Given Names Deactivated Family Name

List of Publications by Year in descending order

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Version: 2024-02-01



| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Zeolitic imidazolate framework membranes made by ligand-induced permselectivation. Science, 2018, 361, 1008-1011. | 12.6 | 324 |
| 2 | Economic Optimization of a Lignocellulosic Biomass-to-Ethanol Supply Chain. Chemical Engineering Science, 2012, 67, 68-79. | 3.8 | 195 |
| 3 | Feedback control of hyperbolic PDE systems. AICHE Journal, 1996, 42, 3063-3086. | 3.6 | 170 |
| 4 | Modeling and Control of a Renewable Hybrid Energy System With Hydrogen Storage. IEEE Transactions on Control Systems Technology, 2014, 22, 169-179. | 5.2 | 159 |
| 5 | Continuous production of 5-hydroxymethylfurfural from fructose: a design case study. Energy and Environmental Science, 2010, 3, 1560. | 30.8 | 136 |
| 6 | Feedback control of nonlinear differential-algebraic-equation systems. AICHE Journal, 1995, 41, 619-636. | 3.6 | 131 |
| 7 | Modeling, analysis and control of ethylene glycol reactive distillation column. AICHE Journal, 1999, 45, 51-68. | 3.6 | 108 |
| 8 | Using hydrogen and ammonia for renewable energy storage: A geographically comprehensive techno-economic study. Computers and Chemical Engineering, 2020, 136, 106785. | 3.8 | 96 |
| 9 | Biorefinery Location and Technology Selection Through Supply Chain Optimization. Industrial & Engineering Chemistry Research, 2013, 52, 3192-3208. | 3.7 | 94 |
| 10 | Nonlinear model reduction of chemical reaction systems. AICHE Journal, 2001, 47, 2320-2332. | 3.6 | 86 |
| 11 | Dynamics and Control of Process Networks with Large Energy Recycle. Industrial & Engineering Chemistry Research, 2009, 48, 6087-6097. | 3.7 | 63 |
| 12 | Renewable ammonia for sustainable energy and agriculture: vision and systems engineering opportunities. Current Opinion in Chemical Engineering, 2021, 31, 100667. | 7.8 | 63 |
| 13 | Engineering Biomass Conversion Processes: A Systems Perspective. AICHE Journal, 2013, 59, 3-18. | 3.6 | 62 |
| 14 | Multiplicity of Steady States in Glycolysis and Shift of Metabolic State in Cultured Mammalian Cells. PLoS ONE, 2015, 10, e0121561. | 2.5 | 61 |
| 15 | Bistability in Glycolysis Pathway as a Physiological Switch in Energy Metabolism. PLoS ONE, 2014, 9, e98756. | 2.5 | 60 |
| 16 | Feedback control of two-time-scale nonlinear systems. International Journal of Control, 1996, 63, 965-994. | 1.9 | 57 |
| 17 | Modeling and Optimal Design of Absorbent Enhanced Ammonia Synthesis. Processes, 2018, 6, 91. | 2.8 | 57 |
| 18 | Microgrid/Macrogrid Energy Exchange: A Novel Market Structure and Stochastic Scheduling. IEEE Transactions on Smart Grid, 2017, 8, 178-189. | 9.0 | 55 |

| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 19 | Impact of Decomposition on Distributed Model Predictive Control: A Process Network Case Study. Industrial & Engineering Chemistry Research, 2017, 56, 9606-9616. | 3.7 | 53 |
| 20 | Dynamics and control of integrated networks with purge streams. AICHE Journal, 2006, 52, 1460-1472. | 3.6 | 49 |
| 21 | Optimizing the catalyst distribution for countercurrent methane steam reforming in plate reactors. AICHE Journal, 2011, 57, 2518-2528. | 3.6 | 49 |
| 22 | Exploring the Benefits of Modular Renewable-Powered Ammonia Production: A Supply Chain Optimization Study. Industrial & Engineering Chemistry Research, 2019, 58, 5898-5908. | 3.7 | 49 |
| 23 | Schedulingâ€informed optimal design of systems with timeâ€varying operation: A windâ€powered ammonia case study. AICHE Journal, 2019, 65, e16434. | 3.6 | 49 |
| 24 | Optimal scheduling for wind-powered ammonia generation: Effects of key design parameters. Chemical Engineering Research and Design, 2018, 131, 5-15. | 5.6 | 47 |
| 25 | Policy effects on microgrid economics, technology selection, and environmental impact. Computers and Chemical Engineering, 2015, 81, 364-375. | 3.8 | 40 |
| 26 | Robust semi-global output tracking for nonlinear singularly perturbed systems. International Journal of Control, 1996, 65, 639-666. | 1.9 | 39 |
| 27 | A framework for ammonia supply chain optimization incorporating conventional and renewable generation. AICHE Journal, 2017, 63, 4390-4402. | 3.6 | 38 |
| 28 | A novel system for ammonia-based sustainable energy and agriculture: Concept and design optimization. Chemical Engineering and Processing: Process Intensification, 2019, 140, 11-21. | 3.6 | 38 |
| 29 | Controlâ€relevant decomposition of process networks via optimizationâ€based hierarchical clustering. AICHE Journal, 2016, 62, 3177-3188. | 3.6 | 35 |
| 30 | Dynamic realâ€ŧime optimization and control of a hybrid energy system. AICHE Journal, 2014, 60, 2546-2556. | 3.6 | 34 |
| 31 | Biomass waste-to-energy supply chain optimization with mobile production modules. Computers and Chemical Engineering, 2021, 150, 107326. | 3.8 | 33 |
| 32 | A hybrid mechanistic-empirical model for in silico mammalian cell bioprocess simulation. Metabolic Engineering, 2021, 66, 31-40. | 7.0 | 32 |
| 33 | A mathematical model for zeolite membrane module performance and its use for techno-economic evaluation of improved energy efficiency hybrid membrane-distillation processes for butane isomer separations. Journal of Membrane Science, 2016, 520, 434-449. | 8.2 | 30 |
| 34 | Distributed Estimation and Nonlinear Model Predictive Control Using Community Detection. Industrial & Engineering Chemistry Research, 2019, 58, 13495-13507. | 3.7 | 28 |
| 35 | Automated identification of energetically feasible mechanisms of complex reaction networks in heterogeneous catalysis: application to glycerol conversion on transition metals. Green Chemistry, 2014, 16, 813-823. | 9.0 | 27 |
| 36 | Dynamic considerations in the synthesis of selfâ€optimizing control structures. AICHE Journal, 2008, 54, 1830-1841. | 3.6 | 26 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | Decomposition of control and optimization problems by network structure: Concepts, methods, and inspirations from biology. AICHE Journal, 2019, 65, e16708. | 3.6 | 26 |
| 38 | Process design and supply chain optimization of supercritical biodiesel synthesis from waste cooking oils. Chemical Engineering Research and Design, 2013, 91, 1456-1466. | 5.6 | 24 |
| 39 | Relative timeâ€averaged gain array (RTAGA) for distributed controlâ€oriented network decomposition. AICHE Journal, 2018, 64, 1682-1690. | 3.6 | 21 |
| 40 | Distributed Model Predictive Control of an Amine Gas Sweetening Plant. Industrial & Engineering Chemistry Research, 2018, 57, 13103-13115. | 3.7 | 21 |
| 41 | Feedback regularization and control of nonlinear differential-algebraic-equation systems. AICHE Journal, 1996, 42, 2175-2198. | 3.6 | 20 |
| 42 | Modeling, optimization, and cost analysis of an IGCC plant with a membrane reactor for carbon capture. AICHE Journal, 2016, 62, 1568-1580. | 3.6 | 20 |
| 43 | System Decomposition for Distributed Multivariate Statistical Process Monitoring by Performance Driven Agglomerative Clustering. Industrial & Engineering Chemistry Research, 2018, 57, 8283-8298. | 3.7 | 20 |
| 44 | Harnessing the Wind Power of the Ocean with Green Offshore Ammonia. ACS Sustainable Chemistry and Engineering, 2021, 9, 14605-14617. | 6.7 | 20 |
| 45 | Modeling and Optimization of Membrane Reactors for Carbon Capture in Integrated Gasification Combined Cycle Units. Industrial & Engineering Chemistry Research, 2012, 51, 5480-5489. | 3.7 | 19 |
| 46 | Topology Effects on Sparse Control of Complex Networks with Laplacian Dynamics. Scientific Reports, 2019, 9, 9034. | 3.3 | 19 |
| 47 | Bioethanol enrichment using zeolite membranes: Molecular modeling, conceptual process design and techno-economic analysis. Journal of Membrane Science, 2017, 540, 464-476. | 8.2 | 18 |
| 48 | DeCODe: a community-based algorithm for generating high-quality decompositions of optimization problems. Optimization and Engineering, 2019, 20, 1067-1084. | 2.4 | 17 |
| 49 | Structural analysis and output feedback control of nonlinear multivariable processes. AICHE Journal, 1994, 40, 647-669. | 3.6 | 16 |
| 50 | Mechanism for multiplicity of steady states with distinct cell concentration in continuous culture of mammalian cells. Biotechnology and Bioengineering, 2015, 112, 1437-1445. | 3.3 | 16 |
| 51 | Graph reduction of complex energyâ€integrated networks: Process systems applications. AICHE Journal, 2014, 60, 995-1012. | 3.6 | 14 |
| 52 | Automated network generation and analysis of biochemical reaction pathways using RING. Metabolic Engineering, 2018, 49, 84-93. | 7.0 | 14 |
| 53 | Distributed cooperative industrial demand response. Journal of Process Control, 2020, 86, 81-93. | 3.3 | 14 |
| | | | |

