

# Fernando Israel GÃ³mez Castro

## List of Publications by Year in descending order

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85  
papers

1,260  
citations

394286

19  
h-index

414303

32  
g-index

86  
all docs

86  
docs citations

86  
times ranked

1019  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on the production processes of renewable jet fuel. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 79, 709-729.	8.2	223
2	Dehydration of Bioethanol by Hybrid Process Liquid-Liquid Extraction/Extractive Distillation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 5847-5855.	1.8	73
3	Feasibility study of a thermally coupled reactive distillation process for biodiesel production. <i>Chemical Engineering and Processing: Process Intensification</i> , 2010, 49, 262-269.	1.8	49
4	Optimal design of cryogenic distillation columns with side heat pumps for the propylene/propane separation. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 82, 112-122.	1.8	45
5	Simultaneous energy integration and intensification of the hydrotreating process to produce biojet fuel from <i>Jatropha curcas</i> . <i>Chemical Engineering and Processing: Process Intensification</i> , 2016, 110, 134-145.	1.8	43
6	Intensification of a hydrotreating process to produce biojet fuel using thermally coupled distillation. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 88, 29-36.	1.8	41
7	Esterification of fatty acids in a thermally coupled reactive distillation column by the two-step supercritical methanol method. <i>Chemical Engineering Research and Design</i> , 2011, 89, 480-490.	2.7	38
8	Simulation study on biodiesel production by reactive distillation with methanol at high pressure and temperature: Impact on costs and pollutant emissions. <i>Computers and Chemical Engineering</i> , 2013, 52, 204-215.	2.0	38
9	Optimal Designs of Multiple Dividing Wall Columns. <i>Chemical Engineering and Technology</i> , 2011, 34, 2051-2058.	0.9	33
10	Design, optimization and controllability of an alternative process based on extractive distillation for an ethane-carbon dioxide mixture. <i>Chemical Engineering and Processing: Process Intensification</i> , 2013, 74, 55-68.	1.8	32
11	Energy Integration of a Hydrotreatment Process for Sustainable Biojet Fuel Production. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 8165-8175.	1.8	29
12	Intensification of the hydrotreating process to produce renewable aviation fuel through reactive distillation. <i>Chemical Engineering and Processing: Process Intensification</i> , 2018, 124, 122-130.	1.8	29
13	Intensification of the alcohol-to-jet process to produce renewable aviation fuel. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021, 160, 108270.	1.8	28
14	Process control analysis for intensified bioethanol separation systems. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 75, 119-125.	1.8	27
15	Modeling, simulation and intensification of hydroprocessing of micro-algae oil to produce renewable aviation fuel. <i>Clean Technologies and Environmental Policy</i> , 2018, 20, 1589-1598.	2.1	27
16	Recovery of Cobalt from Spent Lithium-Ion Mobile Phone Batteries Using Liquid-Liquid Extraction. <i>Batteries</i> , 2019, 5, 44.	2.1	25
17	Dynamic behavior of a multi-tasking reactive distillation column for production of silane, dichlorosilane and monochlorosilane. <i>Chemical Engineering and Processing: Process Intensification</i> , 2016, 108, 125-138.	1.8	23
18	Optimization of a solar collector with evacuated tubes using the simulated annealing and computational fluid dynamics. <i>Energy Conversion and Management</i> , 2018, 166, 343-355.	4.4	22

