

Polarized Internal Target Experiments (PINTEX) at the Indiana Cooler

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The PINTEX facility at the Indiana Cooler consists of a polarized, internal target and a detector system for coincident detection of multiple, charged particles. The storage-cell target is injected with either polarized hydrogen or deuterium from an atomic beam source. The deuteron target can either be purely vector or tensor polarized, and the spin alignment axis of the target is freely adjustable. Remote control of the parameters of the transition units allows one to alternate between vector and tensor polarization while the beam is circulating in the ring, thus minimizing systematic errors. The facility was used to investigate both pd elastic scattering and dp breakup as well as pion production in the pd system. The PINTEX program to study the three-nucleon force in the pd system is now completed (July 2002). Technical aspects of PINTEX with emphasis on the target performance will be presented.