

## 20. Calorimeter Bar Setup for Device Characterization (MEL 2306)

This setup is built to measure thermal resistance/conductance of custom samples. With a real-time temperature measurement of the calorimeter bars, the thermal performance of the custom sample is characterized. Four or six high-precision tiny thermistors (LSMC700A010KD002, Selco Products) are inserted into the heating and cooling bars. A KEITHLEY 2612A SourceMeter is used to provide small DC current for the thermistors. A bread board and a DAQ (USB-1608G) are used to acquire the voltage signals across each thermistor. Two DC power supplies (KEYSIGHT N5752A) are used to provide power for two cartridge heaters (CSH-101100/120V, OMEGA). A chiller (P10R86594, PolyScience) pumps the coolant and control its temperature. The LabVIEW codes running on the laptop control the power supply and acquire real-time temperatures data from the DAQ.

