

Flute like fluctuation suppression by the potential formation in GAMMA 10/PDX

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In the hot ion mode experiments of the tandem mirror GAMMA 10/PDX plasma, suppression of the flute like fluctuation which rotation direction was ion diamagnetic rotation direction was observed during the axially confined potential formation with applying the electron cyclotron heating (ECH) at the barrier and plug cells for the first time. In the previous experiments, the electron diamagnetic rotation type fluctuations were clearly suppressed with application of both barrier (B) and plug (P) ECH. We show the flute like fluctuation suppression by the formation of the radial electric field simultaneously produced with axial confinement potential for the first time.

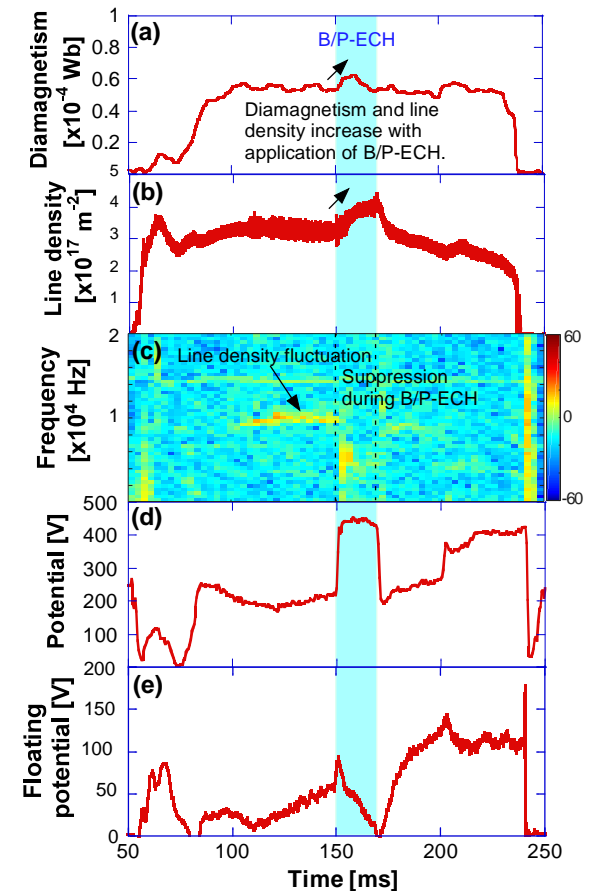


FIG. 1. Time evolution of diamagnetism (a), electron line density (b), its spectrogram (c), potential measured by GNP (d), and floating potential measured by FRP (e). The low frequency fluctuation was clearly suppressed by the application of P/B-ECH.