

THE NCNR BT9 TRIPLE-AXIS SPECTROMETER

Monochromators:

	PG(002)	Ge(311)
d-spacing (Å)	3.35416	1.70576
$2\pi/d$ (Å ⁻¹)	1.87325	3.68351
mosaic (minutes)	35	30 (estimate only)
Fixed vertical focus	14.7 meV	40 meV

Analyzers:

	PG(002)	Ge(111)	Ge(220)	Ge(311)	Ge(004)	Ge(331)
d-spacing (Å)	3.35416	3.26627	2.00018	1.70576	1.41434	1.29789
$2\pi/d$ (Å ⁻¹)	1.87325	1.92366	3.14131	3.68351	4.44250	4.84107
mosaic (minutes)	35 (estimate)	perfect	perfect	perfect	perfect	perfect

Collimations:

In-pile	Pre-Sample	Pre-Analyzer	Pre-Detector
15'	10'	10'	10'
	20'	20'	20'
40'	40'	40'	40'
	80'	80'	80'

Angular limits:

$$20^\circ < 2\theta_M < 65^\circ$$

Using PG(002):

14.7 meV	$0^\circ < 2\theta_S < 127.4^\circ$
30.5 meV	$0^\circ < 2\theta_S < 115^\circ$
50.0 meV	$0^\circ < 2\theta_S < 97^\circ$

Goniometer:

Beam height = 6 inches above goniometer.
Motorized tilts (+/- 23°) and translations (+/- 16 mm)