

Abstract Submitted
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Potential and density fluctuation suppressions by the potential formation and the newly installing Thomson scattering system in GAMMA 10 M. YOSHIKAWA, Y. MIYATA, M. MIZUGUCHI, N. IMAI, H. HOJO, M. ICHIMURA, T. KARIYA, I. KATANUMA, Y. NAKASHIMA, R. MINAMI, H. SHIDARA, Y. YAMAGUCHI, Y. SHIMA, Y. OHNO, F. YAGUCHI, T. IMAI, Univ. Tsukuba, K. KAWAHATA, I. YAMADA, H. FUNABA, NIFS — Suppression phenomena of the potential and density fluctuation were clearly observed when the confinement potentials were produced by the application of electron cyclotron heating (ECH) in the tandem mirror GAMMA 10. We study the correlation between the suppression levels of both potential and density fluctuations and the effects of formed confinement potentials. Moreover, we show that the radial anomalous transport induces the radial particle transport which is estimated by the phase difference between the potential and density fluctuations obtained by using the gold neutral beam probe. We are now planning to measure the electron temperature by using a Thomson scattering system in GAMMA 10 by the collaboration with NIFS. In recent years, the direct electron heating experiments by central cell ECH have been carried out. The highest electron temperature, about over 500 eV, was estimated by a soft x-ray measurement. We will make a crosscheck with the newly installing Thomson scattering system for more reliable data evaluation.

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