

Elias Martinez Hernandez

List of Publications by Year in descending order

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47
papers

1,626
citations

304743

22
h-index

315739

38
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docs citations

54
times ranked

1921
citing authors

#	ARTICLE	IF	CITATIONS
1	Techno-Economic Feasibility of Steam and Electric Power Generation from the Gasification of Several Biomass in a Sugarcane Mill. <i>Bioenergy Research</i> , 2022, 15, 1777-1786.	3.9	10
2	Modelling to analyse the process and sustainability performance of forestry-based bioenergy systems. <i>Clean Technologies and Environmental Policy</i> , 2022, 24, 1709-1725.	4.1	15
3	Is Sugarcane a Convenient Feedstock to Provide Ethanol to Oxygenate Gasolines in Mexico? A Process Simulation and Techno-Economic-Based Analysis. <i>Frontiers in Energy Research</i> , 2021, 8, .	2.3	2
4	Molecular Graph Modularity as a Descriptor for Property Estimation—Application to the Viscosity of Biomass-Derived Molecules. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 7044-7052.	6.7	6
5	Assessing the Cost of Biomass and Bioenergy Production in Agroindustrial Processes. <i>Energies</i> , 2021, 14, 4181.	3.1	6
6	Effect of confinement space on adsorption energy and electronic structure of molecule-metal pairs. <i>Structural Chemistry</i> , 2020, 31, 233-241.	2.0	2
7	Techno-economic assessment of an integrated bio-oil steam reforming and hydrodeoxygenation system for polygeneration of hydrogen, chemicals, and combined heat and power production. , 2020, , 69-98.		1
8	Techno-economic analysis of <i>Scenedesmus dimorphus</i> microalgae biorefinery scenarios for biodiesel production and glycerol valorization. <i>Bioresource Technology Reports</i> , 2020, 12, 100605.	2.7	16
9	Perspectives on “Game Changer” Global Challenges for Sustainable 21st Century: Plant-Based Diet, Unavoidable Food Waste Biorefining, and Circular Economy. <i>Sustainability</i> , 2020, 12, 1976.	3.2	67
10	Life Cycle Analysis of Renewable Energy. , 2020, , .		0
11	Energy-water nexus strategies for the energetic valorization of orange peels based on techno-economic and environmental impact assessment. <i>Food and Bioproducts Processing</i> , 2019, 117, 380-387.	3.6	13
12	Techno-economic analysis and life cycle assessment for energy generation from sugarcane bagasse: Case study for a sugar mill in Mexico. <i>Food and Bioproducts Processing</i> , 2019, 118, 281-292.	3.6	37
13	Sustainable bio-economy that delivers the environment’s “food” “energy” “water nexus objectives: The current status in Malaysia. <i>Food and Bioproducts Processing</i> , 2019, 118, 167-186.	3.6	23
14	Economic and environmental impact evaluation of various biomass feedstock for bioethanol production and correlations to lignocellulosic composition. <i>Bioresource Technology Reports</i> , 2019, 7, 100230.	2.7	53
15	Design of biomass value chains that are synergistic with the food’s “energy” “water nexus: Strategies and opportunities. <i>Food and Bioproducts Processing</i> , 2019, 116, 170-185.	3.6	25
16	Techno-economic and greenhouse gas analyses of lignin valorization to eugenol and phenolic products in integrated ethanol biorefineries. <i>Biofuels, Bioproducts and Biorefining</i> , 2019, 13, 978-993.	3.7	40
17	Novel macroalgae (seaweed) biorefinery systems for integrated chemical, protein, salt, nutrient and mineral extractions and environmental protection by green synthesis and life cycle sustainability assessments. <i>Green Chemistry</i> , 2019, 21, 2635-2655.	9.0	102
18	Process simulation and techno-economic analysis of bio-jet fuel and green diesel production – Minimum selling prices. <i>Chemical Engineering Research and Design</i> , 2019, 146, 60-70.	5.6	56

