Contribution ID: **277** Type: **Poster**

SKADI: Small-Angle Neutron Scattering at ESS

Monday 20 March 2023 16:00 (2 hours)

SKADI [1] is a small-angle neutron scattering instrument being constructed at the European Spallation Source (ESS). This TOF instrument with 20 m collimation and 20 m sample detector distance will cover 3 orders of magnitude in Q-space simulateneously (10^{-3} to 1 $Å^{-1}$), offer polarised scattering, as well as a versatile sample area of $3 \times 3\,m^2$. With a flux of approximately 8×10^8 $n\,s^{-1}\,cm^{-2}$, due to a very efficient reflector-type neutron extraction, experiments with high flux requirements will be feasible, but also high resolution experiments with a more confined collimation. Thanks to a new scintillation-type detector [2], a semi-transparent beamstop allows measurements of very low Q-values. The large sample area, accessible from the top and by a side door, allows for very flexible, custom built sample environments for complex experimental setups, especially suited to in-situ experiments.

[1] JAKSCH, Sebastian, et al. Technical Specification of the Small-Angle Neutron Scattering Instrument SKADI at the European Spallation Source. Applied Sciences, 2021, 11, 8, p. 3620.

[2] JAKSCH, Sebastian, et al. Recent developments SoNDe high-flux detector project. NOP 2017 proceedings. 2018. S. 011019.

Authors: JAKSCH, Sebastian (Physicist); FRIELINGHAUS, Henrich (JCNS); HANSLIK, Romuald (Forschungszentrum Jülich); KOZIELEWSKI, Tadeusz (Forschungszentrum Jülich - JCNS); ENGELS, Ralf; GUSSEN, Achim (Forschungszentrum Jülich - ZEA1); BUTTERWECK, Stephan (Forschungszentrum Jülich - ZEA1); CHENNEVIERE, Alexis (Laboratoire Leon Brillouin, CEA, CNRS); DESERT, Sylvain (CEA Saclay - LLB); LAVIE, Pascal (CEA Saclay - LLB)

Presenter: JAKSCH, Sebastian (Physicist)

Session Classification: Poster Session MONDAY

Track Classification: Neutron Instrumentation, Optics, Sample Environment, Detectors, and Software