# HÃ©ctor A Ruiz

List of Publications by Year
in descending order

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| 101 | 4,886 | 87888 | 98798 |
|---|---|---|---|
| papers | citations | 38 h-index | 67 g-index |

| 106 | 106 | 106 | 4738 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Hydrothermal processing, as an alternative for upgrading agriculture residues and marine biomass according to the biorefinery concept: A review. Renewable and Sustainable Energy Reviews, 2013, 21, 35-51. | 16.4 | 509 |
| 2 | Microwave heating processing as alternative of pretreatment in second-generation biorefinery: An overview. Energy Conversion and Management, 2017, 136, 50-65. | 9.2 | 251 |
| 3 | Engineering aspects of hydrothermal pretreatment: From batch to continuous operation, scale-up and pilot reactor under biorefinery concept. Bioresource Technology, 2020, 299, 122685. | 9.6 | 236 |
| 4 | Avocado by-products: Nutritional and functional properties. Trends in Food Science and Technology, 2018, 80, 51-60. | 15.1 | 165 |
| 5 | Microalgal biomass pretreatment for bioethanol production: a review. Biofuel Research Journal, 2018, 5, 780-791. | 13.3 | 152 |
| 6 | Bioreactor design for enzymatic hydrolysis of biomass under the biorefinery concept. Chemical Engineering Journal, 2018, 347, 119-136. | 12.7 | 145 |
| 7 | Effect of Chitosan-Based Coatings on the Shelf Life of Salmon (Salmo salar). Journal of Agricultural and Food Chemistry, 2010, 58, 11456-11462. | 5.2 | 130 |
| 8 | Pectinase production from lemon peel pomace as support and carbon source in solid-state fermentation column-tray bioreactor. Biochemical Engineering Journal, 2012, 65, 90-95. | 3.6 | 116 |
| 9 | Current status and future trends of bioethanol production from agro-industrial wastes in Mexico. Renewable and Sustainable Energy Reviews, 2019, 102, 63-74. | 16.4 | 116 |
| 10 | Biorefinery valorization of autohydrolysis wheat straw hemicellulose to be applied in a polymer-blend film. Carbohydrate Polymers, 2013, 92, 2154-2162. | 10.2 | 109 |
| 11 | Bioethanol production from hydrothermal pretreated wheat straw by a flocculating Saccharomyces cerevisiae strain â€“ Effect of process conditions. Fuel, 2012, 95, 528-536. | 6.4 | 100 |
| 12 | Comparison of delignified coconuts waste and cactus for fuel-ethanol production by the simultaneous and semi-simultaneous saccharification and fermentation strategies. Fuel, 2014, 131, 66-76. | 6.4 | 100 |
| 13 | Circular bioeconomy and integrated biorefinery in the production of xylooligosaccharides from lignocellulosic biomass: A review. Industrial Crops and Products, 2021, 162, 113274. | 5.2 | 99 |
| 14 | Bioethanol production by Saccharomyces cerevisiae, Pichia stipitis and Zymomonas mobilis from delignified coconut fibre mature and lignin extraction according to biorefinery concept. Renewable Energy, 2016, 94, 353-365. | 8.9 | 91 |
| 15 | Comparison of microwave and conduction-convection heating autohydrolysis pretreatment for bioethanol production. Bioresource Technology, 2017, 243, 273-283. | 9.6 | 91 |
| 16 | Industrial robust yeast isolates with great potential for fermentation of lignocellulosic biomass. Bioresource Technology, 2014, 161, 192-199. | 9.6 | 90 |
| 17 | Development and Characterization of an Environmentally Friendly Process Sequence (Autohydrolysis) Tj ETQq1 1 0.784314 rgBT /Ove<br>629-641. | 2.9 | 88 |
| 18 | Severity factor kinetic model as a strategic parameter of hydrothermal processing (steam explosion) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5<br>2021, 342, 125961. | 9.6 | 83 |

