

# Ali Elkamel

## List of Publications by Year in descending order

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344  
papers

8,109  
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46918

47  
h-index

88477

70  
g-index

358  
all docs

358  
docs citations

358  
times ranked

7724  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Optimal Transition to Plug-In Hybrid Electric Vehicles in Ontario, Canada, Considering the Electricity-Grid Limitations. IEEE Transactions on Industrial Electronics, 2010, 57, 690-701.                           | 5.2 | 252       |
| 2  | Reservoir permeability prediction by neural networks combined with hybrid genetic algorithm and particle swarm optimization. Geophysical Prospecting, 2013, 61, 582-598.   | 1.0 | 179       |
| 3  | A review of standards and guidelines set by international bodies for the parameters of indoor air quality. Atmospheric Pollution Research, 2015, 6, 751-767.   | 1.8 | 160       |
| 4  | Pyrolysis, kinetics analysis, thermodynamics parameters and reaction mechanism of Typha latifolia to evaluate its bioenergy potential. Bioresource Technology, 2017, 245, 491-501.                                 | 4.8 | 156       |
| 5  | Asphaltene precipitation and deposition in oil reservoirs – Technical aspects, experimental and hybrid neural network predictive tools. Chemical Engineering Research and Design, 2014, 92, 857-875.               | 2.7 | 146       |
| 6  | Benchmarking and selection of Power-to-Gas utilizing electrolytic hydrogen as an energy storage alternative. International Journal of Hydrogen Energy, 2016, 41, 7717-7731.  | 3.8 | 144       |
| 7  | Modeling and optimization of a network of energy hubs to improve economic and emission considerations. Energy, 2015, 93, 2546-2558.  | 4.5 | 143       |
| 8  | Design and experimental investigation of portable solar thermoelectric refrigerator. Renewable Energy, 2009, 34, 30-34.  | 4.3 | 131       |
| 9  | A Robust Optimization Approach for Planning the Transition to Plug-in Hybrid Electric Vehicles. IEEE Transactions on Power Systems, 2011, 26, 2264-2274.   | 4.6 | 131       |
| 10 | Plug-in electric vehicle batteries degradation modeling for smart grid studies: Review, assessment and conceptual framework. Renewable and Sustainable Energy Reviews, 2018, 81, 2609-2624.                        | 8.2 | 119       |
| 11 | The Influence of Temperature, Pressure, Salinity, and Surfactant Concentration on the Interfacial Tension of the N-Octane-Water System. Chemical Engineering Communications, 2005, 192, 667-684.                   | 1.5 | 107       |
| 12 | Cost-Benefit Analysis of V2G Implementation in Distribution Networks Considering PEVs Battery Degradation. IEEE Transactions on Sustainable Energy, 2018, 9, 961-970.  | 5.9 | 104       |
| 13 | Deep Learning-Based Forecasting Approach in Smart Grids With Microclustering and Bidirectional LSTM Network. IEEE Transactions on Industrial Electronics, 2021, 68, 8298-8309.                                     | 5.2 | 104       |
| 14 | Risk-Averse Optimal Bidding of Electric Vehicles and Energy Storage Aggregator in Day-Ahead Frequency Regulation Market. IEEE Transactions on Power Systems, 2019, 34, 2036-2047.                                  | 4.6 | 103       |
| 15 | Mixed integer linear programming based approach for optimal planning and operation of a smart urban energy network to support the hydrogen economy. International Journal of Hydrogen Energy, 2016, 41, 7700-7716. | 3.8 | 99        |
| 16 | Optimization Model for Energy Planning with CO2 Emission Considerations. Industrial & Engineering Chemistry Research, 2005, 44, 879-890.   | 1.8 | 93        |
| 17 | A Review on Plug-in Electric Vehicles: Introduction, Current Status, and Load Modeling Techniques. Journal of Modern Power Systems and Clean Energy, 2020, 8, 412-425.   | 3.3 | 93        |
| 18 | Electricity demand estimation using an adaptive neuro-fuzzy network: A case study from the Ontario province – Canada. Energy, 2013, 49, 323-328.   | 4.5 | 91        |

