Jos M Ponce-Ortega

List of Publications by Citations

286 papers	4,782 citations	36 h-index	53 g-index
300 ext. papers	5,400 ext. citations	4.8 avg, IF	6.26 L-index

#	Paper	IF	Citations
286	Optimal planning and site selection for distributed multiproduct biorefineries involving economic, environmental and social objectives. *Journal of Cleaner Production*, **2014**, 65, 270-294	10.3	203
285	Optimal planning for the sustainable utilization of municipal solid waste. *Waste Management*, **2013**, 33, 2607-22	8.6	126
284	Use of genetic algorithms for the optimal design of shell-and-tube heat exchangers. *Applied Thermal Engineering*, **2009**, 29, 203-209	5.8	115
283	Process intensification: New understanding and systematic approach. *Chemical Engineering and Processing: Process Intensification*, **2012**, 53, 63-75	3.7	108
282	Optimal synthesis of heat exchanger networks involving isothermal process streams. *Computers and Chemical Engineering*, **2008**, 32, 1918-1942	4	94
281	Multiobjective optimization of biorefineries with economic and safety objectives. *AICHE Journal*, **2013**, 59, 2427-2434	3.6	89
280	A property-based optimization of direct recycle networks and wastewater treatment processes. *AICHE Journal*, **2009**, 55, 2329-2344	3.6	86
279	Global optimization for the synthesis of property-based recycle and reuse networks including environmental constraints. *Computers and Chemical Engineering*, **2010**, 34, 318-330	4	78
278	Optimization model for re-circulating cooling water systems. *Computers and Chemical Engineering*, **2010**, 34, 177-195	4	76
277	Global optimization of mass and property integration networks with in-plant property interceptors. *Chemical Engineering Science*, **2010**, 65, 4363-4377	4.4	73
276	Optimal Water Management under Uncertainty for Shale Gas Production. *Industrial & Engineering Chemistry Research*, **2016**, 55, 1322-1335	3.9	68
275	Multi-objective optimization of process cogeneration systems with economic, environmental, and social tradeoffs. *Clean Technologies and Environmental Policy*, **2013**, 15, 185-197	4.3	67
274	Sustainable Integration of Algal Biodiesel Production with Steam Electric Power Plants for Greenhouse Gas Mitigation. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 1388-1403	8.3	65
273	Optimal integration of organic Rankine cycles with industrial processes. *Energy Conversion and Management*, **2013**, 73, 285-302	10.6	59
272	A Disjunctive Programming Formulation for the Optimal Design of Biorefinery Configurations. *Industrial & Engineering Chemistry Research*, **2012**, 51, 3381-3400	3.9	55
271	Synthesis of cooling water systems with multiple cooling towers. *Applied Thermal Engineering*, **2013** , 50, 957-974	5.8	55
270	Incorporation of process integration into life cycle analysis for the production of biofuels. *Clean Technologies and Environmental Policy*, **2011**, 13, 673-685	4.3	54

269	Stochastic design of biorefinery supply chains considering economic and environmental objectives. *Journal of Cleaner Production*, **2016**, 136, 224-245	10.3	53
268	MINLP optimization of mechanical draft counter flow wet-cooling towers. *Chemical Engineering Research and Design*, **2010**, 88, 614-625	5.5	52
267	Optimal reconfiguration of multi-plant water networks into an eco-industrial park. *Computers and Chemical Engineering*, **2012**, 44, 58-83	4	51
266	Multiobjective synthesis of heat exchanger networks minimizing the total annual cost and the environmental impact. *Applied Thermal Engineering*, **2011**, 31, 1099-1113	5.8	51
265	Synthesis of Heat Exchanger Networks with Optimal Placement of Multiple Utilities. *Industrial & Engineering Chemistry Research*, **2010**, 49, 2849-2856	3.9	50
264	Optimal planning and infrastructure development for shale gas production. *Energy Conversion and Management*, **2016**, 119, 91-100	10.6	49
263	Optimization of the production of syngas from shale gas with economic and safety considerations. *Applied Thermal Engineering*, **2017**, 110, 678-685	5.8	47
262	Optimal design of integrated CHP systems for housing complexes. *Energy Conversion and Management*, **2015**, 99, 252-263	10.6	47
261	Optimization of Pathways for Biorefineries Involving the Selection of Feedstocks, Products, and Processing Steps. *Industrial & Engineering Chemistry Research*, **2013**, 52, 5177-5190	3.9	46
260	A global optimal formulation for the water integration in eco-industrial parks considering multiple pollutants. *Computers and Chemical Engineering*, **2011**, 35, 1558-1574	4	46
259	Optimal design of rainwater collecting systems for domestic use into a residential development. *Resources, Conservation and Recycling*, **2014**, 84, 44-56	11.9	44
258	Optimal design of inter-plant waste energy integration. *Applied Thermal Engineering*, **2014**, 62, 633-652	5.8	43
257	Global optimization in property-based interplant water integration. *AICHE Journal*, **2013**, 59, 813-833	3.6	43
256	Environmental and economic analysis for the optimal reuse of water in a residential complex. *Journal of Cleaner Production*, **2016**, 130, 82-91	10.3	42
255	Industrial waste heat recovery and cogeneration involving organic Rankine cycles. *Clean Technologies and Environmental Policy*, **2015**, 17, 767-779	4.3	40
254	MINLP synthesis of optimal cooling networks. *Chemical Engineering Science*, **2007**, 62, 5728-5735	4.4	39
253	Sustainable water management for macroscopic systems. *Journal of Cleaner Production*, **2013**, 47, 102-117	10.3	38
252	Optimal reuse of flowback wastewater in hydraulic fracturing including seasonal and environmental constraints. *AICHE Journal*, **2016**, 62, 1634-1645	3.6	37

