



Preparation method of catalysts for biodiesel production.

DESCRIPTION OF THE TECHNOLOGY

This invention addresses the preparation method of catalysts suitable for biodiesel production through transesterification reactions of fatty acids comprising oils from different sources. Procedure described in this patent allows to prepare catalysts in cylinder-shaped forms with excellent tribological properties and three-dimensional structures with high external surface area.

Preparation methods employed in this invention are based on compression moulding and 3D printing techniques respectively. Catalysts obtained through this procedure show high catalytic activity and stability over cycles (cyclability).

MARKET APPLICATION SECTORS

-) Oil-based wastes producing industrial sectors (agro-food industry, animal husbandry sector).
-) Chemical industry (fuel industry).

TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

Catalysts obtained through the method described in this patent show remarkable benefits against traditional catalysts commonly used in biodiesel production (homogeneous catalysts);

-) Catalysts have high stability and can be reused large number of cycles (expense saving).
-) Catalysts can be easily separated out from the reactor and products/reactants taking part in the transesterification reaction (easy handling, operation and scaling-up).
-) Purification and washing processes of the biodiesel produced are not necessary.
-) No production of wastes.
-) No production of by-products (soap).

CURRENT STATE OF DEVELOPMENT

Technology validated at pilot demo and relevant environment (TRL 6-7).

INTELLECTUAL PROPERTY RIGHTS

Exploitation license

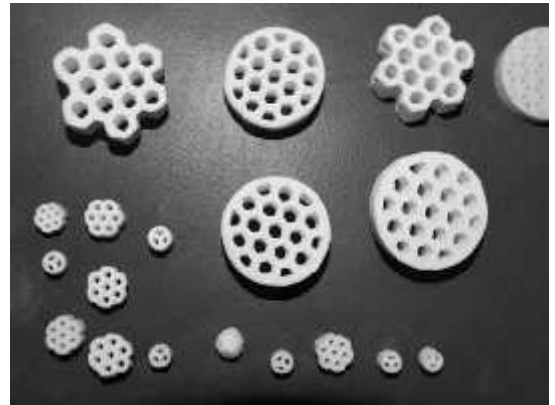
COLLABORATION SOUGHT

Companies interested in stablishing the following cooperation ways are sought;

-) Patent license agreement to implement that technology in their processes.
-) R&D agreement to jointly validate the technology into other processes/applications.
-) R&D cooperation projects.

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