

Abstract Submitted
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Design of a microwave back-scattering diagnostic for lower-hybrid waves on TST-2¹ N. TSUJII, Y. TAKASE, A. EJIRI, H. FURUI, H. HOMMA, K. NAKAMURA, W. TAKAHASHI, T. TAKEUCHI, H. TOGASHI, K. TOIDA, T. SHINYA, M. SONEHARA, S. YAJIMA, H. YAMAZAKI, Y. YOSHIDA, Univ of Tokyo — Non-inductive plasma start-up with lower-hybrid waves has been investigated on the TST-2 spherical tokamak at the University of Tokyo. The current drive efficiency drops dramatically above the density that is roughly consistent with the wave accessibility limit. For a more quantitative analysis, wave measurement in the plasma core is important. A new microwave back-scattering diagnostic is being fabricated for this purpose. The design of the back-scattering system and the analysis of the expected signal level are presented. The actual wave measurements will also be presented if available.

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