251	Synthesis of Distributed Biorefining Networks for the Value-Added Processing of Water Hyacinth. *ACS Sustainable Chemistry and Engineering*, **2013**, 1, 284-305	8.3	36
250	Optimal retrofit of water conservation networks. *Journal of Cleaner Production*, **2011**, 19, 1560-1581	10.3	36
249	Multi-objective optimization of the supply chain of biofuels from residues of the tequila industry in Mexico. *Journal of Cleaner Production*, **2015**, 108, 422-441	10.3	34
248	Multiobjective Optimization Approach for Integrating Design and Control in Multicomponent Distillation Sequences. *Industrial & Engineering Chemistry Research*, **2015**, 54, 12320-12330	3.9	33
247	Optimization of mechanical draft counter flow wet-cooling towers using a rigorous model. *Applied Thermal Engineering*, **2011**, 31, 3615-3628	5.8	33
246	A property-based approach to the synthesis of material conservation networks with economic and environmental objectives. *AICHE Journal*, **2011**, 57, 2369-2387	3.6	33
245	Thermo-economic-environmental optimization of a liquid separation condensation-based organic Rankine cycle driven by waste heat. *Journal of Cleaner Production*, **2018**, 184, 198-210	10.3	32
244	Synthesis of integrated absorption refrigeration systems involving economic and environmental objectives and quantifying social benefits. *Applied Thermal Engineering*, **2013**, 52, 402-419	5.8	32
243	Simultaneous synthesis of utility system and heat exchanger network incorporating steam condensate and boiler feedwater. *Energy*, **2016**, 113, 875-893	7.9	31
242	Inherently Safer Design and Optimization of Intensified Separation Processes for Furfural Production. *Industrial & Engineering Chemistry Research*, **2019**, 58, 6105-6120	3.9	31
241	Optimal location of biorefineries considering sustainable integration with the environment. *Renewable Energy*, **2017**, 100, 65-77	8.1	30
240	Optimal Planning of Feedstock for Butanol Production Considering Economic and Environmental Aspects. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 4018-4030	8.3	30
239	Optimization of biofuels production via a water□energy□food nexus framework. *Clean Technologies and Environmental Policy*, **2018**, 20, 1443-1466	4.3	30
238	An MINLP model for the simultaneous integration of energy, mass and properties in water networks. *Computers and Chemical Engineering*, **2014**, 71, 52-66	4	30
237	Multi-objective optimization of steam power plants for sustainable generation of electricity. *Clean Technologies and Environmental Policy*, **2013**, 15, 551-566	4.3	30
236	Optimal design of macroscopic water networks under parametric uncertainty. *Journal of Cleaner Production*, **2015**, 88, 172-184	10.3	29
235	Multiobjective design of interplant trigeneration systems. *AICHE Journal*, **2014**, 60, 213-236	3.6	29
234	Synthesis of Eco-Industrial Parks Interacting with a Surrounding Watershed. *ACS Sustainable Chemistry and Engineering*, **2015**, 3, 1564-1578	8.3	29

