

Gerardo J Ruiz-Mercado

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,118
citations

361296

20
h-index

414303

32
g-index

52
all docs

52
docs citations

52
times ranked

886
citing authors

#	ARTICLE	IF	CITATIONS
1	Analysis of incentive policies for phosphorus recovery at livestock facilities in the Great Lakes area. Resources, Conservation and Recycling, 2022, 177, 105973.	5.3	12
2	A data engineering approach for sustainable chemical end-of-life management. Resources, Conservation and Recycling, 2022, 178, 106040.	5.3	6
3	Anaerobic digestate management, environmental impacts, and techno-economic challenges. Waste Management, 2022, 140, 14-30.	3.7	83
4	Valuing economic impact reductions of nutrient pollution from livestock waste. Resources, Conservation and Recycling, 2021, 164, 105199.	5.3	25
5	Data engineering for tracking chemicals and releases at industrial end-of-life activities. Journal of Hazardous Materials, 2021, 405, 124270.	6.5	7
6	A Logistics Analysis for Advancing Carbon and Nutrient Recovery from Organic Waste. , 2021, , 186-207.		2
7	Special Issue on "Bioenergy Systems, Material Management, and Sustainability" Processes, 2021, 9, 590.	1.3	0
8	A geospatial environmental and techno-economic framework for sustainable phosphorus management at livestock facilities. Resources, Conservation and Recycling, 2021, 175, 105843.	5.3	18
9	A data engineering framework for on-site end-of-life industrial operations. Journal of Cleaner Production, 2021, 327, 129514.	4.6	4
10	A Visualization and Control Strategy for Dynamic Sustainability of Chemical Processes. Processes, 2020, 8, 310.	1.3	6
11	Model-driven spatial evaluation of nutrient recovery from livestock leachate for struvite production. Journal of Environmental Management, 2020, 271, 110967.	3.8	9
12	Coordinated management of organic waste and derived products. Computers and Chemical Engineering, 2019, 128, 352-363.	2.0	26
13	Logistics Network Management of Livestock Waste for Spatiotemporal Control of Nutrient Pollution in Water Bodies. ACS Sustainable Chemistry and Engineering, 2019, 7, 18359-18374.	3.2	17
14	A Thermodynamic Feasibility Evaluation Model for the Efficient Struvite Production from Livestock Waste. Computer Aided Chemical Engineering, 2019, 47, 445-450.	0.3	0
15	Applying Environmental Release Inventories and Indicators to the Evaluation of Chemical Manufacturing Processes in Early Stage Development. ACS Sustainable Chemistry and Engineering, 2019, 7, 10937-10950.	3.2	26
16	Spatio-Temporal Control of Nutrient Pollution from Organic Waste. Computer Aided Chemical Engineering, 2019, 46, 1069-1074.	0.3	1
17	Sustainability indicators for end-of-life chemical releases and potential exposure. Current Opinion in Chemical Engineering, 2019, 26, 157-163.	3.8	5
18	Purpose-Driven Reconciliation of Approaches to Estimate Chemical Releases. ACS Sustainable Chemistry and Engineering, 2019, 7, 1260-1270.	3.2	14

