

Abstract Submitted
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Status of the TST-2 spherical tokamak and future plans Y. TAKASE, A. EJIRI, Y. ADACHI, N. ISHII, H. KASAHARA, H. NUGA, T. OOSAKO, M. SASAKI, Y. SHIMADA, N. SUMITOMO, I. TAGUCHI, H. TOJO, J. TSUJIMURA, M. USHIGOME, T. YAMADA, University of Tokyo — After completing EBW heating and current drive experiments (8.2 GHz at a 100 kW power level) at Kyushu University, TST-2 was moved back to the University of Tokyo. After performing upgrades to magnetic field coil power supplies and RF heating systems, TST-2 has resumed operation. Development of a start-up scenario without the use of the central solenoid will be continued. Since high power in the electron cyclotron frequency range is presently not available, the use of RF power at lower frequencies (around 20 MHz or around 200 MHz) will be explored to supply enough source of plasma during the start-up phase when the vertical field is not adequate to maintain plasma equilibrium. Electron heating by the high-harmonic fast wave will be pursued using an antenna capable of exciting waves with different wavenumbers. Recently, four 200 MHz transmitters were transferred from the JFT-2M tokamak. These will be used for plasma current start-up experiments using RF power in the lower-hybrid frequency range.

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