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High Resolution Nd:YAG Thomson Scattering Diagnostic system using ICCD¹ JIANSHAN MAO, XIAOQI XI, JUNYU ZHAO, TAO ZHANG, Institute of Plasma Physics, Chinese Academy of Sciences, Hefei 230031 — Nd:YAG Thomson Scattering Diagnostic system are installed on EAST Tokamak. The signal intensity, collection ability and the accuracy are expected to be improved using the new designed polychromators and collection lens system. Also, the range of the measurable Te and Ne are extended. A high resolution Thomson scattering (simply called TVTS) system has been designed on EAST tokamak. New system will employ the Littrow type grating spectrometer and ICCD cameras equipped with intensifier III, which can make simultaneous measurements of the electron temperature and density in plasma at many positions along the laser chord. The spatial and temporal resolution can reach 10mm and several ms, respectively.

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