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19	Economic and Environmental Analysis for Advancing Sustainable Management of Livestock Waste: A Wisconsin Case Study. ACS Sustainable Chemistry and Engineering, 2018, 6, 6018-6031.	3.2	22
20	A process systems framework for rapid generation of life cycle inventories for pollution control and sustainability evaluation. Clean Technologies and Environmental Policy, 2018, 20, 1543-1561.	2.1	12
21	Valuation of water and emissions in energy systems. Applied Energy, 2018, 210, 518-528.	5.1	28
22	Transformation towards sustainable bioenergy systems. Clean Technologies and Environmental Policy, 2018, 20, 1385-1385.	2.1	4
23	Optimization of multi-pathway production chains and multi-criteria decision-making through sustainability evaluation: a biojet fuel production case study. Clean Technologies and Environmental Policy, 2018, 20, 1697-1719.	2.1	15
24	Coupling Computer-Aided Process Simulation and Estimations of Emissions and Land Use for Rapid Life Cycle Inventory Modeling. ACS Sustainable Chemistry and Engineering, 2017, 5, 3786-3794.	3.2	37
25	A conceptual chemical process for the recycling of Ce, Eu, and Y from LED flat panel displays. Resources, Conservation and Recycling, 2017, 126, 42-49.	5.3	25
26	Energy analysis for the sustainable utilization of biosolids generated in a municipal wastewater treatment plant. Journal of Cleaner Production, 2017, 141, 182-193.	4.6	24
27	Development of Chemical Process Design and Control for Sustainability. Processes, 2016, 4, 23.	1.3	33
28	Modeling and Advanced Control for Sustainable Process Systems. , 2016, , 115-139.		3
29	A framework for multi-stakeholder decision-making and conflict resolution. Computers and Chemical Engineering, 2016, 90, 136-150.	2.0	58
30	Mining Available Data from the United States Environmental Protection Agency to Support Rapid Life Cycle Inventory Modeling of Chemical Manufacturing. Environmental Science & Technology, 2016, 50, 9013-9025.	4.6	49
31	Using Green Chemistry and Engineering Principles To Design, Assess, and Retrofit Chemical Processes for Sustainability. ACS Sustainable Chemistry and Engineering, 2016, 4, 6208-6221.	3.2	27
32	Evaluating Consumer Product Life Cycle Sustainability with Integrated Metrics: A Paper Towel Case Study. Industrial & Engineering Chemistry Research, 2016, 55, 3433-3441.	1.8	8
33	Using GREENSCOPE indicators for sustainable computer-aided process evaluation and design. Computers and Chemical Engineering, 2015, 81, 272-277.	2.0	34
34	Industrial process system assessment: bridging process engineering and life cycle assessment through multiscale modeling. Journal of Cleaner Production, 2015, 90, 142-152.	4.6	13
35	Using GREENSCOPE for Sustainable Process Design. Computer Aided Chemical Engineering, 2014, 34, 741-746.	0.3	3
36	A method for decision making using sustainability indicators. Clean Technologies and Environmental Policy, 2014, 16, 749-755.	2.1	29

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37	Expanding GREENSCOPE beyond the gate: a green chemistry and life cycle perspective. Clean Technologies and Environmental Policy, 2014, 16, 703-717.	2.1	38
38	Sustainability Indicators for Chemical Processes: III. Biodiesel Case Study. Industrial & Engineering Chemistry Research, 2013, 52, 6747-6760.	1.8	57
39	Sustainability Indicators for Chemical Processes: II. Data Needs. Industrial & Engineering Chemistry Research, 2012, 51, 2329-2353.	1.8	78
40	Sustainability Indicators for Chemical Processes: I. Taxonomy. Industrial & Engineering Chemistry Research, 2012, 51, 2309-2328.	1.8	167
41	Rigorous synthesis and simulation of complex distillation networks. AIChE Journal, 2011, 57, 136-148.	1.8	6
42	Robust Thermodynamically-guided Algorithms for Synthesis of Energy Efficient Separation Networks. Computer Aided Chemical Engineering, 2010, 28, 1117-1122.	0.3	1
43	Design and optimization of energy efficient complex separation networks. Computers and Chemical Engineering, 2010, 34, 1556-1563.	2.0	9
44	Rigorous Separation Design. 1. Multicomponent Mixtures, Nonideal Mixtures, and Prefractionating Column Networks. Industrial & Engineering Chemistry Research, 2010, 49, 6499-6513.	1.8	13
45	Synthesis of Energy Efficient Complex Separation Networks. Computer Aided Chemical Engineering, 2009, 27, 1053-1058.	0.3	0
46	Nonequilibrium Reactive Mole Fraction Curve Maps. Industrial & Engineering Chemistry Research, 2009, 48, 3678-3684.	1.8	0
47	Embedded Control for Optimizing Flexible Dynamic Process Performance. Computer Aided Chemical Engineering, 2009, , 1251-1256.	0.3	2
48	Singularities in Reactive Separation Processes. Industrial & Engineering Chemistry Research, 2008, 47, 2808-2816.	1.8	3
49	Separation of CO ₂ from Light Gas Mixtures using Ion-Exchanged Silicoaluminophosphate Nanoporous Sorbents. Industrial & Engineering Chemistry Research, 2008, 47, 5602-5610.	1.8	54
50	Isothermal Isobaric Reactive Flash Problem. Industrial & Engineering Chemistry Research, 2006, 45, 6548-6554.	1.8	5