233	A Disjunctive Programming Model for Simultaneous Synthesis and Detailed Design of Cooling Networks. *Industrial & Engineering Chemistry Research*, **2009**, 48, 2991-3003	3.9	29
232	Synthesis of multipass heat exchanger networks using genetic algorithms. *Computers and Chemical Engineering*, **2008**, 32, 2320-2332	4	28
231	A multi-objective optimization approach for the selection of working fluids of geothermal facilities: Economic, environmental and social aspects. *Journal of Environmental Management*, **2017**, 203, 962-972	7.9	27
230	Synthesis of Water Networks Involving Temperature-Based Property Operators and Thermal Effects. *Industrial & Engineering Chemistry Research*, **2013**, 52, 442-461	3.9	27
229	Optimal planning for the reuse of municipal solid waste considering economic, environmental, and safety objectives. *AICHE Journal*, **2015**, 61, 1881-1899	3.6	26
228	Optimal design of residential cogeneration systems under uncertainty. *Computers and Chemical Engineering*, **2016**, 88, 86-102	4	25
227	Synthesis of water networks considering the sustainability of the surrounding watershed. *Computers and Chemical Engineering*, **2011**, 35, 2837-2852	4	25
226	Integrated design and control of multigeneration systems for building complexes. *Energy*, **2016**, 116, 1403-1416	7.9	24
225	Strategic planning for the use of waste biomass pellets in Mexican power plants. *Renewable Energy*, **2019**, 130, 622-632	8.1	24
224	Incorporating Property-Based Water Networks and Surrounding Watersheds in Site Selection of Industrial Facilities. *Industrial & Engineering Chemistry Research*, **2013**, 52, 91-107	3.9	24
223	A systematic approach for synthesizing combined mass and heat exchange networks. *Computers and Chemical Engineering*, **2013**, 53, 1-13	4	24
222	Optimal design of thermal membrane distillation systems with heat integration with process plants. *Applied Thermal Engineering*, **2015**, 75, 154-166	5.8	23
221	Financial Risk Assessment and Optimal Planning of Biofuels Supply Chains under Uncertainty. *Bioenergy Research*, **2016**, 9, 1053-1069	3.1	23
220	Optimal design of process energy systems integrating sustainable considerations. *Energy*, **2014**, 76, 139-160	7.9	23
219	Economic and environmental optimization of the biobutanol purification process. *Clean Technologies and Environmental Policy*, **2016**, 18, 395-411	4.3	22
218	Strategic Planning for Managing Municipal Solid Wastes with Consideration of Multiple Stakeholders. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 10744-10762	8.3	22
217	Optimal reconfiguration of a sugar cane industry to yield an integrated biorefinery. *Clean Technologies and Environmental Policy*, **2016**, 18, 553-562	4.3	22
216	Optimal design of distributed treatment systems for the effluents discharged to the rivers. *Clean Technologies and Environmental Policy*, **2012**, 14, 925-942	4.3	22