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|----|--|-----|-----------|
| 19 | A robust distributed model predictive control algorithm. <i>Journal of Process Control</i> , 2011, 21, 1127-1137.  | 1.7 | 90        |
| 20 | A new correlation for predicting hydrate formation conditions for various gas mixtures and inhibitors. <i>Fluid Phase Equilibria</i> , 1998, 152, 23-42.   | 1.4 | 87        |
| 21 | A Novel Electricity Price Forecasting Approach Based on Dimension Reduction Strategy and Rough Artificial Neural Networks. <i>IEEE Transactions on Industrial Informatics</i> , 2020, 16, 2369-2381.   | 7.2 | 83        |
| 22 | Optimal tuning of PID controllers for FOPTD, SOPTD and SOPTD with lead processes. <i>Chemical Engineering and Processing: Process Intensification</i> , 2008, 47, 251-264.   | 1.8 | 74        |
| 23 | Use of a novel surfactant for improving the transportability/transportation of heavy/viscous crude oils. <i>Journal of Petroleum Science and Engineering</i> , 2004, 42, 235-243.  | 2.1 | 71        |
| 24 | A multi-period optimization model for energy planning with CO <sub>2</sub> emission consideration. <i>Journal of Environmental Management</i> , 2010, 91, 1063-1070.   | 3.8 | 69        |
| 25 | Sustainability indicators for decision-making and optimisation in the process industry: The case of the petrochemical industry. <i>Chemical Engineering Science</i> , 2010, 65, 1452-1461.   | 1.9 | 67        |
| 26 | Dimensional Analysis and Scale-up of Immiscible Two-Phase Flow Displacement in Fractured Porous Media under Controlled Gravity Drainage. <i>Energy &amp; Fuels</i> , 2011, 25, 1731-1750.  | 2.5 | 67        |
| 27 | Computational Fluid Dynamics Modeling of Biomass Gasification in Circulating Fluidized-Bed Reactor Using the Eulerian-Eulerian Approach. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 18162-18174.   | 1.8 | 64        |
| 28 | Integration of renewable energy sources into combined cycle power plants through electrolysis generated hydrogen in a new designed energy hub. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 16718-16728.  | 3.8 | 63        |
| 29 | Two-stage stochastic programming with fixed recourse via scenario planning with economic and operational risk management for petroleum refinery planning under uncertainty. <i>Chemical Engineering and Processing: Process Intensification</i> , 2008, 47, 1744-1764. | 1.8 | 62        |
| 30 | Visible-solar-light-driven photo-reduction and removal of cadmium ion with Eosin Y-sensitized TiO <sub>2</sub> in aqueous solution of triethanolamine. <i>Separation and Purification Technology</i> , 2017, 174, 109-115.   | 3.9 | 62        |
| 31 | Supercritical CO <sub>2</sub> extraction of nimbin from neem seeds—a modelling study. <i>Journal of Food Engineering</i> , 2005, 71, 331-340.  | 2.7 | 61        |
| 32 | Optimal sizing of an electrolytic hydrogen production system using an existing natural gas infrastructure. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 9760-9772.  | 3.8 | 60        |
| 33 | Optimal processing route for the utilization and conversion of municipal solid waste into energy and valuable products. <i>Journal of Cleaner Production</i> , 2018, 174, 857-867.   | 4.6 | 57        |
| 34 | Investigation of pyrolysis kinetics and thermal behavior of Invasive Reed Canary (Phalaris) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 Td (  | 2.6 | 57        |
| 35 | Review of current technologies used in municipal solid waste-to-energy facilities in Canada. <i>Clean Technologies and Environmental Policy</i> , 2015, 17, 1837-1846.   | 2.1 | 56        |
| 36 | An Optimization Approach for Integrating Planning and CO <sub>2</sub> Emission Reduction in the Petroleum Refining Industry. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 760-776.   | 1.8 | 55        |

