66-74.	2.7	58
40	Optimal design of intensified processes for DME synthesis. Computers and Chemical Engineering, 2017, 105, 142-151.	2.0	67
41	Eco-efficient butanol separation in the ABE fermentation process. Separation and Purification Technology, 2017, 177, 49-61.	3.9	87
42	Design and plantwide control of n -butyl acrylate production process. Journal of Process Control, 2017, 58, 46-62.	1.7	10
43	Process for n-butyl acrylate production using reactive distillation: Design, control and economic evaluation. Chemical Engineering Research and Design, 2017, 125, 130-145.	2.7	17
44	Process control of a heat pump assisted extractive DWC for bioethanol dehydration. Computer Aided Chemical Engineering, 2017, 40, 1549-1554.	0.3	2
45	Design and Control of Processes for 2 -Ethylhexyl Acrylate Production. Computer Aided Chemical Engineering, 2017, 40, 1087-1092.	0.3	1
46	Process Control of Isobutene Dimerization Plant. Revista De Chimie (discontinued), 2017, 68, 982-990.	0.2	1
47	Enhanced Down-Stream Processing of Biobutanol in the ABE Fermentation Process. Computer Aided Chemical Engineering, 2016, 38, 979-984.	0.3	13
48	Cyclic distillation technology - a mini-review. Journal of Chemical Technology and Biotechnology, 2016, 91, 1215-1223.	1.6	25
49	Design and Control of Di n-Pentyl Ether Process. Periodica Polytechnica: Chemical Engineering, 2015, 59, 159-167.	0.5	1
50	Novel Heat-Pump-Assisted Extractive Distillation for Bioethanol Purification. Industrial & Engineering Chemistry Research, 2015, 54, 2208-2213.	1.8	160
51	Optimal design and plantwide control of novel processes for di n-pentyl ether production. Journal of Chemical Technology and Biotechnology, 2015, 90, 992-1001.	1.6	21
52	Energy Efficient Bioethanol Purification by Heat Pump Assisted Extractive Distillation. Computer Aided Chemical Engineering, 2015, , 1307-1312.	0.3	3
53	DESIGN AND PERFORMANCE EVALUATION OF A PLANT FOR GLYCEROL CONVERSION TO ACROLEIN. Environmental Engineering and Management Journal, 2015, 14, 509-517.	0.2	13
54	Integrated Production of β -butyrolactone through Coupling of Maleic Anhydride Hydrogenation and 1,4-butanediol Dehydrogenation. Periodica Polytechnica: Chemical Engineering, 2014, 58, 165-169.	0.5	4

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55	Cyclic distillation – Design, control and applications. Separation and Purification Technology, 2014, 125, 326-336.	3.9	31
56	Catalytic cyclic distillation – A novel process intensification approach in reactive separations. Chemical Engineering and Processing: Process Intensification, 2014, 81, 1-12.	1.8	31
57	Batch Processes. Computer Aided Chemical Engineering, 2014, 35, 449-488.	0.3	15
58	Steady-State Flowsheeting. Computer Aided Chemical Engineering, 2014, 35, 73-125.	0.3	3
59	Process Intensification. Computer Aided Chemical Engineering, 2014, 35, 397-448.	0.3	15
60	Generalised Computational Methods in Thermodynamics. Computer Aided Chemical Engineering, 2014, , 157-200.	0.3	4
61	Optimal Extractive Distillation Process for Bioethanol Dehydration. Computer Aided Chemical Engineering, 2014, 33, 1333-1338.	0.3	5
62	Design and Control of an Integrated 1,4-Butanediol Dehydrogenation and Furfural Hydrogenation Plant. Chemical Engineering and Technology, 2014, 37, 1515-1524.	0.9	6
63	Process Synthesis by the Hierarchical Approach. Computer Aided Chemical Engineering, 2014, , 253-300.	0.3	3
64	Synthesis of Reaction Systems. Computer Aided Chemical Engineering, 2014, 35, 301-343.	0.3	2
65	Synthesis of Separation Systems. Computer Aided Chemical Engineering, 2014, 35, 345-395.	0.3	1
66	Introduction in Process Simulation. Computer Aided Chemical Engineering, 2014, 35, 35-71.	0.3	7
67	Chemical Product Design. Computer Aided Chemical Engineering, 2014, , 489-523.	0.3	8
68	Pinch Point Analysis. Computer Aided Chemical Engineering, 2014, 35, 525-564.	0.3	17
69	Applied Energy Integration. Computer Aided Chemical Engineering, 2014, 35, 565-598.	0.3	0
70	Plantwide Control. Computer Aided Chemical Engineering, 2014, , 599-647.	0.3	2
71	Health, Safety and Environment. Computer Aided Chemical Engineering, 2014, , 649-678.	0.3	2
72	Process Design Project. Computer Aided Chemical Engineering, 2014, 35, 703-715.	0.3	0

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73	Economic Evaluation of Projects. Computer Aided Chemical Engineering, 2014, 35, 717-755.	0.3	12
74	Equipment Selection and Design. Computer Aided Chemical Engineering, 2014, 35, 757-788.	0.3	2
75	Phase Equilibria. Computer Aided Chemical Engineering, 2014, 35, 201-251.	0.3	4
76	Sustainability Analysis. Computer Aided Chemical Engineering, 2014, 35, 679-702.	0.3	1
77	Integrated Process and Product Design. Computer Aided Chemical Engineering, 2014, , 1-33.	0.3	6
78	Dynamic Simulation. Computer Aided Chemical Engineering, 2014, 35, 127-156.	0.3	12
79	Control of Cyclic Distillation Systems. Computer Aided Chemical Engineering, 2014, 33, 589-594.	0.3	1
80	Robust Optimal Design of an Glycerol Etherification Process. Chemical Engineering and Technology, 2013, 36, 251-258.	0.9	12
81	Innovative biodiesel production in a reactive dividing-wall column. Computer Aided Chemical Engineering, 2012, 30, 522-526.	0.3	2
82	Kinetics of <i>o</i> -Xylene Combustion over a Pt/Alumina Catalyst. Chemical Engineering and Technology, 2012, 35, 2147-2154.	0.9	11
83	Modeling, Design and Control of Cyclic Distillation Systems. Procedia Engineering, 2012, 42, 1202-1213.	1.2	6
84	Towards FAME and Fortune by Reactive DWC. Procedia Engineering, 2012, 42, 1908-1914.	1.2	1
85	Design and Control of Glycerol- <i>tert</i> -Butyl Alcohol Etherification Process. Scientific World Journal, The, 2012, 2012, 1-11.	0.8	23
86	Design of glycerol etherification process by constructive nonlinear dynamics. Computer Aided Chemical Engineering, 2012, 30, 657-661.	0.3	0
87	A review of biodiesel production by integrated reactive separation technologies. Journal of Chemical Technology and Biotechnology, 2012, 87, 861-879.	1.6	132
88	Reactive DWC leading the way to FAME and fortune. Fuel, 2012, 95, 352-359.	3.4	108
89	Process modelling and model reduction for chemical engineering applications. Computer Aided Chemical Engineering, 2011, 29, 161-165.	0.3	0
90	Integrated reactive absorption process for synthesis of fatty esters. Bioresource Technology, 2011, 102, 490-498.	4.8	50

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91	A Study of White Spirit Vapor Combustion on Pt/Al ₂ O ₃ Catalyst. Chemical Engineering and Technology, 2011, 34, 1739-1744.	0.9	3
92	Dynamics and control of a biodiesel process by reactive absorption. Chemical Engineering Research and Design, 2011, 89, 187-196.	2.7	43
93	A control perspective on process intensification in dividing-wall columns. Chemical Engineering and Processing: Process Intensification, 2011, 50, 281-292.	1.8	181
94	Conceptual design of glycerol etherification processes. Computer Aided Chemical Engineering, 2011, 29, 331-335.	0.3	5
95	Design and control of an energy integrated biodiesel process. Computer Aided Chemical Engineering, 2011, 29, 186-190.	0.3	0
96	Dynamic modeling and process optimization of an industrial sulfuric acid plant. Chemical Engineering Journal, 2010, 158, 241-249.	6.6	38