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|---|---|---|---|
| 19 | Rhizopus oryzae â€“ Ancient microbial resource with importance in modern food industry. International Journal of Food Microbiology, 2017, 257, 110-127. | 4.7 | 77 |
| 20 | Evaluation of agave bagasse recalcitrance using AFEXâ„¢, autohydrolysis, and ionic liquid pretreatments. Bioresource Technology, 2016, 211, 216-223. | 9.6 | 74 |
| 21 | Scale-up and evaluation of hydrothermal pretreatment in isothermal and non-isothermal regimen for bioethanol production using agave bagasse. Bioresource Technology, 2018, 263, 112-119. | 9.6 | 73 |
| 22 | Kinetic modeling of enzymatic saccharification using wheat straw pretreated under autohydrolysis and organosolv process. Industrial Crops and Products, 2012, 36, 100-107. | 5.2 | 72 |
| 23 | Use of wheat bran arabinoxylans in chitosan-based films: Effect on physicochemical properties. Industrial Crops and Products, 2015, 66, 305-311. | 5.2 | 71 |
| 24 | Enhancement and modeling of enzymatic hydrolysis on cellulose from agave bagasse hydrothermally pretreated in a horizontal bioreactor. Carbohydrate Polymers, 2019, 211, 349-359. | 10.2 | 71 |
| 25 | Consolidated Bioprocessing, an Innovative Strategy towards Sustainability for Biofuels Production from Crop Residues: An Overview. Agronomy, 2020, 10, 1834. | 3.0 | 71 |
| 26 | Challenges in cellulase bioprocess for biofuel applications. Renewable and Sustainable Energy Reviews, 2021, 151, 111622. | 16.4 | 70 |
| 27 | Integrated approach for effective bioethanol production using whole slurry from autohydrolyzed Eucalyptus globulus wood at high-solid loadings. Fuel, 2014, 135, 482-491. | 6.4 | 67 |
| 28 | Valorization of Eucalyptus wood by glycerol-organosolv pretreatment within the biorefinery concept: An integrated and intensified approach. Renewable Energy, 2016, 95, 1-9. | 8.9 | 65 |
| 29 | High-pressure technology for Sargassum spp biomass pretreatment and fractionation in the third generation of bioethanol production. Bioresource Technology, 2021, 329, 124935. | 9.6 | 60 |
| 30 | The enzyme biorefinery platform for advanced biofuels production. Bioresource Technology Reports, 2019, 7, 100257. | 2.7 | 59 |
| 31 | Macroalgal biorefinery concepts for the circular bioeconomy: A review on biotechnological developments and future perspectives. Renewable and Sustainable Energy Reviews, 2021, 151, 111553. | 16.4 | 58 |
| 32 | Bioethanol production from coconuts and cactus pretreated by autohydrolysis. Industrial Crops and Products, 2015, 77, 1-12. | 5.2 | 57 |
| 33 | Microbial co-culturing strategies for the production high value compounds, a reliable framework towards sustainable biorefinery implementation â€“ an overview. Bioresource Technology, 2021, 321, 124458. | 9.6 | 57 |
| 34 | Process optimization of microwave-assisted extraction of bioactive molecules from avocado seeds. Industrial Crops and Products, 2020, 154, 112623. | 5.2 | 55 |
| 35 | Calculation of the enthalpies of formation for transition metal complexes. Chemical Physics Letters, 2005, 401, 58-61. | 2.6 | 48 |
| 36 | Evaluation of a hydrothermal process for pretreatment of wheat strawâ€”effect of particle size and process conditions. Journal of Chemical Technology and Biotechnology, 2011, 86, 88-94. | 3.2 | 43 |

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| 37 | Sustainable approach of high-pressure agave bagasse pretreatment for ethanol production. Renewable Energy, 2020, 155, 1347-1354. | 8.9 | 43 |
