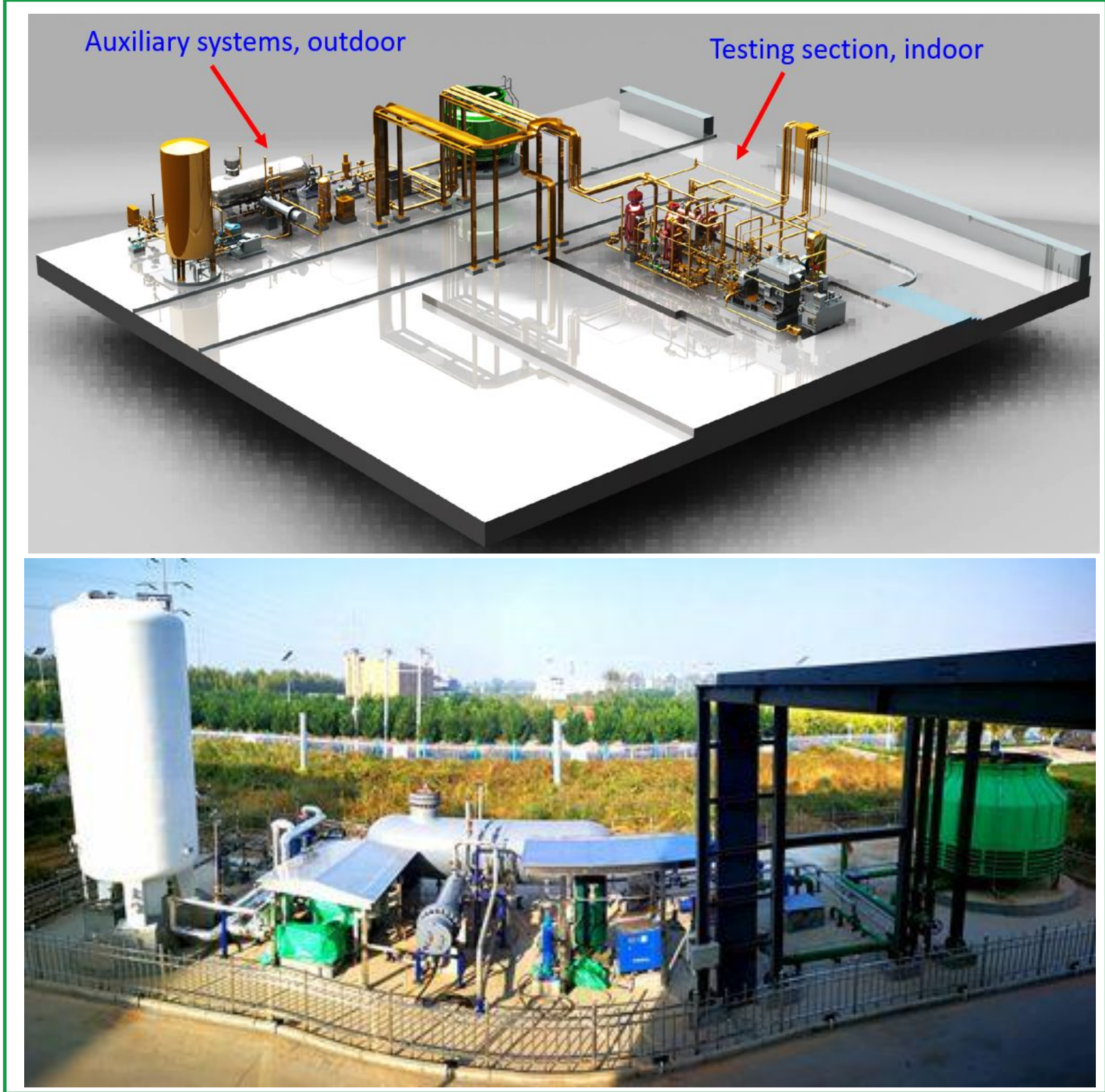
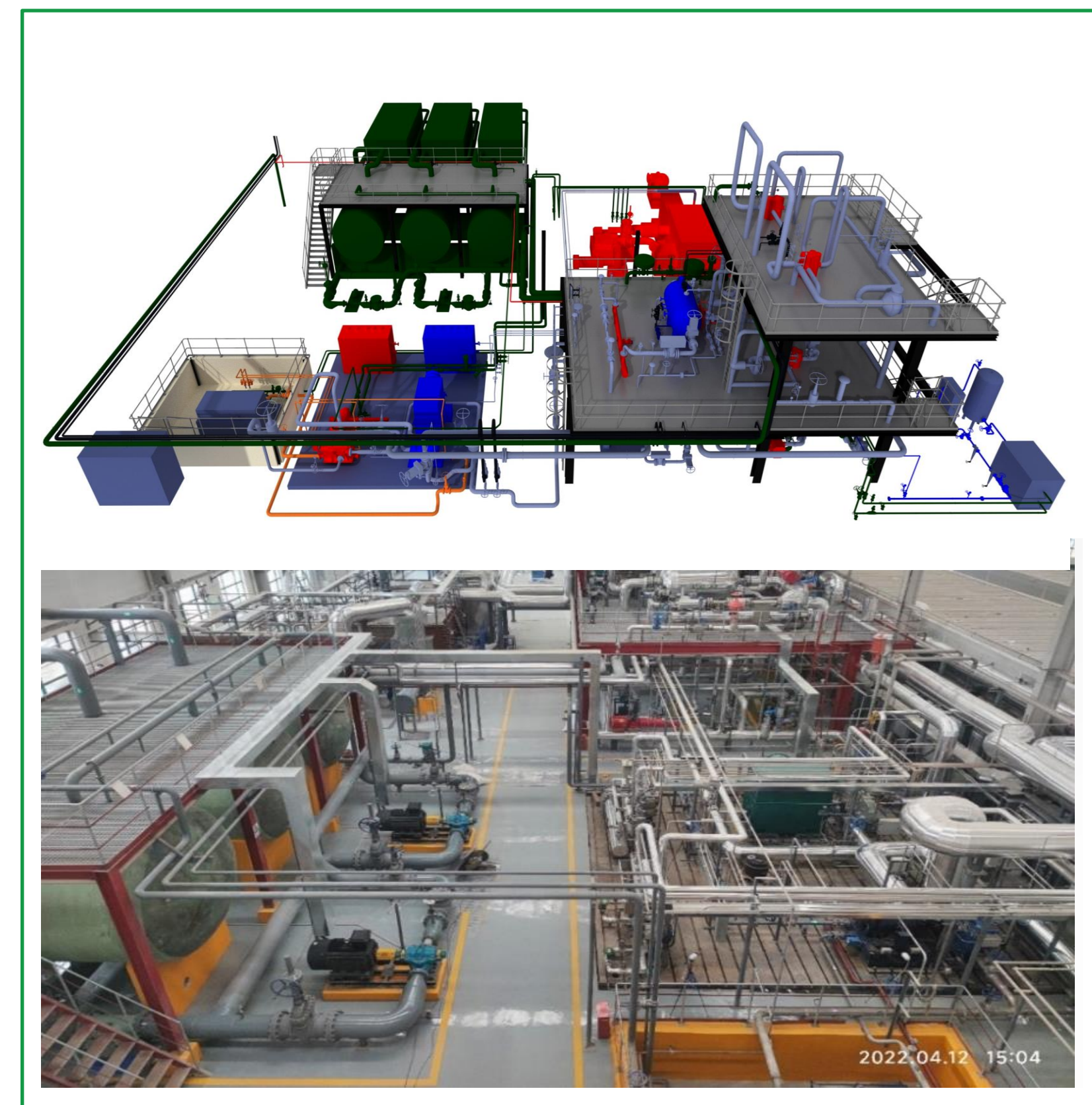


# Testing of Supercritical CO<sub>2</sub> Centrifugal Compressors for 1MWe Power