Angel DarÃ-o GonzÃ¡lez-Delgado

List of Publications by Year
in descending order

78 papers	893 citations	471371 17 h-index	552653 26 g-index
79 all docs	79 docs citations	79 times ranked	675 citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluation of alternatives for microalgae oil extraction based on exergy analysis. Applied Energy, 2013, 101, 226-236.	5.1	74
2	Ionic Cross-Linking Fabrication of Chitosan-Based Beads Modified with FeO and TiO₂ Nanoparticles: Adsorption Mechanism toward Naphthalene Removal in Seawater from Cartagena Bay Area. ACS Omega, 2020, 5, 26463-26475.	1.6	38
3	Computer-aided environmental and exergy analysis as decision-making tools for selecting bio-oil feedstocks. Renewable and Sustainable Energy Reviews, 2019, 112, 42-57.	8.2	37
4	Exergetic sensibility analysis and environmental evaluation of chitosan production from shrimp exoskeleton in Colombia. Journal of Cleaner Production, 2020, 248, 119285.	4.6	34
5	Characterization of Residual Biomasses and Its Application for the Removal of Lead Ions from Aqueous Solution. Applied Sciences (Switzerland), 2019, 9, 4486.	1.3	32
6	Environmental Assessment of Large Scale Production of Magnetite (Fe3O4) Nanoparticles via Coprecipitation. Applied Sciences (Switzerland), 2019, 9, 1682.	1.3	31
7	Nickel adsorption from aqueous solution using lemon peel biomass chemically modified with TiO2 nanoparticles. Sustainable Chemistry and Pharmacy, 2020, 17, 100299.	1.6	31
8	Cd (II) and Ni (II) uptake by novel biosorbent prepared from oil palm residual biomass and Al2O3 nanoparticles. Sustainable Chemistry and Pharmacy, 2020, 15, 100216.	1.6	31
9	Environmental Sustainability Evaluation of Iron Oxide Nanoparticles Synthesized via Green Synthesis and the Coprecipitation Method: A Comparative Life Cycle Assessment Study. ACS Omega, 2021, 6, 12410-12423.	1.6	30
10	Biodiesel and Hydrogen Production in a Combined Palm and Jatropha Biomass Biorefinery: Simulation, Techno-Economic, and Environmental Evaluation. ACS Omega, 2020, 5, 7074-7084.	1.6	28
11	Biorefinery synthesis and design using sustainability parameters and hierarchical/3D multi-objective optimization. Journal of Cleaner Production, 2019, 240, 118134.	4.6	27
12	Comparative analysis of biorefinery designs based on acetone-butanol-ethanol fermentation under exergetic, techno-economic, and sensitivity analyses towards a sustainability perspective. Journal of Cleaner Production, 2021, 298, 126761.	4.6	26
13	Adsorption of Azo-Anionic Dyes in a Solution Using Modified Coconut (Cocos nucifera) Mesocarp: Kinetic and Equilibrium Study. Water (Switzerland), 2021, 13, 1382.	1.2	25
14	Application of Techno-economic and Sensitivity Analyses as Decision-Making Tools for Assessing Emerging Large-Scale Technologies for Production of Chitosan-Based Adsorbents. ACS Omega, 2020, 5, 17601-17610.	1.6	22
15	Development of a topology of microalgae-based biorefinery: process synthesis and optimization using a combined forwardâ€“backward screening and superstructure approach. Clean Technologies and Environmental Policy, 2015, 17, 2213-2228.	2.1	21
16	Computer-aided environmental and exergy analyses of a large-scale production of chitosan microbeads modified with TiO2 nanoparticles. Journal of Cleaner Production, 2019, 237, 117804.	4.6	21
17	Optimization of Enzyme-Assisted Extraction of Flavonoids from Corn Husks. Processes, 2019, 7, 804.	1.3	21
18	A Technical and Environmental Evaluation of Six Routes for Industrial Hydrogen Production from Empty Palm Fruit Bunches. ACS Omega, 2019, 4, 15457-15470.	1.6	19

