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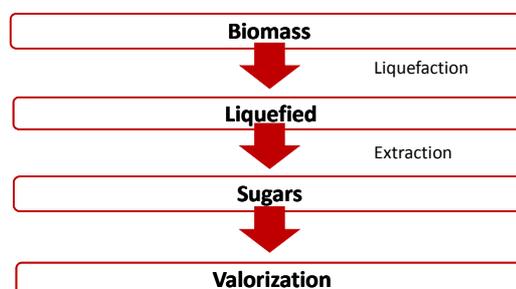
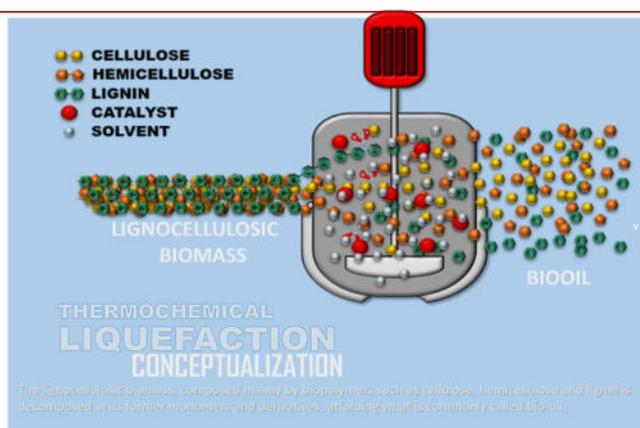
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Introduction

Biomass of lignocellulosic origin has been preferentially used for the production of bio-oil by liquefaction due to its abundance and easy access^{1,2}, in addition to allowing the obtaining of green chemical products and / or the conversion into sustainable energy sources.³

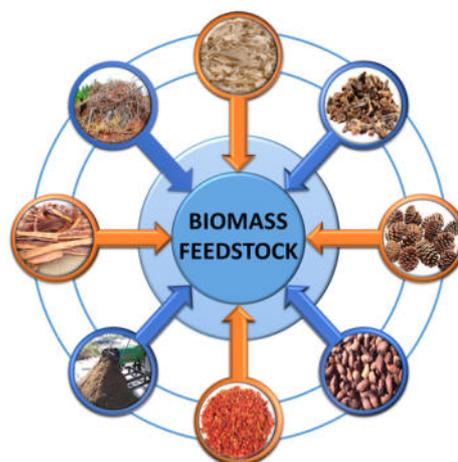
Through the liquefaction process, hemicellulose and cellulose lead to the formation of sugars whose composition has not yet been investigated in depth.⁴

Levulinic acid has been identified as a promising molecule with regard to sustainable chemical products, and can be produced from renewable resources such as lignocellulosic biomass⁵. Angelolactone can be produced from levulinic acid through an intramolecular condensation process followed by dehydration⁶, presenting itself as an important raw material in the synthesis of new sustainable polymers⁷.



Objectives

This work has as main objective to investigate the valorization of sugars and their derivatives, present as major components in the aqueous fraction resulting from the liquefaction processes of the wood biomass, aiming at its use in the production of sustainable and biodegradable polymers, which can be applied to processes industrial or agro-industrial.



Conclusions

The valorization of sugars is a low cost alternative for the polymer and construction industry (cement industry), as well as for the agro-industry. The relevance of this work is also due to the lack of in-depth studies that lead to the elucidation of mixtures resulting from liquefaction, as well as the structure of the products originated and their applications.

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