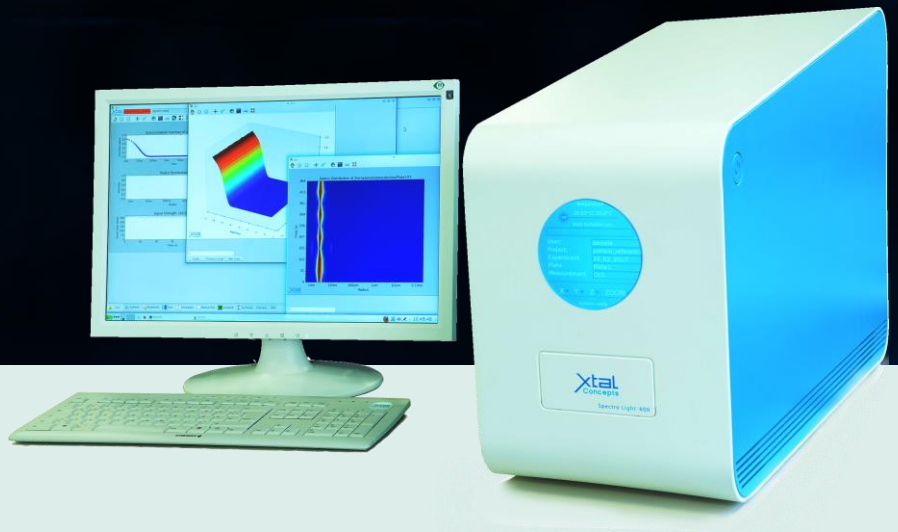
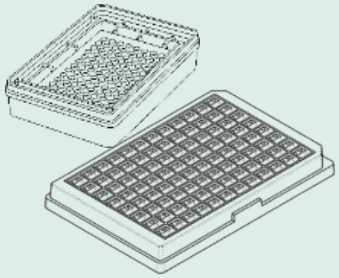
SpectroLight 600 an *in situ* DLS/Imaging-System



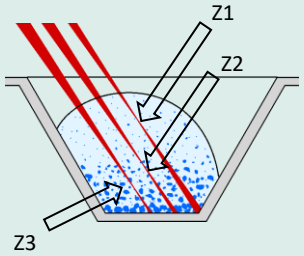
The field of application of this highly advanced system is not limited to simply visual inspection of droplets to find crystals. Instead it plays a central role in the daily work due to its unmatched versatileness in applications.

Aggregation Analysis – Crystal Imaging – UV – Stability Analysis – Temperature Stability – Automated Mode – Manual Mode – Unmatched Versatileness

Key features of SpectroLight 600



Utilisation of Standard Plates



Measurement at different positions Z1,Z2,Z3

Bright light and UV Imaging

Standard sample containers

(like SBS plates, capillaries or smaller plates) no cuvettes, no special consumables, no cleaning

Minimal sample volume – 50 nl

Use an aliquot of your sample for quality check. Arbitrary choice of the sample volume down to 50 nl.

3D positioning within the sample

Measure in different heights or xy to access inhomogeneous samples

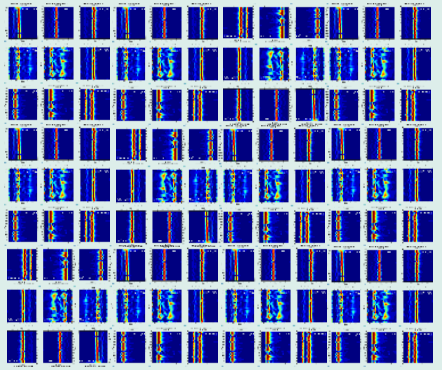
Automated condition screening (pH, detergents, buffer)

More insights in well-being of your sample with only 9.6 µl for a full plate with 96 conditions. Plates can be repeatedly used to continue measurements even over serveral weeks.

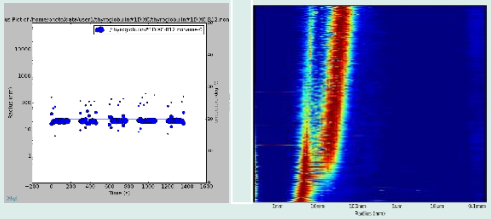
Fast bright light and UV-Imaging

Fully fledged fast imaging system with various illumination capabilities

It's simply fun to measure!



