AndrÃ© Bardow

List of Publications by Year
in descending order

271	13,420	36203	26548
papers	citations	51 h-index	107 g-index

279	279	279	11511
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dielectric constant of mixed solvents based on perturbation theory. Fluid Phase Equilibria, 2022, 555, 113346.	1.4	7
2	A framework for the design & operation of a large-scale wind-powered hydrogen electrolyzer hub. International Journal of Hydrogen Energy, 2022, 47, 8671-8686.	3.8	16
3	Blend for all or pure for few? Well-to-wheel life cycle assessment of blending electricity-based OME_{3â€“5} with fossil diesel. Sustainable Energy and Fuels, 2022, 6, 1959-1973.	2.5	10
4	Adaptive Rolling Horizon for operational optimization of multi-energy systems. , 2022, , .		1
5	Comment on â€œHow green is blue hydrogen?â€. Energy Science and Engineering, 2022, 10, 1944-1954.	1.9	23
6	Life-Cycle and Techno-Economic Assessment of Early-Stage Carbon Capture and Utilization Technologiesâ€”A Discussion of Current Challenges and Best Practices. Frontiers in Climate, 2022, 4, .	1.3	9
7	Cost-optimal pathways towards net-zero chemicals and plastics based on a circular carbon economy. Computers and Chemical Engineering, 2022, 162, 107798.	2.0	18
8	The metabolic potential of plastics as biotechnological carbon sources â€“ Review and targets for the future. Metabolic Engineering, 2022, 71, 77-98.	3.6	55
9	Efficient modeling of adsorption chillers: Avoiding discretization by operator splitting. International Journal of Refrigeration, 2022, 139, 180-191.	1.8	4
10	A climate-optimal supply chain for CO2 capture, utilization, and storage by mineralization. Journal of Cleaner Production, 2022, 360, 131750.	4.6	25
11	Optimally designed solvent system for lignocellulosic biomass conversion supported by property predictions. Sustainable Energy and Fuels, 2022, 6, 2734-2744.	2.5	1
12	Simultaneous mixedâ€integer dynamic scheduling of processes and their energy systems. AICHE Journal, 2022, 68, .	1.8	6
13	Closedâ€Loop Adsorptionâ€Based Upgrading of Heat from 90 to 110â€‰Â°C: Experimental Demonstration and Insights for Future Development. Energy Technology, 2022, 10, .	1.8	3
14	The Thermoâ€Economic Potential of ORCâ€Based Pumpedâ€Thermal Electricity Storage: Insights from the Integrated Design of Processes and Working Fluids. Energy Technology, 2022, 10, .	1.8	6
15	Waste Heat to Power: Fullâ€Cycle Analysis of a Thermally Regenerative Flow Battery. Energy Technology, 2022, 10, .	1.8	4
16	The demand response potential in copper production. Journal of Cleaner Production, 2022, 362, 132221.	4.6	8
17	Wind data introduce error in time-series reduction for capacity expansion modelling. Energy, 2022, 256, 124467.	4.5	6
18	Environmental trade-offs of direct air capture technologies in climate change mitigation toward 2100. Nature Communications, 2022, 13, .	5.8	35

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19	Towards optimal mixtures of working fluids: Integrated design of processes and mixtures for Organic Rankine Cycles. Renewable and Sustainable Energy Reviews, 2021, 135, 110179.	8.2	23
20	Flexible here-and-now decisions for two-stage multi-objective optimization: method and application to energy system design selection. Optimization and Engineering, 2021, 22, 821-847.	1.3	9
21	AutoMoG: Automated data-driven Model Generation of multi-energy systems using piecewise-linear regression. Computers and Chemical Engineering, 2021, 145, 107162.	2.0	8
22	Upgrading Waste Heat from 90 to 110â€‰Â°C: The Potential of Adsorption Heat Transformation. Energy Technology, 2021, 9, 2000643.	1.8	13
23	Finite-size effects of diffusion coefficients computed from molecular dynamics: a review of what we have learned so far. Molecular Simulation, 2021, 47, 831-845.	0.9	87
24	Comparing pathways for electricity-based production of dimethoxymethane as a sustainable fuel. Energy and Environmental Science, 2021, 14, 3686-3699.	15.6	15
