

# Carlos Pozo

## List of Publications by Year in descending order

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Version: 2024-02-01

55  
papers

1,364  
citations

304602

22  
h-index

360920

35  
g-index

56  
all docs

56  
docs citations

56  
times ranked

1444  
citing authors

#	ARTICLE	IF	CITATIONS
1	Equity in allocating carbon dioxide removal quotas. <i>Nature Climate Change</i> , 2020, 10, 640-646.	8.1	91
2	Sustainability footprints of a renewable carbon transition for the petrochemical sector within planetary boundaries. <i>One Earth</i> , 2021, 4, 565-583.	3.6	87
3	Powering sustainable development within planetary boundaries. <i>Energy and Environmental Science</i> , 2019, 12, 1890-1900.	15.6	77
4	On the use of Principal Component Analysis for reducing the number of environmental objectives in multi-objective optimization: Application to the design of chemical supply chains. <i>Chemical Engineering Science</i> , 2012, 69, 146-158.	1.9	69
5	Multi-stage linear programming model for optimizing cropping plan decisions under the new Common Agricultural Policy. <i>Land Use Policy</i> , 2015, 48, 515-524.	2.5	65
6	Realizing the Potential High Benefits of Circular Economy in the Chemical Industry: Ethylene Monomer Recovery via Polyethylene Pyrolysis. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 3561-3572.	3.2	65
7	Time for global action: an optimised cooperative approach towards effective climate change mitigation. <i>Energy and Environmental Science</i> , 2018, 11, 572-581.	15.6	52
8	Productivity and energy efficiency assessment of existing industrial gases facilities via data envelopment analysis and the Malmquist index. <i>Applied Energy</i> , 2018, 212, 1563-1577.	5.1	51
9	Biomass Conversion into Fuels, Chemicals, or Electricity? A Network-Based Life Cycle Optimization Approach Applied to the European Union. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 10570-10582.	3.2	45
10	Eco-efficiency assessment of EU manufacturing sectors combining input-output tables and data envelopment analysis following production and consumption-based accounting approaches. <i>Journal of Cleaner Production</i> , 2018, 174, 1161-1189.	4.6	43
11	Process systems engineering thinking and tools applied to sustainability problems: current landscape and future opportunities. <i>Current Opinion in Chemical Engineering</i> , 2019, 26, 170-179.	3.8	39
12	On the use of filters to facilitate the post-optimal analysis of the Pareto solutions in multi-objective optimization. <i>Computers and Chemical Engineering</i> , 2015, 74, 48-58.	2.0	38
13	Systematic approach for the life cycle multi-objective optimization of buildings combining objective reduction and surrogate modeling. <i>Energy and Buildings</i> , 2016, 130, 506-518.	3.1	38
14	Combined use of life cycle assessment, data envelopment analysis and Monte Carlo simulation for quantifying environmental efficiencies under uncertainty. <i>Journal of Cleaner Production</i> , 2017, 166, 771-783.	4.6	37
15	Process modelling and life cycle assessment coupled with experimental work to shape the future sustainable production of chemicals and fuels. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 1179-1194.	1.9	34
16	Optimization and evolution in metabolic pathways: Global optimization techniques in Generalized Mass Action models. <i>Journal of Biotechnology</i> , 2010, 149, 141-153.	1.9	32
17	Deterministic global optimization algorithm based on outer approximation for the parameter estimation of nonlinear dynamic biological systems. <i>BMC Bioinformatics</i> , 2012, 13, 90.	1.2	31
18	Comparing biofuels through the lens of sustainability: A data envelopment analysis approach. <i>Applied Energy</i> , 2022, 307, 118201.	5.1	31

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19	Combined use of MILP and multi-linear regression to simplify LCA studies. <i>Computers and Chemical Engineering</i> , 2015, 82, 34-43.	2.0	29
20	Sustainability efficiency assessment of the electricity mix of the 28 EU member countries combining data envelopment analysis and optimized projections. <i>Energy Policy</i> , 2019, 134, 110921.	4.2	28
21	Electricity grid decarbonisation or green methanol fuel? A life-cycle modelling and analysis of today's transportation-power nexus. <i>Applied Energy</i> , 2020, 265, 114718.	5.1	27
22	Quantifying the cost of leaving the Paris Agreement via the integration of life cycle assessment, energy systems modeling and monetization. <i>Applied Energy</i> , 2019, 242, 588-601.	5.1	26
23	Multiobjective optimization under uncertainty of the economic and life-cycle environmental performance of industrial processes. <i>AIChE Journal</i> , 2014, 60, 2098-2121.	1.8	24
24	Enhancing the $\mu$ -constraint method through the use of objective reduction and random sequences: Application to environmental problems. <i>Computers and Chemical Engineering</i> , 2016, 87, 36-48.	2.0	23
25	Steady-state global optimization of metabolic non-linear dynamic models through recasting into power-law canonical models. <i>BMC Systems Biology</i> , 2011, 5, 137.	3.0	21
26	Global optimization of hybrid kinetic/FBA models via outer-approximation. <i>Computers and Chemical Engineering</i> , 2015, 72, 325-333.	2.0	21
27	A Spatial Branch-and-Bound Framework for the Global Optimization of Kinetic Models of Metabolic Networks. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 5225-5238.	1.8	19
28	Reducing global environmental inequality: Determining regional quotas for environmental burdens through systems optimisation. <i>Journal of Cleaner Production</i> , 2020, 270, 121828.	4.6	16
29	Global environmental and nutritional assessment of national food supply patterns: Insights from a data envelopment analysis approach. <i>Science of the Total Environment</i> , 2021, 755, 142826.	3.9	16
30	Life cycle optimization of BECCS supply chains in the European Union. <i>Applied Energy</i> , 2021, 298, 117252.	5.1	16
31	Comparative sustainability study of energy storage technologies using data envelopment analysis. <i>Energy Storage Materials</i> , 2022, 48, 412-438.	9.5	16
32	Financial risks management of heat exchanger networks under uncertain utility costs via multi-objective optimization. <i>Energy</i> , 2017, 139, 98-117.	4.5	15
33	Process screening framework for the synthesis of process networks from a circular economy perspective. <i>Resources, Conservation and Recycling</i> , 2021, 164, 105147.	5.3	14
34	Outer approximation-based algorithm for biotechnology studies in systems biology. <i>Computers and Chemical Engineering</i> , 2010, 34, 1719-1730.	2.0	13
35	Multiperiod model for the optimal production planning in the industrial gases sector. <i>Applied Energy</i> , 2017, 206, 667-682.	5.1	13
36	Systematic combination of insulation biomaterials to enhance energy and environmental efficiency in buildings. <i>Construction and Building Materials</i> , 2021, 267, 120973.	3.2	13

