

Technology Offer

Technology for bioethanol production from wood waste by acid hydrolysis

Summary

A Romanian research institute has developed and patented a technology for obtaining bioethanol from wood by acid hydrolysis of cellulose. The Romanian research institute is looking for biofuel production companies, in order to develop, validate and introduce the new technology into production, under license agreement and commercial agreement with technical assistance.

Creation Date	13 January 2016
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Reference	TORO20160113001

Details

Description

A Romanian research institute has developed a technology for bioethanol production from wood waste by acid hydrolysis. The technology for converting wood waste into bioethanol by acid hydrolysis consists in the following steps:

- Steam-explosion pre-treatment at high temperature and pressure;
- Sulphuric acid hydrolysis of cellulose in two steps;
- Fermentation of hemicellulosic and cellulosic sugars into bioethanol; and
- Distillation of bioethanol.

The Romanian research institute is looking for license agreement and commercial agreement with technical assistance (engineering and technical assistance) with biofuel production companies, in order to develop, validate and introduce the new technology into production.

Advantages and Innovations

- Bioethanol obtained from wood has a great potential to replace the existing fuels and, can reduce greenhouse gas emissions;
- Steam-explosion pre-treatment is a process which uses water as reaction medium, being a simple, low-cost and environmental friendly pre-treatment;
- The obtained bioethanol is a renewable source of energy;
- The bioethanol obtained can be used as biofuel, because it is mixable with conventional gasoline;
- The characteristics of this diesel biofuel are in accordance with the European standard SR EN 15376.

Stage of Development

Field tested/evaluated

IPR Status

Patents granted

Comment Regarding IPR status

Patent granted in Romania by the State Office for Inventions and Trademarks.

Keywords

Technology

04005003 Liquid biofuels

Market

06003009 Biomass and Biofuels

06011 Energy for Transport

NACE

M.72.1.9 Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

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Open for EOI : **Yes**

Dissemination

Send to Sector Group

Intelligent Energy

Client

Type and Size of Organisation Behind the Profile

Industry SME 50-249

Year Established

0

Already Engaged in Trans-National Cooperation

No.

Languages Spoken

English

Client Country

Romania

Partner Sought

Type and Role of Partner Sought

Type of partner sought: biofuel production companies

Specific area of activity of the partner: biofuel production

The research group is looking for companies producing energy and fuels.

Task to be performed by the partner sought: development, validation of technology and industrial production of bioethanol. The Romanian research institute offers technical assistance for technology adaptation.

Type and Size of Partner Sought

SME 51-250

Type of Partnership Considered

License agreement

Commercial agreement with technical assistance