25	Is the Microgel Collapse a Two-Step Process? Exploiting Cononsolvency to Probe the Collapse Dynamics of Poly-N-isopropylacrylamide (pNIPAM). Journal of Physical Chemistry B, 2021, 125, 1503-1512.	1.2	10
26	Optimal physical property data for process simulations by optimal experimental design. Computer Aided Chemical Engineering, 2021, , 851-857.	0.3	0
27	Life cycle and upscaling: general discussion. Faraday Discussions, 2021, 230, 308-330.	1.6	0
28	Accelerated mineralisation: general discussion. Faraday Discussions, 2021, 230, 213-226.	1.6	1
29	Renewable carbon feedstock for polymers: environmental benefits from synergistic use of biomass and CO₂. Faraday Discussions, 2021, 230, 227-246.	1.6	25
30	Flexibility-expansion planning for enhanced balancing-power market participation of decentralized energy systems. Computer Aided Chemical Engineering, 2021, 50, 1841-1846.	0.3	2
31	Beyond Temperature Glide: The Compressor is Key to Realizing Benefits of Zeotropic Mixtures in Heat Pumps. Energy Technology, 2021, 9, 2000955.	1.8	14
32	Life-cycle assessment of an industrial direct air capture process based on temperatureâ€“vacuum swing adsorption. Nature Energy, 2021, 6, 203-213.	19.8	238
33	Reaction Mechanisms and Rate Constants of Autoâ€Catalytic Urethane Formation and Cleavage Reactions. ChemistryOpen, 2021, 10, 534-544.	0.9	11
34	Towards aromatics from biomass: Prospective Life Cycle Assessment of bio-based aniline. Journal of Cleaner Production, 2021, 290, 125818.	4.6	13
35	From Unavoidable CO₂ Source to CO₂ Sink? A Cement Industry Based on CO₂ Mineralization. Environmental Science & Technology, 2021, 55, 5212-5223.	4.6	59
36	Life-Cycle Assessment of Sector-Coupled National Energy Systems: Environmental Impacts of Electricity, Heat, and Transportation in Germany Till 2050. Frontiers in Energy Research, 2021, 9, .	1.2	15

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37	Scheduling coordination of multiple production and utility systems in a multi-leader multi-follower Stackelberg game. Computers and Chemical Engineering, 2021, 150, 107321.	2.0	6
38	Decarbonizing copper production by power-to-hydrogen: A techno-economic analysis. Journal of Cleaner Production, 2021, 306, 127191.	4.6	21
39	AutoMoGâ€‰3D: Automated Data-Driven Modelâ€‰Generation of Multi-Energy Systems Using Hinging Hyperplanes. Frontiers in Energy Research, 2021, 9, .	1.2	7
40	COMANDO: A Next-Generation Open-Source Framework for Energy Systems Optimization. Computers and Chemical Engineering, 2021, 152, 107366.	2.0	18
41	Environmental impacts of the future German energy system from integrated energy systems optimization and dynamic life cycle assessment. Computers and Chemical Engineering, 2021, 153, 107406.	2.0	27
42	CAT-COSMO-CAMPD: Integrated in silico design of catalysts and processes based on quantum chemistry. Computers and Chemical Engineering, 2021, 153, 107438.	2.0	6
43	Achieving net-zero greenhouse gas emission plastics by a circular carbon economy. Science, 2021, 374, 71-76.	6.0	222
44	COSMO-susCAMPD: Sustainable solvents from combining computer-aided molecular and process design with predictive life cycle assessment. Chemical Engineering Science, 2021, 245, 116863.	1.9	13
45	Emerging technologies: general discussion. Faraday Discussions, 2021, 230, 388-412.	1.6	0
46	Tailor-made solvents by integrated design of molecules and CO2 absorption processes. Computer Aided Chemical Engineering, 2021, 50, 197-202.	0.3	2
47	Risk-benefit perceptions and public acceptance of Carbon Capture and Utilization. Environmental Innovation and Societal Transitions, 2020, 35, 292-308.	2.5	61
48	Toward Optimal Metalâ€“Organic Frameworks for Adsorption Chillers: Insights from the Scaleâ€Up of MILâ€101(Cr) and NH₂â€MILâ€125. Energy Technology, 2020, 8, 1900617.	1.8	18
49	Quaternary Diffusion Coefficients in Liquids from Microfluidics and Raman Microspectroscopy: Cyclohexane + Toluene + Acetone + Methanol. Journal of Chemical & Engineering Data, 2020, 65, 1273-1288.	1.0	14
