Use of CO2 as a working fluid

- What we have done in the past half year

- What we will do for the next stage

---High temperature heat pump

- What we have done in the past half year
- Master thesis:
  - Modelling the heating of the Green Energy Lab in Shanghai by the geothermal heat pump combined with the solar thermal energy and ground energy storage
  - Investigation on an open cycle water chiller based on desiccant dehumidification

- What we will do for the next stage

1. Finish the project (double degree ---in Oct.)

2. Start the two-year project

✓ Cycle simulation (suitable refrigerants, High temp. heat pump)
✓ Optimization of HX
✓ The application of refrigeration system in Norway & North China
✓ High efficiency compressor for multistage refrigeration system

3. Workshop on high efficiency refrigeration system (1-2 days)

✓ Furthermore discussion

High efficiency vapor compression refrigeration

- Optimization of operation control
- Optimization of heat exchanger for CO2 system
- Ejection combined in a refrigeration cycle
- Compressor development for high temperature heat pump

Master Thesis

"Modeling the heating of the Green Energy Lab in Shanghai by the geothermal heat pump combined with the solar energy and ground energy storage"

Shanghai Jiaotong University

Norwegian University of Science and Technology

by Candice Yu

Experimental study of an open-cycle rotary desiccant air conditioning system with regenerative evaporative cooling

Shanghai Jiao Tong University
Norwegian University of Science and Technology

By:
Sindre Pettersen