## Polarized thermal neutron triple axis spectrometer BT7



 $\Box$  Polarized beam entirely by <sup>3</sup>He neutron spin filters.

- Polarized flux at the sample, 4.0x10<sup>7</sup> n/cm<sup>2</sup>/s
  (OPEN) at 14.7 meV.
- □ Initial flipping ratio up to 60.
- Initial transmission 45%-60% (for desired spin state) for a <sup>3</sup>He polarizer or analyzer.
- $\Box$  Sample field at ~1 mT and up to 2 T (**P**  $\perp$  **Q only).**
- A factor of 2-5 improvement compared to good Heusler crystals.
- $\Box$  Up to 8 spin-dependent cross sections measured (4 with  $P \perp Q$ , 4 with  $P \mid \mid Q$ ).



W.C. Chen *et al*, Physica B **397**, 168 (2007); W.C. Chen *et al*, J. Phys: Conf. Ser. **528**, 012014 (2014) https://www.nist.gov/ncnr/spin-filters/spin-filter-instruments/triple-axis