

# Ecological cell for the extraction of organic compounds in solid matrixes



Environment

## Description

This technology integrates two inventions in miniature process for extracting organic compounds in solid matrixes. The first one consists of a cell for extracting organic compounds in solid matrixes in controlled conditions of temperature and cavitation. The second one consists of a capillary with multiple deflections for eliminating the excess of dissolvent by steam stripping.

## Application

Concern for the protection of the environment has come to the field of analytical chemistry, so that businesses are adopting new practices for reducing the consumption of reagents, eliminating toxic reagents, generating minimal amounts of waste and using less energy without losing quality in their measurements.

The present miniature equipment was developed as a green alternative for measuring the amount of organic compounds in air. However, its use can be

extended to other environmental problems such as the measurement of hydrocarbons in soil and sediment, organochlorine pesticides in food or recalcitrant compounds on various solid substrates with small amounts of sample. Moreover, the equipment can be applied in the pharmaceutical, petro-chemistry, textile and agriculture among others.

## Stage of Development

The inventor has developed a manual functional prototype and is currently working on an automated experimental prototype.

## IP Status

Patent applications Nos. MX/a/2012/000789  
MX/a/2012/000790 and MX/a/2012/000791

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## 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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