



Contribution ID: 73

Type: **Poster Presentation**

The Research of PID Control in a Large Scale Helium Refrigerator

In the development of a helium refrigerator, the control of load temperature stability is an important requirement. We usually use multistage control strategies to achieve the precise control of it. Each level has its strict control logic. PID controller is the core control module in the process. Therefore, a research of its principle and parameter settings occupies an important position in the development work. This paper detailed describes the PID control principle used in a large scale helium refrigerator of 10kW@20K at TIPC CAS, as well as several improvements on PID parameter settings, by using simulations and experiments in combination. The temperature is eventually controlled more precise.

Primary author: Ms PAN, Wei (01082543662)

Co-authors: Mr WU, Jihao (01082543661); Prof. LI, Qing (01082543660)

Presenter: Ms PAN, Wei (01082543662)

Track Classification: CEC-01 - Large-Scale Refrigeration and Liquefaction