

High-resolution Thomson scattering system on the COMPASS tokamak provides electron temperature and density profiles in the central and edge plasma region. The spatial resolution in the edge plasma region is optimized for edge transport barrier studies. Formation of characteristic edge profiles (pedestals) is observed during high-confinement mode, i.e. the core electron temperature and density are raised up by the value of pedestal height. Both the electron and density pedestals are well-fitted by a modified hyperbolic tangent (mtanh) function, a five parameter model giving important parameters such as pedestal height and width, necessary for further analysis of the physics behind the transport barrier formation. A fitting technique of the full radial profiles of electron temperature, density and pressure during H-mode is also described. Using the fitting, electron temperature and density on top of pedestal are statistically processed to find a possible threshold for various H-mode regimes.