µDISS Profiler™

The µDISS Profiler™ is a versatile instrument for measuring concentration in real time with fiber optic UV spectroscopy. Eight dip probes are located inside temperature and stirring controlled sample vessels containing between 1-20 mL dissolution media. R&D chemists can investigate dissolution/precipitation behavior, preformulations and quickly rank compound performance.

High Productivity
The µDISS Profiler™ utilizes dip-type fiber optic probes to measure the amount of compound or API in solution. Since the system uses *in situ* monitoring, liquid sampling is not required. Data collection occurs without user intervention during the experiment. Operator time and clean-up is substantially reduced.

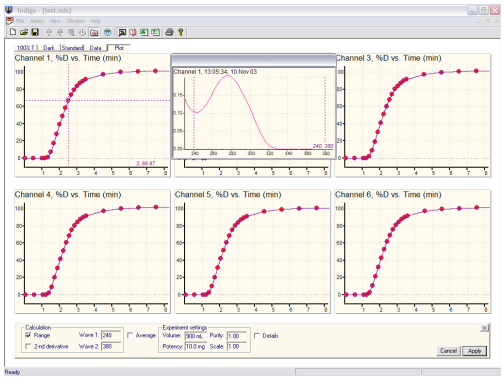
Greater Sensitivity
Each channel in the µDISS Profiler uses a state-of-the-art Zeiss UV spectrometer. One concentration datapoint can be acquired every second. Spectra are collected over the entire UV wavelength region from 200 nm to 450 nm. Since each sample has its own UV probe and spectrometer, no cross-contamination or cross-talk is observed. The probes have interchangeable quartz mirror tips in a variety of path lengths so very low concentrations of API can be measured and the linear working range is optimized.

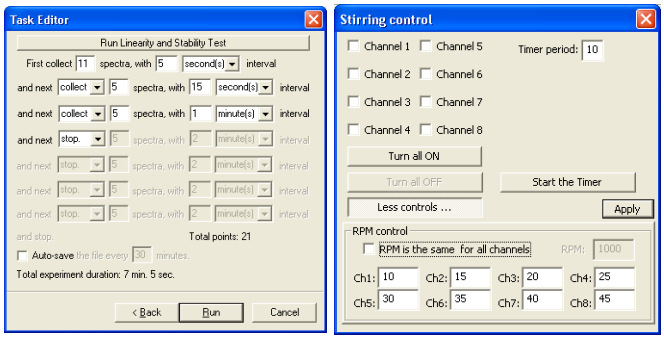
Limited API or Media?
The Mini-Bath™ of the µDISS Profiler collects data in sample vessels that contain from 1 to 20 mL media. Using small volumes is an ideal approach for collecting data using expensive simulated intestinal fluids or where your API is limited to only a milligram. Testing small API masses allows early screening of discovery compounds which saves considerable time and other critical resources.

Pion

For the Ultimate in Versatility
Simultaneously conduct experiments with entirely different API/media combinations on each fiber optic channel. Many users rank order their results for candidate selection and to investigate the relative effectiveness of different excipient combinations. In addition, the instrument can be used for evaluating solubility in the dynamic gastrointestinal pH environment using SGF and SIF concentrates.

Additional Features
The entire UV spectrum is collected at each time point on the concentration curve. The user can specify up to six rates of spectra collection during a run to obtain the datapoint density desired. Computer controlled stirring is independently set for each channel, thus providing maximum operational flexibility.

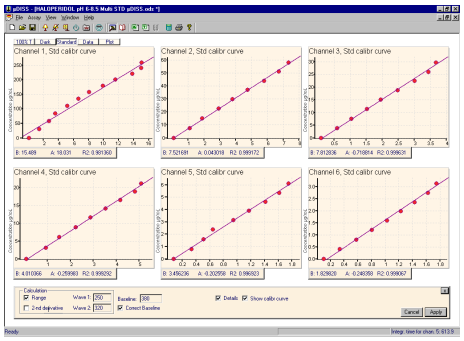




Any number of standards can be used for the UV calibration curve, which is easily saved and later reused with different experiments.

µDISS Profiler includes:

- 6 or 8 dedicated UV photo diode arrays
- 6 or 8 *in situ* probes with 3 removable tips
- 8 position temperature controlled Mini-Bath™
- Individual, PC controlled stirring
- Probe holder
- Vials for 1 to 20 mL media
- µDISS Command Software



Applications:

Tablet Dissolution Powder Dissolution Intrinsic Dissolution Rate (IDR) Solubility Determination
Nanoparticle Dissolution Non-Aqueous Solubility Excipient Screening Salt Selection
Simulated Intestinal/Gastric Fluid Concentration Monitoring Stability Monitoring

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