50	Integrating superstructureâ€based design of molecules, processes, and flowsheets. AICHE Journal, 2020, 66, e16903.	1.8	18
51	Automated Physical Property Measurements from Calibration to Data Analysis: Microfluidic Platform for Liquidâ€“Liquid Equilibrium Using Raman Microspectroscopy. Journal of Chemical & Engineering Data, 2020, 65, 319-327.	1.0	8
52	Validated Performance Prediction of Adsorption Chillers: Bridging the Gap from Gramâ€Scale Experiments to Fullâ€Scale Chillers. Energy Technology, 2020, 8, 1901130.	1.8	9
53	Capillary-assisted evaporation of water from finned tubes â€“ Impacts of experimental setups and dynamics. Applied Thermal Engineering, 2020, 165, 114620.	3.0	8
54	Environmental Impacts of the Future German Energy System from Integrated Energy Systems Optimization and Life Cycle Assessment. Computer Aided Chemical Engineering, 2020, , 241-246.	0.3	4

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55	Integrated In Silico Design of Catalysts and Processes based on Quantum Chemistry. Computer Aided Chemical Engineering, 2020, 48, 889-894.	0.3	4
56	Mixed-Integer Dynamic Scheduling Optimization for Demand Side Management. Computer Aided Chemical Engineering, 2020, , 1405-1410.	0.3	1
57	Exergy, exergoeconomic, and exergoenvironmental optimization of the geothermal binary cycle power plant at Ampallas, West Sulawesi, Indonesia. Thermal Science and Engineering Progress, 2020, 19, 100625.	1.3	19
58	Towards a circular economy for plastic packaging wastes â€“ the environmental potential of chemical recycling. Resources, Conservation and Recycling, 2020, 162, 105010.	5.3	188
59	The carbon footprint of the carbon feedstock CO₂. Energy and Environmental Science, 2020, 13, 2979-2992.	15.6	110
60	Achieving zeroâ€carbon emission chemicals and plastics with limited renewable resources. Chemie-Ingenieur-Technik, 2020, 92, 1169-1169.	0.4	0
61	Welches Experiment fÃ¼r optimale Prozesssimulationen? Optimale Versuchsplanung fÃ¼r lÃ¶sungsmittelbasierte Prozesse. Chemie-Ingenieur-Technik, 2020, 92, 1179-1179.	0.4	0
62	HÃ¼ttengasâ€toâ€X: Life Cycle Assessment zum Potenzial der Sektorenkopplung von Stahl und Chemie. Chemie-Ingenieur-Technik, 2020, 92, 1168-1168.	0.4	1
63	Konsequenzen einer CO 2 â€Bepreisung fÃ¼r die chemische Industrie: Erkenntnisse aus einem Bottomâ€upâ€Modell. Chemie-Ingenieur-Technik, 2020, 92, 1261-1261.	0.4	0
64	The cost of defossilization in energyâ€intensive industries: Technoâ€economic analysis of powerâ€toâ€H 2 in copper production. Chemie-Ingenieur-Technik, 2020, 92, 1264-1264.	0.4	0
65	Rxâ€COSMOâ€CAMPD: Enhancing Reactions by Integrated Computerâ€Aided Design of Solvents and Processes based on Quantum Chemistry. Chemie-Ingenieur-Technik, 2020, 92, 1489-1500.	0.4	9
66	Life Cycle Assessment for the Design of Chemical Processes, Products, and Supply Chains. Annual Review of Chemical and Biomolecular Engineering, 2020, 11, 203-233.	3.3	44
67	Rock â€˜nâ€™ use of CO₂: carbon footprint of carbon capture and utilization by mineralization. Sustainable Energy and Fuels, 2020, 4, 4482-4496.	2.5	62
68	Early-stage evaluation of emerging CO₂utilization technologies at low technology readiness levels. Green Chemistry, 2020, 22, 3842-3859.	4.6	71
69	DeLoop: Decomposition-based Long-term operational optimization of energy systems with time-coupling constraints. Energy, 2020, 198, 117272.	4.5	12
70	Extreme events in time series aggregation: A case study for optimal residential energy supply systems. Applied Energy, 2020, 275, 115223.	5.1	23
71	Model compendium, data, and optimization benchmarks for sector-coupled energy systems. Computers and Chemical Engineering, 2020, 135, 106760.	2.0	15
72	Computer-aided molecular and processes design based on quantum chemistry: current status and future prospects. Current Opinion in Chemical Engineering, 2020, 27, 89-97.	3.8	50

