

# Calvin Tsay

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8544866/publications.pdf>

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21  
papers

464  
citations

840776

11  
h-index

752698

20  
g-index

21  
all docs

21  
docs citations

21  
times ranked

346  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-objective constrained optimization for energy applications via tree ensembles. Applied Energy, 2022, 306, 118061.	10.1	11
2	Maximizing information from chemical engineering data sets: Applications to machine learning. Chemical Engineering Science, 2022, 252, 117469.	3.8	27
3	Identification and Online Updating of Dynamic Models for Demand Response of an Industrial Air Separation Unit. IFAC-PapersOnLine, 2021, 54, 140-145.	0.9	1
4	Between Steps: Intermediate Relaxations Between Big-M and Convex Hull Formulations. Lecture Notes in Computer Science, 2021, , 299-314.	1.3	5
5	Economic Optimization of Carbon Capture Processes Using Ionic Liquids: Toward Flexibility in Capture Rate and Feed Composition. ACS Sustainable Chemistry and Engineering, 2021, 9, 4823-4839.	6.7	12
6	Sobolev trained neural network surrogate models for optimization. Computers and Chemical Engineering, 2021, 153, 107419.	3.8	7
7	Integrating production scheduling and process control using latent variable dynamic models. Control Engineering Practice, 2020, 94, 104201.	5.5	26
8	The integration of scheduling and control: Top-down vs. bottom-up. Journal of Process Control, 2020, 91, 50-62.	3.3	41
9	Rate-Based Process Optimization and Sensitivity Analysis for Ionic-Liquid-Based Post-Combustion Carbon Capture. ACS Sustainable Chemistry and Engineering, 2020, 8, 10242-10258.	6.7	29
10	Non-Dimensional Feature Engineering and Data-Driven Modeling for Microchannel Reactor Control. IFAC-PapersOnLine, 2020, 53, 11295-11300.	0.9	0
11	<i>110th Anniversary:</i> Using Data to Bridge the Time and Length Scales of Process Systems. Industrial & Engineering Chemistry Research, 2019, 58, 16696-16708.	3.7	30
12	Rate-based modeling and economic optimization of next-generation amine-based carbon capture plants. Applied Energy, 2019, 252, 113379.	10.1	27
13	Fast and efficient chemical process flowsheet simulation by pseudo-transient continuation on inertial manifolds. Computer Methods in Applied Mechanics and Engineering, 2019, 348, 935-953.	6.6	7
14	Optimal demand response scheduling of an industrial air separation unit using data-driven dynamic models. Computers and Chemical Engineering, 2019, 126, 22-34.	3.8	75
15	A simulation-based optimization framework for integrating scheduling and model predictive control, and its application to air separation units. Computers and Chemical Engineering, 2018, 113, 139-151.	3.8	67
16	A survey of optimal process design capabilities and practices in the chemical and petrochemical industries. Computers and Chemical Engineering, 2018, 112, 180-189.	3.8	31
17	Scenario-Free Optimal Design under Uncertainty of the PRICO Natural Gas Liquefaction Process. Industrial & Engineering Chemistry Research, 2018, 57, 5868-5880.	3.7	10
18	Data-Driven Models and Algorithms for Demand Response Scheduling of Air Separation Units. Computer Aided Chemical Engineering, 2018, 44, 1273-1278.	0.5	8

#	ARTICLE	IF	CITATIONS
19	Equation-oriented simulation and optimization of process flowsheets incorporating detailed spiral-wound multistream heat exchanger models. <i>AIChE Journal</i> , 2017, 63, 3778-3789.	3.6	26
20	A superstructure-based design of experiments framework for simultaneous domain-restricted model identification and parameter estimation. <i>Computers and Chemical Engineering</i> , 2017, 107, 408-426.	3.8	9
21	A Dynamic Optimization Approach to Probabilistic Process Design under Uncertainty. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 8606-8621.	3.7	15