Abstract:

In the RF region, A set of electrostatic separators combined with dipole magnet (Electro-Magnetic Separator) are installed downstream of the RF cavities. They are used to avoid bending of incoming beam and deflect the outgoing beam in H mode.

We developed separator and magnet prototype respectively. The physical and mechanical design of electrostatic separator have been completed. The manufacturing, fabrication and assembly of the prototype have been completed in the factory and the factory test had been done. According the factory test results, the vacuum reached the target. But the high voltage failed to reach the target, due to the high humidity in the test environment and the insufficient insulation performance of the HV feedthrough. The physical and mechanical design of magnet have been completed and the prototype is being fabricated.

In addition, the prototypes for Booster power supply and Correctors with Multi-unit combination structure has been fabricated and finished the test. The current stability and tracking error reach the design indicators.