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73	A Guideline for Life Cycle Assessment of Carbon Capture and Utilization. Frontiers in Energy Research, 2020, 8, .	1.2	111
74	Generalized Form for Finite-Size Corrections in Mutual Diffusion Coefficients of Multicomponent Mixtures Obtained from Equilibrium Molecular Dynamics Simulation. Journal of Chemical Theory and Computation, 2020, 16, 3799-3806.	2.3	45
75	Assessing public acceptance of the life cycle of CO2-based fuels: Does information make the difference?. Energy Policy, 2020, 143, 111586.	4.2	25
76	Life-cycle environmental implications of Chinaâ€™s ban on post-consumer plastics import. Resources, Conservation and Recycling, 2020, 156, 104699.	5.3	30
77	Optimal operation of adsorption chillers: First implementation and experimental evaluation of a nonlinear model-predictive-control strategy. Applied Thermal Engineering, 2019, 149, 1503-1521.	3.0	10
78	Only a wet tube is a good tube: understanding capillary-assisted thin-film evaporation of water for adsorption chillers. Applied Thermal Engineering, 2019, 147, 571-578.	3.0	11
79	Toward the Integrated Design of Organic Rankine Cycle Power Plants: A Method for the Simultaneous Optimization of Working Fluid, Thermodynamic Cycle, and Turbine. Journal of Engineering for Gas Turbines and Power, 2019, 141, .	0.5	10
80	Integrated design and control of full sorption chiller systems. Energy, 2019, 185, 409-422.	4.5	10
81	Benchmarking commercial adsorbents for drying air in a packed bed. Applied Thermal Engineering, 2019, 160, 113942.	3.0	9
82	From peak power prices to seasonal storage: Long-term operational optimization of energy systems by time-series decomposition. Computer Aided Chemical Engineering, 2019, 46, 703-708.	0.3	0
83	A Neural Network-Based Framework to Predict Process-Specific Environmental Impacts. Computer Aided Chemical Engineering, 2019, , 1447-1452.	0.3	12
84	Rx-COSMO-CAMD: Computer-Aided Molecular Design of Reaction Solvents Based on Predictive Kinetics from Quantum Chemistry. Industrial & Engineering Chemistry Research, 2019, 58, 22835-22846.	1.8	25
85	Integrated design of working fluid and organic Rankine cycle utilizing transient exhaust gases of heavy-duty vehicles. Applied Energy, 2019, 255, 113207.	5.1	27
86	Towards sustainable elastomers from CO₂: life cycle assessment of carbon capture and utilization for rubbers. Green Chemistry, 2019, 21, 3334-3342.	4.6	37
87	Design of low-carbon utility systems: Exploiting time-dependent grid emissions for climate-friendly demand-side management. Applied Energy, 2019, 247, 755-765.	5.1	41
88	Converting two wastes to value. Nature Energy, 2019, 4, 440-441.	19.8	8
89	Climate change mitigation potential of carbon capture and utilization in the chemical industry. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 11187-11194.	3.3	384
90	Pareto-optimal performance of one-bed adsorption chillers by easy-to-implement heat-flow-based control. Applied Thermal Engineering, 2019, 159, 113590.	3.0	5

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91	Optimal design of integrated batch production and utility systems. Computers and Chemical Engineering, 2019, 128, 496-511.	2.0	7
92	Coordinating scheduling of production and utility system using a Stackelberg game. Energy, 2019, 175, 1283-1295.	4.5	17
93	Hybrid refrigeration by CO2 vapour compression cycle and water-based adsorption chiller: An efficient combination of natural working fluids. International Journal of Refrigeration, 2019, 103, 204-214.	1.8	24
94	RiSES3: Rigorous Synthesis of Energy Supply and Storage Systems via time-series relaxation and aggregation. Computers and Chemical Engineering, 2019, 127, 127-139.	2.0	35
95	OCTP: A Tool for On-the-Fly Calculation of Transport Properties of Fluids with the Order-n Algorithm in LAMMPS. Journal of Chemical Information and Modeling, 2019, 59, 1290-1294.	2.5	67
