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Characteristics of magnetized plasma flow for helicity injection into reversed-field pinch SHOTARO SUZUKI, TOMOHIKO ASAI, Nihon Univ, MASAYOSHI NAGATA, Univ of Hyogo, HARUHISA KOGUCHI, YOICHI HIRANO, HAJIME SAKAKITA, SATORU KIYAMA, AIST, NIHON UNIV TEAM, UNIV OF HYOGO COLLABORATION, AIST TEAM — The magnetized plasma flow injection experiment has been performed on the large sized reversed-field pinch (RFP) device of TPE-RX. The magnetized plasma flow injection has been demonstrated to support RFP formation fueling and helicity injection. In the start-up experiment with the plasma flow injection, reduced density pump-out, loop voltage and Da emission have been observed clearly. Also the effect of plasma flow on the RFP with improved confinement by PPCD technique has been evaluated. To determine the efficiency of fueling and helicity injection, density, temperature and magnetic structure have been measured by using Langmuir and magnetic probe arrays.The series of experiments will show the magnetic structure and actual helicity and energy contents of injected magnetized plasma flow.

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