

PROCESS FOR THE PRODUCTION OF BIOFUEL FROM PLANT MATERIALS

ABSTRACT

An integrated process for the production of ethanol from woody plant material is provided, the process comprising: contacting a continuous flow of the plant material with a counter-current continuous flow of an aqueous ethanol solution at elevated temperature and pressure to provide plant material depleted of lignin; removing ethanol from the lignin-depleted plant material; contacting a continuous flow of the lignin-depleted plant material with water at elevated temperature and pressure to solubilize xylose within the plant material; and hydrolyzing cellulose present in the plant material to form glucose, which in turn is fermented to produce ethanol.

Fig.1