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19	Evaluation of Large-Scale Production of Chitosan Microbeads Modified with Nanoparticles Based on Exergy Analysis. Energies, 2019, 12, 1200.	1.6	18
20	Comparison of Biobutanol Production Pathways via Acetoneâ€“Butanolâ€“Ethanol Fermentation Using a Sustainability Exergy-Based Metric. ACS Omega, 2020, 5, 18710-18730.	1.6	18
21	Computer-aided simulation and exergy analysis of TiO₂ nanoparticles production via green chemistry. PeerJ, 2019, 7, e8113.	0.9	17
22	Economic Evaluation and Techno-Economic Sensitivity Analysis of a Mass Integrated Shrimp Biorefinery in North Colombia. Polymers, 2020, 12, 2397.	2.0	16
23	Enhancement of Cadmium Adsorption Capacities of Agricultural Residues and Industrial Fruit Byproducts by the Incorporation of Al₂O₃ Nanoparticles. ACS Omega, 2020, 5, 23645-23653.	1.6	16
24	Process Synthesis, Analysis, and Optimization Methodologies toward Chemical Process Sustainability. Industrial & Engineering Chemistry Research, 2021, 60, 4193-4217.	1.8	13
25	Application of environmental and hazard assessment methodologies towards the sustainable production of crude palm oil in North-Colombia. Sustainable Chemistry and Pharmacy, 2020, 15, 100221.	1.6	13
26	Evaluating the Exergetic Performance of the Amine Treatment Unit in a Latin-American Refinery. ACS Omega, 2019, 4, 21993-21997.	1.6	12
27	Aggregate/Weighted Global Sustainability and Exergy Metric for Assessing Emerging Transformation Technologies. ACS Sustainable Chemistry and Engineering, 2020, 8, 16637-16646.	3.2	10
28	Kinetics of Mercury and Nickel Adsorption Using Chemically Pretreated Cocoa (<i>Theobroma) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382	1.1	9
29	Evaluating the feasibility of a pilot-scale shrimp biorefinery via techno-economic analysis. Journal of Cleaner Production, 2021, 320, 128740.	4.6	9
30	Sustainable Design Approach for Modeling Bioprocesses from Laboratory toward Commercialization: Optimizing Chitosan Production. Polymers, 2022, 14, 25.	2.0	9
31	Simulation of bioethanol production process from residual microalgae biomass. Computer Aided Chemical Engineering, 2012, , 1048-1052.	0.3	8
32	Astaxanthin production from Haematococcus pluvialis: effects of light wavelength and salinity. Contemporary Engineering Sciences, 2017, 10, 1739-1746.	0.2	8
33	Assessment of the Effect of Al2O3 and TiO2 Nanoparticles on Orange Peel Biomass and its Application for Cd (II) and Ni (II) Uptake. Transactions of the ASABE, 2019, 62, 139-147.	1.1	8
34	Enzymatic Transesterification of Waste Frying Oil from Local Restaurants in East Colombia Using a Combined Lipase System. Applied Sciences (Switzerland), 2020, 10, 3566.	1.3	8
35	An integrated biorefinery approach via material recycle/reuse networks for the extraction of value-added components from shrimp: Computer-aided simulation and environmental assessment. Food and Bioproducts Processing, 2021, 127, 443-453.	1.8	8
36	Computer-aided economic evaluation of pectin extraction from cocoa pod husk (Theobroma cacao L.). Contemporary Engineering Sciences, 2017, 10, 1493-1500.	0.2	8

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37	Effect of pH and particle size for lead and nickel uptake from aqueous solution using cassava (Manihot esculenta) and yam (Dioscorea alata) residual biomasses modified with titanium dioxide nanoparticles. Indian Journal of Science and Technology, 2018, 11, 1-7.	0.5	7
38	Evaluation of mechanical-green solvent pretreatment of oil palm wastes for reducing sugars production in North-Colombia. Sustainable Chemistry and Pharmacy, 2020, 16, 100256.	1.6	7
39	Efficient Sulfate Adsorption on Modified Adsorbents Prepared from Zea mays Stems. Applied Sciences (Switzerland), 2021, 11, 1596.	1.3	7
40	Variables Affecting Delignification of Corn Wastes Using Urea for Total Reducing Sugars Production. ACS Omega, 2020, 5, 12196-12201.	1.6	6
41	Inherent Safety Analysis and Sustainability Evaluation of Chitosan Production from Shrimp Exoskeleton in Colombia. Water (Switzerland), 2021, 13, 553.	1.2	6
42	Development of a biorefinery approach for shrimp processing in North-Colombia: Process simulation and sustainability assessment. Environmental Technology and Innovation, 2021, 22, 101461.	3.0	6
43	Synthesis and characterization of cassava, yam and lemon peels modified with TiO2 nanoparticles. Contemporary Engineering Sciences, 2018, 11, 1863-1871.	0.2	6
44	Immobilization of Lead and Nickel Ions from Polluted Yam Peels Biomass Using Cement-Based Solidification/Stabilization Technique. International Journal of Chemical Engineering, 2019, 2019, 1-8.	1.4	5
45	Process Simulation and Exergy Analysis of a Mercaptan Oxidation Unit in a Latin American Refinery. ACS Omega, 2020, 5, 21428-21436.	1.6	5
46	Evaluation of Shrimp Waste Valorization Combining Computer-Aided Simulation and Numerical Descriptive Inherent Safety Technique (NuDIST). Applied Sciences (Switzerland), 2020, 10, 5339.	1.3	5
47	Design, Simulation, and Environmental Assessment of an Adsorption-Based Treatment Process for the Removal of Polycyclic Aromatic Hydrocarbons (PAHs) from Seawater and Sediments in North Colombia. ACS Omega, 2020, 5, 12126-12135.	1.6	5
48	Inherent Safety Assessment of Industrial-Scale Production of Chitosan Microbeads Modified with TiO2 Nanoparticles. Biomolecules, 2021, 11, 568.	1.8	5
49	Computer-aided exergy analysis of a palm based-biorefinery for producing palm oil, kernel oil and hydrogen. Contemporary Engineering Sciences, 2018, 11, 537-545.	0.2	5
50	Physico-chemical characterization of superficial water and sediments from Cartagena bay. Contemporary Engineering Sciences, 2018, 11, 1571-1578.	0.2	4
51	ProducciÃ³n de biomasa y proteÃnas de Chlorella vulgaris Beyerinck (Chlorellales: Chlorellaceae) a travÃ©s del diseÃ±o de medios de cultivo selectivos. Ciencia Tecnologia Agropecuaria, 2017, 18, 451-461.	0.3	4
52	Evaluation of Three Biomaterials from Coconut Mesocarp for Use in Water Treatments Polluted with an Anionic Dye. Water (Switzerland), 2022, 14, 408.	1.2	4
53	Equilibrium, Kinetics and Thermodynamics of Chromium (VI) Adsorption on Inert Biomasses of DioscoreaÂrotundata and ElaeisÂguineensis. Water (Switzerland), 2022, 14, 844.	1.2	4
54	Elimination of Chromium (VI) and Nickel (II) Ions in a Packed Column Using Oil Palm Bagasse and Yam Peels. Water (Switzerland), 2022, 14, 1240.	1.2	4

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55	Application of Cement-based Solidification/ Stabilization Technique for Immobilizing Lead and Nickel Ions after Sorption-desorption Cycles using Cassava Peels Biomass. Indian Journal of Science and Technology, 2017, 11, 1-4.	0.5	3
56	An Optimization Approach Based on Superstructures for Bioethanol Production from African Palm Kernel Shells. Polish Journal of Environmental Studies, 2021, 30, 2293-2300.	0.6	3
57	Removal of Nitrate Ions Using Thermally and Chemically Modified Bioadsorbents. Applied Sciences (Switzerland), 2021, 11, 8455.	1.3	3
