

Abstract Submitted  
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**Measurements of Fast Ion Distribution in ICRF Heated Plasmas<sup>1</sup>**

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MIT - Plasma Science and Fusion Center — Alcator C-Mod uses ICRF for the bulk auxiliary heating and relies primarily on hydrogen minority heating scenarios. Measuring the resulting hydrogen ion distribution provides an opportunity to validate upgraded ICRF simulation capability that includes non-Maxwellian ions. The Compact Neutral Particle Analyzer (CNPA) is a diagnostic employed on Alcator C-Mod to measure this fast ion distribution function. The diagnostic can measure the energy distribution of the fast ion tail, serving as a benchmark for simulation results and allowing for an assessment of the simulation algorithm and physics kernel. In this poster, we will present results from the detector in the most recent campaigns, including expanded capabilities in the 2009 campaign. We will discuss the calculation of the fast ion distribution from the measured CNPA distribution and the effective temperature.

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