| 38 | Enzyme immobilization as a strategy towards efficient and sustainable lignocellulosic biomass conversion into chemicals and biofuels: current status and perspectives. Sustainable Energy and Fuels, 2021, 5, 4233-4247. | 4.9 | 42 |
| 39 | Hydrothermal Processing in Biorefineries. , 2017, , . | | 41 |
| 40 | Multi-step approach to add value to corncob: Production of biomass-degrading enzymes, lignin and fermentable sugars. Bioresource Technology, 2018, 247, 582-590. | 9.6 | 41 |
| 41 | Fractionation ofEucalyptus globulusWood by Glycerolâ€“Water Pretreatment: Optimization and Modeling. Industrial & Engineering Chemistry Research, 2013, 52, 14342-14352. | 3.7 | 37 |
| 42 | Production of xylanase and Î²-xylosidase from autohydrolysis liquor of corncob using two fungal strains. Bioprocess and Biosystems Engineering, 2012, 35, 1185-1192. | 3.4 | 35 |
| 43 | Comparison of physicochemical pretreatments of banana peels for bioethanol production. Food Science and Biotechnology, 2017, 26, 993-1001. | 2.6 | 35 |
| 44 | Bioethanol production from enzymatic hydrolysates of Agave salmiana leaves comparing S.Âcerevisiae and K.Âmarxianus. Renewable Energy, 2019, 138, 1127-1133. | 8.9 | 35 |
| 45 | Process alternatives for bioethanol production from mango stem bark residues. Bioresource Technology, 2017, 239, 430-436. | 9.6 | 34 |
| 46 | Release of simple sugars from lignocellulosic biomass of Agave salmiana leaves subject to sequential pretreatment and enzymatic saccharification. Biomass and Bioenergy, 2018, 118, 133-140. | 5.7 | 34 |
| 47 | Recovery of bioactive components from avocado peels using microwave-assisted extraction. Food and Bioproducts Processing, 2021, 127, 152-161. | 3.6 | 34 |
| 48 | Bioenergy Potential, Energy Crops, and Biofuel Production in Mexico. Bioenergy Research, 2016, 9, 981-984. | 3.9 | 31 |
| 49 | High-solids loading processing for an integrated lignocellulosic biorefinery: Effects of transport phenomena and rheology â€“ A review. Bioresource Technology, 2022, 351, 127044. | 9.6 | 31 |
| 50 | A New Approach on Brewerâ€™s Spent Grains Treatment and Potential Use as Lignocellulosic Yeast Cells Carriers. Journal of Agricultural and Food Chemistry, 2012, 60, 5994-5999. | 5.2 | 28 |
| 51 | Non-alkaline solubilization of arabinoxylans from destarched wheat bran using hydrothermal microwave processing and comparison with the hydrolysis by an endoxylanase. Chemical Engineering and Processing: Process Intensification, 2015, 96, 72-82. | 3.6 | 27 |
| 52 | Fungal detoxification of coffee pulp by solid-state fermentation. Biocatalysis and Agricultural Biotechnology, 2020, 23, 101467. | 3.1 | 27 |
| 53 | Subcritical water pretreatment for agave bagasse fractionation from tequila production and enzymatic susceptibility. Bioresource Technology, 2021, 338, 125536. | 9.6 | 24 |
| 54 | Effect of hemicellulose liquid phase on the enzymatic hydrolysis of autohydrolyzed Eucalyptus globulus wood. Biomass Conversion and Biorefinery, 2014, 4, 77-86. | 4.6 | 23 |

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| 55 | Enzymatic hydrolysis of chemically pretreated mango stem bark residues at high solid loading. Industrial Crops and Products, 2016, 83, 500-508. | 5.2 | 23 |
| 56 | Hydrothermalâ€“Microwave Processing for Starch Extraction from Mexican Avocado Seeds: Operational Conditions and Characterization. Processes, 2020, 8, 759. | 2.8 | 23 |
| 57 | Spontaneously fermented traditional beverages as a source of bioactive compounds: an overview. Critical Reviews in Food Science and Nutrition, 2021, 61, 2984-3006. | 10.3 | 22 |
| 58 | Emerging strategies for the development of food industries. Bioengineered, 2019, 10, 522-537. | 3.2 | 20 |
