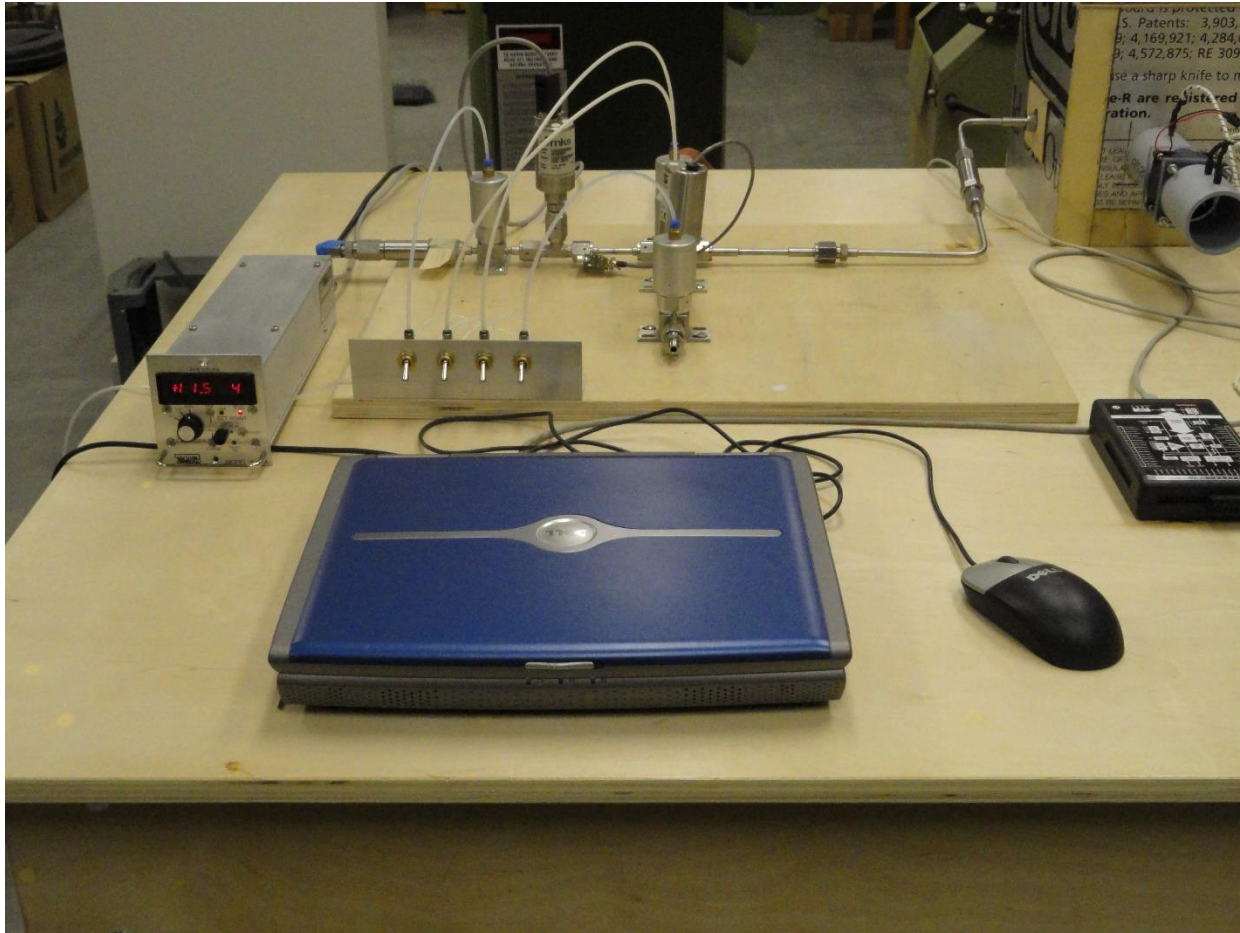
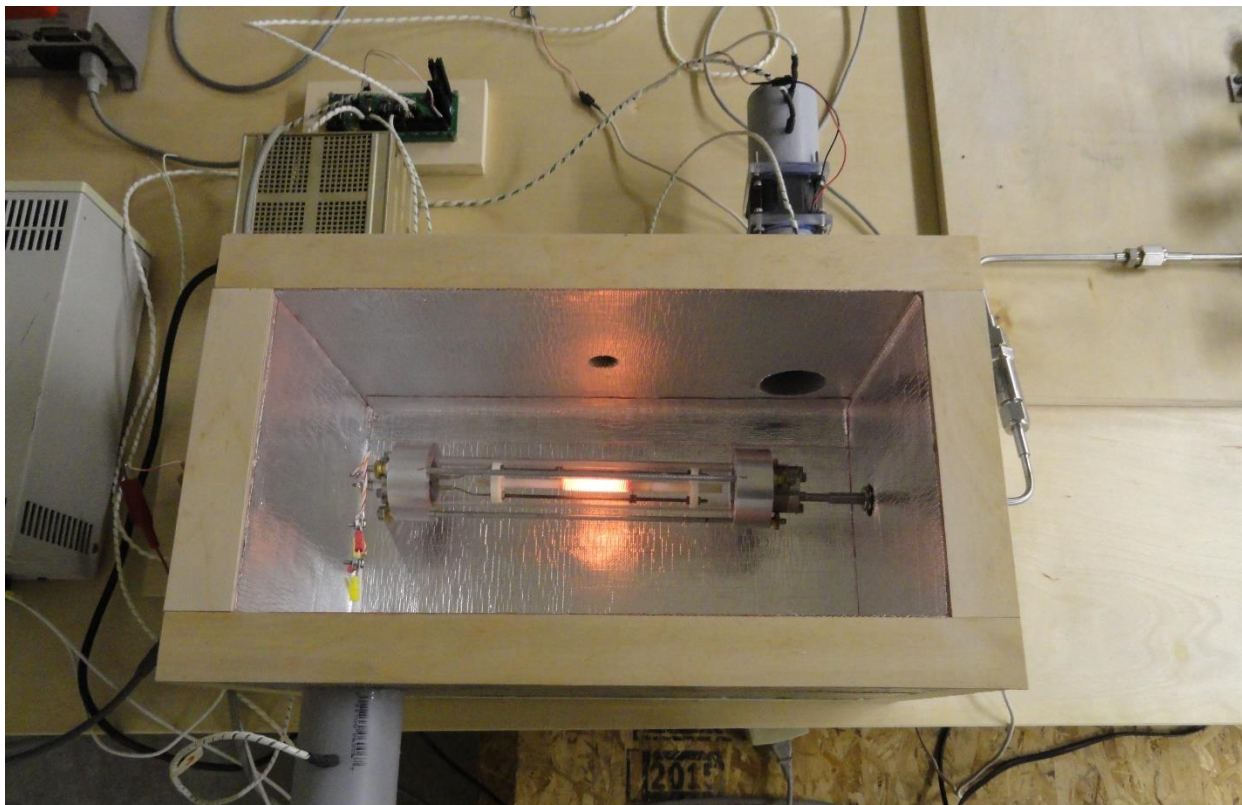


Calorimeter chamber and electronics. Instrumentation includes 800W power supply (right rear) and lab voltmeter (right front). IR thermometer (left front) is aimed into hole in calorimeter. Control electronics is the small PCB in center with multiple cables attached to it.



Vacuum and hydrogen manifold is in the back, the pneumatically actuated valves are controlled by the four switches in the front. Pressure and vacuum Baratrons are the two large vertical cylinders with cables attached. Readout on the left can monitor either pressure or vacuum. Laptop connects to DAQ module (the small black box on the right). Vacuum connects to the back of the manifold, and hydrogen will connect to the left.



Calorimeter with the top removed showing cell with heater element. Kanthal wound on an alumina tube is heated to approx. 1000 C. Grey PVC inlet tube on top holds pair of diodes to control thermal mass airflow. Additional pair of temperature sensors on inlet and outlet tubes monitor air temperature increase.