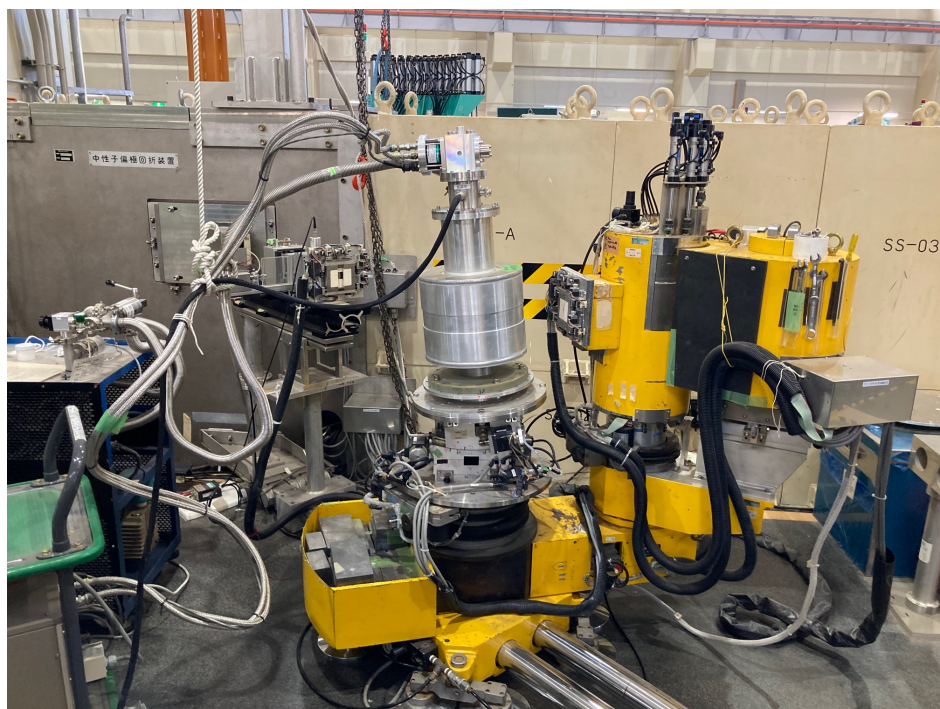




T1-1: HQR

High-Q Resolution Triple-Axis Spectrometer

HQR is a conventional triple-axis spectrometer, which allows low-background measurements at the T1 thermal neutron guide tube. The spectrometer is open for the general user program of neutron scattering managed by ISSP, the University of Tokyo, and is also applied for the practical training for neutron spectroscopy of Ibaraki University under the agreement between the institutes.



Monochromator	PG002 vertically focused. $E_i = 13.5$ meV ($\lambda = 2.445$ Å, $2\theta_M = 43.5^\circ$) fixed.
Analyzer	PG002 vertically focused. $-5^\circ < 2\theta_A < 90^\circ$ ($-10 \lesssim \Delta E \lesssim +10$ meV)
Sample stage	beam size = 20×40 mm, $-90^\circ < 2\theta_s < 150^\circ$
Detector	^3He detector (2 inches in diameter and 100 mm in length)
Monitor	^3He detector
Collimation	2nd (10', 20', 40'), 3rd (20', 40', 60'), 4th (20', 40', 60')
PG filters	Between the 2 nd collimator and the sample
Options	4K GM refrigerator Polarized-beam super mirror (in commission)

- Human resource development and student thesis works based on the Institute of Quantum Beam Science, Graduate School of Science and Engineering, Ibaraki University
- Crystal and magnetic structure analysis of magnetic and strongly correlated electron systems
- Inelastic scattering measurements of material dynamics
- <https://sites.google.com/g.ecc.u-tokyo.ac.jp/t1-1/home>