

Novosibirsk Cryogenic Atomic Beam Source

D. K. Toporkov

Budker Institute for Nuclear Physics, 630090 Novosibirsk, Russia

A cryogenic Atomic Beam Source (ABS) having five superconducting sextupoles with the magnetic pole tip field up to 4.8 T is used to feed by polarized deuterium atoms an internal storage cell target at the VEPP-3 electron storage ring. The flux of polarized deuterium/hydrogen atoms into the storage cell was measured to be 0.82×10^{17} and 0.79×10^{17} at/sec respectively. ABS was also tested on production of the jet target with high electron polarization for polarimetry of the circulated electron beam in a VEPP-3 ring. Possible limitations of the ABS intensity are discussed.