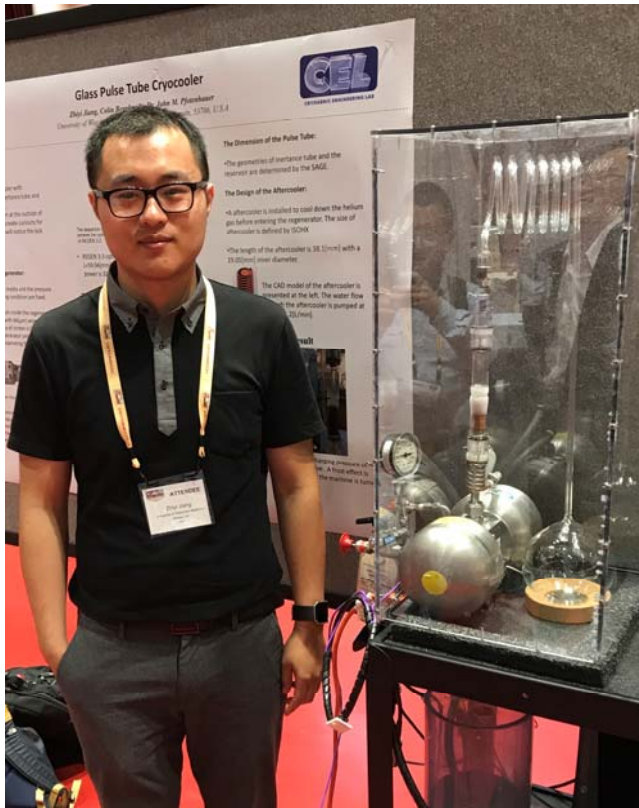


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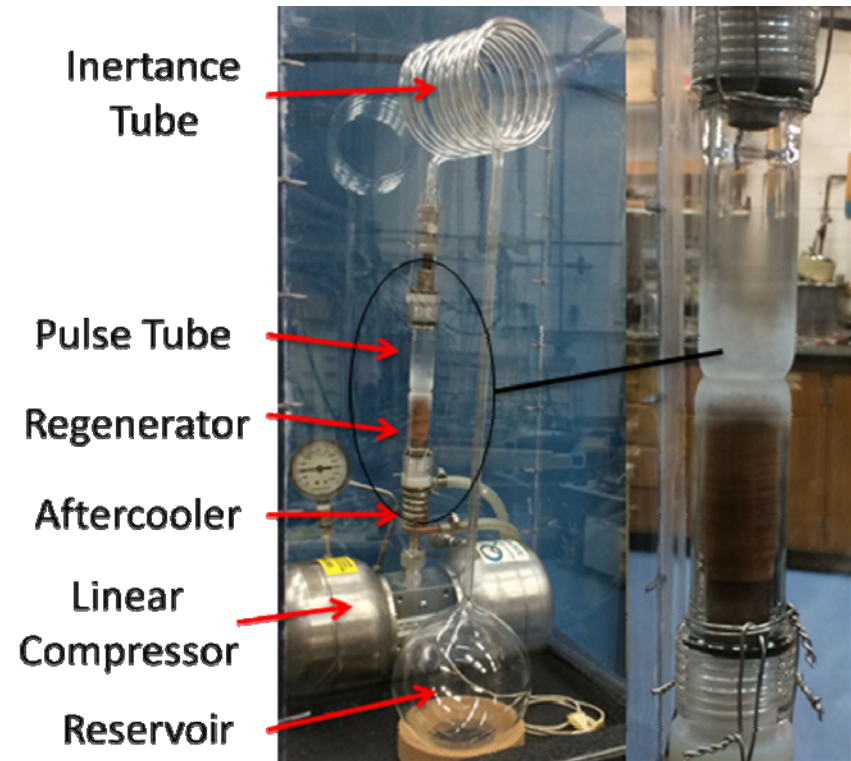
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Research Project: Design of a glass pulse-tube cryocooler (just finished)

Previous project for Master Degree (Presented in CEC 2017)

- A pulse-tube cryocooler with regenerator, pulse-tube, inertance tube and reservoir made from glass;
- Frosty effect is generated from outside of the cold head in order to create curiosity for first-time observers;
- The device is designed to have 32.9[W] of refrigeration power with Helium operating at 140[psi].



The device is tested with a charging pressure of 100[psi]. A frosty effect is observed within 1[min] after the machine is turned on.

PhD. Project

The Design and Operation of a Nitrogen Based Pulsating Heat Pipes (PHP)

- The pulsating heat pipes have a larger contact surface area and gradual temperature gradient than the cold head of the cryocooler.
- The performance and the characteristics of the pulsating heat pipes with Nitrogen will be studied in this project.