

GFA and SwissFEL Accelerator Seminar

Current Cyclotron Development Activities at CIAE

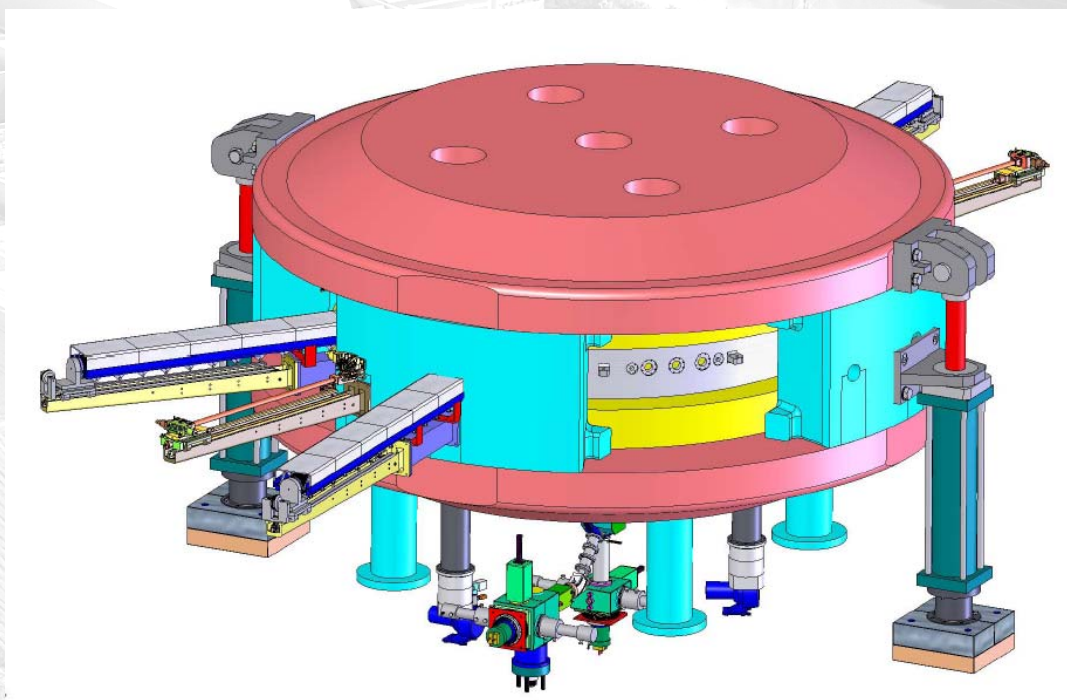
Monday, 22 November 2010, 16.00 h, WBGB/019

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An overall introduction to the current cyclotron development activities conducted for various applications at the China Institute of Atomic Energy (CIAE) is given. Two cyclotrons are being built at CIAE, a 100 MeV cyclotron, CYCIAE-100 and a 14 MeV cyclotron, CYCIAE-14. As the driving accelerator for the Beijing Radioactive Ion-Beam Facility (BRIF), CYCIAE-100 is the main part of an upgrade project of the Beijing Tandem Laboratory and it had a great construction progress this year. A 10 MeV Central Region Model cyclotron, CYCIAE-10, was successfully built and an internal beam current up to $430\mu\text{A}$ was achieved. The upgrade on CYCIAE-10 is pursued to increase the beam current to mA level for application research related to Boron Neutron Capture Therapy (BNCT).

Meanwhile, some future development plans are being conducted at the Cyclotron Laboratory of CIAE. Based on the applications for ADS systems and proton radiography, etc., the conceptual design of an 800 MeV high power proton cyclotron, CYCIAE-800, has been proposed. The physics design of a 70 MeV compact high intensity H- cyclotron, CYCIAE-70, is being conducted at CIAE. This cyclotron is aimed for multi-purpose applications including radioactive ion-beam (RIB) production.



General View of CYCIAE-100