Solar cooker with electrical backup

Renewable Energies

Description

The cooker is constituted by a semi-cylindrical camera covered by a glass whose axis is oriented East-West. A rotation of such an axis allows every day's sunlight falling perpendicular to the glass, maximizing the use of solar energy. The cooker is equipped with an automatic control for turning on the auxiliary thermal energy system if the temperature does not reach a predetermined value. The cooker reaches the normal temperature for cooking food (between 90 °C to 100 °C) in approximately 100 minutes all year long. However, the cooker is to be used between 10:00 am and 14:00 pm to maximize solar energy. The auxiliary system ensures continuous operation of the cooker even on cloudy days. Organoleptic characteristics such as color, odor, taste, texture and appearance of food cooked on a gas stove and the solar cooker are the same.

Application

Cooking of hard and soft food

Stage of Development

Pre-commercial prototype

IP Status

Patent application PA/a/2006/004927

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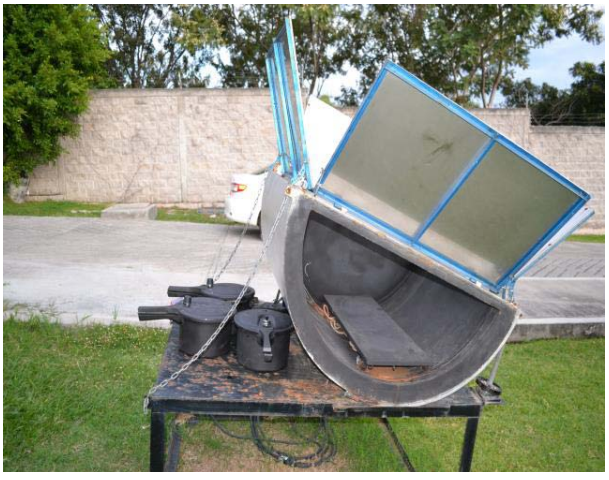
Market potential

There is an increasing demand for bioethanol in Mexico, as well as the rest of the world therefore national and international markets are interesting for producers.

Transferring conditions

- ✓ Technological development agreement (optional)
- ✓ Licensing (includes front payment and royalties)



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