

## **Valorization of oxygenated compounds present in aqueous fractions derived from biomass for use as fuel components**

### **DISCLOSURE OF INVENTION**

CSIC and other partner have developed a new procedure to value the byproducts that arise from the primary treatment of biomass, based on the use of catalysts. More specifically, it makes it possible to obtain mixtures of hydrocarbons and aromatic compounds from the oxygenated compounds present in the aqueous fraction, for later use as fuel components. Allowing to value a by-product generated to which they are not being used at present and constitute waste streams in bio-refineries.

### **INDUSTRIAL APPLICATION SECTORS**

The invention is applicable in oil refining industries and bio-refineries that want to introduce the new process or catalysis companies for their production at an industrial level.

### **TECHNICAL ADVANTAGES AND BUSINESS PROFITS**

From the primary treatment of biomass to produce fuels, an aqueous fraction considered residual is generated at present. Through the use of catalysts based on metal oxides, this waste can be valued, as well as being an efficient process with low energy consumption.

Using these catalysts and in a simple 3-step process, mixtures of hydrocarbons and aromatics are generated, which are very useful as precursors, components and / or additives in liquid automotive fuels. Enabling the recovery of compounds that until now were not considered as a sub-product that was not given any use.

- Increases the efficiency of the process by using metal catalysts
- Does not require infrastructures other than existing ones.
- Reduces energy consumption when working at low temperatures.
- Allows to value by-products generated during the production of biofuels.
- Easily adaptable process in bio-refineries.

### **DEVELOPMENT STATUS OF TECHNOLOGY**

The technology described above is at the pilot test level on a reduced scale. The research group that has developed it has extensive experience implementing this type of systems in companies in the sector.

### **INDUSTRIAL PROPERTY RIGHTS**

The technology of valorization of oxygenated compounds is protected by patent.

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**TYPES OF COLLABORATION**

Interested partners to establish Wanted:

- License Agreement, manufacturing or marketing.
- Companies interested in implementing their facilities.

**RELATED IMAGES**



The use of biofuels is increasingly a real alternative to fossil fuels. This procedure increases the efficiency of your generation process.

**CONTACT**

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