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19	A comparative simulation study of power generation plants involving chemical looping combustion systems. <i>Computers and Chemical Engineering</i> , 2016, 84, 434-445.	2.0	21
20	Simulation and optimization of a biojet fuel production process. <i>Computer Aided Chemical Engineering</i> , 2013, 32, 13-18.	0.3	19
21	Optimization of a reactive distillation process with intermediate condensers for silane production. <i>Computers and Chemical Engineering</i> , 2015, 78, 85-93.	2.0	19
22	Analysis of Dynamic Performance for Multiple Dividing Wall Distillation Columns. <i>Industrial &amp; Engineering Chemistry Research</i> , 2013, 52, 9922-9929.	1.8	18
23	Modelling, simulation and intensification of the hydroprocessing of chicken fat to produce renewable aviation fuel. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021, 159, 108250.	1.8	17
24	Simplified Methodology for the Design and Optimization of Thermally Coupled Reactive Distillation Systems. <i>Industrial &amp; Engineering Chemistry Research</i> , 2012, 51, 11717-11730.	1.8	16
25	Design of a Multitask Reactive Distillation with Intermediate Heat Exchangers for the Production of Silane and Chlorosilane Derivates. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 10968-10977.	1.8	15
26	Hybrid Distillation/Melt Crystallization Process Using Thermally Coupled Arrangements: Optimization with evolutive algorithms. <i>Chemical Engineering and Processing: Process Intensification</i> , 2013, 67, 25-38.	1.8	14
27	Analysis of alternative non-catalytic processes for the production of biodiesel fuel. <i>Clean Technologies and Environmental Policy</i> , 2015, 17, 2041-2054.	2.1	13
28	Controllability Analysis of Distillation Sequences for the Separation of Biojet Fuel and Green Diesel Fractions. <i>Chemical Engineering and Technology</i> , 2016, 39, 2273-2283.	0.9	13
29	Synthesis of mass exchange networks: A novel mathematical programming approach. <i>Computers and Chemical Engineering</i> , 2018, 115, 226-232.	2.0	13
30	Comparison of the performance of different metaheuristic methods for the optimization of shell-and-tube heat exchangers. <i>Computers and Chemical Engineering</i> , 2021, 152, 107403.	2.0	13
31	Mechanical design and hydrodynamic analysis of sieve trays in a dividing wall column for a hydrocarbon mixture. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 97, 55-65.	1.8	12
32	Petlyuk Columns in Multicomponent Distillation Trains: Effect of Their Location on the Separation of Hydrocarbon Mixtures. <i>Chemical Engineering and Technology</i> , 2016, 39, 2207-2216.	0.9	12
33	Purification of Bioethanol from a Fermentation Process: Alternatives for Dehydration. <i>Computer Aided Chemical Engineering</i> , 2016, 38, 373-378.	0.3	11
34	Mathematical optimization of a supply chain for the production of fuel pellets from residual biomass. <i>Clean Technologies and Environmental Policy</i> , 2017, 19, 721-734.	2.1	11
35	Alternatives for the Purification of the Blend Butanol/Ethanol from an Acetone/Butanol/Ethanol Fermentation Effluent. <i>Chemical Engineering and Technology</i> , 2019, 42, 1088-1100.	0.9	11
36	Modelling of the hydrotreating process to produce renewable aviation fuel from micro-algae oil. <i>Computer Aided Chemical Engineering</i> , 2017, 40, 655-660.	0.3	10

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37	Design of non-equilibrium stage separation systems by a stochastic optimization approach for a class of mixtures. <i>Chemical Engineering and Processing: Process Intensification</i> , 2015, 88, 58-69.	1.8	9
38	Performance of a gasoline engine powered by a mixture of ethanol and n-butanol. <i>Clean Technologies and Environmental Policy</i> , 2018, 20, 1929-1937.	2.1	9
39	Optimization of the supply chain for the production of biomass-based fuels and high-added value products in Mexico. <i>Computers and Chemical Engineering</i> , 2021, 145, 107181.	2.0	9
40	A novel approach to identify hazards in non-conventional/intensified biofuels production processes. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020, 157, 108139.	1.8	8
41	The integration of pelletized agricultural residues into electricity grid: Perspectives from the human, environmental and economic aspects. <i>Journal of Cleaner Production</i> , 2021, 321, 128932.	4.6	8
42	Synthesis and intensification of a biorefinery to produce renewable aviation fuel, biofuels, bioenergy and chemical products from <i>Jatropha Curcas</i> fruit. <i>IET Renewable Power Generation</i> , 2022, 16, 2988-3008.	1.7	8
43	Hydrodynamic feasibility of the production of biodiesel fuel in a high-pressure reactive distillation column. <i>Chemical Engineering and Processing: Process Intensification</i> , 2017, 112, 31-37.	1.8	7
44	Design of a low-cost process for the production of biodiesel using waste oil as raw material. <i>Computer Aided Chemical Engineering</i> , 2018, , 1529-1534.	0.3	7
45	Development of a mass transfer model for the rate-based simulation of a batch distillation column. <i>Computers and Chemical Engineering</i> , 2020, 140, 106981.	2.0	7
46	Energy integration of a hydrotreating process for the production of biojet fuel. <i>Computer Aided Chemical Engineering</i> , 2016, 38, 127-132.	0.3	6
47	Development of a biorefinery scheme to produce biofuels from waste cooking oil. <i>Computer Aided Chemical Engineering</i> , 2019, , 289-294.	0.3	6
48	Acetone, Butanol, Ethanol and, Xylitol Production Through a Biorefinery Platform: An Experimental & Simulation Approach. <i>Waste and Biomass Valorization</i> , 2021, 12, 4915-4930.	1.8	6
49	Partial energy integration between biofuels production processes: Effect on costs, CO2 emissions and process safety. <i>Chemical Engineering Research and Design</i> , 2022, 159, 918-930.	2.7	6
50	Energy Minimization in Cryogenic Distillation Columns Through Intermediate Side Heat Exchangers. <i>Computer Aided Chemical Engineering</i> , 2014, 33, 1501-1506.	0.3	5
51	Process integration for the supercritical production of biodiesel and the production of lignocellulosic bioethanol. <i>Computer Aided Chemical Engineering</i> , 2017, 40, 931-936.	0.3	5
52	Dynamic Performance of a Complex Distillation System to Separate a Five-Component Hydrocarbon Mixture. <i>Chemical Engineering and Technology</i> , 2018, 41, 2053-2065.	0.9	5
53	Development of a Virtual Environment for the Rigorous Design and Optimization of Shell-and-tube heat Exchangers. <i>Computer Aided Chemical Engineering</i> , 2020, , 19-24.	0.3	5
54	Production of biodiesel with supercritical ethanol: Compromise between safety and costs. <i>Chemical Engineering Research and Design</i> , 2022, 184, 79-89.	2.7	5

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55	A Framework for an Optimized Sustainable Product and Process Design: Acetone-Butanol-Ethanol Separation and Purification. <i>Computer Aided Chemical Engineering</i> , 2017, 40, 697-702.	0.3	4
56	Production processes from lignocellulosic feedstock. , 2021, , 129-169.		4
57	Hydrotreating of Triglyceride Feedstock to Produce Renewable Aviation Fuel. <i>Recent Innovations in Chemical Engineering</i> , 2018, 11, 77-89.	0.2	4
58	Optimal design and control of trains of dividing wall columns for the separation of petrochemical mixtures. <i>Computer Aided Chemical Engineering</i> , 2012, 30, 742-746.	0.3	3
59	Energy Integration and Optimization of the Separation Section in a Hydrotreating Process for the Production of Biojet Fuel. <i>Computer Aided Chemical Engineering</i> , 2017, 40, 661-666.	0.3	3
60	Optimal synthesis of mass exchange networks through a state-task representation superstructure. <i>Computer Aided Chemical Engineering</i> , 2018, , 331-336.	0.3	3
61	Multiobjective optimization of the supply chain for the production of biomass-based fuels and high-value added products in Mexico. <i>Computers and Chemical Engineering</i> , 2022, 157, 107598.	2.0	3
62	Production of renewable aviation fuel from microalgae. , 2022, , 639-664.		3
63	Energy consumption maps for quaternary distillation sequences. <i>Computer Aided Chemical Engineering</i> , 2016, 38, 121-126.	0.3	2
64	Feasibility of energy integration for high-pressure biofuels production processes. <i>Computer Aided Chemical Engineering</i> , 2018, , 1523-1528.	0.3	2
65	Feasibility study of using reactive distillation for the production of renewable aviation fuel. <i>Computer Aided Chemical Engineering</i> , 2018, , 639-644.	0.3	2
66	A framework for optimised sustainable solvent mixture and separation process design. <i>Computer Aided Chemical Engineering</i> , 2018, 43, 755-760.	0.3	2
67	Supply chain optimization for the production of biofuels and bioproducts from lignocellulosic biomass in Mexico. <i>Computer Aided Chemical Engineering</i> , 2020, 48, 1339-1344.	0.3	2
68	Biojet fuel: Driving the aviation sector to sustainability. , 2021, , 1-31.		2
69	Supply chain for the production of biojet fuel. , 2021, , 201-240.		2
70	Modelling and simulation of a multiple feedstock integrated biorefinery for the production of aviation biofuel and other biofuels. <i>Computer Aided Chemical Engineering</i> , 2021, , 1885-1890.	0.3	2
71	The future trends in the production of biojet fuel. , 2021, , 241-254.		2
72	Biomass: The driver for sustainable development. , 2022, , 1-23.		2

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73	Mechanical Design and Hydraulic Analysis of Sieve Trays in Dividing Wall Columns. Computer Aided Chemical Engineering, 2014, 33, 1375-1380.	0.3	1
74	Rigorous Modelling and Simulation of the Mass transfer on the Trays of a Pilot Scale Distillation column. Computer Aided Chemical Engineering, 2020, , 13-18.	0.3	1
75	Modelling and Simulation of the Conversion of Chicken Fat to Produce Renewable Aviation Fuel through the Hydrotreating Process. Computer Aided Chemical Engineering, 2020, , 1399-1404.	0.3	1
76	Initialization strategy for the dynamic optimization of a batch distillation column with a rate-based model. Computer Aided Chemical Engineering, 2021, , 1189-1194.	0.3	1
77	Injection parameters study for a polypropylene probe used on tension test. Journal of Technology and Innovation, 0, , 1-6.	0.0	1
78	Advanced biorefineries for the production of renewable aviation fuel. , 2022, , 103-124.		1
79	10. Process synthesis and intensification by integration between process design and control. , 2017, , 370-404.		0
80	Rate-based hydrodynamics and reaction performance of a high-pressure reactive distillation column for the production of biodiesel fuel. Computer Aided Chemical Engineering, 2017, , 103-108.	0.3	0
81	Production processes for the conversion of triglyceride feedstock. , 2021, , 55-91.		0
82	Production processes for the conversion of sugar and starchy feedstock. , 2021, , 93-127.		0
83	Process intensification and integration in the production of biojet fuel. , 2021, , 171-199.		0
84	Optimal control of a rate-based modelled batch distillation column: Initialization strategy. Computers and Chemical Engineering, 2022, , 107811.	2.0	0
85	Production of biodiesel: From the oil to the engine. , 2022, , 109-156.		0