215	Thermo-economic analysis and optimization of a zoetropic fluid organic Rankine cycle with liquid-vapor separation during condensation. *Energy Conversion and Management*, **2017**, 148, 517-532	10.6	21
214	Simultaneous design of water reusing and rainwater harvesting systems in a residential complex. *Computers and Chemical Engineering*, **2015**, 76, 104-116	4	21
213	Valuation of Water and Emissions in Energy Systems. *Applied Energy*, **2018**, 210, 518-528	10.7	21
212	Optimal Design of Distributed Algae-Based Biorefineries Using CO2 Emissions from Multiple Industrial Plants. *Industrial & Engineering Chemistry Research*, **2016**, 55, 2345-2358	3.9	21
211	Optimization of Water Grid at Macroscopic Level Analyzing Water−Energy−Food Nexus. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 12140-12152	8.3	21
210	Total cost target for heat exchanger networks considering simultaneously pumping power and area effects. *Applied Thermal Engineering*, **2011**, 31, 1964-1975	5.8	21
209	Heat transfer analysis of a non-Newtonian fluid flowing through a circular tube with twisted tape inserts. *Applied Thermal Engineering*, **2015**, 84, 225-236	5.8	20
208	Synthesis and Sustainability Evaluation of a Lignocellulosic Multifeedstock Biorefinery Considering Technical Performance Indicators. *ACS Omega*, **2020**, 5, 9259-9275	3.9	20
207	Multiobjective Optimization of Dual-Purpose Power Plants and Water Distribution Networks. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 6852-6866	8.3	20
206	Sustainable Integration of Trigeneration Systems with Heat Exchanger Networks. *Industrial & Engineering Chemistry Research*, **2014**, 53, 2732-2750	3.9	20
205	Heat Exchanger Network Synthesis Including Detailed Heat Exchanger Design Using Genetic Algorithms. *Industrial & Engineering Chemistry Research*, **2007**, 46, 8767-8780	3.9	20
204	Optimal Design of Water Desalination Systems Involving Waste Heat Recovery. *Industrial & Engineering Chemistry Research*, **2017**, 56, 1834-1847	3.9	19
203	Synthesis of optimal thermal membrane distillation networks. *AICHE Journal*, **2015**, 61, 448-463	3.6	19
202	An MFA optimization approach for pollution trading considering the sustainability of the surrounded watersheds. *Computers and Chemical Engineering*, **2014**, 63, 140-151	4	18
201	An optimization approach for the synthesis of recycle and reuse water integration networks. *Clean Technologies and Environmental Policy*, **2012**, 14, 133-151	4.3	18
200	Optimal design of energy and water supply systems for low-income communities involving multiple-objectives. *Energy Conversion and Management*, **2017**, 151, 43-52	10.6	18
199	Optimal design of effluent-cooling systems using a mathematical programming model. *Applied Thermal Engineering*, **2010**, 30, 2116-2126	5.8	18
198	Two-Level Optimization Algorithm for Heat Exchanger Networks Including Pressure Drop Considerations. *Industrial & Engineering Chemistry Research*, **2004**, 43, 6766-6773	3.9	18

197	Optimal design of CHP systems for housing complexes involving weather and electric market variations. *Applied Thermal Engineering*, **2015**, 90, 895-906	5.8	17
196	Optimization of facility location and reallocation in an industrial plant through a multi-annual framework accounting for economic and safety issues. *Journal of Loss Prevention in the Process Industries*, **2015**, 33, 129-139	3.5	17
195	Optimal Synthesis of Refinery Property-Based Water Networks with Electrocoagulation Treatment Systems. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 147-158	8.3	17
194	Optimization of the Supply Chain Associated to the Production of Bioethanol from Residues of Agave from the Tequila Process in Mexico. *Industrial & Engineering Chemistry Research*, **2014**, 53, 5524-5538	3.9	17
193	A Multiobjective Optimization Approach for the Development of a Sustainable Supply Chain of a New Fixative in the Perfume Industry. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 2380-2390	8.3	17
192	Optimal design and integration of solar thermal collection, storage, and dispatch with process cogeneration systems. *Chemical Engineering Science*, **2015**, 136, 158-167	4.4	16
191	Balancing stakeholder priorities in the operation of combined heat and power systems. *Applied Thermal Engineering*, **2018**, 128, 480-488	5.8	16
190	Optimal Design of Inherently Safer Domestic Combined Heat and Power Systems. *ACS Sustainable Chemistry and Engineering*, **2016**, 4, 188-201	8.3	16
189	Optimal design of sustainable water systems for cities involving future projections. *Computers and Chemical Engineering*, **2014**, 69, 1-15	4	16
188	Optimal Design of Energy Systems Involving Pollution Trading through Forest Plantations. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 2585-2604	8.3	15
187	Optimal planning for the supply chain of biofuels for aviation in Mexico. *Clean Technologies and Environmental Policy*, **2017**, 19, 1387-1402	4.3	15
186	Optimal integration of organic Rankine cycle and desalination systems with industrial processes: Energy-water-environment nexus. *Applied Thermal Engineering*, **2019**, 158, 113740	5.8	15
185	Optimization of Microalgae-to-Biodiesel Production Process Using a Metaheuristic Technique. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 8490-8498	8.3	15
184	Involving integrated seawater desalination-power plants in the optimal design of water distribution networks. *Resources, Conservation and Recycling*, **2015**, 104, 181-193	11.9	15
183	Involving economic, environmental and safety issues in the optimal purification of biobutanol. *Chemical Engineering Research and Design*, **2016**, 103, 365-376	5.5	15
182	Synthesis and dual-objective optimization of industrial combined heat and power plants compromising the water□energy nexus. *Applied Energy*, **2018**, 224, 448-468	10.7	15
181	Strategic planning to improve the Human Development Index in disenfranchised communities through satisfying food, water and energy needs. *Food and Bioproducts Processing*, **2019**, 117, 14-29	4.9	14
180	A mixed-integer dynamic optimization approach for the optimal planning of distributed biorefineries. *Computers and Chemical Engineering*, **2015**, 80, 37-62	4	14

