

TID study of ABCstar Chips for the ATLAS Upgrade Silicon Strip Tracker at the HL-LHC

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The increase of the leakage current of ABCstar chips for the upgrade of ATLAS inner tracker detector during exposure to ionizing radiation will lead to power consumption. Dedicated irradiation experiments for ABC130 chips(predecessor of ABCstar chips) have been performed at BNL and RAL. A dramatic increase of digital current with Total Ionizing Dose (TID) has been observed. Research regarding ABCstar chips is been conducting at RAL, IHEP is also involved in the study. This poster will focus on the latest results from IHEP TID research.

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