Cycle

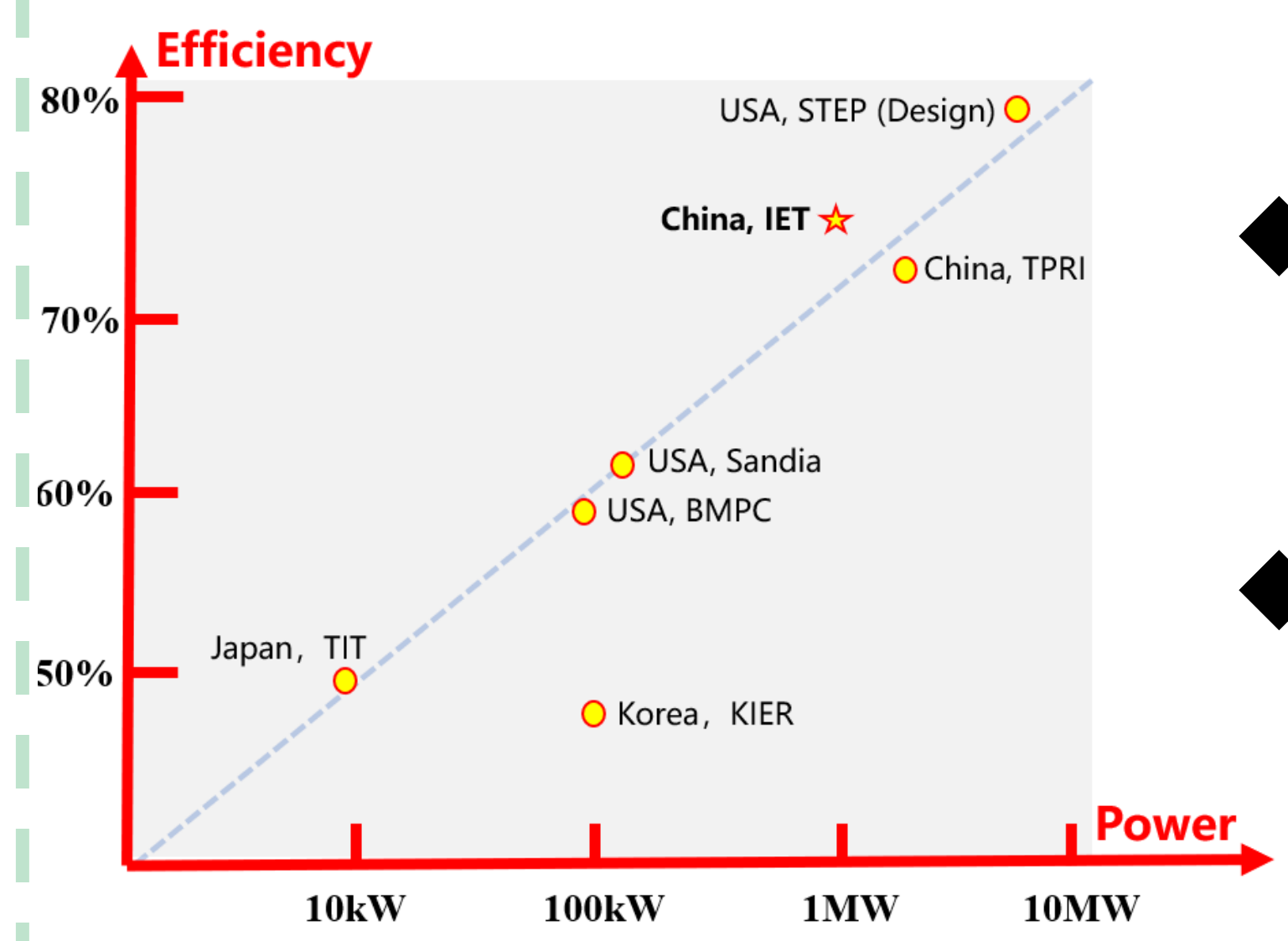
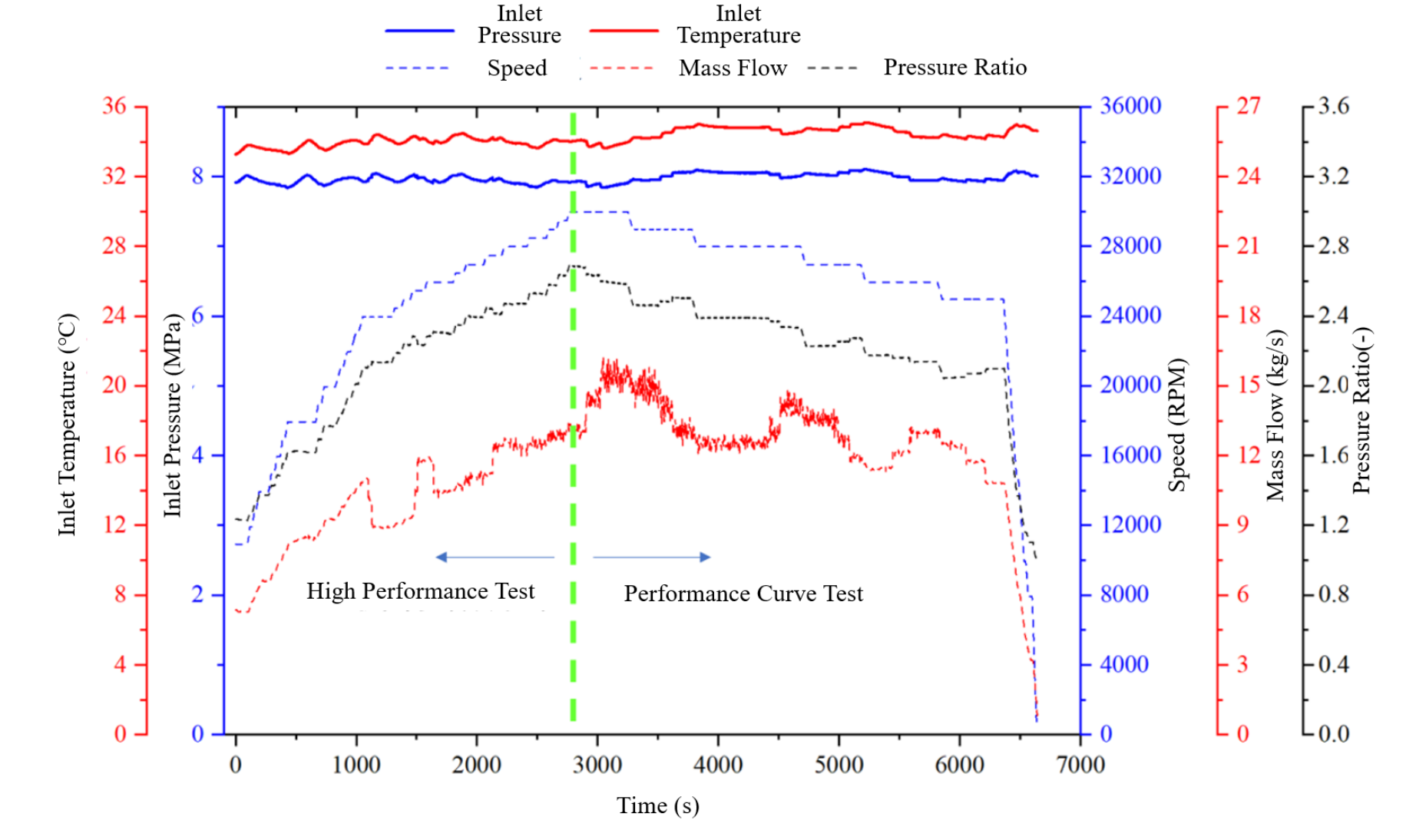
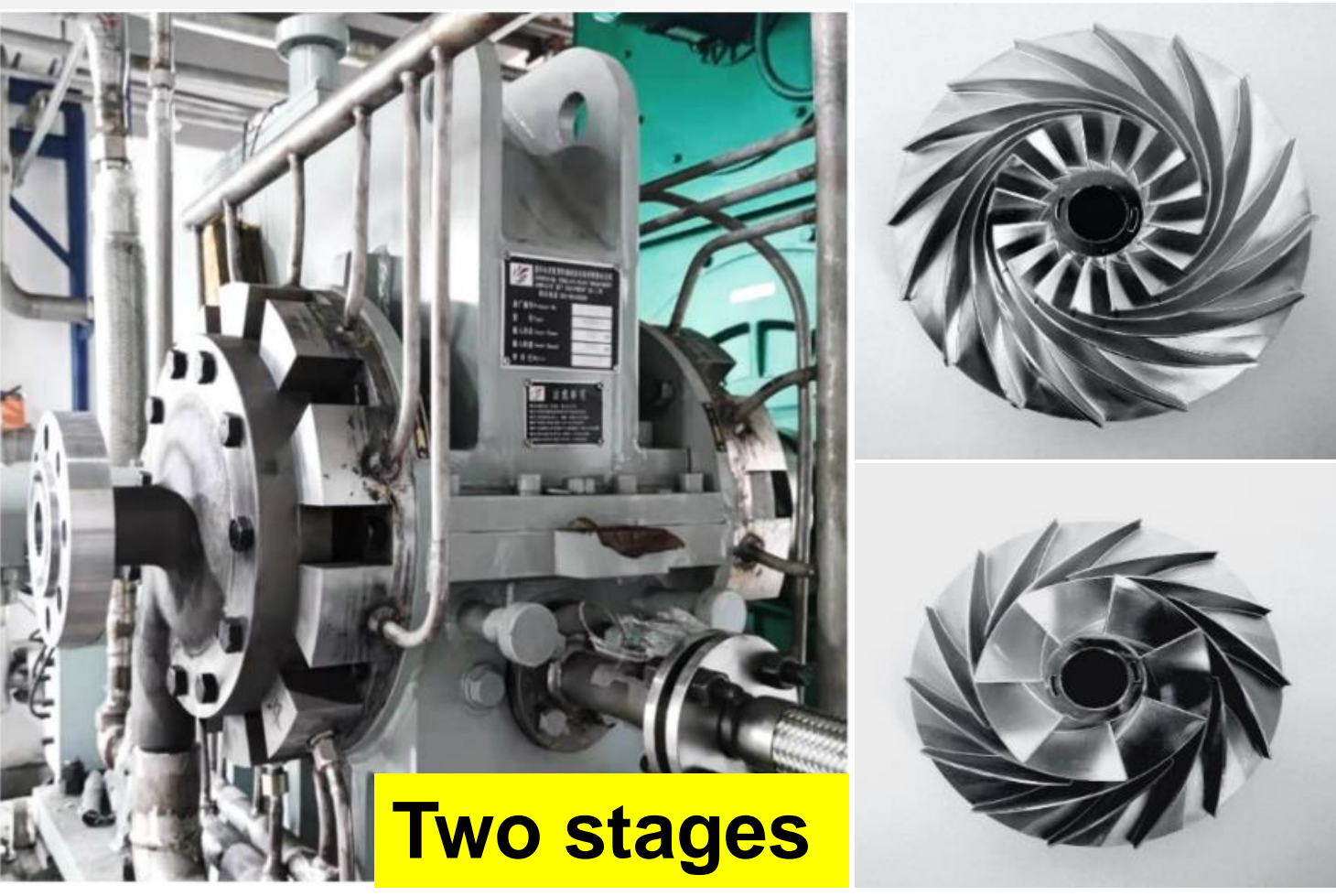
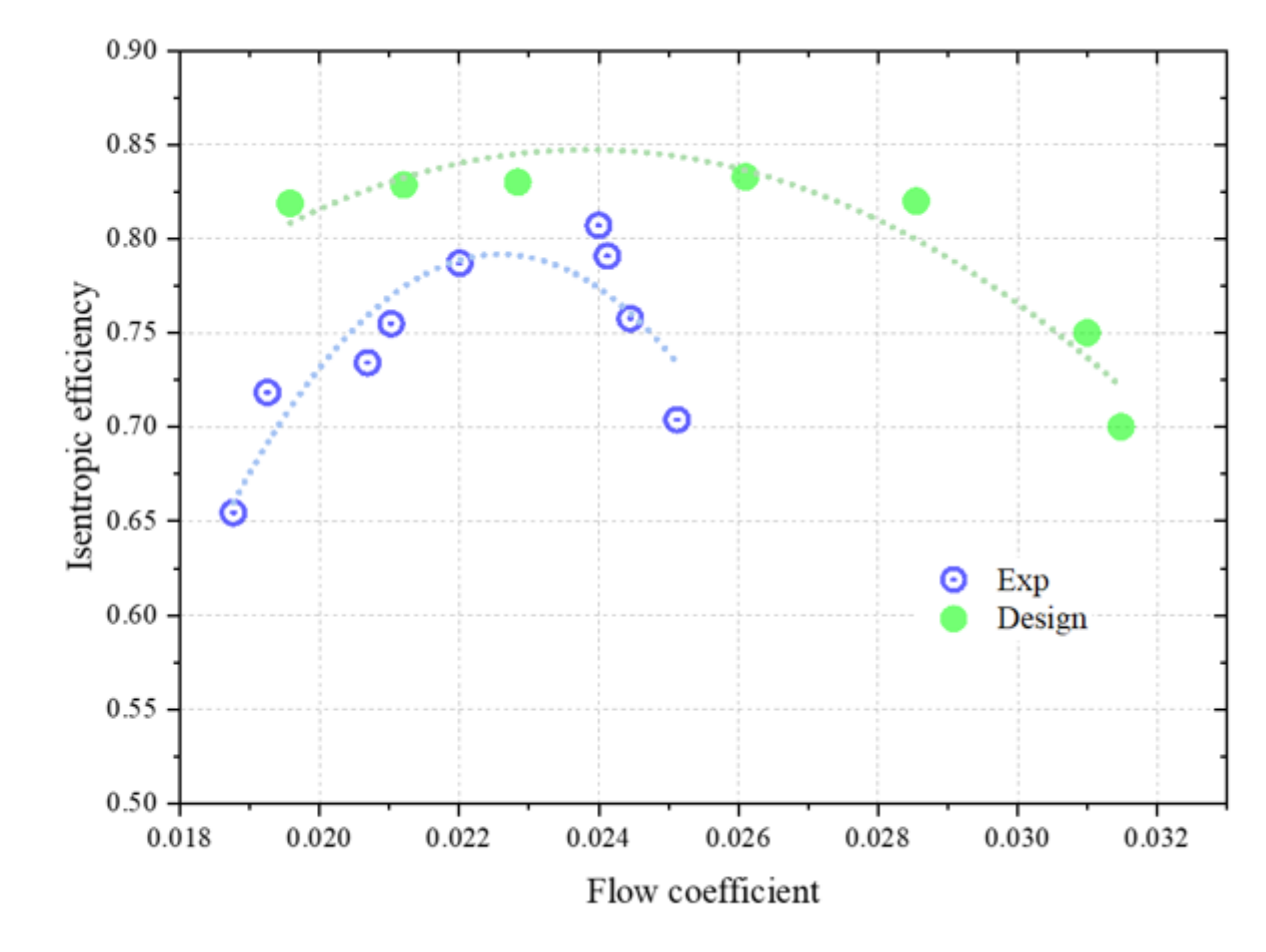