58	Evaluating the Sustainability and Inherent Safety of a Crude Palm Oil Production Process in North-Colombia. Applied Sciences (Switzerland), 2021, 11, 1046.	1.3	3
59	Environmental and Exergetic Analysis of Large-Scale Production of Citric Acid-Coated Magnetite Nanoparticles via Computer-Aided Process Engineering Tools. ACS Omega, 2021, 6, 3644-3658.	1.6	3
60	Effect of alkaline pretreatment on biogas production from corn (Zea mays) crop residues biomass. Contemporary Engineering Sciences, 2018, 11, 973-981.	0.2	3
61	Removal of Cr(VI) ions from aqueous solution using orange peel residual biomass: thermodynamic and sorption-desorption study. , 0, 203, 309-314.		3
62	Computer-Aided Modeling, Simulation, and Exergy Analysis of Large-Scale Production of Magnetite (Fe₃O₄) Nanoparticles via Coprecipitation. ACS Omega, 2021, 6, 30666-30673.	1.6	3
63	Evaluation of Kinetic, Equilibrium and Thermodynamics of Cationic Ion Using Agro-Industrial Residues of Plantain (Musa paradisiaca). Water (Switzerland), 2022, 14, 1383.	1.2	3
64	Environmental assessment of HF alkylation process using WAR algorithm. Contemporary Engineering Sciences, 0, 10, 641-649.	0.2	2
65	Computer-Aided Exergy Sensibility Analysis of Nitrobenzene Production through Benzene Nitration Using an Acid Mixture. International Journal of Chemical Engineering, 2019, 2019, 1-7.	1.4	2
66	Assessment of a Sour Water Treatment Unit Using Process Simulation, Parametric Sensitivity, and Exergy Analysis. ACS Omega, 2020, 5, 23654-23661.	1.6	2
67	Development of a Methodology for the Synthesis of Biorefineries Based on Incremental Economic and Exergetic Return on Investment. ACS Omega, 2021, 6, 6112-6123.	1.6	2
68	Adsorption of Cd2+ Ions from Aqueous Solution Using Biomasses of Theobroma cacao, Zea mays, Manihot esculenta, Dioscorea rotundata and Elaeis guineensis. Applied Sciences (Switzerland), 2021, 11, 2657.	1.3	2
69	Ajuste experimental y evaluaciÃ³n econÃ³mica de la extracciÃ³n HBE de aceite de microalgas para biocombustibles y bioproductos. Prospectiva, 2016, 14, 45.	0.2	1
70	Evaluation of Algae-Based Biodiesel Production Topologies via Inherent Safety Index (ISI). Applied Sciences (Switzerland), 2021, 11, 2854.	1.3	1
71	EvaluaciÃ³n ambiental de la producciÃ³n de microperlas de quitosano modificadas con TiO2 y magnetita usando el algoritmo de reducciÃ³n de residuos (WAR). Revista Ion, 2021, 34, .	0.1	1
72	EvaluaciÃ³n de la producciÃ³n de aceite crudo de palma y palmiste en el norte de Colombia mediante el anÃ¡lisis de exergÃa asistido por computador. Revista Ion, 2021, 34, .	0.1	1

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73	Green Nanoparticle-Aided Biosorption of Nickel Ions Using Four Dry Residual Biomasses: A Comparative Study. Sustainability, 2022, 14, 7250.	1.6	1
74	Study of the Phenomenology of Dispersion of Hydrocarbon Spillage into Freshwater Bodies. Computer Aided Chemical Engineering, 2018, 44, 2227-2232.	0.3	0
75	Assessing the Exergetic and Inherent Safety Performance of a Shrimp-Based Biorefinery via Computer-Aided Tools. Energies, 2020, 13, 6688.	1.6	0
76	A Hybrid Methodology to Minimize Freshwater Consumption during Shrimp Shell Waste Valorization Combining Multi-Contaminant Pinch Analysis and Superstructure Optimization. Polymers, 2021, 13, 1887.	2.0	0
77	Aprovechamiento de energÃa offshore: Avances y perspectivas. Revista Esaica, 2016, 2, 3.	0.0	0
78	EvaluaciÃ³n ambiental asistida por computador del proceso de producciÃ³n de hidromiel a escala piloto en el Departamento de BoyacÃ¡ y BolÃvar (Colombia). Ingenieria Y Competitividad, 2021, 24, .	0.1	0