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|----|---|-----|-----------|
| 37 | Assessing energy performance of bio-based succinic acid production using LCA. Journal of Cleaner Production, 2016, 139, 761-769.  | 4.6 | 55        |
| 38 | Simulation and optimization of natural gas processing and production network consisting of LNG, GTL, and methanol facilities. Journal of Natural Gas Science and Engineering, 2015, 23, 500-508.                                | 2.1 | 54        |
| 39 | Two-layer optimization methodology for wind distributed generation planning considering plug-in electric vehicles uncertainty: A flexible active-reactive power approach. Energy Conversion and Management, 2016, 124, 231-246. | 4.4 | 53        |
| 40 | Analysis of Ontario's hydrogen economy demands from hydrogen fuel cell vehicles. International Journal of Hydrogen Energy, 2012, 37, 8905-8916.   | 3.8 | 52        |
| 41 | Modeling the Energy Demands and Greenhouse Gas Emissions of the Canadian Oil Sands Industry. Energy & Fuels, 2007, 21, 2098-2111.   | 2.5 | 51        |
| 42 | Scaling Miscible Fluid Displacements in Porous Media. Energy & Fuels, 1998, 12, 801-811.  | 2.5 | 50        |
| 43 | Selection of control structure for distributed model predictive control in the presence of model errors. Journal of Process Control, 2010, 20, 270-284.   | 1.7 | 50        |
| 44 | Utilization of support vector machine to calculate gas compressibility factor. Fluid Phase Equilibria, 2013, 358, 189-202.  | 1.4 | 50        |
| 45 | Optimization of the performance of a double-chamber microbial fuel cell through factorial design of experiments and response surface methodology. Fuel, 2015, 150, 434-440.   | 3.4 | 50        |
| 46 | A model of nanofluids effective thermal conductivity based on dimensionless groups. Journal of Thermal Analysis and Calorimetry, 2009, 96, 81-84.   | 2.0 | 49        |
| 47 | A nonlinear programming model for refinery planning and optimisation with rigorous process models and product quality specifications. International Journal of Oil, Gas and Coal Technology, 2008, 1, 283.                      | 0.1 | 48        |
| 48 | Global Optimization of Reverse Osmosis Network for Wastewater Treatment and Minimization. Industrial & Engineering Chemistry Research, 2008, 47, 3060-3070.   | 1.8 | 48        |
| 49 | Design of an energy hub based on natural gas and renewable energy sources. International Journal of Energy Research, 2014, 38, 363-373.   | 2.2 | 48        |
| 50 | Estimation of breakthrough time for water coning in fractured systems: Experimental study and connectionist modeling. AIChE Journal, 2014, 60, 1905-1919.   | 1.8 | 48        |
| 51 | Multi-products productions from Malaysian oil palm empty fruit bunch (EFB): Analyzing economic potentials from the optimal biomass supply chain. Journal of Cleaner Production, 2017, 168, 131-148.                             | 4.6 | 48        |
| 52 | Multi-objective Optimization for Design and Operation of Distributed Energy Systems through the Multi-energy Hub Network Approach. Industrial & Engineering Chemistry Research, 2016, 55, 8950-8966.                            | 1.8 | 43        |
| 53 | Heuristic algorithm for scheduling batch and semi-continuous plants with production deadlines, intermediate storage limitations and equipment changeover costs. Computers and Chemical Engineering, 1994, 18, 859-875.          | 2.0 | 42        |
| 54 | Optimal probabilistic based storage planning in tap-changer equipped distribution network including PEVs, capacitor banks and WDGs: A case study for Iran. Energy, 2016, 112, 984-997.  | 4.5 | 42        |

