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## KWS-2 Extended Q-Range SANS Diffractometer: Cold vs. Thermal Neutron Use

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The KWS-2 is a classical pinhole SANS diffractometer for the investigation of complex mesoscale morphologies and rapid structural changes in soft condensed matter and biophysical systems. By combining pinhole mode, focusing mode with lenses and WANS mode with detection capabilities up to  $2\theta = 50^\circ$ , the instrument enables exploration of a wide Q range from  $2.0 \times 10^{-4} - 2.0 \text{ \AA}^{-1}$  and offers high neutron intensities with MHz detection capabilities, low background and adjustable experimental resolutions in continuous or TOF mode. SEC complementarity for in-situ protein purification provides the instrument with controlled quality biological samples. Robotic systems with automatic sample changer at the sample position allow a continuous supply of samples to the instrument and the merging of experiments from different user groups when similar experimental conditions are required.

Due to current technical problems, the FRM II reactor will be temporarily operated without a cold neutron source. By combining McStas simulations and test measurements on model biological systems with short wavelength neutrons,  $\lambda = 2.8 \text{ \AA}$ , available due to the optimized properties of the neutron guide and the possibility to tilt the velocity selector, we demonstrate the performance of the KWS-2 in the thermal neutron regime of the FRM II reactor and the possibility to contribute significantly to the MLZ user program during the temporary absence of a cold source without interruption.

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