

# A new cryogenic test facility for superconducting magnets at IMP

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To test the superconducting magnets for HIAF, CiADS and other scientific research projects, a new cryogenic test facility is under construction at IMP in Huizhou City. The cooling power of the refrigerator in this test facility is 500 W @ 4.5 K, the liquefaction capacity is 150 L/h. Three vertical test cryostats and three horizontal test benches are planned. The inner spaces of the three vertical test cryostats are  $\Phi 700\text{mm} \times 5000\text{mm}$ ,  $\Phi 850\text{mm} \times 8000\text{mm}$  and  $\Phi 1000\text{mm} \times 8000\text{mm}$  correspondingly. The horizontal test benches are designed to both working in 4.5 K bath cooling and forced-flow cooling. A standalone precooling and warming up unit which can supply 30 g/s helium gas at 80K is designed to cool down and warm up the magnets. The cryogenic plant is now under debugging, and the six test terminals are under construction. The design and the status of the cryogenic test facility is shown in this paper.

## Submitters Country

China

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