Automated protein crystal optimisation with TTP Labtech’s dragonfly

J. Jenkins\textsuperscript{1}, G. Cochrane\textsuperscript{1}
\textsuperscript{1}TTP Labtech, Royston, UK

The ability to crystallise proteins, nucleic acids or macromolecular complexes pose significant challenges to the protein crystallography community, from large scale screening assays for the determination of initial crystallization conditions, screen optimisation and final screen set-up. Protein crystal optimisation is vital to ensure high quality X ray diffraction data for the solving of high resolution structure. This process involves the set-up of a series of complex screening combinations where the ratios of the individual components identified from primary crystallisation studies are varied. In order to reduce the effort and tedium of this process, TTP Labtech have introduced dragonfly as an addition to their successful mosquito liquid handling portfolio for crystallisation screening. This poster demonstrates that “dragonfly” is a valuable, compact, low cost addition to the crystallographer’s bench. It eliminates lengthy and complicated plate set-up at the optimisation stage of crystallisation.

Keywords: optimisation, automation