

Materials: organometallic compounds Mn-DOBDC and Pb-DOBDC

About the invention

The subject of the offer is a heterogeneous catalytic material designated as Mn-DOBDC or Pb-DOBDC, containing manganese(II) or lead(II) ions, respectively, and groups derived from 2,5-dihydroxyterephthalic acid. The invention also relates to a method for producing these materials and their use as heterogeneous catalysts in the glycolysis of poly(ethylene terephthalate) (PET) in the presence of ethylene glycol.

The invention finds application in the fields of coordination and organometallic chemistry, heterogeneous catalysis and the chemical recycling of plastics. In particular, it relates to the preparation of manganese- and lead-based materials derived from 2,5-dihydroxyterephthalic acid and their use in the depolymerisation of PET by glycolysis, leading to bis(2-hydroxyethyl) terephthalate.



TRL 4

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IP protection

The invention is protected by patent application No. **P.457163**, filed with the Polish Patent Office.

Technology readiness level

TRL 4 – Technology validated in laboratory conditions

Possible cooperation

- Licence
- Sale of ownership rights
- Partnership for further research and commercialisation