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19	Conceptualization, modeling and environmental impact assessment of a natural rubber techno-ecological system with nutrient, water and energy integration. <i>Journal of Cleaner Production</i> , 2018, 185, 707-722.	9.3	4
20	Modelling nutrient flows in a simplified local food-energy-water system. <i>Resources, Conservation and Recycling</i> , 2018, 133, 343-353.	10.8	20
21	Design of biorefinery systems for conversion of corn stover into biofuels using a biorefinery engineering framework. <i>Clean Technologies and Environmental Policy</i> , 2018, 20, 1501-1514.	4.1	22
22	Role of bioenergy, biorefinery and bioeconomy in sustainable development: Strategic pathways for Malaysia. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 81, 1966-1987.	16.4	120
23	Process Design and Integration Philosophy for Competitive Waste Biorefineries: Example of Levulinic Acid Production From Representative Lignocellulosic Biomasses. , 2018, , 695-725.		3
24	Conceptual design of integrated production of arabinoxylan products using bioethanol pinch analysis. <i>Food and Bioproducts Processing</i> , 2018, 112, 1-8.	3.6	11
25	Value-Added Products from Wastes Using Extremophiles in Biorefineries: Process Modeling, Simulation, and Optimization Tools. , 2018, , 275-300.		1
26	Organic waste as a sustainable feedstock for platform chemicals. <i>Faraday Discussions</i> , 2017, 202, 175-195.	3.2	92
27	Trends in sustainable process design“from molecular to global scales. <i>Current Opinion in Chemical Engineering</i> , 2017, 17, 35-41.	7.8	19
28	Understanding water-energy-food and ecosystem interactions using the nexus simulation tool NexSym. <i>Applied Energy</i> , 2017, 206, 1009-1021.	10.1	115
29	Biorefineries and the food, energy, water nexus “ towards a whole systems approach to design and planning. <i>Current Opinion in Chemical Engineering</i> , 2017, 18, 16-22.	7.8	55
30	Material flow and sustainability analyses of biorefining of municipal solid waste. <i>Bioresource Technology</i> , 2017, 243, 135-146.	9.6	44
31	A Framework for Modeling Local Production Systems with Techno“Ecological Interactions. <i>Journal of Industrial Ecology</i> , 2017, 21, 815-828.	5.5	20
32	Insight-Based Approach for the Design of Integrated Local Food-Energy-Water Systems. <i>Environmental Science & Technology</i> , 2017, 51, 8643-8653.	10.0	18
33	Biorefinery value chain creation. <i>Chemical Engineering Research and Design</i> , 2016, 107, 1-3.	5.6	8
34	Novel integrated mechanical biological chemical treatment (MBCT) systems for the production of levulinic acid from fraction of municipal solid waste: A comprehensive techno-economic analysis. <i>Bioresource Technology</i> , 2016, 215, 131-143.	9.6	61
35	Designing integrated local production systems: A study on the food-energy-water nexus. <i>Journal of Cleaner Production</i> , 2016, 135, 1065-1084.	9.3	101
36	Towards a coherent multi-level framework for resource accounting. <i>Journal of Cleaner Production</i> , 2016, 125, 204-215.	9.3	7

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37	A systematic framework for energetic, environmental and economic (3E) assessment and design of polygeneration systems. <i>Chemical Engineering Research and Design</i> , 2016, 106, 1-25.	5.6	34
38	Urban biorefinery for waste processing. <i>Chemical Engineering Research and Design</i> , 2016, 107, 81-90.	5.6	48
39	Impact of Bioenergy Production on Ecosystem Dynamics and Services—A Case Study on U.K. Heathlands. <i>Environmental Science & Technology</i> , 2015, 49, 5805-5812.	10.0	16
40	Engineering Design of Localised Synergistic Production Systems. <i>Computer Aided Chemical Engineering</i> , 2015, 37, 2363-2368.	0.5	1
41	Process integration, energy and GHG emission analyses of Jatropha-based biorefinery systems. <i>Biomass Conversion and Biorefinery</i> , 2014, 4, 105-124.	4.6	36
42	Economic and environmental impact marginal analysis of biorefinery products for policy targets. <i>Journal of Cleaner Production</i> , 2014, 74, 74-85.	9.3	41
43	Economic value and environmental impact (EVEI) analysis of biorefinery systems. <i>Chemical Engineering Research and Design</i> , 2013, 91, 1418-1426.	5.6	57
44	Integration of bioethanol as an in-process material in biorefineries using mass pinch analysis. <i>Applied Energy</i> , 2013, 104, 517-526.	10.1	57
45	Environmental sustainability analysis of UK whole-wheat bioethanol and CHP systems. <i>Biomass and Bioenergy</i> , 2013, 50, 52-64.	5.7	32
46	Economic Value and Environmental Impact analysis tool for sustainable biorefinery design. <i>Computer Aided Chemical Engineering</i> , 2012, 30, 11-15.	0.5	4
47	Sugarcane Bagasse Valorization Strategies for Bioethanol and Energy Production. , 0, , .		27