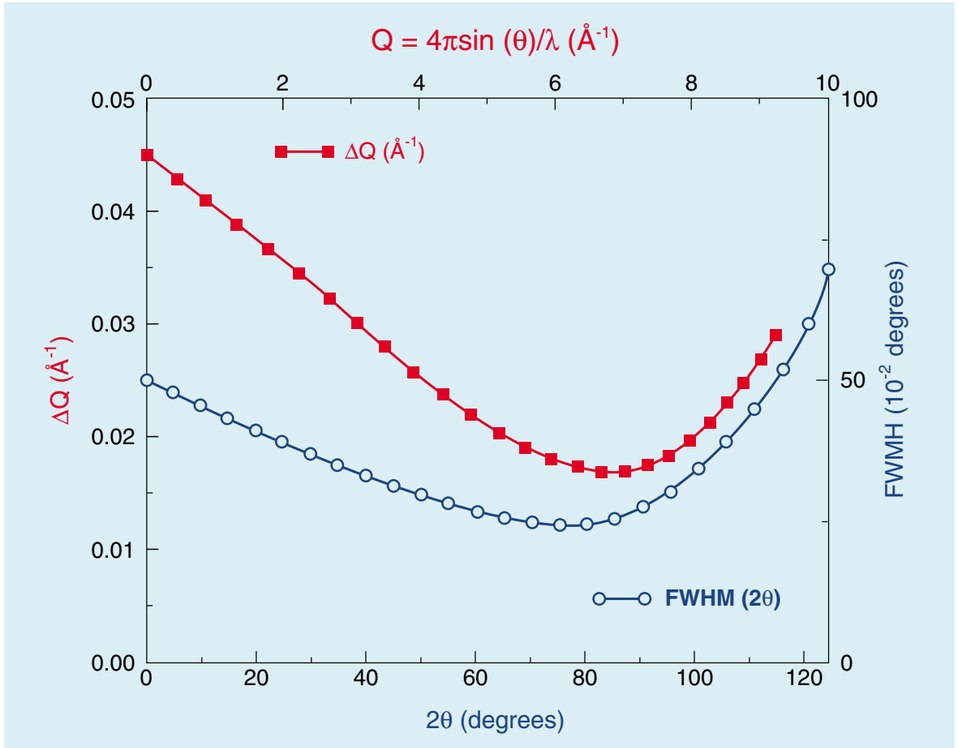
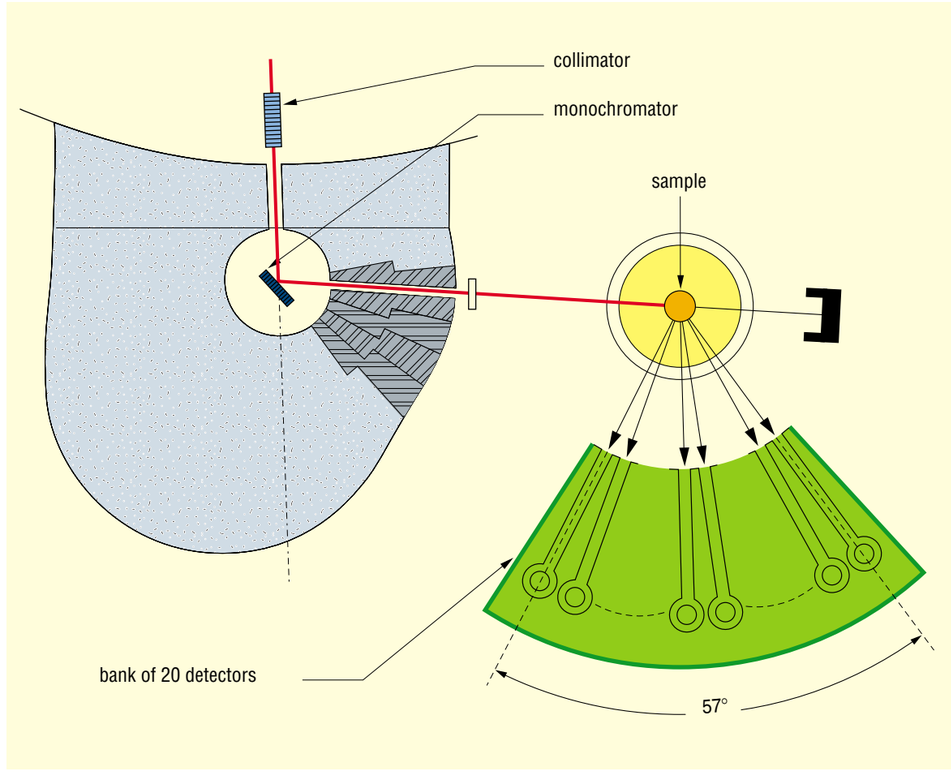
Type of instrument	Two-axis diffractometer
Beam tube	Thermal (30 x 80 mm^2)
Monochromator	Vertically focusing Ge (335)
Maximum flux at specimen	10^6 n cm^{-2} s^{-1} (λ = 1.2 Å ; α_1 = 10')
Maximum beam size at specimen	20 x 50 mm^2
Incident wavelength	1.225 Å ($2\theta_M \approx 90°$)
Angular resolution	See Figure (α_1 = 10')
Angular range	$2\theta < 125°$
Collimation	α_1 variable (10', 14', 21')
	α_3 fixed (10')
Detectors	20 ^{3}He detectors, 3° apart
Minimum step size scan	0.02° (2θ)
Data collection and Instrument control system	PC

Ancillary equipment

★ Cryofurnace (1.5 K - 550 K)
★ Furnace (T ≤ 1000°C)



Resolution curves : (O) *Full width at half maximum (FWHM) versus 2θ ;*
(■) *Q variation of the resolution ΔQ (λ_0 = 0.1225 nm).*



General layout of the diffractometer 3 T2.

3 T2 is a high resolution two-axis diffractometer dedicated to neutron powder diffraction studies in the fields of crystallography, solid state physics, chemistry and material science.

Due to the value of the incident monochromatic wavelength (1.225 Å, thermal neutrons) crystallographic unit cell volumes of the studied samples have to be ≤ 1000 $Å^3$)

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