96	ORC on tour: Integrated design of dynamic ORC processes and working fluids for waste-heat recovery from heavy-duty vehicles. Computer Aided Chemical Engineering, 2019, 46, 163-168.	0.3	5
97	Enrichment of methanol inside pNIPAM gels in the cononsolvency-induced collapse. Physical Chemistry Chemical Physics, 2019, 21, 22811-22818.	1.3	9
98	Same or different? Insights on public perception and acceptance of carbon capture and storage or utilization in Germany. Energy Policy, 2019, 125, 235-249.	4.2	88
99	Rhâ€Catalyzed Hydrogenation of CO₂ to Formic Acid in DMSOâ€based Reaction Media: Solved and Unsolved Challenges for Process Development. Advanced Synthesis and Catalysis, 2019, 361, 307-316.	2.1	28
100	Optimal (<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif") Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 387 T design of distributed energy supply systems. Computers and Chemical Engineering, 2019, 121, 317-326.	2.0	11
101	Integrated Design of Solvents and Processes based on Reaction Kinetics from Quantum Chemical Prediction Methods. Computer Aided Chemical Engineering, 2019, 46, 415-420.	0.3	6
102	Coordination of multiple production and utility systems in a multi-leader multi-follower Stackelberg game. Computer Aided Chemical Engineering, 2019, , 697-702.	0.3	0
103	Energetically-optimal PEM electrolyzer pressure in power-to-gas plants. Applied Energy, 2018, 218, 192-198.	5.1	56
104	Quaternary isothermal vapor-liquid equilibrium of the model biofuel 2-butanoneÂ+ n-heptaneÂ+ tetrahydrofuranÂ+ cyclohexane using Raman spectroscopic characterization. Fluid Phase Equilibria, 2018, 472, 107-116.	1.4	5
105	Time-resolved structural evolution during the collapse of responsive hydrogels: The microgel-to-particle transition. Science Advances, 2018, 4, eaao7086.	4.7	90
106	Rigorous synthesis of energy systems by decomposition via time-series aggregation. Computers and Chemical Engineering, 2018, 112, 70-81.	2.0	30
107	Cleaner production of cleaner fuels: wind-to-wheel â€“ environmental assessment of CO₂-based oxymethylene ether as a drop-in fuel. Energy and Environmental Science, 2018, 11, 331-343.	15.6	195
108	Finite-Size Effects of Binary Mutual Diffusion Coefficients from Molecular Dynamics. Journal of Chemical Theory and Computation, 2018, 14, 2667-2677.	2.3	121

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109	CO2 mitigation costs of catalytic methane decomposition. Energy, 2018, 151, 826-838.	4.5	19
110	COSMO-CAMPD: a framework for integrated design of molecules and processes based on COSMO-RS. Molecular Systems Design and Engineering, 2018, 3, 645-657.	1.7	34
111	Carbon capture and storage (CCS): the way forward. Energy and Environmental Science, 2018, 11, 1062-1176.	15.6	2,378
112	Sustainable Conversion of Carbon Dioxide: An Integrated Review of Catalysis and Life Cycle Assessment. Chemical Reviews, 2018, 118, 434-504.	23.0	1,571
113	Robust analysis of spectra with strong background signals by First-Derivative Indirect Hard Modeling (FD-IHM). Chemometrics and Intelligent Laboratory Systems, 2018, 172, 1-9.	1.8	12
114	Integrierte Abscheidung und Umwandlung von CO2 zu CO durch integriertes Design von LÃ¶sungsmittel und Prozess mit COSMO-RS. Chemie-Ingenieur-Technik, 2018, 90, 1158-1158.	0.4	0
115	Automatisiertes In-silico-Design von optimalen LÃ¶sungsmitteln fÃ¼r Reaktionen auf Basis quantenchemischer Methoden. Chemie-Ingenieur-Technik, 2018, 90, 1201-1202.	0.4	0
116	Nicht-invasive Inline-Analyse von Bioprozessen mit Raman-Spektroskopie und Indirect Hard Modeling (IHM). Chemie-Ingenieur-Technik, 2018, 90, 1275-1275.	0.4	0
117	Energieeffizienz vs. Umweltauswirkungen: Integration von MolekÃ¼l- und Prozessdesign mit prÃdiktiver Ã–kobilanzierung. Chemie-Ingenieur-Technik, 2018, 90, 1163-1163.	0.4	1
118	Concentration-Dependent Diffusion Coefficients of Binary Gas Mixtures Using a Loschmidt Cell with Holographic Interferometry. International Journal of Thermophysics, 2018, 39, 1.	1.0	2
