

## **CONTINUOUS MODULAR CRYSTALLIZATION PLANTS**

Microinnova delivered two modular continuous crystallization plants to the research center CMAC in Scotland and one continuous crystallization plant with an integrated filter-dryer unit to the University of Sheffield. Continuous crystallization, filtration and drying, as an integrated system during continuous manufacturing, is one of the most challenging topics in downstream processing.

- · Highly automatic development system on pilot scale
- Quick reconfiguration
- · Process and development data are brought together on one platform
- · Highly resistant material to enable a broad applicability
- Online analytics and PAT
- Model Predictive Control



The delivered plant systems are thoroughly used at the research institutions to develop efficient crystallization processes for API's and intermediates in pharmaceutical production. The delivered continuous crystallization plants were specifically designed for research purposes. With a capacity of 1-8 L/h, the modules are fully automated and were prepared for PAT integration such as FBRM and RT microscopy allowing for model predictive control (MPC).