

Abstract Submitted  
for the DPP19 Meeting of  
The American Physical Society

**ELM triggering by impurity pellet injection basing on ELM-suppressed H-mode on EAST.** YUZHONG QIAN, Institute of Plasma Physics, Chinese Academy of Sciences, EAST TEAM TEAM — The first results of edge-localized mode (ELM) triggering basing on ELM-suppressed H-mode on EAST using submillimeter granules (lithium and carbon) horizontal injection from the low field side midplane are reported. The ELM-suppression was achieved by active boron powder injection. In this scenario, robust ELM triggering was obtained with the nominal 0.90.1mm diameter lithium granules, with the triggering efficiency  $\sim 100\%$ . The triggered ELM frequency was varied between 10-120Hz. The particle flux from the triggered ELM results in impacts on a wide spatial region of the outer target; and preliminary analysis suggests triggered ELM amplitude is reduced with increasing ELM frequency. The core radiation from heavy impurities decreased during the lithium granule injection, while the edge radiation increases due to low-Z impurities. This implies that the core impurities are effectively driven out. The ELM triggering probability is below 50% for nominal 0.7mm0.1mm diameter carbon granules. Ablation behavior differs between carbon and lithium granules. High speed camera data indicated that some carbon granules split into many small pieces and sometimes resulted in the disruption.

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Date submitted: 30 Jun 2019

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