

**Monoenergetic Neutron Beam Facility at TSL,**  
J. BLOMGREN, N. OLSSON, Department Of Neutron Research, Uppsala University, Uppsala; S. HULTQVIST, O. JONSSON, D. REISTAD, P.-U. RENBERG, The Svedberg Laboratory, Uppsala University, Uppsala - The cyclotron at the The Svedberg Laboratory has been equipped with a facility designed to produce well-collimated and energetically well-defined neutron beams in the energy region from about 25 to 180 MeV. Proton beams from the cyclotron are used to produce neutrons by the  ${}^7\text{Li}(p,n){}^7\text{Be}$  reaction. The intensity is typically  $5\text{E}4$  neutrons/cm<sup>2</sup>/sec for energies up to 100 MeV and  $5\text{E}3$  neutrons/cm<sup>2</sup>/sec for energies above 100 MeV. The most prominent feature of the neutron production facility is the very good shielding between the beam dump and the experimental area which gives low background around the detectors. Another advantage is that neutron beam production can be performed in beam-sharing mode with other ongoing experiments using proton beams. The facility is open for users from basic science to industry research. Two new detector setups, MEDLEY and SCANDAL, have been installed at the neutron beam. These facilities will be used also to measure cross sections at intermediate energies which are of relevance for the emerging concepts of accelerator-driven transmutation.