119	Rhâ€Catalyzed Hydrogenation of CO 2 to Formic Acid in DMSOâ€Based Reaction Media. Advanced Synthesis and Catalysis, 2018, 361, 219.	2.1	1
120	The carbon footprint of a chemical industry based on CO2 utilization. Chemie-Ingenieur-Technik, 2018, 90, 1142-1142.	0.4	0
121	Prediction of Composition-Dependent Self-Diffusion Coefficients in Binary Liquid Mixtures: The Missing Link for Darken-Based Models. Industrial & Engineering Chemistry Research, 2018, 57, 14784-14794.	1.8	26
122	Ensuring (n â^' 1)-reliability in the optimal design of distributed energy supply systems. Computer Aided Chemical Engineering, 2018, 43, 307-312.	0.3	0
123	Concentration-Dependent Diffusion Coefficients of Binary Gas Mixtures Using a Loschmidt Cell with Holographic Interferometry. International Journal of Thermophysics, 2018, 39, 1.	1.0	3
124	Die richtige Mischung fÃ¼r Organic Rankine Cycles: Integriertes Design von Prozess und Arbeitsmittelgemisch mit PC-SAFT. Chemie-Ingenieur-Technik, 2018, 90, 1178-1178.	0.4	0
125	Eine Mikrofluidik-Plattform fÃ¼r die automatisierte Bestimmung von FlÃ¼ssig/flÃ¼ssig-Gleichgewichten mittels Raman-Spektroskopie. Chemie-Ingenieur-Technik, 2018, 90, 1322-1322.	0.4	0
126	Environmental Potential of Chemical Recycling of Plastic Packaging Wastes within the Chemical Industry. Chemie-Ingenieur-Technik, 2018, 90, 1152-1152.	0.4	0

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127	Predicting performance of adsorption thermal energy storage: From experiments to validated dynamic models. Applied Thermal Engineering, 2018, 141, 548-557.	3.0	11
128	Rigorous synthesis of energy systems by relaxation and time-series aggregation to typical periods. Computer Aided Chemical Engineering, 2018, , 793-798.	0.3	1
129	Integrated design of ORC process and working fluid for transient waste-heat recovery from heavy-duty vehicles. Computer Aided Chemical Engineering, 2018, 44, 2443-2448.	0.3	4
130	Typical Periods for Two-Stage Synthesis by Time-Series Aggregation with Bounded Error in Objective Function. Frontiers in Energy Research, 2018, 5, .	1.2	27
131	Carbon2Polymer â€“ Conceptual Design of a CO₂â€Based Process for the Production of Isocyanates. Chemie-Ingenieur-Technik, 2018, 90, 1497-1503.	0.4	14
132	Closing the carbon cycle to maximise climate change mitigation: power-to-methanolvs.power-to-direct air capture. Sustainable Energy and Fuels, 2018, 2, 1153-1169.	2.5	53
133	A hierarchical approach for solvent selection based on successive model refinement. Computer Aided Chemical Engineering, 2018, 43, 325-330.	0.3	12
134	Aquatic toxicity of biofuel candidates on Daphnia magna. Ecotoxicology and Environmental Safety, 2018, 164, 125-130.	2.9	8
135	1-stage CoMT-CAMD: An approach for integrated design of ORC process and working fluid using PC-SAFT. Chemical Engineering Science, 2017, 159, 217-230.	1.9	74
136	COSMO-CAMD: A framework for optimization-based computer-aided molecular design using COSMO-RS. Chemical Engineering Science, 2017, 159, 84-92.	1.9	57
137	TRusT: A Two-stage Robustness Trade-off approach for the design of decentralized energy supply systems. Energy, 2017, 118, 590-599.	4.5	33
138	Towards low carbon business park energy systems: A holistic techno-economic optimisation model. Energy, 2017, 125, 747-770.	4.5	11
139	Improved Property Predictions by Combination of Predictive Models. Industrial & Engineering Chemistry Research, 2017, 56, 3098-3106.	1.8	5
140	A milliliter-scale setup for the efficient characterization of isothermal vapor-liquid equilibria using Raman spectroscopy. Fluid Phase Equilibria, 2017, 446, 36-45.	1.4	8
141	Optimization-based identification and quantification of demand-side management potential for distributed energy supply systems. Energy, 2017, 135, 889-899.	4.5	20
142	From molecules to dollars: integrating molecular design into thermo-economic process design using consistent thermodynamic modeling. Molecular Systems Design and Engineering, 2017, 2, 301-320.	1.7	54
