

Commissioning the IUCF Cooler Injector Synchrotron*, G.P.A. BERG, D.L. FRIESEL, IUCF, Bloomington - Construction of a 2.24 Tm synchrotron designed to replace the IUCF isochronous cyclotrons as an injector of polarized light ion beams into the 3.6 Tm electron-cooled storage ring is complete and beam commissioning is in progress. The compact booster design which can accelerate protons to energies between 60 and 220 MeV is also well suited for use in proton therapy applications. Beam strip injection, accumulation, and ramping studies have demonstrated the ability of this accelerator to deliver in excess of 10^{10} particles per pulse at 200 MeV with a 1 Hz repetition rate for injection into the Cooler. Ring extraction and Cooler injection studies are scheduled to begin in February 1998. The booster design properties and the results of the beam commissioning studies will be presented.

* Supported by National Science Foundation Grants NSF PHY 93-147-83 & 23-423-10