SCT-LAB V2

Compact crystallization equipment

> High-speed low-consumption crystallization screening

The new generation of Secoya Crystallization Technology SCT-LAB instruments has now a fully integrated stock solution heating and agitating position, allowing to dissolve the molecule of interest inside the instrument without further handling required.

The accessibility of the mixing inserts and reactor has drastically improved, with a guaranteed watertightness of the reactor holder without the use of screws and bolts which enables the user to more rapidly exchange the reactor, without any fuss.

Heat flow studies have pointed out the increased thermal stability of the machine as well at the point of the syringes so that heating and cooling is much more effective and uniform.

The tubing connecting the syringes and inserts are now maintained in the same heated and cooled compartment to avoid clogging before the product enters the inserts. It comes equipped with a dedicated thermostat from Huber Kaltemaschinebau, software controlled by our 21 cfr part 11 compliant software.

> Technical specifications

Temperature antisolvent	from 5 to 85 °C (antisolvent precooled in fridge)
Temperature solution	from 25 to 85 °C
Temperature reactor	from 0 to 75 °C, agitated
Volume stock solution	100 mL, agitated and heated in place
Volume stock antisolvent	250 mL, agitated and heated in place
Volume solution per test	from 1 to 20 mL, syringes are preheated and precooled
Flow rate solution and antisolvent	from 1 to 50 mL/min
6 mixing inserts for cooling and antisolvent crystallization	
7 different reactors for cooling and antisolvent crystallization	
Unit dimensions	45 x 45 x 45 cm (L x W x H)
Weight	28 kg

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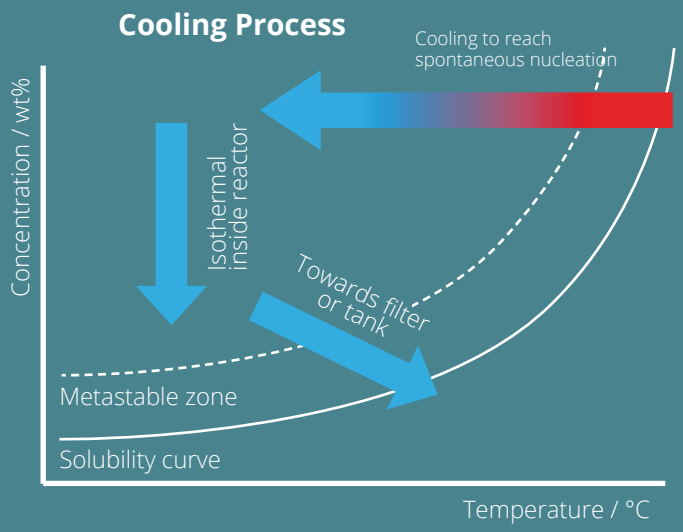
Secoya FLUIDIFY PHARMA

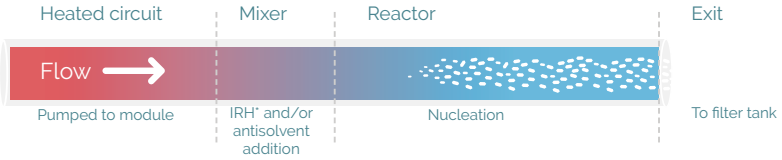
> Secoya Crystallization Technology (SCT)

Ultrafast screening of your novel molecules



Characteristics

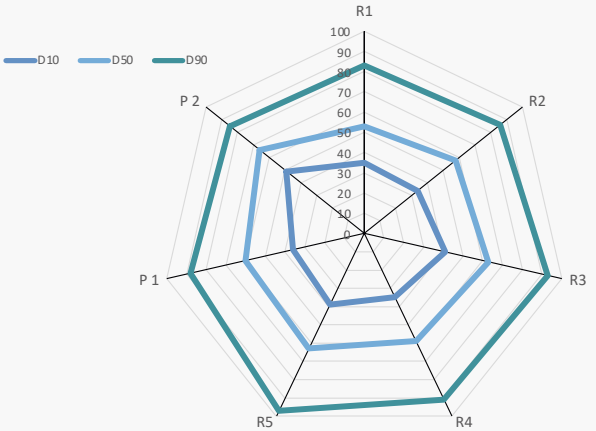
- Cooling and antisolvent crystallization on the same device
- Fast screening of nucleation conditions
  Low material consumption
- Wide parameter range and large particle size range possible for same molecules
- Seamless scale-up
- Suitable for all OEB classes.
  Ideal for BCS class II and IV products.



* Internal Resistive Hydrodynamics, see Rimez et al., Crystal Growth & Design (2018)

Technology Specifications

- Preheated solution between 25 and 85°C
- Precooled antisolvent addition between 5 and 85°C
- Temperature controlled reactor (0 to 60°C)
- Single-use, easily connected inserts and reactors
- Flow rates per line: 1 to 60 mL/min, independent operated pumps
- Standalone software



Lactose crystallization tests: extrapolation of results using identical parameters for both lab scaled testing (R1-R5) and pilot testing (P1 and P2).

> Seamless scale up from lab test to production validation

Thanks to the robustness of the crystallization technology, the parameter set is determined during the laboratory scale screening phase to achieve the desired particle size and distribution. This set is validated at pilot scale during kilogram testing before parallelization towards production scale.

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