



Case Study

highpreactor BR-40 in use at Universidad de Alcalá

User

Universidad de Alcalá, departamento de química orgánica y inorgánica, Sustainable Catalytic Processes with Organometallic Compounds Group.

Within the group we are focused on developing new sustainable chemical processes based on the utilisation of catalysis. One area of research is the use of renewable resources and in this context the group has interest in the use of carbon dioxide as a renewable C1 chemical feedstock.



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Product

The Berghof pressure vessels **highpreactor BR-40** are used.

Application

The **highpreactor BR-40** Berghof pressure vessels are used for the safe conversion of oxiranes and carbon dioxide to cyclic carbonates using Lewis acid catalysts at high gas pressures. Oxirane substrates are added to the reactor along with the catalyst system and then it is put under pressure of carbon dioxide (typically 10-20 bar) and heated/stirred as required. The pressure is released slowly at the end of the reaction and the product mixture analyzed.

Customer Testimonial

“The quality and ease of use of the Berghof reactors is perfectly suited for our research project. The ability to rapidly set up reactions using Berghof reactors represent a considerable advantage compared to other reactors we have previously used. It is very beneficial to us that we are able to continuously modify and upgrade these reactors as our requirements change with future projects.”

Christopher Whiteoak (Researcher, Universidad de Alcalá, Departamento de química orgánica y inorgánica)