

Cooling, Antisolvent, Vacuum and Evaporation Crystallizer (CAVE)

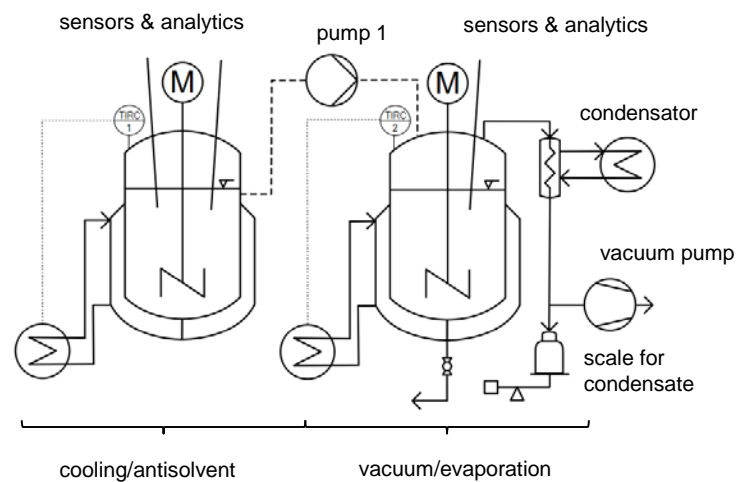
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Plant data

- Laboratory-Scale Plant for flexible stirred batch crystallization experiments
- Separate crystallizers for cooling/antisolvent and vacuum/evaporation crystallization
- Opaque housing for light-sensitive measurements

Process Flow Diagram



Setup

- Two stirred 2 L crystallizers with jackets for temperature control
- Lids with mounts for analytics
- Pumps for antisolvent-addition, chaining the crystallizers in a row and draining

Crystallizer 1 (cooling/antisolvent):

- Water-cooled by a Huber Ministat 230 for flexible cooling/heating cycles

Crystallizer 2 (vacuum/evaporation):

- Heated via a Huber CC thermostat with heat transfer oil for higher temperatures
- Cooler for condensation of vapors exiting the crystallizer
- Attached vacuum pump

Operation Range

Process parameter	Unit	Range
Crystallizer 1 (cooling/antisolvent)		
Temperature	°C	5 ... 90
Stirrer	rpm	0 ... 1000
Crystallizer 2 (evaporation/vacuum)		
Absolute pressure	bar	0.35 ... 1
Temperature	°C	5 ... 150
Stirrer	rpm	0 ... 1000