Sina Aghili et al., J Biosens Bioelectron 2015, 6:3
http://dx.doi.org/10.4172/2155-6210.C1.024

OMICS International
conferenceseries.com

4th International Conference and Exhibition on
Biosensors & Bioelectronics
September 28-30, 2015 Atlanta, USA

Determination of effect factor for effective parameter on saccharification of lignocellulosic material by concentrated acid

Sina Aghili and **Ali Arasteh Nodeh**
Islamic Azad University, Iran

Tamarisk usage as a new group of lignocelluloses material to produce fermentable sugars in bio ethanol process was studied. The overall aim of this work was to establish the optimum condition for acid hydrolysis of this new material and a mathematical model predicting glucose release as a function of operation variable. Sulfuric acid concentration in the range of 20 to 60%(w/w), process temperature between 60 to 95°C, hydrolysis time from 120 to 240 min and solid content 5,10,15%(w/w) were used as hydrolysis conditions. HPLC was used to analysis of the product. This analysis indicated that glucose was the main fermentable sugar and was increase with time, temperature and solid content and acid concentration was a parabola influence in glucose production. The process was modeled by a quadratic equation. Curve study and model were found that 42% acid concentration, 15 % solid content and 90°C were optimum condition.

Sinaaghili@hotmail.com

Notes: