

Abstract Submitted
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The polariser beamline at TRIUMF for nuclear structure physics

A. VOSS, M.R. PEARSON, C.D.P. LEVY, J. BILLOWES, F. BUCHINGER, K.H. CHOW, J.E. CRAWFORD, M.D. HOSSEIN, R.F. KIEFL, W.A. MACFARLANE, E. MANÉ, G.D. MORRIS, T.J. PAROLIN, H. SAADAOU, Z. SALMAN, O.T.J. SHELBAYA, M. SMADELLA, Q. SONG, D. WANG — Originally built to provide polarised ion beams for condensed matter experiments, the polariser beamline at TRIUMF is coupled to both beta-NMR and beta-NQR spectrometers. In addition, the beam can be passed through a radio-frequency quadrupole cooler and buncher (RFQ) providing bunched beams. Recently, a laser spectroscopy and beta-NQR program was started to investigate the ground state structure of exotic nuclei. Results from recent experiments including zero-field beta-NQR studies to determine the quadrupole moment of the halo nucleus Li-11 and laser spectroscopy to determine the charge radius of Rb-74.

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