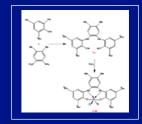
## **TECHNOLOGY OFFER**

## Universitat de Girona



# A PROCESS FOR THE PRODUCTION OF END-SATURATED POLYALFAOLEFIN LUBRICANTS

The commercial production of saturated polyalfaolefins (PAOs) requires a hydrogenation process, high hydrogen pressure and harsh conditions. This new green and single-step method produces PAOs in a fast, efficient and benign ways, compared to previous processes in the literature.

### **DESCRIPTION OF THE TECHNOLOGY**

The invention associates to a catalyst system and an efficient method for the production of saturated polyalfaolefins (PAOs) by chain coordination transfer oligomerization (CCTO) technique. PAOs derive from the chemical transformation, in a single reactor, of alkene monomers, a type of hydrocarbons. This unique procedure presumes to be waste efficient compared to current approaches.

### APPLICATION AND OBJECTIVE MARKET

All the countries and major suppliers that use PAOs could benefit from this novel technique, for the production of automobile and engine oils.

## **COMPETITIVE ADVANTAGES**

Compared with previous and current methodologies, this innovative system can:

- Increase the efficiency by reducing it into a two-step process.
- Reduce the hazardousness and corrosiveness of the process.
- Reduce the high risks of PAO production.

TIME-TO-MARKET
TRL – 4

Patent US 2022/0315674 A1

**BUSINESS OFFER** 

#### **RESEARCH GROUPS**

Polymerization
Engineering – Iran
Polymer and
Petrochemical Institute
(Iran)

Computational Chemistry – University of Girona (Spain)

#### **CONTACT**

Knowledge Transfer
Unit – Technology
Transfer Office (TTO) UdG
valoritzacio@udg.edu
+34 972 41 89 65