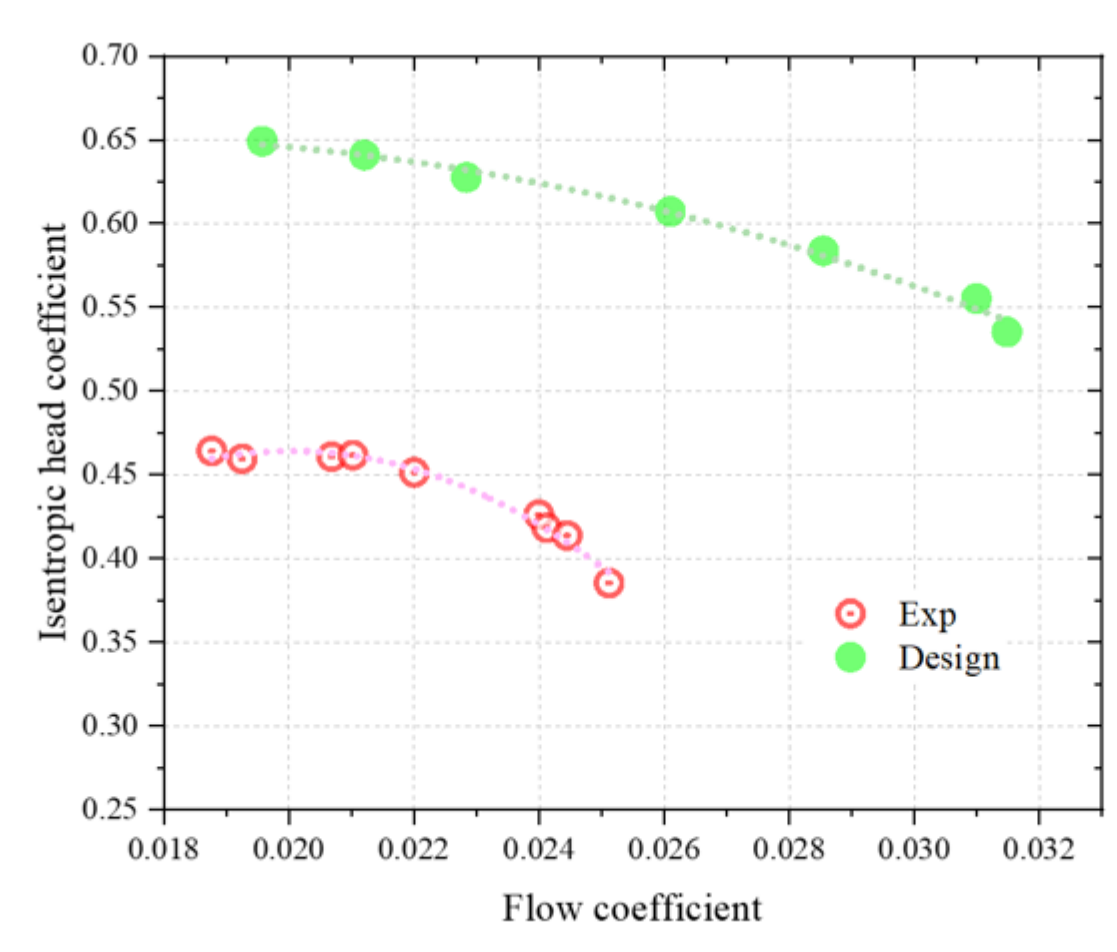
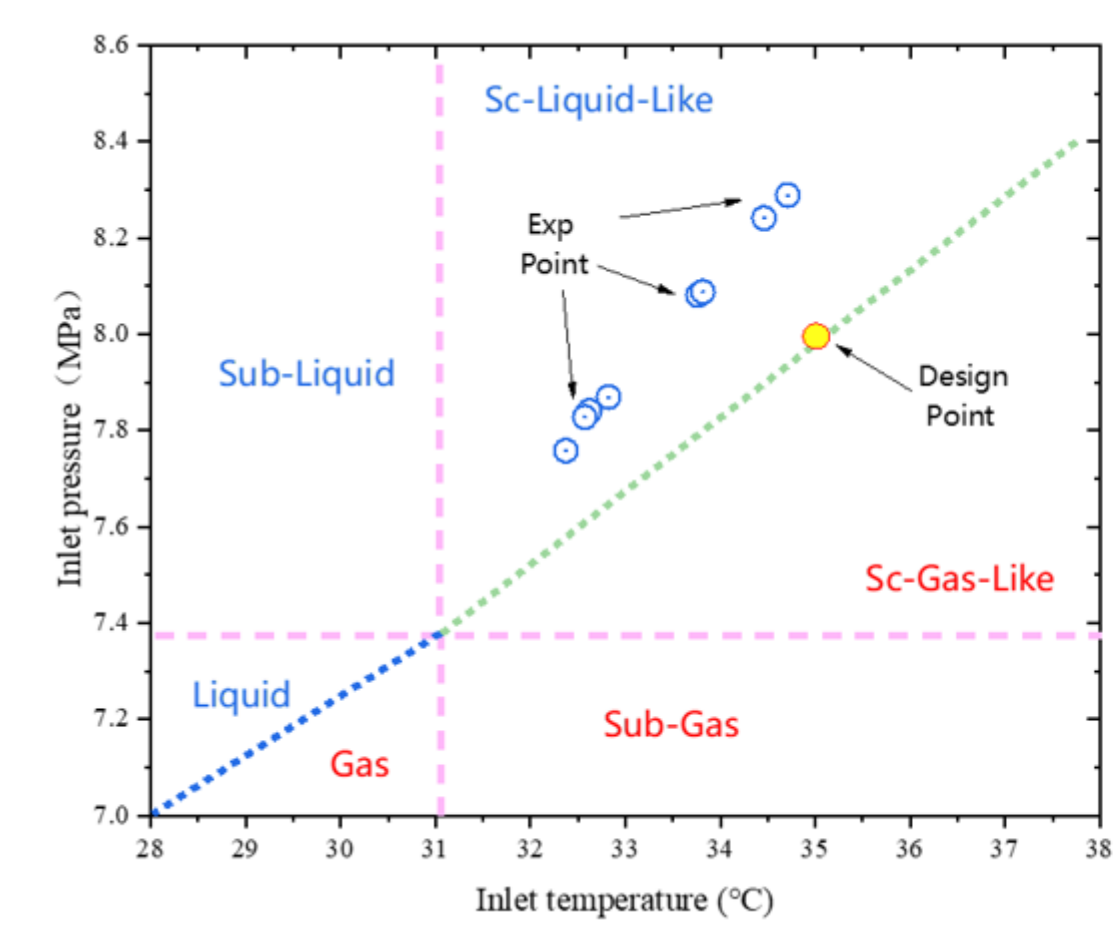
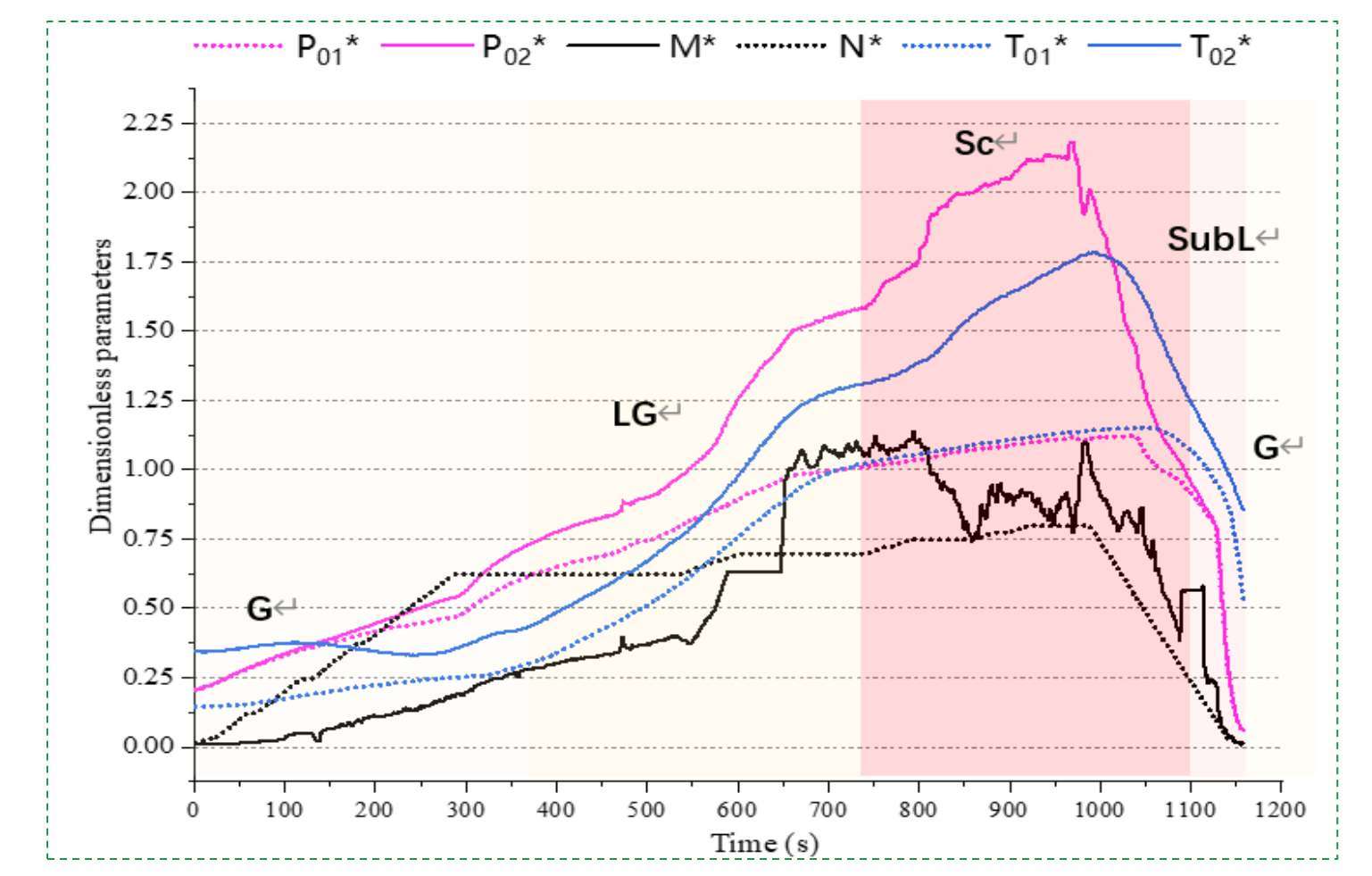
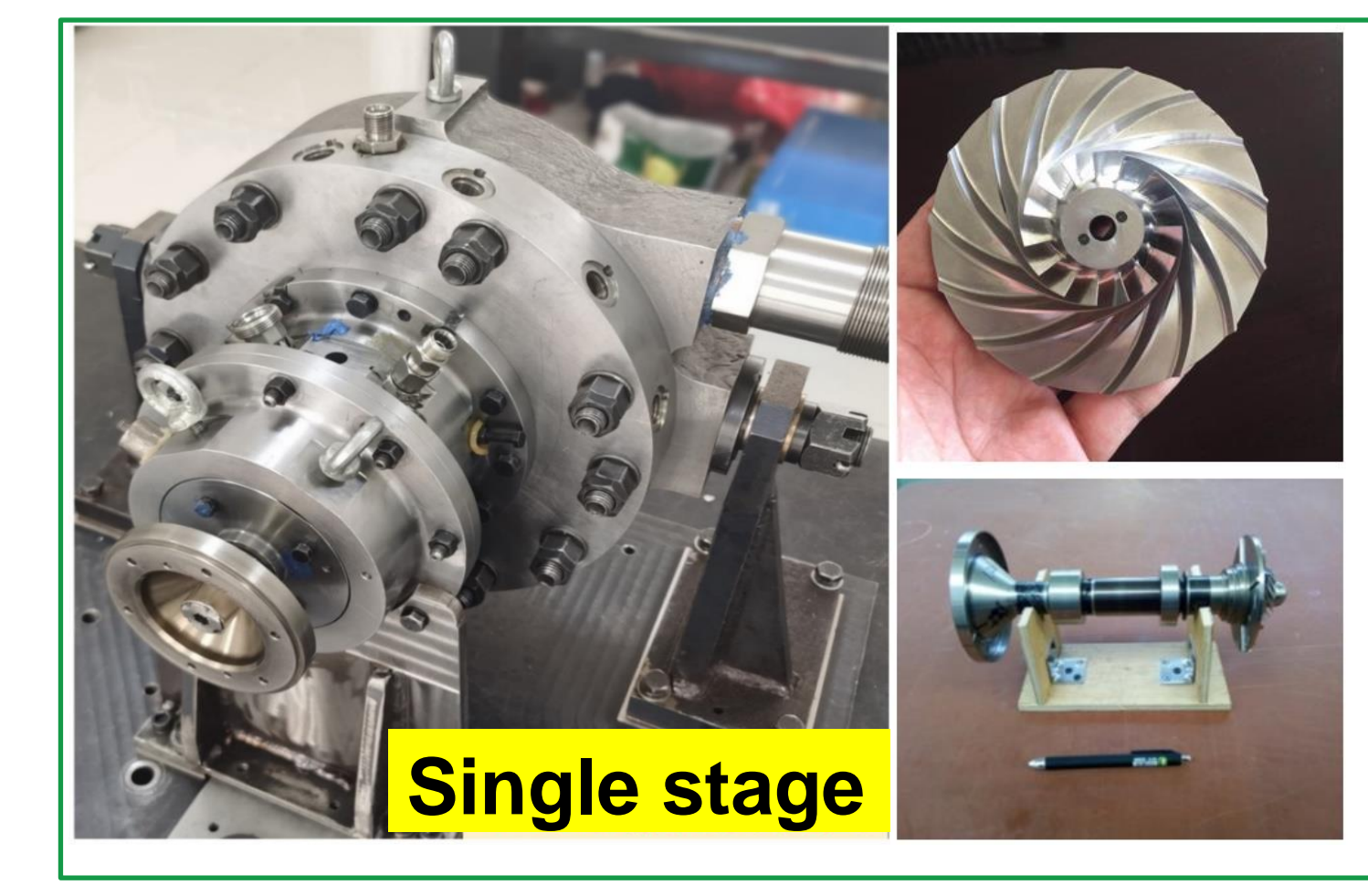
