Crystallisation and Solubility

To support isolation of large quantities of material, we utilise a Technobis Crystal16 crystallizer to determine solubility profiles of materials of interest. With as little as 100 mg of sample solubility curves can be generated. We have used this to great effect to successfully eliminate silica gel chromatography from key reaction steps and for upgrading materials to higher specifications.

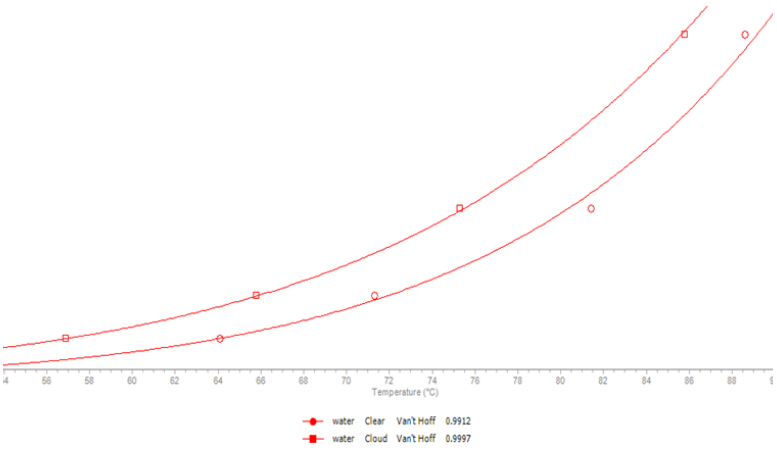
First Pass Solubility Screen

- Range of common organic solvents and water
- Class 2 and Class 3 options
- Single solvents and binary combinations possible
- Room temperature solubility data generated
- Short-list of solvents for further investigation

Second Pass Solubility Screen–Crystal 16

- Rapid generation of solubility curves using Crystal16
- Optimal work volume: 0.25 to 1.5 mL
- Temperature zones: 4 – 16 reactor wells total
- Temperature range: -15 to 150 °C
- Temperature accuracy: 0.1 °C
- Heating/cooling: 0 - 20°C/min, ramps and programs
- Stirring: miniature overhead stirrers or stirrer bar
- Stirring speed (rpm): 0 - 1250
- Turbidity (%): every reactor

Example Solubility Curve and Metastable Zone



Crystal 16 Crystalliser

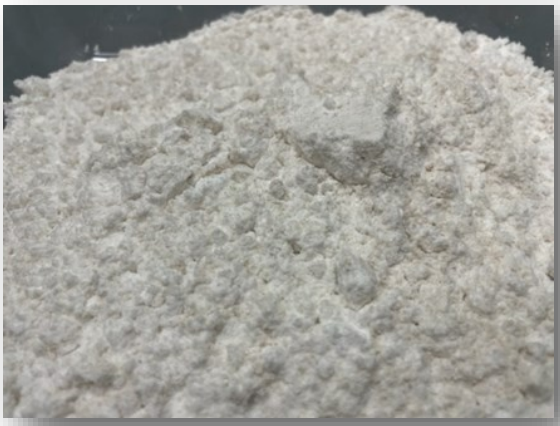
Requirements

For solubility curve generation: 500 mg sample

More if intrinsic solubility is high

Deliverables

Purified and upgraded chemical compounds



All our assays can be customised to answer specific project questions

Contact us for more information on standard or customised assay formats

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