Contribution ID : **21** Type : **Poster**

Past, present, and future plans for SIKA, the cold-neutron triple-axis spectrometer at ANSTO

For many years the triple-axis spectrometer has been utilised by for neutron scatters to study many areas of magnetism and condensed matter physics. With cold neutrons, a triple-axis spectrometer has the capability to investigate physical phenomena with high energy and momentum resolution. Whilst time-of-flight spectrometry, such as PELICAN, is advanced, the cold triple-axis spectrometer has advantages of scanning S(Q, ω) space at each reciprocal point, measuring critical scattering, availability of a number of sample environments, and so on.

A cold triple-axis spectrometer SIKA was installed in ANSTO, OPAL reactor. The components, capabilities, sample environment, software, and statistics will be presented in this presentation. We will also give some scientific examples to help users to write proposals for their own scientific project.

Plans for future progress will be also discussed. SIKA has a plan to multiplex monochromator. With using position sensitive defectors, the instrument will be more efficient to collect neutron scattering data. The other improvement will be 3He polarization analysis system which is under commissioning. Polarized neutron can help user to study magnetic excitations in detail.

The authors look forward to welcoming users to the cold triple axis spectrometer SIKA.

Topic

Neutron Instruments & Techniques

Primary author(s) : Dr YANO, Shin-ichiro (National Synchrotron Radiation Research Center)

Co-author(s) : Mr HANZ , Peng (NSRRC); DENG, Guochu (Australian Nuclear Science and Technology Organization); RULE, Kirrily (Australian Nuclear Science and Technology Organisation); Dr WU, Chun-Ming (National Synchrotron Radiation Research Center)

Presenter(s) : Dr YANO, Shin-ichiro (National Synchrotron Radiation Research Center)

Session Classification : Poster Session

Track Classification : Neutron Instruments & Techniques