

Abstract Submitted
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Design of Thomson Scattering Diagnostic for HIT-SI KYLE MORGAN, TAYLOR FRYETT, RAYMOND GOLINGO, TOM JARBOE, BRIAN VICTOR, University of Washington, HIT TEAM — Steady Inductive Helicity Injection (SIHI) is used to create a spheromak inside the HIT-SI machine. A multi-point Thomson scattering diagnostic has been designed and is under construction for the HIT-SI experiment. The system uses a 20J Ruby Laser with 20ns pulse length. The collection system allows for eight spatial measurement locations, with four being active at any time. Four polychromators are being used to spectrally resolve the scattered light. Present Langmuir probe measurements show an electron temperature of about 12eV, within the range the polychromators can resolve. Properties of system and expected measurement are given.

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