179	Dynamic optimization for the planning of a waste management system involving multiple cities. *Journal of Cleaner Production*, **2017**, 165, 190-203	10.3	14
178	Optimal Design of Multiplant Cogeneration Systems with Uncertain Flaring and Venting. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 675-688	8.3	14
177	Analysis of Carbon Policies in the Optimal Design of Domestic Cogeneration Systems Involving Biogas Consumption. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 4429-4442	8.3	13
176	Fairness-guided design of water distribution networks for agricultural lands. *Computers and Chemical Engineering*, **2019**, 130, 106547	4	13
175	Waste Heat Recovery through Organic Rankine Cycles in the Bioethanol Separation Process. *Industrial & Engineering Chemistry Research*, **2014**, 53, 6773-6788	3.9	13
174	Synthesis of Multi-component Mass-exchange Networks. *Chinese Journal of Chemical Engineering*, **2013**, 21, 376-381	3.2	13
173	A Systems Approach for Process Simplification through Process Integration. *Chemical Engineering and Technology*, **2012**, 35, 1262-1272	2	13
172	Incorporation of Mass and Energy Integration in the Optimal Bioethanol Separation Process. *Chemical Engineering and Technology*, **2013**, 36, 1865-1873	2	13
171	A multi-objective optimization approach for sustainable water management for places with over-exploited water resources. *Computers and Chemical Engineering*, **2019**, 121, 158-173	4	13
170	Optimal design of total integrated residential complexes involving water-energy-waste nexus. *Clean Technologies and Environmental Policy*, **2018**, 20, 1061-1085	4.3	13
169	Optimal design of integrated agricultural water networks. *Computers and Chemical Engineering*, **2016**, 84, 63-82	4	12
168	Defining priorities in the design of power and water distribution networks. *Energy*, **2017**, 137, 1026-1040	7.9	12
167	Strategic Planning for the Supply Chain of Aviation Biofuel with Consideration of Hydrogen Production. *Industrial & Engineering Chemistry Research*, **2017**, 56, 13812-13830	3.9	12
166	Optimal production of power from mid-temperature geothermal sources: Scale and safety issues. *Energy Conversion and Management*, **2018**, 165, 172-182	10.6	12
165	Integrating Mass and Energy through the Anchor-Tenant Approach for the Synthesis of Carbon-Hydrogen-Oxygen Symbiosis Networks. *Industrial & Engineering Chemistry Research*, **2019**, 58, 16761-16776	3.9	12
164	On the environmental, economic and safety optimization of distributed treatment systems for industrial effluents discharged to watersheds. *Journal of Loss Prevention in the Process Industries*, **2013**, 26, 908-923	3.5	12
163	A multi-objective approach for property-based synthesis of batch water networks. *Chemical Engineering and Processing: Process Intensification*, **2013**, 65, 83-96	3.7	12
162	Optimal design of agricultural water systems with multiperiod collection, storage, and distribution. *Agricultural Water Management*, **2015**, 152, 161-172	5.9	12