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|----|---|-----|-----------|
| 55 | Robust multi-objective thermal and electrical energy hub management integrating hybrid battery-compressed air energy storage systems and plug-in-electric-vehicle-based demand response. <i>Journal of Energy Storage</i> , 2021, 35, 102265.     | 3.9 | 42        |
| 56 | Stochastic SCUC considering compressed air energy storage and wind power generation: A techno-economic approach with static voltage stability analysis. <i>International Journal of Electrical Power and Energy Systems</i> , 2018, 100, 489-507. | 3.3 | 41        |
| 57 | Planning an Integrated Petrochemical Industry with an Environmental Objective. <i>Industrial &amp; Engineering Chemistry Research</i> , 2001, 40, 2103-2111.  | 1.8 | 40        |
| 58 | Robust planning of multisite refinery networks: Optimization under uncertainty. <i>Computers and Chemical Engineering</i> , 2010, 34, 985-995.  | 2.0 | 40        |
| 59 | A hybrid kinetic and optimization approach for biomass pyrolysis: The hybrid scheme of the isoconversional methods, DAEM, and a parallel-reaction mechanism. <i>Energy Conversion and Management</i> , 2020, 208, 112531.                         | 4.4 | 38        |
| 60 | Thermo-kinetic study to elucidate the bioenergy potential of Maple Leaf Waste (MLW) by pyrolysis, TGA and kinetic modelling. <i>Fuel</i> , 2021, 293, 120349.   | 3.4 | 38        |
| 61 | Optimization of Photovoltaic Electrolyzer Hybrid systems; taking into account the effect of climate conditions. <i>Energy Conversion and Management</i> , 2016, 118, 438-449.   | 4.4 | 37        |
| 62 | Two-stage stochastic home energy management strategy considering electric vehicle and battery energy storage system: An ANN-based scenario generation methodology. <i>Sustainable Energy Technologies and Assessments</i> , 2020, 39, 100722.     | 1.7 | 37        |
| 63 | Experimental investigation of crude oil desalting and dehydration. <i>Chemical Engineering Communications</i> , 2003, 190, 65-82.   | 1.5 | 36        |
| 64 | Multisite facility network integration design and coordination: An application to the refining industry. <i>Computers and Chemical Engineering</i> , 2008, 32, 2189-2202.   | 2.0 | 36        |
| 65 | Energy Hub Based on Nuclear Energy and Hydrogen Energy Storage. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 7470-7481.   | 1.8 | 36        |
| 66 | A reinforcement learning approach for waterflooding optimization in petroleum reservoirs. <i>Engineering Applications of Artificial Intelligence</i> , 2019, 77, 98-116.  | 4.3 | 36        |
| 67 | Enhanced protective properties and UV stability of epoxy/graphene nanocomposite coating on stainless steel. <i>EXPRESS Polymer Letters</i> , 2016, 10, 1034-1046.   | 1.1 | 36        |
| 68 | An artificial neural network for the prediction of immiscible flood performance. <i>Energy &amp; Fuels</i> , 1995, 9, 894-900.  | 2.5 | 35        |
| 69 | Practical and Economic Aspects of the Ex-Situ Process: Implications for CO <sub>2</sub> Sequestration. <i>Energy &amp; Fuels</i> , 2013, 27, 401-413.   | 2.5 | 35        |
| 70 | Enabling utility-scale electrical energy storage by a power-to-gas energy hub and underground storage of hydrogen and natural gas. <i>Journal of Natural Gas Science and Engineering</i> , 2016, 35, 1180-1199.                                   | 2.1 | 35        |
| 71 | Corrosion inhibition of copper in sodium chloride solution using polyetherimide/graphene composites. <i>Canadian Journal of Chemical Engineering</i> , 2016, 94, 896-904.   | 0.9 | 35        |
| 72 | MODELING THE HYDROCRACKING PROCESS USING ARTIFICIAL NEURAL NETWORKS. <i>Petroleum Science and Technology</i> , 1999, 17, 931-954.   | 0.7 | 34        |

