

Is your Scale-Up Process keeping you awake at night?

Are you experiencing failures due to filtration issues?

Is your targeted crystal form oiling in the reactor?

Are you delayed due to meta stable form discovery?



If you know the design space, you can optimize the reaction



The role of Crystal16[®] in Chemical Development

The Crystal16[®] with four independent temperature zones combine magnetic stirring and turbidity measurements within each reactor to monitor changes in state as a result of time and temperature: giving you instant information on solubility and metastable zone width (MSZW).

Achieve the lowest production costs:

Understanding *what* is in the solution at *which* temperatures ensures that the reaction is done at the right temperature and concentration.

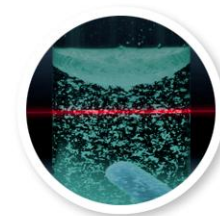
Utilizing this information in your process development will help you to achieve the lowest production costs.

Optimize the process and filtration step:

Understand the solubility of impurities to optimize the filtration step and potentially eliminate unnecessary steps in the process.

Optimize yield:

Pick the right solvent to optimize yield. Being able to easily assess the solubility in different process solvents allows you to design the best process achieving maximum yield.



Prevent Crystallization Issues during Scale-Up



Develop better processes earlier on:

Eliminate much of the need to troubleshoot scale-up by developing better processes earlier in development cycle. Utilizing as little as 15 mg of sample, the Crystal16 makes it possible to attain all the solubility information you need. Understanding the reaction and reaction space prevents much of the need to troubleshoot reactions.

Troubleshoot scale-up issues:

When there are issues in scale-up it is much easier to troubleshoot i.e. determine solubility on impure runs. The Crystal16[®] is a standard tool for troubleshooting scale-up issues. With quick access to results (16 parallel reactors) you can have results within a few hours, instead of days.

Discover Meta-stable Forms:

With the Crystal16[®] you can easily isolate solid at a given concentration and using off-line analytic techniques, such as XRPD/ Raman identify form changes to an unknown metastable form. Metastable form discovery early on can prevent delays during scale up.

Determine MSZW:

Eliminate the risk of seeding at the wrong point by knowing the MSZW. Improve yield and optimize conditions in the reactor for substantial cost savings.