161	Feasible Design Space for Shell-and-Tube Heat Exchangers Using the Bell–Delaware Method. *Industrial & Engineering Chemistry Research*, **2007**, 46, 143-155	3.9	12
160	Involving Acceptability in the Optimal Synthesis of Water Networks in Eco-Industrial Parks. *Industrial & Engineering Chemistry Research*, **2019**, 58, 2268-2279	3.9	12
159	Sustainable assessment of Water-Energy-Food Nexus at regional level through a multi-stakeholder optimization approach. *Journal of Cleaner Production*, **2021**, 290, 125194	10.3	12
158	Integrated utility pricing and design of water-energy rural off-grid systems. *Energy*, **2019**, 177, 511-529	7.9	11
157	Structural and Operating Optimization of the Methanol Process Using a Metaheuristic Technique. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 3135-3150	8.3	11
156	Analysis of the financial risk under uncertainty in the municipal solid waste management involving multiple stakeholders. *Computers and Chemical Engineering*, **2018**, 117, 433-450	4	11
155	Siting Optimization of Facility and Unit Relocation with the Simultaneous Consideration of Economic and Safety Issues. *Industrial & Engineering Chemistry Research*, **2014**, 53, 3950-3958	3.9	11
154	Simulation of Syngas Production from Lignin Using Guaiacol as a Model Compound. *Energies*, **2015**, 8, 6705-6714	3.1	11
153	Incorporation of the Seasonal Variations in the Optimal Treatment of Industrial Effluents Discharged to Watersheds. *Industrial & Engineering Chemistry Research*, **2013**, 52, 5145-5160	3.9	11
152	Systematic Approach for Assessing the Water–Energy–Food Nexus for Sustainable Development in Regions with Resource Scarcities. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 13734-13748	8.3	11
151	A Disjunctive Programming Approach for Optimizing Carbon, Hydrogen, and Oxygen Symbiosis Networks. *Process Integration and Optimization for Sustainability*, **2019**, 3, 199-212	2	11
150	Involving the Water–Energy–Food Nexus in Integrating Low-Income and Isolated Communities. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 1399-1418	8.3	11
149	Mixed Integer Nonlinear Programming Model for Sustainable Water Management in Macroscopic Systems: Integrating Optimal Resource Management to the Synthesis of Distributed Treatment Systems. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 2129-2145	8.3	10
148	Multiobjective optimization for designing and operating more sustainable water management systems for a city in Mexico. *AICHE Journal*, **2015**, 61, 2428-2446	3.6	10
147	Optimal design of reusing water systems in a housing complex. *Clean Technologies and Environmental Policy*, **2015**, 17, 343-357	4.3	10
146	Total Heat Integration in the Biobutanol Separation Process. *Industrial & Engineering Chemistry Research*, **2016**, 55, 3000-3012	3.9	10
145	Optimal reconfiguration of water networks based on properties. *Clean Technologies and Environmental Policy*, **2014**, 16, 303-328	4.3	10
144	Reduction of greenhouse gas emissions from steam power plants through optimal integration with algae and cogeneration systems. *Clean Technologies and Environmental Policy*, **2015**, 17, 2401-2415	4.3	10

143	Involving resilience in optimizing the water-energy-food nexus at macroscopic level. *Chemical Engineering Research and Design*, **2021**, 147, 259-273	5.5	10
142	Optimal design of domestic water-heating solar systems. *Clean Technologies and Environmental Policy*, **2015**, 17, 637-656	4.3	9
141	A Multistakeholder Approach for the Optimal Planning of Sustainable Energy Systems. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 9451-9460	8.3	9
140	Mathematical optimization of a supply chain for the production of fuel pellets from residual biomass. *Clean Technologies and Environmental Policy*, **2017**, 19, 721-734	4.3	9
139	Improving convergence of the stochastic decomposition algorithm by using an efficient sampling technique. *Computers and Chemical Engineering*, **2004**, 28, 767-773	4	9
138	Effective Use of Carbon Pricing on Climate Change Mitigation Projects: Analysis of the Biogas Supply Chain to Substitute Liquefied-Petroleum Gas in Mexico. *Processes*, **2019**, 7, 668	2.9	9
137	Optimal sustainable water-Energy storage strategies for off-grid systems in low-income communities. *Computers and Chemical Engineering*, **2019**, 123, 87-109	4	9
136	Perspectives for Implementing Distributed Generation in Developing Countries through Modeling Techniques. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 1022-1038	8.3	9
135	Fair Allocation of Potential COVID-19 Vaccines Using an Optimization-Based Strategy. *Process Integration and Optimization for Sustainability*, **2021**, 5, 3-12	2	9
134	Optimum heat storage design for solar-driven absorption refrigerators integrated with heat exchanger networks. *AICHE Journal*, **2014**, 60, 909-930	3.6	8
133	Optimal Design of a Distributed Treatment System for Increasing Dissolved Oxygen in Watersheds through Self-Rotating Discs. *ACS Sustainable Chemistry and Engineering*, **2013**, 1, 1267-1279	8.3	8
132	Optimal Design of Water Distribution Networks with Incorporation of Uncertainties and Energy Nexus. *Process Integration and Optimization for Sustainability*, **2017**, 1, 275-292	2	8
131	Evaluation of carbon and water policies in the optimization of water distribution networks involving power-desalination plants. *Applied Energy*, **2019**, 236, 927-936	10.7	8
130	Sustainable strategic planning for a national natural gas energy system accounting for unconventional sources. *Energy Conversion and Management*, **2019**, 181, 382-397	10.6	8
129	Optimization Approach to Identify Fair Solutions in the Synthesis of Carbon, Hydrogen, and Oxygen Symbiosis Networks. *Industrial & Engineering Chemistry Research*, **2020**, 59, 5985-5995	3.9	7
128	Synthesis of mass exchange networks: A novel mathematical programming approach. *Computers and Chemical Engineering*, **2018**, 115, 226-232	4	7
127	Involving Acceptability in the Optimal Design of Total Integrated Residential Complexes Involving the Water-Energy-Waste Nexus. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 7390-7402	8.3	7
126	Global optimization of wastewater integration networks for processes with multiple contaminants. *Environmental Progress and Sustainable Energy*, **2012**, 31, 449-458	2.5	7

