

Abstract Submitted  
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**The Design of anchor divertor of GAMMA10** ISAO KATANUMA, KOTARO YAGI, YOSUKE NAKASHIMA, MASAYUKI YOSHIKAWA, MAKOTO ICHIMURA, TSUYOSHI IMAI, University of Tsukuba — The plan that one of the anchor mirror cells, which was installed for the flute interchange mode stability, is replaced by an axisymmetric divertor mirror cell is in progress. The main object of the divertor mirror is to simulate the ITER divertor physics. Then the scenario on the effective evacuation of core plasma in the divertor mirror cell to the magnetic null region is required in order to obtain a high power plasma flow outside the divertor mirror cell region. We are designing the divertor mirror coil system in GAMMA10 and estimating the plasma parameter in the divertor system and radial energy loss flux outside the magnetic null. The MHD stability is determined with help of the kinetic analysis of flute mode by taking into account the ion FLR, magnetic field line curvature and plasma compressibility. The stored energy is calculated by the bounce-averaged Fokker-Planck code. The radial evacuation of hot ions is estimated by the reduced MHD simulation taking into account the flute-like electrostatic potential fluctuations.

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