

5-6 months internship in CEA Grenoble, France

## Objectives:

- Measure and analyze the heat exchange between the paramagnetic material and the liquid helium;
- Design and perform tests on the heat switch prototype;
- Test the heat switch at 300 K, 80 K and 4 K.

## Student's profile:

- Required: good background in thermodynamics, fluid dynamics, flair for experimental work;
- Appreciated: previous engineering experiences (e.g. long term projects, scientific circles, internships), basic French.

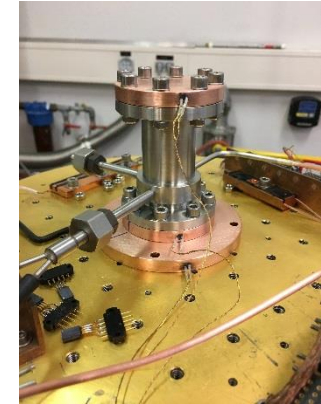
Length: 5-6 months, starting from February/March 2019

Application deadline: mid-November 2018

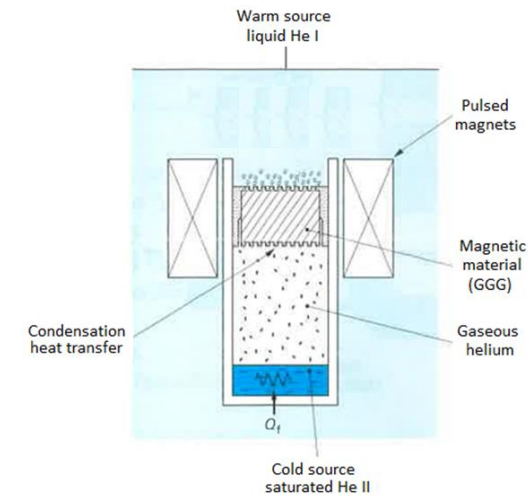
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*Simple heat switch prototype*



*Small scale magnetic refrigerator*



*Magnetic refrigerator scheme*