



Contribution ID: 616

Type: **Poster Presentation**

C3Po1C-01 [08]: Heat transfer in multi-layer insulation systems

Wednesday, July 24, 2019 9:00 AM (2 hours)

Multilayer insulation is considered the most potential heat insulation material in cryogen storage. Various heat transfer analyses have been carried out and the results have been compared with the experiments. However, boundary temperatures of the experiments are certain values due to the limitation of the testing apparatus using cryogen. Therefore, for practical engineering design purpose, a new testing system based on a G-M cryocooler which can adjust the boundary temperatures has been developed. In this paper, heat flux through the tested MLI is obtained by the system and then the experimental data are fitted against the values calculated from the selected empirical model, and the results are discussed.

Primary author: LI, Xu (Technical Institute of Physics and Chemistry, CAS)

Co-authors: Mrs XU, Dong (Technical Institute of Physics and Chemistry, CAS); Ms SHEN, Fuzhi (Technical Institute of Physics and Chemistry, CAS); Mr LIU, Huiming (Technical Institute of Physics and Chemistry, CAS); Mr LI, Laifeng (Technical Institute of Physics and Chemistry, CAS)

Presenter: LI, Xu (Technical Institute of Physics and Chemistry, CAS)

Session Classification: C3Po1C - Thermal Insulation Systems II