97	A reduced model for the freezing step in ice cream manufacture. Computer Aided Chemical Engineering, 2010, , 265-270.	0.3	1
98	Plantwide Control of a Biodiesel Process by Reactive Absorption. Computer Aided Chemical Engineering, 2010, 28, 535-540.	0.3	2
99	Design and Control of Integrated Styrene-Aniline Production Plant. Chemical Product and Process Modeling, 2009, 4, .	0.5	2
100	Steady-state behaviour of PFR-separation-recycle systems with simultaneous exothermic and endothermic, first-order reactions. Computers and Chemical Engineering, 2009, 33, 628-635.	2.0	5
101	Innovative process for fatty acid esters by dual reactive distillation. Computers and Chemical Engineering, 2009, 33, 743-750.	2.0	88
102	On the application of model reduction to plantwide control. Computers and Chemical Engineering, 2009, 33, 699-711.	2.0	13
103	Integrated design and control of plantwide systems coupling exothermic and endothermic reactions. Computers and Chemical Engineering, 2009, 33, 911-923.	2.0	24
104	Analysis of chemical routes and processes for production of glycerol ethers. Computer Aided Chemical Engineering, 2009, 26, 99-104.	0.3	0
105	A first-principles model for the freezing step in ice cream manufacture. Computer Aided Chemical Engineering, 2009, 26, 171-176.	0.3	2
106	Optimal bifurcation tailoring based transition control of reactor separation recycle systems. Computer Aided Chemical Engineering, 2009, 26, 285-290.	0.3	1
107	Coupling Exothermic and Endothermic Reactions in Plug-Flow Reactor Separation Recycle Systems. Industrial & Engineering Chemistry Research, 2008, 47, 6685-6697.	1.8	12
108	Effect of catalytic reactor design on plantwide control strategy: Application to VAM plant. Computer Aided Chemical Engineering, 2008, 25, 49-54.	0.3	1

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109	Model reduction techniques for dynamic optimization of chemical plants operation. Computer Aided Chemical Engineering, 2008, 25, 337-342.	0.3	0
110	Design and control of PFR - Separation - Recycle systems with simultaneous exothermic and endothermic reactions. Computer Aided Chemical Engineering, 2007, 24, 357-362.	0.3	0
111	On the application of model reduction to plantwide control. Computer Aided Chemical Engineering, 2007, , 823-828.	0.3	0
112	Exothermic Isomerization in One-Stage Reactive Distillation: A Steady-State Behaviour. Industrial & Engineering Chemistry Research, 2007, 46, 203-210.	1.8	0
113	Design and control of recycle systems by non-linear analysis. Computers and Chemical Engineering, 2007, 31, 601-611.	2.0	54
114	Optimization studies in sulfuric acid production. Computer Aided Chemical Engineering, 2006, , 737-742.	0.3	10
115	Modeling and design of a biochemical process for NOx removal. Computer Aided Chemical Engineering, 2006, , 1143-1148.	0.3	0
116	Design and control of recycle systems by non-linear analysis. Computer Aided Chemical Engineering, 2005, , 637-642.	0.3	0
117	Modelling and optimisation of industrial absorption processes: An EC collaborative research project. Computer Aided Chemical Engineering, 2005, , 1525-1530.	0.3	1
118	Nonlinear approach to design of monolithic loop reactor for fischer-tropsch synthesis. Computer Aided Chemical Engineering, 2005, , 769-774.	0.3	0
119	Exothermic Isomerization Reaction in a Reactive Flash: A Steady-State Behavior. Industrial & Engineering Chemistry Research, 2005, 44, 3815-3822.	1.8	6
120	Design of Recycle Systems with Parallel and Consecutive Reactions by Nonlinear Analysis. Industrial & Engineering Chemistry Research, 2005, 44, 576-587.	1.8	21
