

Title: Challenges for detectors on focusing neutron reflectometers

Abstract:

With the AMOR instrument at PSI as well as Estia being built at ESS, two novel reflectometers that employ a focusing technique to increase signal for specular reflectivity have been developed. At the same time similar measurement approaches are being used at existing reflectometers that face equal challenges for neutron detector technology.

For the technique to work, the detectors have to limit spurious signals from neighboring high intensity areas, have relatively large spatial resolution and cope with extraordinary global count rates. I will present the general experiment and background for these requirements. I will briefly show choice of detector for AMOR and Estia, the ESS multi-blade technology, and how it addresses the aforementioned challenges.

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