

2<sup>nd</sup> International Congress and Expo on**Biofuels & Bioenergy**

August 29-31, 2016 Sao Paulo, Brazil

**Hydrothermal liquefaction of *Eucalyptus*: Effect of reaction conditions on product distribution****Fenton System****Carmina Reyes Plascencia, Juan Bussi and Nestor Tancredi**  
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Hydrothermal liquefaction (HTL) is a process of interest to produce biofuels from biomass, specially biomass with a high moisture content, since feedstock does not need to be dried. In HTL process, biomass is subjected to temperatures between 250°C and 550°C and high pressure (5-30 MPa) during short residence times in aqueous medium. The HTL products are: Gas, biocrudes which are not soluble in water, water soluble organics (WSO) and a solid rich in carbon known as hydrochar. This work presents the effect of reaction conditions on product distribution of HTL using *Eucalyptus globulus*. The reaction was carried out in a Parr 4575 reactor of 0.5 L capacity. The temperatures studied were 300°C and 350°C with reaction times of 0 and 15 min and biomass: liquid medium ratio of 1:1 or 1:6 using an aqueous solution of  $K_2CO_3$  1M as catalyst. All the tests were made at a pressure corresponding to the water vapor pressure at reaction temperature plus the pressure of gas produced during reaction. The gas phase was recovered and analysed by gas chromatography. The other products were separated and quantified in order to calculate its yield. The results show that the studied reaction conditions have influence in the product distribution, allowing to maximize the yield for each phase by selecting the appropriate reaction parameters.

**Biography**

Carmina Reyes Plascencia obtained her Chemical Engineering degree in 2010 from Instituto Tecnológico de Celaya, Mexico. She has completed her Master's in Chemical Engineering (type research) in 2014 from Université de Sherbrooke, Canada in "The Preparation and Use of a Nanocatalyst for Steam Reforming Reaction". During her Master's, she was part of SOFC Canada network from 2010 to 2013 and Biofuel network in 2014. Currently, she is a PhD student at Universidad de la República, Uruguay, focusing her research in hydrothermal liquefaction process.

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