143	Multicomponent diffusion coefficients from microfluidics using Raman microspectroscopy. Lab on A Chip, 2017, 17, 2768-2776.	3.1	31
144	Life cycle assessment of CO₂-based C1-chemicals. Green Chemistry, 2017, 19, 2244-2259.	4.6	147

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145	Refrigeration below zero Â°C: Adsorption chillers using water with ethylene glycol as antifreeze. International Journal of Refrigeration, 2017, 77, 39-47.	1.8	26
146	Robust multi-objective optimization for sustainable design of distributed energy supply systems. Computers and Chemical Engineering, 2017, 102, 26-39.	2.0	63
147	Second-Order Analytical Uncertainty Analysis in Life Cycle Assessment. Environmental Science & Technology, 2017, 51, 13199-13204.	4.6	11
148	When 2nd generation biofuel meets water â€“ The water solubility and phase stability issue. Fuel, 2017, 209, 615-623.	3.4	20
149	Integrated design of ORC process and working fluid using PC-SAFT and Modelica. Energy Procedia, 2017, 129, 97-104.	1.8	8
150	Integrating working fluid design into the thermo-economic design of ORC processes using PC-SAFT. Energy Procedia, 2017, 129, 121-128.	1.8	8
151	Integrated design of ORC process and working fluid using process flowsheeting software and PC-SAFT. Energy Procedia, 2017, 129, 129-136.	1.8	20
152	SPREAD â€“ Exploring the decision space in energy systems synthesis. Computers and Chemical Engineering, 2017, 106, 297-308.	2.0	11
153	Simple two-step assessment of novel adsorbents for drying: The trade-off between adsorber size and drying time. Applied Thermal Engineering, 2017, 125, 1075-1082.	3.0	7
154	The IR-Large-Temperature-Jump method: Determining heat and mass transfer coefficients for adsorptive heat transformers. Applied Thermal Engineering, 2017, 126, 630-642.	3.0	12
155	Dynamic optimisation of adsorber-bed designs ensuring optimal control. Applied Thermal Engineering, 2017, 125, 1565-1576.	3.0	20
156	Efficient Determination of Liquidâ€“Liquid Equilibria Using Microfluidics and Raman Microspectroscopy. Industrial & Engineering Chemistry Research, 2017, 56, 13905-13910.	1.8	14
157	Time-series aggregation for synthesis problems by bounding error in the objective function. Energy, 2017, 135, 900-912.	4.5	62
158	Multi-objective synthesis of energy systems: Efficient identification of design trade-offs. Computers and Chemical Engineering, 2017, 97, 283-293.	2.0	11
159	Integrated process and solvent design using COSMO-RS for the production of CO from CO 2 and H 2. Computer Aided Chemical Engineering, 2017, 40, 1765-1770.	0.3	3
160	Integrated Synthesis of Batch Plants and Utility Systems. Computer Aided Chemical Engineering, 2017, , 625-630.	0.3	2
161	Rigorous synthesis of energy supply systems by time-series aggregation. Computer Aided Chemical Engineering, 2017, , 2413-2418.	0.3	1
162	Time-series aggregation for synthesis of distributed energy supply systems by bounding error in operational expenditure. Computer Aided Chemical Engineering, 2016, , 793-798.	0.3	3

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163	One-stage approach for the integrated design of ORC processes and working fluid using PC-SAFT. Computer Aided Chemical Engineering, 2016, 38, 1335-1340.	0.3	2
164	Nitrogenâ€Based Fuels: A Powerâ€toâ€Fuelâ€toâ€Power Analysis. Angewandte Chemie - International Edition, 2016, 55, 8798-8805.	7.2	73
165	Life Cycle Assessment of Power-to-Gas: Syngas vs Methane. ACS Sustainable Chemistry and Engineering, 2016, 4, 4156-4165.	3.2	107
166	The optimal diffusion experiment. Chemical Engineering Science, 2016, 152, 392-402.	1.9	6
167	Stickstoffbasierte Kraftstoffe: eine â€œPowerâ€toâ€Fuelâ€toâ€Powerâ€â€Analyse. Angewandte Chemie, 2016, 128, 8942-8949.	1.6	5
168	The impact of filling level resolved: Capillary-assisted evaporation of water for adsorption heat pumps. Applied Thermal Engineering, 2016, 102, 513-519.	3.0	30
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