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37	Identifying the Preferred Subset of Enzymatic Profiles in Nonlinear Kinetic Metabolic Models via Multiobjective Global Optimization and Pareto Filters. <i>PLoS ONE</i> , 2012, 7, e43487.	1.1	12
38	Using Pareto filters to support risk management in optimization under uncertainty: Application to the strategic planning of chemical supply chains. <i>Computers and Chemical Engineering</i> , 2017, 98, 236-255.	2.0	11
39	Temporal sustainability efficiency analysis of urban areas via Data Envelopment Analysis and the hypervolume indicator: Application to London boroughs. <i>Journal of Cleaner Production</i> , 2019, 239, 117839.	4.6	11
40	Assessing the performance of UK universities in the field of chemical engineering using data envelopment analysis. <i>Education for Chemical Engineers</i> , 2019, 29, 29-41.	2.8	11
41	Unraveling the links between public spending and Sustainable Development Goals: Insights from data envelopment analysis. <i>Science of the Total Environment</i> , 2021, 786, 147459.	3.9	11
42	Operating within Planetary Boundaries without compromising well-being? A Data Envelopment Analysis approach. <i>Journal of Cleaner Production</i> , 2020, 270, 121833.	4.6	7
43	Financial Risk Management in Heat Exchanger Networks Considering Multiple Utility Sources with Uncertain Costs. <i>Industrial &amp; Engineering Chemistry Research</i> , 2018, 57, 9831-9848.	1.8	6
44	Reply to the "Comment on "Powering sustainable development within planetary boundaries" by Y. Yang. <i>Energy Environ. Sci.</i> , 2020, 13, DOI: 10.1039/C9EE01176E. <i>Energy and Environmental Science</i> , 2020, 13, 313-316.	15.6	4
45	Systematic MultiObjective Life Cycle Optimization Tools Applied to the Design of Sustainable Chemical Processes. , 2020, , 435-449.		3
46	A global optimization strategy to identify quantitative design principles for gene expression in yeast adaptation to heat shock. <i>Computer Aided Chemical Engineering</i> , 2009, 26, 1045-1050.	0.3	2
47	A meta-heuristic approach for financial risks management in heat exchanger networks. <i>Computer Aided Chemical Engineering</i> , 2017, 40, 955-960.	0.3	2
48	Multiperiod and Multiproduct Model for the Optimal Production Planning in the Gases Sector: Application to an Industrial Case Study. <i>Computer Aided Chemical Engineering</i> , 2017, 40, 1297-1302.	0.3	2
49	Electricity mix assessment of the EU member countries using DEA and EffMixF. <i>Computer Aided Chemical Engineering</i> , 2018, 43, 445-450.	0.3	2
50	Modelling and optimization framework for the multi-objective design of buildings. <i>Computer Aided Chemical Engineering</i> , 2016, , 883-888.	0.3	1
51	An Outer Approximation Algorithm for the Global Optimization of Regulated Metabolic Systems. <i>Computer Aided Chemical Engineering</i> , 2009, , 1707-1712.	0.3	0
52	Deterministic global optimization of kinetic models of metabolic networks: outer approximation vs. spatial branch and bound. <i>Computer Aided Chemical Engineering</i> , 2011, 29, 582-586.	0.3	0
53	Long-term planning and retrofitting of supply and distribution chains with decaying performance. <i>Computer Aided Chemical Engineering</i> , 2016, 38, 823-828.	0.3	0
54	An optimization model for the long-term planning of energy distribution networks. , 2016, , .		0

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55	Systematic generation of insulation materials via DEA and Building modelling. Computer Aided Chemical Engineering, 2018, 43, 457-462.	0.3	0