

Design of an Improved Ion Chamber for the SNS

R. L. Witkover* and D. Gassner,
Brookhaven National Laboratory

Ion chambers are in common use as beam loss monitors at many accelerators. A popular unit designed and used at FNAL¹ and later at BNL was originally proposed for the SNS. Concerns about the ion collection times and low collection efficiency at high loss rates possible at SNS led to the design of a chamber which would offer improvement in these areas. Prototypes of this design have been built and are being tested with static sources and pulsed beam losses. The design and test results will be presented.

¹ Shafer, R. E., et al, "the Tevatron Beam Position and Beam Loss Monitoring Systems", Proc. 12th Int'l Conf on High Energy Accel., FNAL (1983) p609

* TechSource, Inc., Santa Fe, NM