Contribution ID : **51** Type : **Poster**

Small Ange Neutron Scattering instrument BIlby: typical experiments and scientific highlights

ANSTO successfully operates one Small Angle Neutron Scattering instrument QUOKKA and in January of year 2016 commenced user operation of the second SANS instrument, BILBY. The Bilby is the utilizing both, Time-of-Flight (ToF) and monochromatic capabilities.
The design (in particular, set-up of four choppers which uses idea of that for D33 instrument [2] at ILL) opens possibility to vary wavelength resolution in the wide range (from 4% to 30%). Two arrays of position sensitive detectors in combination with utilizing of wide wavelength range (from ~3Å to ~18Å) provide capability to collect scattering data of wide angular range without changing experimental set-up (the most common settings used by now allow simultaneous data collection in the range between 1·10-3 Å-1 and 1.8Å-1). Offered instrument design opens possibility to collect scattering from a wide range of samples, with a unique capability to record fast kinetics data.
The presentation will be focused on two aspects. At first, some specific features in utilizing ToF mode comparing to monochromatic set-up for softmatter samples will be presented. At second, the most interesting of the scientific results obtained on BIlby withing last years will be shown.

Topic

Neutron Instruments & Techniques

Primary author(s) : SOKOLOVA, Anna (Dr); Dr DE CAMPO, Liliana (ANSTO); WHITTEN, Andrew (ANSTO)

Presenter(s) : SOKOLOVA, Anna (Dr)

Session Classification : Poster Session

Track Classification : Neutron Instruments & Techniques