

Abstract Submitted  
for the DPP11 Meeting of  
The American Physical Society

**Keda Torus eXperiment (KTX): A new Reversed Field Pinch program in China**<sup>1</sup> WANDONG LIU, USTC, China, WEIXING DING, UCLA, CHIJIN XIAO, U. Saskatchewan, Canada, HONG QIN, HONG LI, JIAN ZHENG, SHUDE WAN, JINLIN XIE, CHANGXUAN YU, USTC, China — As a natural extension of China Magnetic Confinement Fusion program, an advanced RFP device, Keda Torus eXperiment is now been proposed in University of Science and Technology of China. The significant parameters of KTX are: the major radius 1.4 m, the minor radius 0.4 m, the plasma current 1 MA, the plasma pulse 30-100 ms and the plasma density  $2 \times 10^{19} \text{m}^{-3}$ . In the design phase, lots of considerations have been paid to ensure the unique features of KTX. The aspect ratio is particularly selected to achieve the single helical mode. It is also good for the scaling research of the RFP confinement. The thin modular shell structure with the combination of stainless steel and copper is good for the potential research of different wall conditions, and such structure guarantees a better proximity to the plasma. The coil configuration has been optimized for future researches of Oscillation Field Current Drive and Pulsed Parallel Current Drive. KTX will address the ITER relevant issues and some fundamental issues in space and astro-plasmas.

<sup>1</sup>Special thanks to the international RFP colleagues for the valuable support and help during the design phase of KTX program.

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Date submitted: 14 Jul 2011

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