| 59 | Magnetic Nanoparticles as Support for Cellulase Immobilization Strategy for Enzymatic Hydrolysis Using Hydrothermally Pretreated Corn Cob Biomass. Bioenergy Research, 2022, 15, 1946-1957. | 3.9 | 20 |
| 60 | Hydrothermal systems to obtain high value-added compounds from macroalgae for bioeconomy and biorefineries. Bioresource Technology, 2022, 343, 126017. | 9.6 | 19 |
| 61 | Fungal Proteases and Production of Bioactive Peptides for the Food Industry. , 2019, , 221-246. | | 18 |
| 62 | Operational Strategies for Enzymatic Hydrolysis in a Biorefinery. Biofuel and Biorefinery Technologies, 2018, , 223-248. | 0.3 | 17 |
| 63 | Consolidated Bioprocess for Bioethanol Production from Raw Flour of Brosimum alicastrum Seeds Using the Native Strain of Trametes hirsuta Bm-2. Microorganisms, 2019, 7, 483. | 3.6 | 16 |
| 64 | Valorization, Comparison and Characterization of Coconuts Waste and Cactus in a Biorefinery Context Using NaClO2â€“C2H4O2 and Sequential NaClO2â€“C2H4O2/Autohydrolysis Pretreatment. Waste and Biomass Valorization, 2019, 10, 2249-2262. | 3.4 | 16 |
| 65 | Cellulose from Lignocellulosic Waste. , 2015, , 475-511. | | 16 |
| 66 | Growth kinetics and quantification of carbohydrate, protein, lipids, and chlorophyll of Spirulina platensis under aqueous conditions using different carbon and nitrogen sources. Bioresource Technology, 2022, 346, 126456. | 9.6 | 16 |
| 67 | Macroalgal biomass in terms of third-generation biorefinery concept: Current status and techno-economic analysis â€“ A review. Bioresource Technology Reports, 2021, 16, 100863. | 2.7 | 15 |
| 68 | Bioeconomy and Biorefinery: Valorization of Hemicellulose from Lignocellulosic Biomass and Potential Use of Avocado Residues as a Promising Resource of Bioproducts. Energy, Environment, and Sustainability, 2018, , 141-170. | 1.0 | 14 |
| 69 | Could termites be hiding a goldmine of obscure yet promising yeasts for energy crisis solutions based on aromatic wastes? AÂcritical state-of-the-artÂreview. , 2022, 15, 35. | | 14 |
| 70 | Ethanol production from banana peels at high pretreated substrate loading: comparison of two operational strategies. Biomass Conversion and Biorefinery, 2021, 11, 1587-1596. | 4.6 | 13 |
| 71 | Biofuels production of third generation biorefinery from macroalgal biomass in the Mexican context: An overview. , 2020, , 393-446. | | 13 |
| 72 | Hot Compressed Water Pretreatment and Surfactant Effect on Enzymatic Hydrolysis Using Agave Bagasse. Energies, 2021, 14, 4746. | 3.1 | 13 |

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| 73 | Enzymes in the third generation biorefinery for macroalgae biomass. , 2020, , 363-396. | | 12 |
| 74 | Production of a fermented solid containing lipases from Penicillium roqueforti ATCC 10110 and its direct employment in organic medium in ethyl oleate synthesis. Biotechnology and Applied Biochemistry, 2022, 69, 1284-1299. | 3.1 | 12 |
| 75 | Tannases. , 2017, , 471-489. | | 9 |
| 76 | Evaluation of Bioethanol Production from Sweet Sorghum Variety Roger under Different Tillage and Fertilizer Treatments. Bioenergy Research, 2021, 14, 1058-1069. | 3.9 | 9 |
| 77 | Fungal Proteins from Sargassum spp. Using Solid-State Fermentation as a Green Bioprocess Strategy. Molecules, 2022, 27, 3887. | 3.8 | 9 |
| 78 | Hydrothermal Pretreatments of Macroalgal Biomass for Biorefineries. , 2015, , 467-491. | | 8 |
| 79 | Trichoderma sp. spores and Kluyveromyces marxianus cells magnetic separation: Immobilization on chitosan-coated magnetic nanoparticles. Preparative Biochemistry and Biotechnology, 2017, 47, 554-561. | 1.9 | 8 |