Yuming Zhu, Shiqiang Liang, Chaohong Guo, Xiang Xu  
(Institute of Engineering Thermophysics, Chinese Academy of Sciences, China)



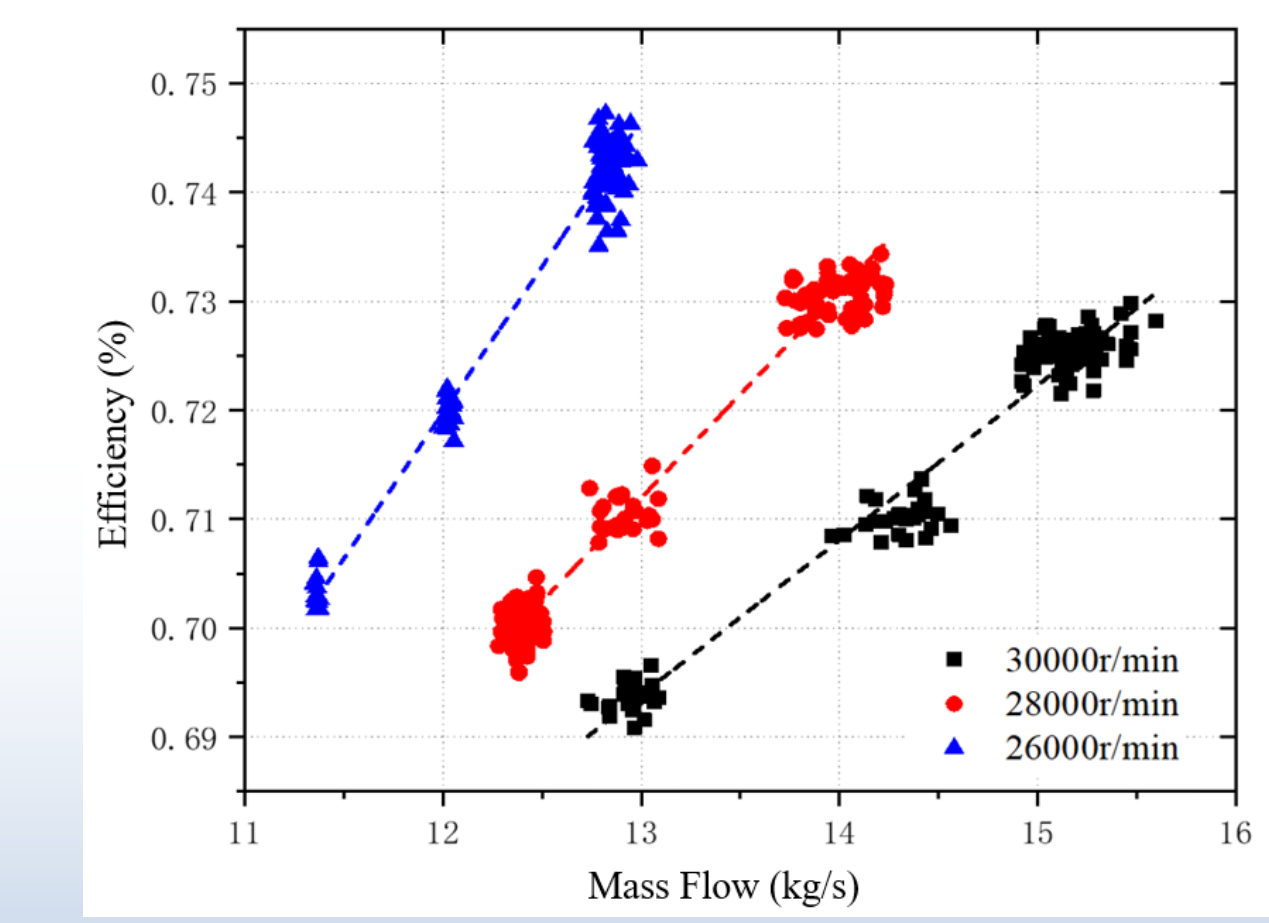
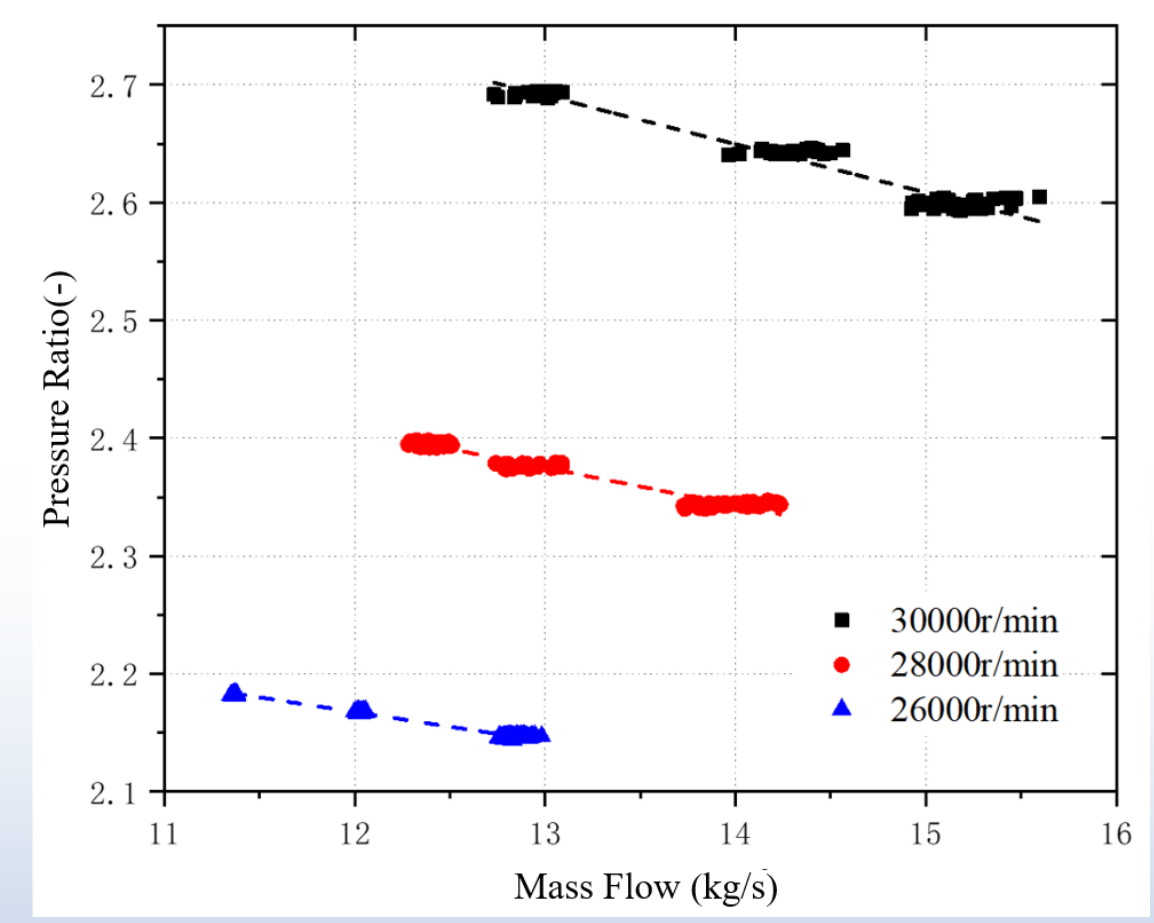
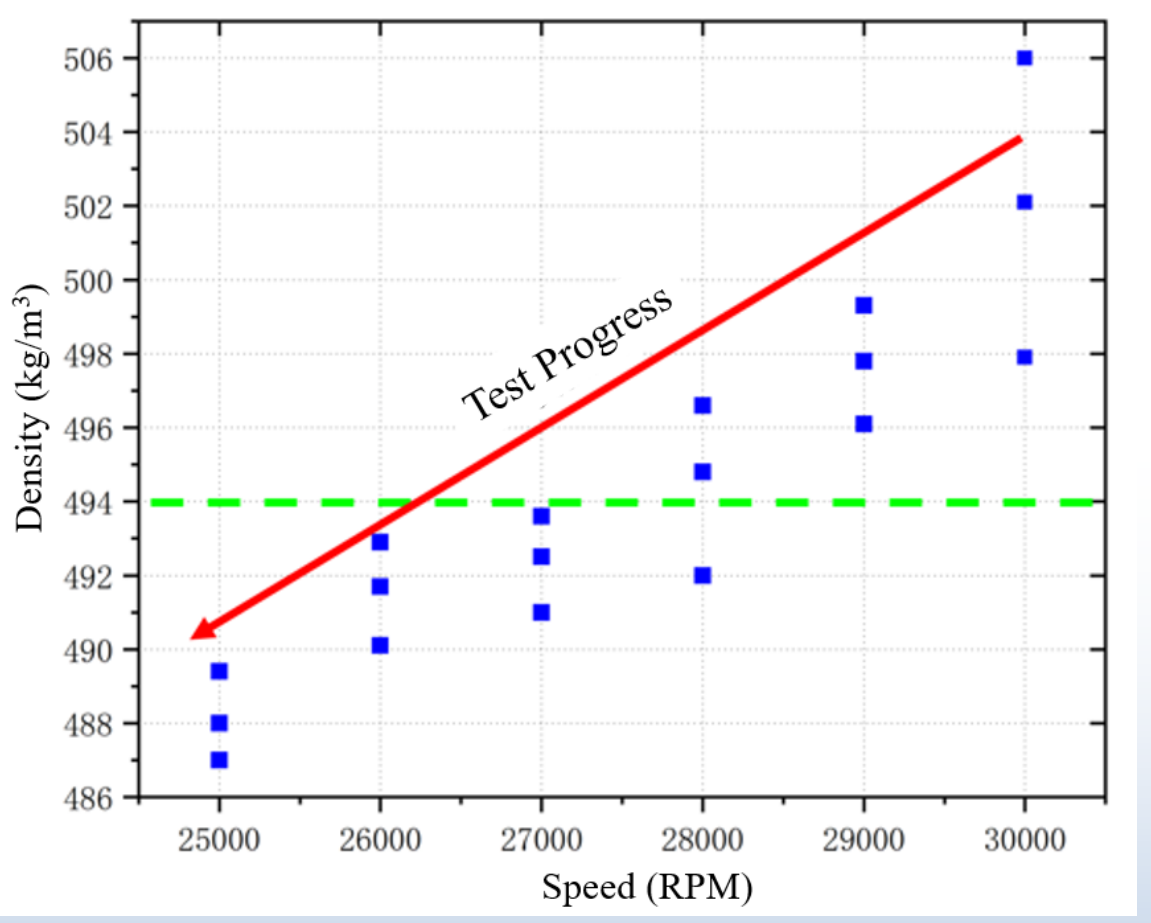
China's first MWe-level sCO<sub>2</sub> compressor test platform



1MWe sCO<sub>2</sub> power cycle



- ◆ The maximum test speed of the single-stage centrifugal compressor is 32000 rpm
- ◆ The mass flow rate is about 13 kg/s, and the pressure ratio is close to 2.0.



- For the two-stages centrifugal compressor, the operating speed has reached 100% of the design speed, and the compressor performance curves at 90%, 80%, 70%.
- The maximum total pressure ratio in the experiment is more than 2.69, and the maximum mass flow is close to 16kg/s.