



Contribution ID: 645

Type: **Poster Presentation**

C2Po1H-04 [46]: Improvement of Cryogenic System for China Spallation Neutron Source

Tuesday 23 July 2019 09:00 (2 hours)

The commissioning of China Spallation Neutron Source (CSNS) cryogenic system was completed on July, 2017. It run 258 days totally until July, 2018, and the time of the longest continuous running is 184 days. CSNS passed national accept on August, 2018. Now it is running steady from September 19th. There is no any fault in the process of running. However, cryogenic system need to be improved in the near future. The flow of hydrogen cycle can't been controlled effectively. Cryogenic circulator working at same frequency, the flow is different. The pressure drop of ortho-para convertor is very high, and it maybe cause the this phenomenon. Therefore, ortho-para convertor need to be redesigned and manufacture, and the flow resistance must be measured. In future, the new ortho-para convertor need to be installed in hydrogen cold-box.

Primary authors: Mr YE, Bin (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS)); Mr HE, Chongchao (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS)); Mrs DING, Meiyong (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS)); Mrs ZHANG, Yu (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS)); Mrs WANG, Yaqiong (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS)); Mrs LI, Na (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS)); Mr HE, Kun (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS))

Presenters: Mr YE, Bin (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS)); Mr HE, Kun (China Spallation Neutron Source (CSNS), Institute of High Energy Physics (IHEP), Chinese Academy of Sciences (CAS) & Dongguan Institute of Neutron Science (DINS))

Session Classification: C2Po1H - Hydrogen and Neon Refrigeration