

Science with Synchrotron facility

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(On behalf of the Indus machine and beamline teams)

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Abstract

Indus-1 and Indus-2 are the only two synchrotron radiation sources in India today, which are indigenously developed and are operating in round the clock mode as a national facility since 2010. Indus-1 is a 450 MeV, 125 mA machine and Indus-2 is a 2.5 GeV, 200 mA machine. There are 19 operational beamlines on Indus-2 and 7 on Indus-1. Indus-2 machine is operated for more than 5500 hours annually and Indus-1 is operated for more than 6500 hours annually. More than 1000 user experiments are carried out annually at Indus beamlines. Over the years, scientists/researchers/students from more than 140 universities, national institutes and research labs from all over the country, have been regularly carrying out experiments at Indus beamlines. More recently, researchers from the R&D sector of Indian industry have also been regularly coming for carrying out experiments at Indus beamlines. The talk will cover the details of the important facilities available at the Indus beamlines and highlight some of the interesting results obtained from the experiments at Indus beamlines.