121	Dynamics and control of a reactive distillation process for fatty acid esterification. Computer Aided Chemical Engineering, 2004, 18, 589-594.	0.3	1
122	Modelling and optimisation of milk pasteurisation processes. Computer Aided Chemical Engineering, 2004, 18, 955-960.	0.3	4
123	Design of tubular reactors in recycle systems. Computers and Chemical Engineering, 2004, 28, 63-72.	2.0	21
124	Component inventory control in recycle systems. Computer Aided Chemical Engineering, 2004, 17, 401-429.	0.3	2
125	State multiplicity in multi-reaction reactor-separator-recycle systems. Computer Aided Chemical Engineering, 2004, 18, 223-228.	0.3	1
126	State multiplicity in PFR "separator" recycle polymerization systems. Chemical Engineering Science, 2003, 58, 2973-2984.	1.9	33

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127	Fixing Flow Rates in Recycle Systems: Luyben's Rule Revisited. Industrial & Engineering Chemistry Research, 2003, 42, 4578-4585.	1.8	50
128	Stable plantwide control of recycle systems. Computer Aided Chemical Engineering, 2003, 15, 726-731.	0.3	2
129	Unstable behaviour of plants with recycle. Computer Aided Chemical Engineering, 2003, 14, 431-436.	0.3	0
130	Reduced order dynamic models of reactive absorption processes. Computer Aided Chemical Engineering, 2003, , 929-934.	0.3	0
131	Modeling of a batch process based upon safety constraints. Computer Aided Chemical Engineering, 2003, 14, 971-976.	0.3	0
132	Non-linear behaviour of PFR-separator-recycle polymerization systems. Computer Aided Chemical Engineering, 2002, , 229-234.	0.3	1
133	State multiplicity in CSTR-separator-recycle polymerisation systems. Chemical Engineering Science, 2002, 57, 535-546.	1.9	45
134	Multiplicity and stability approach to the design of heat-integrated multibed plug flow reactor. Computers and Chemical Engineering, 2001, 25, 41-48.	2.0	6
135	Design procedure for safe operations in agitated batch reactors. AIChE Journal, 2001, 47, 920-928.	1.8	4
136	Multiplicity and stability of CSTR-separator-recycle systems. Computer Aided Chemical Engineering, 2001, , 973-978.	0.3	0
137	Nonlinear behavior of reactor-separator-recycle systems. Computers and Chemical Engineering, 2000, 24, 209-215.	2.0	45
138	Interaction between design and control of heat-integrated PFR. Computer Aided Chemical Engineering, 2000, , 169-174.	0.3	1
139	Multiplicity and stability approach to the design of heat integrated multibed PFR. Computers and Chemical Engineering, 1999, 23, S171-S174.	2.0	0
140	Interaction Between Design and Control of a Heat-Integrated Distillation System with Prefractionator. Chemical Engineering Research and Design, 1999, 77, 597-608.	2.7	15
141	Singularity theory approach to ideal binary distillation. AIChE Journal, 1999, 45, 2662-2666.	1.8	3
142	Stability and multiplicity approach to the design of heat-integrated PFR. AIChE Journal, 1998, 44, 2703-2712.	1.8	41
143	Synthesis of Separation System. , 0, , 61-102.		0
144	Biodiesel Manufacturing. , 0, , 399-428.		2

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145	Integrated Process Design. , 0, , 1-20.		2
146	Process Synthesis by Hierarchical Approach. , 0, , 21-60.		1
147	Reactor/Separation/Recycle Systems. , 0, , 103-127.		0
148	PVC Manufacturing by Suspension Polymerization. , 0, , 363-397.		0
149	Vinyl Acetate Monomer Process. , 0, , 287-312.		1
150	Acrylonitrile by Propene Ammoxidation. , 0, , 313-338.		2
151	Alkylation of Benzene by Propylene to Cumene. , 0, , 173-200.		2
152	Isobutane Alkylation. , 0, , 261-286.		1
153	Fatty-Ester Synthesis by Catalytic Distillation. , 0, , 231-259.		0