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|----|---|-----|-----------|
| 73 | Energy Optimization Model with CO <sub>2</sub> -Emission Constraints for the Canadian Oil Sands Industry. Energy & Fuels, 2008, 22, 2660-2670.  | 2.5 | 34        |
| 74 | A modeling study of the effect of carbon dioxide mitigation strategies, natural gas prices and steam consumption on the Canadian Oil Sands operations. Energy, 2012, 45, 1018-1033.   | 4.5 | 33        |
| 75 | Development of a pricing mechanism for valuing ancillary, transportation and environmental services offered by a power to gas energy system. Energy, 2017, 128, 447-462.  | 4.5 | 33        |
| 76 | Modeling and Optimization of Energy Hubs: A Comprehensive Review. Inventions, 2019, 4, 50.  | 1.3 | 33        |
| 77 | Stochastic energy management of an electricity retailer with a novel plug-in electric vehicle-based demand response program and energy storage system: A linearized battery degradation cost model. Sustainable Cities and Society, 2021, 74, 103154. | 5.1 | 33        |
| 78 | Optimal design of reverse-osmosis networks for wastewater treatment. Chemical Engineering and Processing: Process Intensification, 2008, 47, 2163-2174.   | 1.8 | 32        |
| 79 | Financial risk management for new technology integration in energy planning under uncertainty. Applied Energy, 2014, 128, 75-81.  | 5.1 | 31        |
| 80 | Effect of light spectrum on isolation of microalgae from urban wastewater and growth characteristics of subsequent cultivation of the isolated species. Algal Research, 2018, 29, 154-158.  | 2.4 | 31        |
| 81 | Optimal Hydrate Inhibition Policies with the Aid of Neural Networks. Energy & Fuels, 1999, 13, 105-113.   | 2.5 | 30        |
| 82 | Optimal WDG planning in active distribution networks based on possibilistic "probabilistic PEVs load modelling. IET Generation, Transmission and Distribution, 2017, 11, 865-875.   | 1.4 | 30        |
| 83 | Optimization methods for petroleum fields development and production systems: a review. Optimization and Engineering, 2017, 18, 907-941.  | 1.3 | 30        |
| 84 | Solar-aided hydrogen production methods for the integration of renewable energies into oil & gas industries. Energy Conversion and Management, 2018, 168, 395-406.  | 4.4 | 30        |
| 85 | Dual network extraction algorithm to investigate multiple transport processes in porous materials: Image-based modeling of pore and grain scale processes. Computers and Chemical Engineering, 2019, 123, 64-77.                                      | 2.0 | 30        |
| 86 | Optimal energy hub development to supply heating, cooling, electricity and freshwater for a coastal urban area taking into account economic and environmental factors. Energy, 2022, 238, 121743.   | 4.5 | 30        |
| 87 | Integration of hydrogen management in refinery planning with rigorous process models and product quality specifications. International Journal of Process Systems Engineering, 2011, 1, 302.  | 0.2 | 29        |
| 88 | An Improved Hybrid Particle Swarm Optimization and Tabu Search Algorithm for Expansion Planning of Large Dimension Electric Distribution Network. Energies, 2019, 12, 3052.   | 1.6 | 29        |
| 89 | A heuristic optimization approach for Air Quality Monitoring Network design with the simultaneous consideration of multiple pollutants. Journal of Environmental Management, 2008, 88, 507-516.   | 3.8 | 28        |
| 90 | Multisite Refinery and Petrochemical Network Design: Optimal Integration and Coordination. Industrial & Engineering Chemistry Research, 2009, 48, 814-826.  | 1.8 | 28        |

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|-----|---|-----|-----------|
| 91  | Optimal design of split partial second pass reverse osmosis network for desalination applications. <i>AICHE Journal</i> , 2014, 60, 520-532.  | 1.8 | 28        |
| 92  | Tailoring the chemistry of blend copolymers boosting the electrochemical performance of Si-based anodes for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 24159-24167.  | 5.2 | 28        |
| 93  | A machine learning approach for modeling and optimization of a CO <sub>2</sub> post-combustion capture unit. <i>Energy</i> , 2021, 215, 119113.   | 4.5 | 28        |
| 94  | An artificial neural network for predicting and optimizing immiscible flood performance in heterogeneous reservoirs. <i>Computers and Chemical Engineering</i> , 1998, 22, 1699-1709.   | 2.0 | 27        |
| 95  | THE ACCURACY OF PREDICTING COMPRESSIBILITY FACTOR FOR SOUR NATURAL GASES. <i>Petroleum Science and Technology</i> , 2001, 19, 711-731.  | 0.7 | 27        |
| 96  | Modelling and optimization of a multistage flash desalination process. <i>Engineering Optimization</i> , 2005, 37, 591-607.   | 1.5 | 27        |
| 97  | A multi-period optimization model for energy planning with CO <sub>2</sub> emission considerations. <i>Energy Procedia</i> , 2009, 1, 4339-4346.  | 1.8 | 27        |
| 98  | Connectionist Model to Estimate Performance of Steam-Assisted Gravity Drainage in Fractured and Unfractured Petroleum Reservoirs: Enhanced Oil Recovery Implications. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 1645-1662. | 1.8 | 27        |
| 99  | An optimization model for air pollution control decision making. <i>Environmental Modelling and Software</i> , 1997, 12, 51-58.   | 1.9 | 26        |
| 100 | A ROLLING HORIZON HEURISTIC FOR REACTIVE SCHEDULING OF BATCH PROCESS OPERATIONS. <i>Engineering Optimization</i> , 1999, 31, 763-792.   | 1.5 | 26        |
| 101 | A Computational Intelligence Based Approach for the Analysis and Optimization of a Crude Oil Desalting and Dehydration Process. <i>Energy &amp; Fuels</i> , 2005, 19, 2526-2534.  | 2.5 | 26        |
| 102 | Shared and practical approach to conserve utilities in eco-industrial parks. <i>Computers and Chemical Engineering</i> , 2016, 93, 221-233.   | 2.0 | 26        |
| 103 | Energy infrastructure modeling for the oil sands industry: Current situation. <i>Applied Energy</i> , 2016, 181, 435-445.   | 5.1 | 26        |
| 104 | A Stochastic Programming Approach for the Planning and Operation of a Power to Gas Energy Hub with Multiple Energy Recovery Pathways. <i>Energies</i> , 2017, 10, 868.  | 1.6 | 26        |
| 105 | A statistical mechanics approach to the separation of methane and nitrogen using capillary condensation in a microporous membrane. <i>Journal of Membrane Science</i> , 1992, 65, 163-172.  | 4.1 | 25        |
| 106 | Presenting the implementation of power-to-gas to an oil refinery as a way to reduce carbon intensity of petroleum fuels. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 19376-19388.   | 3.8 | 25        |
| 107 | A modified DAEM: To study the bioenergy potential of invasive Staghorn Sumac through pyrolysis, ANN, TGA, kinetic modeling, FTIR and GC-MS analysis. <i>Energy Conversion and Management</i> , 2020, 221, 113173.                                   | 4.4 | 25        |
| 108 | Long-term electricity demand forecasting for power system planning using economic, demographic and climatic variables. <i>European Journal of Industrial Engineering</i> , 2009, 3, 277.  | 0.5 | 24        |

