Elias Martinez Hernandez

List of Publications by Year
in descending order

47	1,626	304743	315739
papers	citations	22 h-index	38 g-index

54	54	54	1921
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Role of bioenergy, biorefinery and bioeconomy in sustainable development: Strategic pathways for Malaysia. Renewable and Sustainable Energy Reviews, 2018, 81, 1966-1987.	16.4	120
2	Understanding water-energy-food and ecosystem interactions using the nexus simulation tool NexSym. Applied Energy, 2017, 206, 1009-1021.	10.1	115
3	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. Green Chemistry, 2019, 21, 2635-2655.	9.0	102
4	Designing integrated local production systems: A study on the food-energy-water nexus. Journal of Cleaner Production, 2016, 135, 1065-1084.	9.3	101
5	Organic waste as a sustainable feedstock for platform chemicals. Faraday Discussions, 2017, 202, 175-195.	3.2	92
6	Perspectives on â€œGame Changerâ€•Global Challenges for Sustainable 21st Century: Plant-Based Diet, Unavoidable Food Waste Biorefining, and Circular Economy. Sustainability, 2020, 12, 1976.	3.2	67
7	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. Bioresource Technology, 2016, 215, 131-143.	9.6	61
8	Economic value and environmental impact (EVEI) analysis of biorefinery systems. Chemical Engineering Research and Design, 2013, 91, 1418-1426.	5.6	57
9	Integration of bioethanol as an in-process material in biorefineries using mass pinch analysis. Applied Energy, 2013, 104, 517-526.	10.1	57
10	Process simulation and techno-economic analysis of bio-jet fuel and green diesel production â€” Minimum selling prices. Chemical Engineering Research and Design, 2019, 146, 60-70.	5.6	56
11	Biorefineries and the food, energy, water nexus â€” towards a whole systems approach to design and planning. Current Opinion in Chemical Engineering, 2017, 18, 16-22.	7.8	55
12	Economic and environmental impact evaluation of various biomass feedstock for bioethanol production and correlations to lignocellulosic composition. Bioresource Technology Reports, 2019, 7, 100230.	2.7	53
13	Urban biorefinery for waste processing. Chemical Engineering Research and Design, 2016, 107, 81-90.	5.6	48
14	Material flow and sustainability analyses of biorefining of municipal solid waste. Bioresource Technology, 2017, 243, 135-146.	9.6	44
15	Economic and environmental impact marginal analysis of biorefinery products for policy targets. Journal of Cleaner Production, 2014, 74, 74-85.	9.3	41
16	Technoâ€economic and greenhouse gas analyses of lignin valorization to eugenol and phenolic products in integrated ethanol biorefineries. Biofuels, Bioproducts and Biorefining, 2019, 13, 978-993.	3.7	40
17	Techno-economic analysis and life cycle assessment for energy generation from sugarcane bagasse: Case study for a sugar mill in Mexico. Food and Bioproducts Processing, 2019, 118, 281-292.	3.6	37
18	Process integration, energy and GHG emission analyses of Jatropha-based biorefinery systems. Biomass Conversion and Biorefinery, 2014, 4, 105-124.	4.6	36

