

(54) Title of the invention : A PREPARATION METHOD OF ENVIRONMENT-FRIENDLY BIO-DIESEL

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(57) Abstract :
ABSTRACT: Title: A Preparation Method of Environment-friendly Bio-Diesel The present disclosure proposes a preparation method of an efficient, economic, and eco-friendly bio-diesel from non-edible oils using a nano-catalyst. The bio-diesel comprises 70-75 weight percentage of at least one non-edible oil, 20-30 weight percentage of at least one organic alcohol, and 0-1 weight percentage of at least one nano-catalyst. The at least one non-edible oil can be a used cooking oil, the at least one organic alcohol can be methanol, and the at least one nano-catalyst can be calcium oxide (CaO) nano-catalyst. The nano-catalyst is produced by using a sol-gel process. The non-edible oil, the organic alcohol and the nano-catalyst are reacted using a transesterification process to produce the bio-diesel of high quality. The bio-diesel eliminates the release of non-edible oils into the environment after usage, thereby protecting the environment, society, economy, and people's health.

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