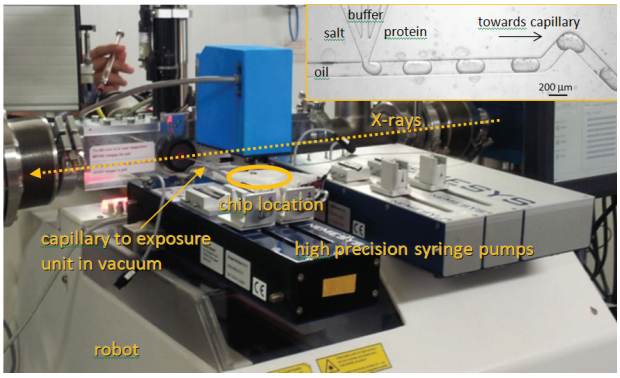

Figure 1. Photograph of microfludics set-up at BM29 beamline. Inset represents a screen snapshot of droplet generation during crystallisation experiment. Small black dots appearing in droplets on right side are first crystals.

Keywords: small angle X-ray scattering, microfluidics, proteins in solution

MS39. Recent advances in diffraction instruments, detectors and data processing

Chairs: Trevor Forsyth, Rosanna Rizzi

MS39-O1 Updates in single-crystal neutron diffraction

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Single-crystal neutron diffraction is represented all over the world by a small set of instruments operated by specialists at large-scale facilities. In addition, very often every neutron diffraction instrument has a unique setup with dedicated hardware and software and, most of the time, an in-house made detector with in-house software for both data collection and data treatment. This situation has relegated neutron diffraction in a niche of experimental techniques to be used only when unavoidable. New materials combining inorganic and organic moieties, especially developed for exhibiting multiple physical properties, present nowadays a challenge to structural analysis, requiring more and more to combine x-rays and neutron data in order to obtain a more thorough description of the systems under study. In this talk, a survey on the actual possibilities and some outlooks in single-crystal neutron diffraction will be given, in particular touching upon 2D detectors, data collection and data processing software.

Keywords: neutron diffraction, single-crystal, 2D detectors