

Abstract Submitted
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Investigation on the shaping of poloidal flow in the biased electrode experiment¹ YI YU, HAIJUN REN, HUAJIE WANG, TAO LAN, YUMEI HOU, SHUANGYUAN FENG, YIZHI WEN, CHANGXUAN YU, MINYOU YE, USTC, USTC TEAM — Investigations on the drives of the poloidal flow are presented in this article. The poloidal flow is the main contributor to the radial electric field. Not only Reynolds stress but also the Lorentz's force can drive the poloidal flow. The Reynolds stress accounts for about a quarter of the contribution to the poloidal flow in the biased electrode discharges. Investigations on the drives of poloidal flow and the spectra analyses in the biasing experiments show the momentum and energy transfer from the high frequency turbulence into the low frequency poloidal shear flow via Reynolds stress.

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