

## DEVELOPMENT OF THOMSON SCATTERING SYSTEM ON SHENGUANG-III PROTOTYPE LASER FACILITY

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A Thomson scattering diagnostic system is designed and implemented on Shenguang-III prototype laser facility. The probe beam, operating at a wavelength of 263 nm, is provided by an additional beam line completed recently. The diagnostic system, consisting of two branches, allows simultaneous measurements of both ion feature and red-shifted electron feature from plasmas in a high-temperature ( $\geq 2$  keV) and high-density ( $\geq 1e21$  cm<sup>-3</sup>) regime. Delicate design is made to satisfy the requirements for successful detection of the red-shifted electron feature. High-quality ion feature spectra have already been diagnosed via this system in recent experiments with gas-filled hohlraums.