# **NEW CATALYST FOR FREON DEHALOGENATION**

A novel, patentable solid catalyst for the catalytic hydrolysis of Freons, other organohalogen compounds and halons. Applicable for recycling of cooling devices, thermal insulation materials and rubber polymerization solvents. Produced by a simplified coating method with an active layer that does not require expensive precious metals. The final product can easily be customised to the needs of the end user and produced in multiple forms (Raschig rings, spheres, cylinders etc.). No switching costs are incurred for manufacturer or user. Performance at standard industry end operating temperatures to ensure catalytic plant efficiency is 95.9%.

#### Key advantages

- catalytically active Novel layer composition eliminates the need for expensive precious metals
- Simplified, rapid catalyst coating process compared to conventional thermochemical processes
- Efficiency of 95.99% at 400° C (99.5 % at 500° C)
- Easily customised to specific end user requirements
- Industrially proven technology
- No switching costs for manufacturer

#### or end user

### **Target applications and** end users

- Companies using gas-phase catalytic dehalogenation to recycle refrigerating devices
- Plants for Freon filling and storage
- Producers and recyclers of thermal insulation polyurethane foams
- Producers and users of rubber polymerization solvents

### Team

Developed by an experienced team of scientists from the University of Belgrade in Serbia with over 20 years of experience in heterogeneous catalysis and recycling of electrical and electronic waste for industrial purposes.

The scientific team is supported in technology valorisation, IP protection and licensing negotiations by the Technology Transfer Facility of the Serbian Innovation Fund.

• Producers and users of solvents utilized in the dry cleaning industry

## **IPR Status**

Patent protection has been sought.

# **Stage of development**

• The technology is at TRL5 - proven in the relevant industrial environment

# Opportunity

The Innovation Fund is seeking commercial licensing partners to scale-up the manufacture to fully industrial levels. Ongoing support from the team is available to transfer know-how regarding customisation of the product to end user requirements.



www.innovationfund.rs



For further details in this opportunity, please contact: mladjan.stojanovic@innovationfund.rs