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|-----|---|-----|-----------|
| 109 | Optimization of energy usage for fleet-wide power generating system under carbon mitigation options. <i>AIChE Journal</i> , 2009, 55, 3168-3190.  | 1.8 | 24        |
| 110 | Dynamic Optimization of Lurgi Type Methanol Reactor Using Hybrid GA-GPS Algorithm: The Optimal Shell Temperature Trajectory and Carbon Dioxide Utilization. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 1164-1173. | 1.8 | 24        |
| 111 | Air quality and environmental impacts of alternative vehicle technologies in Ontario, Canada. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 5145-5153.  | 3.8 | 23        |
| 112 | A robust distributed model predictive control based on a dual-mode approach. <i>Computers and Chemical Engineering</i> , 2013, 50, 130-138.   | 2.0 | 23        |
| 113 | Machine Learning Based PEVs Load Extraction and Analysis. <i>Electronics (Switzerland)</i> , 2020, 9, 1150.   | 1.8 | 23        |
| 114 | Modelling pressure distribution in a rectangular gas bearing using neural networks. <i>Tribology International</i> , 1997, 30, 139-150.   | 3.0 | 22        |
| 115 | Building inferential estimators for modeling product quality in a crude oil desalting and dehydration process. <i>Chemical Engineering and Processing: Process Intensification</i> , 2006, 45, 568-577.                                   | 1.8 | 22        |
| 116 | Development of a minimal defined medium for recombinant human interleukin-3 production by <i>Streptomyces lividans</i> . <i>Biotechnology and Bioengineering</i> , 2008, 99, 214-222.   | 1.7 | 22        |
| 117 | Petroleum refinery operational planning using robust optimization. <i>Engineering Optimization</i> , 2010, 42, 1119-1131.   | 1.5 | 22        |
| 118 | Integrated Energy Optimization Model for Oil Sands Operations. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 12641-12663.  | 1.8 | 22        |
| 119 | New tools to determine bubble point pressure of crude oils: Experimental and modeling study. <i>Journal of Petroleum Science and Engineering</i> , 2014, 123, 207-216.  | 2.1 | 22        |
| 120 | A dual approach for modelling and optimisation of industrial urea reactor: Smart technique and grey box model. <i>Canadian Journal of Chemical Engineering</i> , 2014, 92, 469-485.   | 0.9 | 22        |
| 121 | Experimental and Numerical Modeling Study of Gravity Drainage Considering Asphaltene Deposition. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 11512-11526.  | 1.8 | 21        |
| 122 | Effect of socio-economic factors on EV/HEV/PHEV adoption rate in Ontario. <i>Technological Forecasting and Social Change</i> , 2015, 98, 93-104.  | 6.2 | 21        |
| 123 | Retrofit Design of Hydrogen Network in Refineries: Mathematical Model and Global Optimization. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 4996-5023.  | 1.8 | 21        |
| 124 | How can the integration of renewable energy and power-to-gas benefit industrial facilities? From techno-economic, policy, and environmental assessment. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 26559-26573.          | 3.8 | 21        |
| 125 | Tactical and Operational Planning of Multirefinery Networks under Uncertainty: An Iterative Integration Approach. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 8507-8517.   | 1.8 | 20        |
| 126 | New simple indices for risk assessment and hazards reduction at the conceptual design stage of a chemical process. <i>Chemical Engineering Science</i> , 2014, 119, 218-229.  | 1.9 | 20        |



