

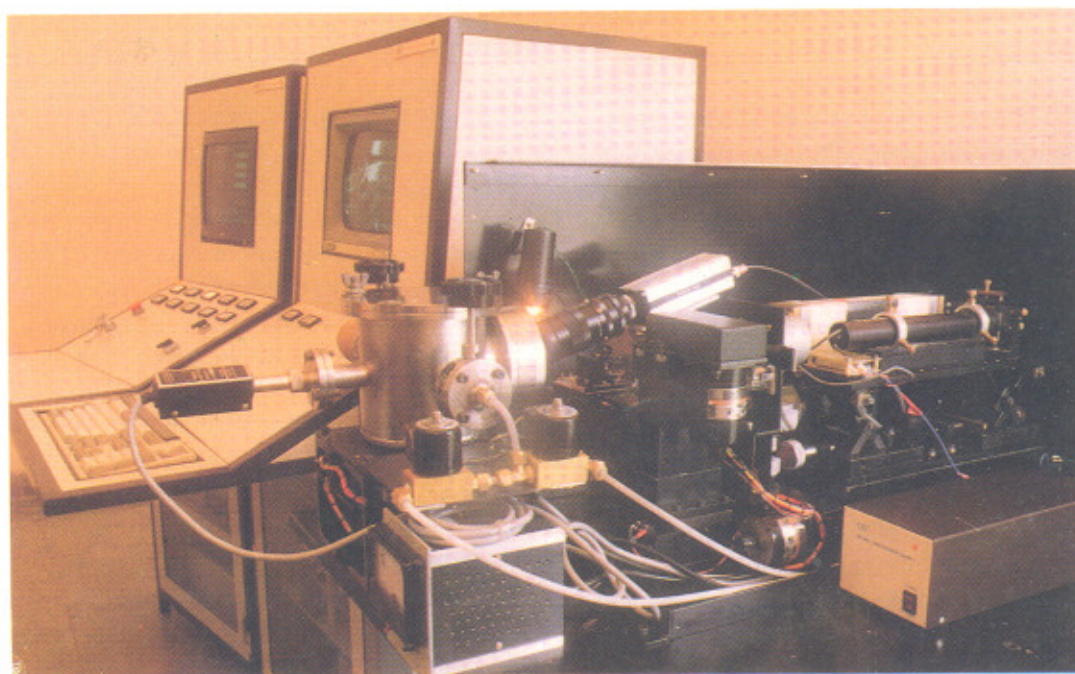
Newsletter

CENTRE FOR ADVANCED TECHNOLOGY

Year - 7

No. 1

January - June 1994



RESEARCH AND DEVELOPMENT

ACCELERATOR PROGRAMME

Commissioning of Injector Microtron

The synchrotron radiation source (SRS) facility being developed at CAT consists of an injector microtron, a 700 MeV booster synchrotron, a 450 MeV storage ring Indus-1 and a 2.0 GeV storage ring Indus-2. The injector microtron is designed to provide an electron beam of 20 MeV and 30 mA with Kapitza type II cavity, in 22 orbits. In the first phase of commissioning, a Kapitza type I cavity is being used in our microtron. An electron beam of energy 10 MeV and 28 mA current was extracted from the microtron on

March 10, 1994. The beam was guided through the transport line near to the injection point of the booster synchrotron on March 20, 1994. Subsequently, an electron beam of 65 mA current was obtained at the extraction port of the microtron on May 21, 1994. It is planned to conduct initial commissioning trials on the booster synchrotron by using this beam. The experiments on the injector microtron with Kapitza type II cavity to achieve 20 MeV will be done after conducting initial commissioning trials on the booster synchrotron.

Growth and roughness characterization of ultra thin films

In the programme for the development of soft x-ray/vacuum ultraviolet optics to be used in synchrotron