



Category: Renewable energy.

Sub Category: Enzymatic production of biodiesel.

www.transbiodiesel.com

Company profile

Biodiesel production by new generation enzyme-based catalysts.

TransBiodiesel Ltd. has patented a new technology using unique immobilized enzymes as an alternative for the conventional chemical-based catalysts for the production of biodiesel from different oils, including plant oils, animal fats and recycled greases. The developed immobilized enzymes are characterized with their high resistance towards short-chain alcohols, typically used as substrates in the production process of biodiesel. The developed enzymatic process for production of biodiesel has been approved as economically feasible and also competitive with the costs for the currently practiced conventional production processes. Furthermore, the enzyme-based production process is benign for the environment and the by-product produced in the process, namely glycerol, can be used for food, cosmetics and pharmaceutical applications without excessive purification. The Company is in the process of forming strategic alliances with worldwide-leading biodiesel producers. The founder of the company has applied similar enzyme technology for the production of lipid-based nutraceuticals at industrial volumes in his former venture (www.enzymotec.com).

Year of establishment: May 2007

No. of employees: 7

Technologies & products

General description:

The company has developed new techniques for the preparation of biocatalysts to be used for the production of biodiesel at industrial volumes. The new biocatalysts are capable of catalyzing the reaction between both edible or other inedible fatty acid sources and methanol to form biodiesel that meets the international specs.

Function of the product(s):

The product will be used as an alternative for corrosive chemicals in new as well as in old biodiesel plants.

Objectives / Target companies

The company will design and construct the first commercial prototype by 2010 to demonstrate the industrial feasibility of the technology for the first time worldwide. The company needs to raise US\$ 3 Million for business development and industrialization of the technology worldwide.