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|-----|--|-----|-----------|
| 127 | New sustainability indices for product design employing environmental impact and risk reduction: case study on gasoline blends. <i>Journal of Cleaner Production</i> , 2015, 108, 312-320.             | 4.6 | 20        |
| 128 | Generalized mixed-integer nonlinear programming modeling of eco-industrial networks to reduce cost and emissions. <i>Journal of Cleaner Production</i> , 2015, 99, 160-176.                            | 4.6 | 20        |
| 129 | Development and techno-economic analysis of an integrated petroleum coke, biomass, and natural gas polygeneration process. <i>Energy</i> , 2016, 113, 861-874.   | 4.5 | 20        |
| 130 | Economic model predictive control of chemical processes with parameter uncertainty. <i>Computers and Chemical Engineering</i> , 2016, 95, 10-20.   | 2.0 | 20        |
| 131 | Superstructure optimization for the synthesis of chemical process flowsheets: Application to optimal hybrid membrane systems. <i>Engineering Optimization</i> , 2009, 41, 327-350.                     | 1.5 | 19        |
| 132 | Stochastic Modeling of the Oil Sands Operations under Greenhouse Gas Emission Restrictions and Water Management. <i>Energy &amp; Fuels</i> , 2013, 27, 5559-5578.                                      | 2.5 | 19        |
| 133 | An Improved Air Quality Index Machine Learning-Based Forecasting with Multivariate Data Imputation Approach. <i>Atmosphere</i> , 2022, 13, 1144.   | 1.0 | 19        |
| 134 | Robust distributed model predictive control: A review and recent developments. <i>Canadian Journal of Chemical Engineering</i> , 2011, 89, 1176-1190.  | 0.9 | 18        |
| 135 | Cost-analysis of health impacts associated with emissions from combined cycle power plant. <i>Journal of Cleaner Production</i> , 2016, 139, 1408-1424.  | 4.6 | 18        |
| 136 | An order-specific clustering algorithm for the determination of representative demand curves. <i>Computers and Chemical Engineering</i> , 2008, 32, 1365-1372.   | 2.0 | 17        |
| 137 | Robust Optimization for Petrochemical Network Design under Uncertainty. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 3912-3919.  | 1.8 | 17        |
| 138 | Non-linear feedback modeling and bifurcation of the acetylcholine neurocycle and its relation to Alzheimer's and Parkinson's diseases. <i>Chemical Engineering Science</i> , 2009, 64, 69-90.          | 1.9 | 17        |
| 139 | Literature review of oil refineries planning under uncertainty. <i>International Journal of Oil, Gas and Coal Technology</i> , 2011, 4, 156.   | 0.1 | 17        |
| 140 | OVERALL INTEGRATION OF THE MANAGEMENT OF H <sub>2</sub> AND CO <sub>2</sub> WITHIN REFINERY PLANNING USING RIGOROUS PROCESS MODELS. <i>Chemical Engineering Communications</i> , 2013, 200, 139-161.   | 1.5 | 17        |
| 141 | Recovery Rate of Vapor Extraction in Heavy Oil Reservoirs—Experimental, Statistical, and Modeling Studies. <i>Industrial &amp; Engineering Chemistry Research</i> , 2014, 53, 16091-16106.             | 1.8 | 17        |
| 142 | A model-based approach for biomass-to-bioproducts supply Chain network planning optimization. <i>Food and Bioproducts Processing</i> , 2019, 118, 293-305.   | 1.8 | 17        |
| 143 | Optimal Charging of Plug-In Electric Vehicle: Considering Travel Behavior Uncertainties and Battery Degradation. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3420.                                | 1.3 | 17        |
| 144 | Engineering investigation for the size effect of graphene oxide derived from graphene nanoplatelets in polyurethane composites. <i>Canadian Journal of Chemical Engineering</i> , 2020, 98, 1084-1096. | 0.9 | 17        |

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