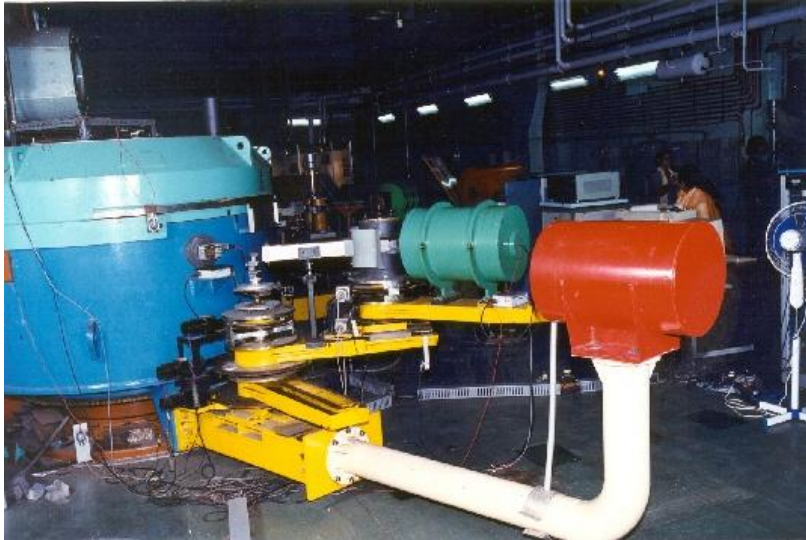


Triple Axis Spectrometer

For inelastic neutron scattering experiments from single crystals/ polycrystalline samples

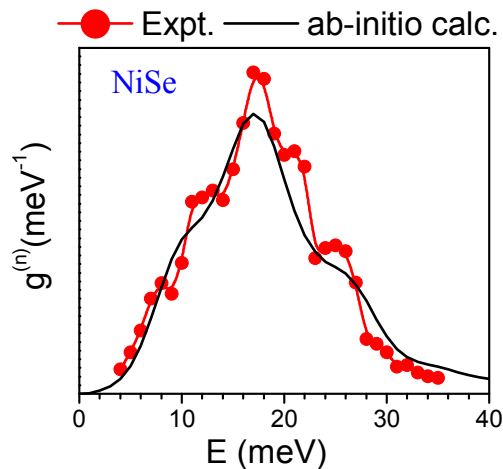


For measurements of phonon dispersion curves, phonon density of states, crystal field excitations, and quasielastic scattering.

Allows measurement of the scattering function at any point in (Q,E) space physically accessible by the spectrometer

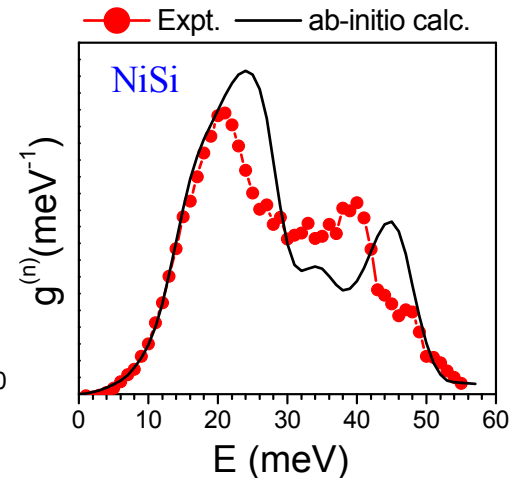
Instrument parameters

Beam hole	T1007
Monochromator	Focussing Cu(111)
Energy transfer range	up to 100 meV
Momentum transfer range	1-10 Å
Beam size	40 mm x 40 mm
Flux at sample	10^7 n/cm ² /s
Analyzer	PG(0002)
Scattering angle	up to 100°
Detector	³ He counter



Interesting electronic and magnetic properties.

Promising material for solar cells.



NiSi has potential applications in electronic and energy devices.

Elastic energy resolution 15 %,
Sample temperature 10-300 K

Selected publications

1. P Goel, M K Gupta, S K Mishra, B Singh, R Mittal and S L Chaplot, *Frontiers in Chemistry* 6 (2018) 331.
2. T. Basak, Mala N. Rao, M.K. Gupta, and S.L. Chaplot, *J. Phys.; Condensed Matt.* 24 (2012) 115401.
3. V. K. Sharma, S. Gautam, S. Mitra, Mala N. Rao, A.K.Tripathi, S.L. Chaplot, and R. Mukhopadhyay, *J. Phys. Chem B* 113 (2009) 8066.
4. S.L. Chaplot, R. Mukhopadhyay, P.R. Vijayaraghavan, A.S. Deshpande, and K.R. Rao, *Pramana-J. Phys.* 33 (1989) 595.