

**Preliminary parameters for
KWS-1 and KWS-2
due to the actual design**

Beam tube:	$5 \times 5 \text{ cm}^2$ $m = 1.3$
Monochromator:	Dornier velocity selector $\Delta\lambda/\lambda = 0.1$ and 0.2 for KWS-1 and KWS-2
Monochromator 2: (additional chopper)	Chopper (in concert with velocity selector) $\Delta\lambda/\lambda = 0.01$ (typical, lower values possible)
Neutron flux at sample:	10^6 to $10^8 \text{ n/cm}^2 \text{ s}$ depending on collimation ($20 \dots 2m$) $\lambda = 7\text{\AA}$ wavelength, entrance aperture $5 \times 5 \text{ cm}^2$
Entrance aperture: Sample aperture:	$5 \times 5 \text{ cm}^2$ $1 \times 1 \text{ cm}^2$ (suggested without lenses) $\varnothing = 5 \text{ cm}$ (with neutron lenses)
Collimation:	2 to 20 m
Detector:	Active area: $60 \times 60 \text{ cm}^2$, 128 x 128 channels Scintillator: ^6Li glass, 1 mm thickness Spatial resolution: $5 \times 5 \text{ mm}^2$ Max. pulse rate: ca. 1MHz ($T_{dead} = 1\mu\text{s}$) Detection probability: 95% for 7\AA neutrons y-sensitivity: $2 \cdot 10^{-4}$ (1 MeV)
Detector 2: (high resolution)	Active area: $\varnothing \approx 8.7 \text{ cm}$, $\varnothing \approx 200$ channels Scintillator: ^6Li glass, 1 mm thickness Spatial resolution: $0.44 \times 0.44 \text{ mm}^2$
Wavelength:	$4.5 \dots 20 \text{\AA}$
Momentum transfer:	$10^{-3} \dots 0.2 \text{\AA}^{-1}$ Down to 10^{-4}\AA^{-1} with neutron lenses and small detector