

## CHECKING THE CATALYTIC REDUCTIVE FRACTIONATION OF LIGNOCELLULOSE WITH ACID OR BASIC ADDITIVES

Arthur Possenti\*

Michel Brasil da Silva\*\*

### Resumo

This method in the extraction of lignin from wood fibers during the production of cellulose mass where it is removed and also fractionated into smaller monomers and dimers, so that they have other work than the use as fuel. It is an extraction method developed in biorefineries and catalyzed by acidic or alkaline solvents, generating a lignin oil, that is nothing more than a residue rich in carbohydrates. The influence of different catalysts, acid ( $H_3PO_4$ ) or alkali ( $NaOH$ ) was addressed. As wood samples must be subjected to sawing, drying, grinding and fractionation. Next, a lignin must undergo a two - step extraction process, one with alcohol and one with the additive being tested together with the. The catalytic reaction is performed with the stainless steel reagent with the set of reagents, in addition to switching between  $H_3PO_4$  and  $NaOH$ . From a reactor it is pressurized with an  $H_2$  atmosphere until the times of study. After a reaction, a lignin can be quantified by gel chromatography.

Keywords: Lignocellulose. Biorefinery. Lignin chemistry. Heterogeneous catalysis.

E-mails:

\* [possenti22@gmail.com](mailto:possenti22@gmail.com)

\*\* [micbrava@yahoo.com.br](mailto:micbrava@yahoo.com.br)