

# E. coli strains for the production of bioethanol, D-lactate or L-lactate



## Description

This invention consists of *E.coli* strains modified by metabolic engineering for the production of bioethanol, D-lactate or L-lactate, with a yield reaching the theoretical maximum performance. Such compounds are obtained from lignocellulose hydrolysates, xylose and other pentoses, hexoses or other carbon sources which can be obtained from agroindustrial waste through integration with conventional hydrolysis technologies (for example, chemical hydrolysis or enzymatic hydrolysis).

## Application

The modified *E. coli* strains are to be utilized in the production of the alternative biofuel ethanol. The D-lactate and L-lactate have applications in the biodegradable polymer and bioplastic industries. Another market for this technology is agro-industrial waste treatment plants.

## Stage of Development

Experimental

## IP Status

US Patent No. US8,563,283;  
Mexican patents Nos. 314,741 and 312,702  
Patent application No. MX/a/2011/008265

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Renewable  
Energies

## 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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