| 80 | Hydrothermal Processes for Extraction of Macroalgae High Value-Added Compounds. , 2017, , 461-481. | | 8 |
| 81 | Enzymatic Hydrolysis, Kinetic Modeling of Hemicellulose Fraction, and Energy Efficiency of Autohydrolysis Pretreatment Using Agave Bagasse. Bioenergy Research, 2023, 16, 75-87. | 3.9 | 8 |
| 82 | Enzymatic hydrolysis assisted with ligninocellulolytic enzymes from Trametes hirsuta produced by pineapple leaf waste bioconversion in solid-state fermentation. Biomass Conversion and Biorefinery, 2023, 13, 9095-9106. | 4.6 | 7 |
| 83 | Advantages and Progress Innovations of Solid-State Fermentation to Produce Industrial Enzymes. Microorganisms for Sustainability, 2020, , 87-113. | 0.7 | 7 |
| 84 | Cellulose from Lignocellulosic Waste. , 2014, , 1-33. | | 6 |
| 85 | Circular bioeconomy in the production of fucoxanthin from aquatic biomass: extraction and bioactivities. Journal of Chemical Technology and Biotechnology, 2022, 97, 1363-1378. | 3.2 | 6 |
| 86 | Kinetic Modeling, Operational Conditions, and Biorefinery Products from Hemicellulose: Depolymerization and Solubilization During Hydrothermal Processing. , 2017, , 141-160. | | 6 |
| 87 | Application of chemometric tools in the development of food bars based on cocoa shell, soy flour and green banana flour. International Journal of Food Science and Technology, 2021, 56, 5296-5304. | 2.7 | 5 |
| 88 | A Review on Opportunities and Limitations of Membrane Bioreactor Configuration in Biofuel Production. Applied Biochemistry and Biotechnology, 2023, 195, 5497-5540. | 2.9 | 5 |
| 89 | Dynamic Modelling and Experimental Validation of a Pilot-Scale Tubular Continuous Reactor for the Autohydrolysis of Lignocellulosic Materials. Computer Aided Chemical Engineering, 2015, 37, 431-436. | 0.5 | 4 |
| 90 | Pectinolytic Enzymes. , 2017, , 47-71. | | 4 |

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| 91 | Sustainable Biorefinery Processing for Hemicellulose Fractionation and Bio-based Products in a Circular Bioeconomy. Clean Energy Production Technologies, 2022, , 39-69. | 0.5 | 4 |
| 92 | New Features and Properties of Microbial Cellulases Required for Bioconversion of Agro-industrial Wastes. , 2019, , 535-550. | | 3 |
| 93 | The Application of Chemometric Methods in the Production of Enzymes Through Solid State Fermentation Uses the Artificial Neural Networkâ€"a Review. Bioenergy Research, 2023, 16, 279-288. | 3.9 | 3 |
| 94 | Utilization of Citrus Waste Biomass for Antioxidant Production by Solid-State Fermentation. Energy, Environment, and Sustainability, 2018, , 83-96. | 1.0 | 2 |
| 95 | Biomass Fractionation to Bio-Based Products in Terms of Biorefinery Concept. , 2020, , 395-427. | | 2 |
| 96 | Biorefinery Approach for Red Seaweeds Biomass as Source for Enzymes Production: Food and Biofuels Industry. Energy, Environment, and Sustainability, 2019, , 413-446. | 1.0 | 1 |
| 97 | Recovery of melon residues (Cucumis melo) to produce lignocellulolytic enzymes. Biomass Conversion and Biorefinery, 2022, 12, 5915-5922. | 4.6 | 1 |
| 98 | PRODUCTION OF MEXICAN BROWN MACROALGAE FUCOIDAN AND FUCOSIDASES UNDER AN INTEGRAL GREEN TECHNOLOGY BIOPROCESES BY THE BIOREFINERY CONCEPT. , 0, , . | | 1 |
| 99 | O PRÃ‰-TRATAMENTO HIDROTÃ‰RMICO NO CONCEITO DAS BIORREFINARIAS. , 0, , . | | 0 |
| 100 | Operational and engineering aspects of packed bed bioreactors for solid-state fermentation. , 2018, , 353-369. | | 0 |
| 101 | Fermentative Bioprocesses for Detoxification of Agri-Food Wastes for Production of Bioactive Compounds. , 2020, , 287-318. | | 0 |