125	An integrated approach to the optimization of in-plant wastewater interception with mass and property constraints. *Clean Technologies and Environmental Policy*, **2012**, 14, 257-265	4.3	7
124	Systematic Synthesis of Mass Exchange Networks for Multicomponent Systems. *Industrial & Engineering Chemistry Research*, **2013**, 52, 14219-14230	3.9	7
123	Optimization of Process Flowsheets through Metaheuristic Techniques **2019**,		7
122	Optimal Planning for Satisfying Future Electricity Demands Involving Simultaneously Economic, Emissions, and Water Concerns. *Process Integration and Optimization for Sustainability*, **2020**, 4, 379-389	2	7
121	Optimization of the integrated power and desalination plant with algal cultivation system compromising the energy-water-environment nexus. *Sustainable Energy Technologies and Assessments*, **2020**, 42, 100879	4.7	7
120	Water, food and power grid optimization at macroscopic level involving multi-stakeholder approach. *Energy Procedia*, **2018**, 153, 347-352	2.3	7
119	Optimal design of water networks for shale gas hydraulic fracturing including economic and environmental criteria. *Clean Technologies and Environmental Policy*, **2018**, 20, 2311-2332	4.3	7
118	Optimal Synthesis of Property-Based Water Networks Considering Growing Demand Projections. *Industrial & Engineering Chemistry Research*, **2014**, 53, 18260-18272	3.9	6
117	A Mathematical Programming Approach for the Optimal Synthesis of Nanofibers through an Electrospinning Process. *ACS Sustainable Chemistry and Engineering*, **2014**, 2, 454-464	8.3	6
116	Sustainable Optimization of Food Networks in Disenfranchised Communities. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 8895-8907	8.3	6
115	Environmental, Technical, and Economic Evaluation of a New Treatment for Wastewater from Slaughterhouses. *International Journal of Environmental Research*, **2017**, 11, 535-545	2.9	6
114	Optimal Multi-Objective Planning of Distributed Biorefinery Systems Involving Economic, Environmental and Social Aspects. *Computer Aided Chemical Engineering*, **2012**, 31, 470-474	0.6	6
113	Involving economic incentives in optimizing the methanol supply chain considering conventional and unconventional resources. *Applied Thermal Engineering*, **2020**, 166, 114622	5.8	6
112	Hybrid Multiobjective Optimization Using Deterministic and Metaheuristic Techniques for Flowback Water Reusing in Hydraulic Fracturing Processes. *Industrial & Engineering Chemistry Research*, **2020**, 59, 15298-15308	3.9	6
111	Optimal Design of Sustainable Agricultural Water Networks. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 440-457	8.3	6
110	Involving Environmental Assessment in the Optimal Design of Domestic Cogeneration Systems. *Process Integration and Optimization for Sustainability*, **2017**, 1, 15-32	2	5
109	Intensification for the Silane Production Involving Economic and Safety Objectives. *Industrial & Engineering Chemistry Research*, **2017**, 56, 261-269	3.9	5
108	Simultaneous structural and operating optimization of process flowsheets combining process simulators and metaheuristic techniques: The case of solar-grade silicon process. *Computers and Chemical Engineering*, **2020**, 140, 106946	4	5

107	Analysis of Carbon Policies in the Optimal Integration of Power Plants Involving Chemical Looping Combustion with Algal Cultivation Systems. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 5248-5264	8.2	5
106	Life cycle assessment for Ambrox® production from different chemical routes. *Journal of Cleaner Production*, **2016**, 130, 202-212	10.3	5
105	Environmental impact and occupational hazard evaluation on intensified processes to produce diphenyl carbonate. *Computers and Chemical Engineering*, **2019**, 122, 19-30	4	5
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