

# Toroidal Solar Concentrator



## Description

This invention is a device that concentrates the radiative energy from the sun with minimal power requirements, without losing power hub. It includes the method for building the toroidal concentrator from the profile of a two-dimension concentrator (parabolic, circular, elliptical, parabolic compound, etc.). The toroidal configuration allows obtaining a higher concentration of radiative flux with respect to the original two-dimensional concentrator. The toroidal hub requires less monitoring of the radiative source and, when built with an opening wider to 23 degrees requires no monitoring at all.

## Application

The solar concentrator can be integrated to steam generation and hot water systems, as well as methane production from waste, among other applications. It can also be used in reverse as a radiation diffuser by accommodating a source inside the lower semicircular cavity, so it can be applied to manufacture headlights or to diffuse acoustic waves.

## Stage of Development

Conceptual model

## IP Status

Patent application MX/a/2008/006473

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Renewable  
Energy

## Market potential

The market is constituted by all the chemical analysis laboratories handling small amounts of sample for the determination of organic compounds in solid matrices.

## Transferring conditions

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



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