Accelerator Physics Seminar

Tuesday July 22, 2003

(16:00 in Room 459/30b)

Indian Synchrotron Light Sources

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Abstract

The first Indian Synchrotron Light Source Indus–1 was commissioned at the Centre for Advanced Technology, Indore in May 1999. It is a 450MeV electron storage ring which provides synchrotron radiation extending from infrared to about 20Å in the vacuum ultra violet / soft x–rays. Indus–2 is a 2.5GeV electron storage ring for x–rays. The common injector system for these two storage rings consists of a 450/700 MeV booster synchrotron backed by a 20MeV classical microtron. At present Indus–1 is in its normal operation with 100mA current with a beam lifetime of 75 minutes. Indus–2 is in an advanced stage of construction and the commissioning is likely to begin by the end of 2003. In this talk the Indian synchrotron light sources, Indus–1, its theoretical and measured data for beam dynamical parameters, and Indus–2, the beam dynamics and the present status are briefly reported.

D.P.Barber (MPY) and M.Vogt (MPY).