#	Article	IF	Citations
19	A systematic framework for energetic, environmental and economic (3E) assessment and design of polygeneration systems. Chemical Engineering Research and Design, 2016, 106, 1-25.	5.6	34
20	Environmental sustainability analysis of UK whole-wheat bioethanol and CHP systems. Biomass and Bioenergy, 2013, 50, 52-64.	5.7	32
21	Sugarcane Bagasse Valorization Strategies for Bioethanol and Energy Production. , 0, , .		27
22	Design of biomass value chains that are synergistic with the foodâ€“energyâ€“water nexus: Strategies and opportunities. Food and Bioproducts Processing, 2019, 116, 170-185.	3.6	25
23	Sustainable bio-economy that delivers the environmentâ€“foodâ€“energyâ€“water nexus objectives: The current status in Malaysia. Food and Bioproducts Processing, 2019, 118, 167-186.	3.6	23
24	Design of biorefinery systems for conversion of corn stover into biofuels using a biorefinery engineering framework. Clean Technologies and Environmental Policy, 2018, 20, 1501-1514.	4.1	22
25	A Framework for Modeling Local Production Systems with Technoâ€Ecological Interactions. Journal of Industrial Ecology, 2017, 21, 815-828.	5.5	20
26	Modelling nutrient flows in a simplified local food-energy-water system. Resources, Conservation and Recycling, 2018, 133, 343-353.	10.8	20
27	Trends in sustainable process designâ€”from molecular to global scales. Current Opinion in Chemical Engineering, 2017, 17, 35-41.	7.8	19
28	Insight-Based Approach for the Design of Integrated Local Food-Energy-Water Systems. Environmental Science & Technology, 2017, 51, 8643-8653.	10.0	18
29	Impact of Bioenergy Production on Ecosystem Dynamics and Servicesâ€”A Case Study on U.K. Heathlands. Environmental Science & Technology, 2015, 49, 5805-5812.	10.0	16
30	Techno-economic analysis of Scenedesmus dimorphus microalgae biorefinery scenarios for biodiesel production and glycerol valorization. Bioresource Technology Reports, 2020, 12, 100605.	2.7	16
31	Modelling to analyse the process and sustainability performance of forestry-based bioenergy systems. Clean Technologies and Environmental Policy, 2022, 24, 1709-1725.	4.1	15
32	Energy-water nexus strategies for the energetic valorization of orange peels based on techno-economic and environmental impact assessment. Food and Bioproducts Processing, 2019, 117, 380-387.	3.6	13
33	Conceptual design of integrated production of arabinoxylan products using bioethanol pinch analysis. Food and Bioproducts Processing, 2018, 112, 1-8.	3.6	11
34	Techno-Economic Feasibility of Steam and Electric Power Generation from the Gasification of Several Biomass in a Sugarcane Mill. Bioenergy Research, 2022, 15, 1777-1786.	3.9	10
35	Biorefinery value chain creation. Chemical Engineering Research and Design, 2016, 107, 1-3.	5.6	8
36	Towards a coherent multi-level framework for resource accounting. Journal of Cleaner Production, 2016, 125, 204-215.	9.3	7

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37	Molecular Graph Modularity as a Descriptor for Property Estimationâ€"Application to the Viscosity of Biomass-Derived Molecules. ACS Sustainable Chemistry and Engineering, 2021, 9, 7044-7052.	6.7	6
38	Assessing the Cost of Biomass and Bioenergy Production in Agroindustrial Processes. Energies, 2021, 14, 4181.	3.1	6
39	Economic Value and Environmental Impact analysis tool for sustainable biorefinery design. Computer Aided Chemical Engineering, 2012, 30, 11-15.	0.5	4
40	Conceptualization, modeling and environmental impact assessment of a natural rubber techno-ecological system with nutrient, water and energy integration. Journal of Cleaner Production, 2018, 185, 707-722.	9.3	4
41	Process Design and Integration Philosophy for Competitive Waste Biorefineries: Example of Levulinic Acid Production From Representative Lignocellulosic Biomasses. , 2018, , 695-725.		3
42	Effect of confinement space on adsorption energy and electronic structure of molecule-metal pairs. Structural Chemistry, 2020, 31, 233-241.	2.0	2
43	Is Sugarcane a Convenient Feedstock to Provide Ethanol to Oxygenate Gasolines in Mexico? A Process Simulation and Techno-Economic-Based Analysis. Frontiers in Energy Research, 2021, 8, .	2.3	2
44	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
45	Engineering Design of Localised Synergistic Production Systems. Computer Aided Chemical Engineering, 2015, 37, 2363-2368.	0.5	1
46	Value-Added Products from Wastes Using Extremophiles in Biorefineries: Process Modeling, Simulation, and Optimization Tools. , 2018, , 275-300.		1
47	Life Cycle Analysis of Renewable Energy. , 2020, , .		0