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Recent Results from KMAX tandem mirror experiment XUAN

SUN, M. LUO, Q. ZHANG, M. LIN, P. SHI, University of Science and Technology of China — KMAX, Keda Mirror with AXisymmetricity, is a tandem mirror machine with a length of ~ 10 meters and diameters of 1.2 meters in the central cell and 0.3 meters in the mirror throat. As a versatile plasma experimental platform, KMAX is currently conducting experiments on the Alfvén wave launching, electrode biasing, radio frequency heating and etc. The latest results will be presented. In the experiment of Alfvén wave launching, we observed the shear Alfvén waves decay into the forward and backward propagating compressional waves. And in the bias experiment we successfully extracted plasma current up to 0.5kA with biasing voltage of ~ 1 kV. During biasing, the plasma density and temperature have significantly increasing. Preliminary results on the radio frequency heating will also be presented.

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