

Abstract Submitted
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Thomson Scattering Results from General Fusion's SPECTOR

WILLIAM YOUNG, General Fusion — General Fusion has been characterizing and optimizing a new spherical tokamak based device, SPECTOR, which has demonstrated electron temperatures as high as 350 eV. This new device is intended for testing of spherically symmetric compression. Thomson scattering diagnostic is installed on an uncompressed, but heavily diagnosed version of the device, as the compression method precludes some diagnostics. Temperature and density measurements are made at four spatial positions with upcoming plans to expand to six spatial positions. The diagnostic uses a 532 nm Nd:YAG laser and an imaging spectrometer with photomultiplier tube based detector. Other planned upgrades include camera and fiber based alignment monitoring, and multi-pass configuration reusing the laser pulse to increase the scattered light signal.

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