

Calibrating the Calorimeter

1. Prepare the 100 g masses of aluminum by placing them in a beaker of boiling water. Return to a boil and measure the temperature of the boiling water every minute for 10 minutes. Allow cylinders to become equilibrated (i.e., temperature of boiling water with cylinders remains steady for 5 or more minutes).
2. Meanwhile, add 200 mL of water at room temperature to the calorimeter, stir well, and record the temperature using the table below.
3. Remove one cylinder from the hot water with tongs and place it in the calorimeter. Close the lid of the calorimeter.
4. Place the thermometer through one of the rubber stoppers in the calorimeter and gently stir through the other hole. Without removing the lid, record the temperature every minute for at least 5 minutes.
5. When the calorimeters are equilibrated, obtain ΔT (difference in temperature in degrees C between the calorimeter at the beginning of the experiment and at the end of the experiment).

	Temperature at beginning of experiment	Temperature at end of experiment	Difference (ΔT)
Aluminum			
Calorimeter			