



In-line, Real-time Particle Size Distribution Measurement Non-Confidential

BACKGROUND

We are developing a fully automated, high-throughput synthesis system. One of the key challenges is integrating an in-line, real-time particle size distribution measurement.

NEED DESCRIPTION

We require a method or instrument that enables us to measure particle size distribution (PSD) in a manner that can be automated and integrated into a larger, high-throughput system.

The proposed solution needs to be able to determine PSD of a sample in quasi real-time over a period of roughly 30 minutes. The PSD of the sample will vary over this timeframe. Establishing when the target PSD is reached is a critical step in the process.

The particle size range of interest is between 1-100 μm .

Only a minimal amount of sample (up to a few grams) can be consumed by the measurement over the 30 minute timeframe.

The sample can be particle dense, so auto-dilution of the sample may be required.

Ideally the cycle time (between sampling and receiving the PSD measurement result) is kept under a minute and the PSD is measured every 1-2 minutes.

WHAT WE ARE LOOKING FOR

We are seeking a method or instrument that can measure PSD in real-time, and that can be fully automated. Our goal is to find a solution that can be seamlessly integrated into a larger, custom-built high-throughput system. In addition to PSD instruments, we are also open to consider microfluidics methods or image analysis/AI on microscope slides or other approaches.

WHAT WE ARE NOT LOOKING FOR

- A stand-alone instrument for measuring PSD
- A method still requiring manual intervention steps
- Unproven technology or methods

Please note that only **non-confidential** information describing the business & services model, current use and IP can be accepted for review.