

Catalyst and synthesis process for the production of biobased glycolic acid (NT001)

Current glycolic acid (or hydroxyacetic acid) is mostly derived from fossil resources. The reported invention allows the synthesis of glycolic acid from biobased glycerol by oxidation.

Keywords: Glycolic acid, Oxidation, Glycerol

Intellectual property: WO2014/199256 (entry into the national phases : Europe, USA, Malaysia)

> Presentation of the technology

- Catalytic oxidation of glycerol with an heterogeneous catalyst in basic medium
- Opportunity to work on crude glycerol
- Low base concentration and hence limitation of the salts generated
- Simplified downstream to extract glycolic acid (ex : reactive distillation)
- Valuable coproducts : biobased formic acid

> Competitive advantages

- Glycerol oxidation
- Easy industrializable process
- Recyclable heterogeneous catalyst
- Valuable coproducts
- Oleochemistry

> Applications

- Polymers
- Solvents
- Inks
- Cosmetic industry
- Chemical intermediates ...

> Development stage

- Technology validation in laboratory environment

1 2 3 **4** 5 6 7 8 9

> Development opportunities

- Continuous flow process design
- Downstream process development

> Technical specifications

