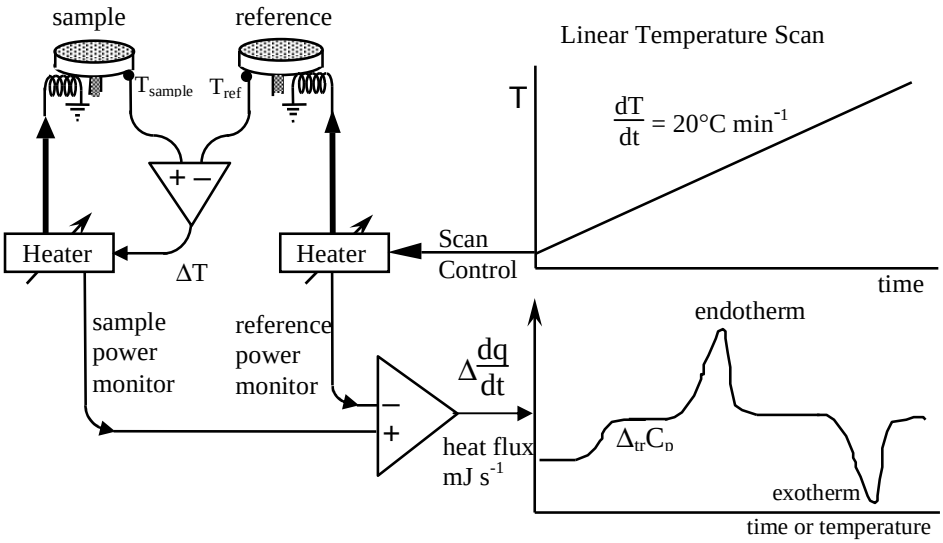
Differential Scanning Calorimetry



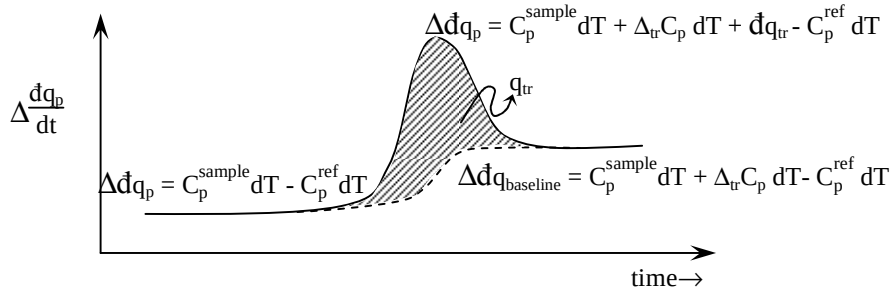
Heat flow = $\frac{đq_p}{dt}$ $\qquad$ $J_q = \frac{1}{\mathcal{A}}\frac{đq_p}{dt}$

$$\Delta\frac{đq_p}{dt} = \left(\frac{đq_p}{dt}\right)_{sample} - \left(\frac{đq_p}{dt}\right)_{ref}$$

$\Delta đq_p/dt = \Delta dH/dt$

$\alpha = \frac{dT}{dt}$ $\qquad$ $C_p = \left(\frac{đq_p}{dT}\right) = \frac{đq_p}{dt}\frac{dt}{dT} = \frac{(đq_p/dt)}{\alpha}$

$$C_p(\text{sample}) - C_p(\text{ref}) = \Delta\left(\frac{đq_p}{dT}\right) = \Delta\left(\frac{đq_p}{dt}\right)\left(\frac{dt}{dT}\right)$$



$\Delta đq_p - \Delta đq_{baseline} = đq_{tr}$

$$\int\frac{đq_{tr}}{dt}\,dt = q_{tr} = \Delta_{tr}H$$