

Flying through optimization screening with dragonfly

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Protein crystal optimization is vital to ensure high quality X-ray diffraction data for the solving of high resolution structures. This process involves the set-up of a series of complex screening combinations where the ratios of the individual components identified from primary crystallization studies are varied.

In order to reduce the effort and tedium of this time consuming process, TTP Labtech have designed **dragonfly**® for crystallization screening as an addition to their successful mosquito® liquid handling portfolio.

dragonfly is a liquid handler for simple, fast and accurate crystal screen optimization with unsurpassed reproducibility. dragonfly's positive displacement technology ensures highly accurate dispensing, from 0.5 µL up to 4 mL, across a wide range of viscosities. Its rapid plate preparation is uniquely combined with non-contact dispensing to ensure zero cross-contamination. Dispense resolution is 0.1 µL, allowing very fine gradients to be created.

The partner software – dragonfly designer has been designed from the ground up to be an easy-to-use gradient design tool which is stand alone and provided without restriction on user numbers to significantly reduce ongoing costs.

In this talk we will review both the technology behind the dragonfly and real world examples of speeding up successful crystallization projects.