Screening of 96 conditions

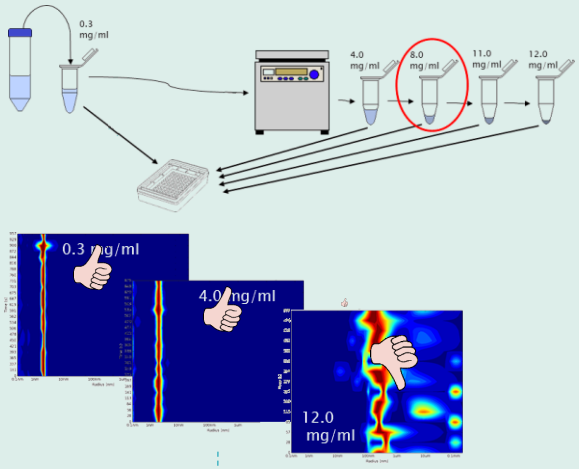


160 h of interval and continuously Series of *in situ* DLS measurements

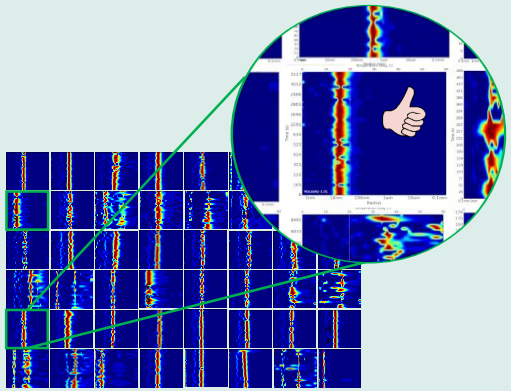
In situ DLS enables comprehensive Sample Analysis

A Sample Preparation pipleline downstream from Purification
Crucial steps down stream from purification can be monitored and sample integritiy is almost guaranted

Controlled Prevention of Overconcentration

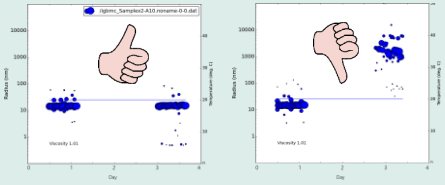


Success in Formulation/Buffer Condition
Screenings by Visualization of the Invisible

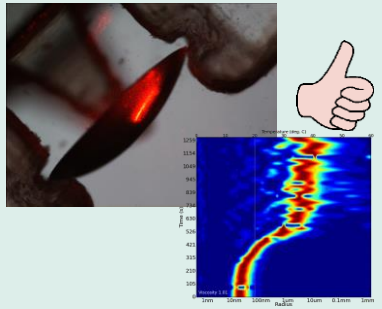


High Success Rate in
Sample Characterisation

Sample Purification (SEC-MALS) → Sample Concentrating → Sample Storage → Buffer Screening → „On-grid" Analysis → Cryo-EM NMR SAXS Crystallization SPR, ITC....

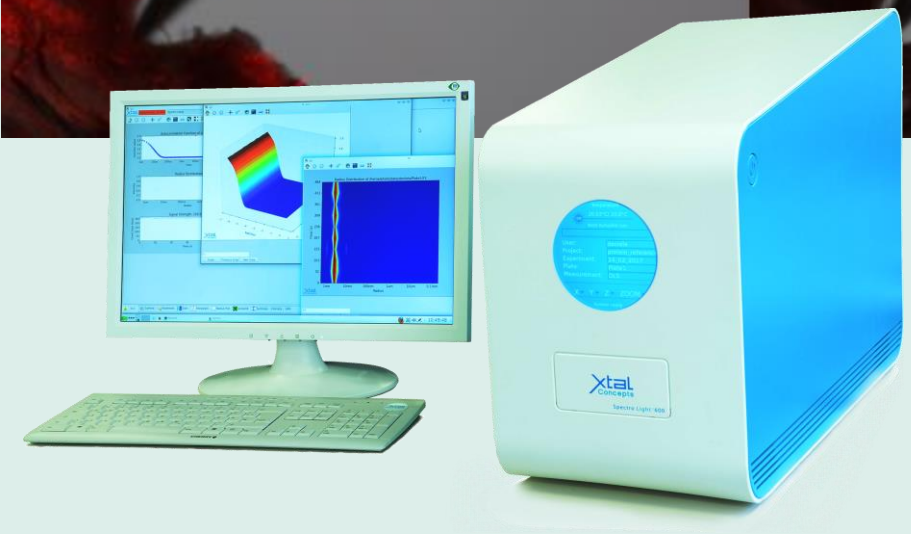


Long term Stability Analysis
and freezing Effects Monitoring



Analyis of theAsample/Grid-Surface Response

SpectroLight 600 On grid sample analysis



Among numerous applications one outstanding possibility that in *in situ* DLS enables is the analysis of sample responses to cryo-EM grid materials.

The majority of proteins show sooner or later a reaction when it get in contact with the grid surface. How fast this reaction occurred deptends on the protein, buffer and grid material itself. Influences of a sample carrier is in any case an unwanted effect.