54 Hierarchical control of a renewable hybrid energy system. , 2012, , .

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| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 55 | Dynamics of a reaction-diffusion system with Brusselator kinetics under feedback control. Physical Review E, 1999, 59, 372-380. | 2.1 | 11 |
| 56 | Networks with large solvent recycle: Dynamics, hierarchical control, and a biorefinery application. AICHE Journal, 2012, 58, 1764-1777. | 3.6 | 11 |
| 57 | Nonlinear Decoupling Control With Deadtime Compensation for Multirange Operation of Steam Power Plants. IEEE Transactions on Control Systems Technology, 2016, 24, 341-348. | 5.2 | 11 |
| 58 | Optimal Design of Sustainable Ammonia-Based Food–Energy–Water Systems with Nitrogen Management. ACS Sustainable Chemistry and Engineering, 2021, 9, 2816-2834. | 6.7 | 11 |
| 59 | Renewable hydrogen and ammonia for combined heat and power systems in remote locations: Optimal design and scheduling. Optimal Control Applications and Methods, 2023, 44, 719-738. | 2.1 | 11 |
| 60 | Fast and stable nonconvex constrained distributed optimization: the ELLADA algorithm. Optimization and Engineering, 2022, 23, 259-301. | 2.4 | 10 |
| 61 | Dynamics and control of high duty counter-current heat exchangers. , 2011, , . | | 8 |
| 62 | Kinetic model optimization and its application to mitigating the Warburg effect through multiple enzyme alterations. Metabolic Engineering, 2019, 56, 154-164. | 7.0 | 8 |
| 63 | Distributed nonlinear model predictive control through accelerated parallel ADMM. , 2019, , . | | 8 |
| 64 | Stochastic blockmodeling for learning the structure of optimization problems. AICHE Journal, 2022, 68, e17415. | 3.6 | 8 |
| 65 | The role of community structures in sparse feedback control. , 2018, , . | | 7 |
| 66 | Efficient Water Pollution Abatement. Industrial & Engineering Chemistry Research, 2019, 58, 22483-22487. | 3.7 | 7 |
| 67 | Control of an energy integrated solid oxide fuel cell system. , 2011, , . | | 6 |
| 68 | A Bilevel Programming Approach to the Convergence Analysis of Control-Lyapunov Functions. IEEE Transactions on Automatic Control, 2019, 64, 4174-4179. | 5.7 | 6 |
| 69 | An integrated platform for mucinâ€ŧype O â€glycosylation network generation and visualization. Biotechnology and Bioengineering, 2019, 116, 1341-1354. | 3.3 | 6 |
| 70 | Mathematical modeling and parameter estimation of <scp>MFI</scp> membranes for para/orthoâ€xylene separation. AICHE Journal, 2021, 67, e17232. | 3.6 | 6 |
| 71 | High-Capacity Regenerable H2S Sorbent for Reducing Sulfur Emissions. Industrial & Engineering Chemistry Research, 0, , . | 3.7 | 6 |
| 72 | Efficient Solution of Enterprise-Wide Optimization Problems Using Nested Stochastic Blockmodeling. Industrial & Engineering Chemistry Research, 2021, 60, 14476-14494. | 3.7 | 5 |

| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Output feedback controller realizations for open-loop stable nonlinear processes. , 1992, , . | | 5 |
| 74 | Control of interface shape of cadmium zinc telluride grown via an electrodynamic gradient freeze furnace. , 2007, , . | | 4 |
| 75 | Graph reduction for hierarchical control of energy integrated process networks. , 2012, , . | | 4 |
| 76 | Ammonia supply chains: A new framework for renewable generation with a case study for Minnesota. Computer Aided Chemical Engineering, 2016, 38, 1395-1400. | 0.5 | 4 |
| 77 | Input-output data-driven control through dissipativity learning. , 2019, , . | | 4 |
| 78 | Modeling and simulation of gas separations with spiralâ€wound membranes. AICHE Journal, 2020, 66, e16274. | 3.6 | 4 |
| 79 | Branch-and-price for a class of nonconvex mixed-integer nonlinear programs. Journal of Global Optimization, 2021, 81, 861-880. | 1.8 | 4 |
| 80 | Feedforward/Output Feedback Control of Nonlinear Processes. , 1993, , . | | 4 |
| 81 | Dynamics and control of reactor - feed effluent heat exchanger networks. , 2008, , . | | 3 |
| 82 | Multi-scale dynamics in counter-current heat exchangers. , 2009, , . | | 3 |
| 83 | Modeling and control of a water gas shift membrane reactor for hydrogen production. , 2012, , . | | 3 |
| 84 | Nonlinear model predictive control of IGCC plants with membrane reactors for carbon capture. , 2013, , . | | 3 |
| 85 | Optimal Operation of an Energy Integrated Batch Reactor - Feed Effluent Heat Exchanger Systemâ [^] —â [^] —Partial financial support for this work by the National Science Foundation, grant CBET-1133167 and the Government of India Department of Science and Technology (DST) INSPIRE & amp; SERB-SB/S3/CE/090/2013 grant is gratefully acknowledged IFAC-PapersOnLine. 2015. 48, 1192-1197. | 0.9 | 3 |
| 86 | Impact of steam reformer on the design and control of an energy integrated solid oxide fuel cell system. , 2011, , . | | 2 |
| 87 | Input/output hierarchical clustering in process networks based on relative degrees. , 2015, , . | | 2 |
| 88 | Dynamic Real-Time Optimization of Microgrids with Day-Ahead Commitments for External Power Exchange. Computer Aided Chemical Engineering, 2016, 38, 103-108. | 0.5 | 2 |
| 89 | Vapor recompression distillation: Multi-scale dynamics and control. , 2009, , . | | 1 |
| 90 | Optimal design and observation of counter-current autothermal reactors for the production of hydrogen. , 2009, , . | | 1 |

| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 91 | Control structure design for complex energy integrated networks using graph-theoretic methods. , 2013, , . | | 1 |
| 92 | Modularity-based control structure selection for process networks: An extension to distributed parameter systems. , 2017, , . | | 1 |
| 93 | Decomposition and Distributed Control of Integrated Lumped and Distributed Parameter Process Networks. , 2018, , . | | 1 |
| 94 | AIChE Journal Special PSE issue on sustainable energy. AICHE Journal, 2019, 65, e16630. | 3.6 | 1 |
| 95 | Nonlinear non-stiff models of reactive distillation columns with two-time-scale dynamics. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 119-124. | 0.4 | 0 |
| 96 | Dynamics and control of energy integrated distillation column networks. , 2010, , . | | 0 |
| 97 | Dynamics and control of autothermal reactors for the production of hydrogen. , 2007, , . | | 0 |
| 98 | Smart manufacturing: A sustainable energy perspective. , 2020, , 423-454. | | 0 |