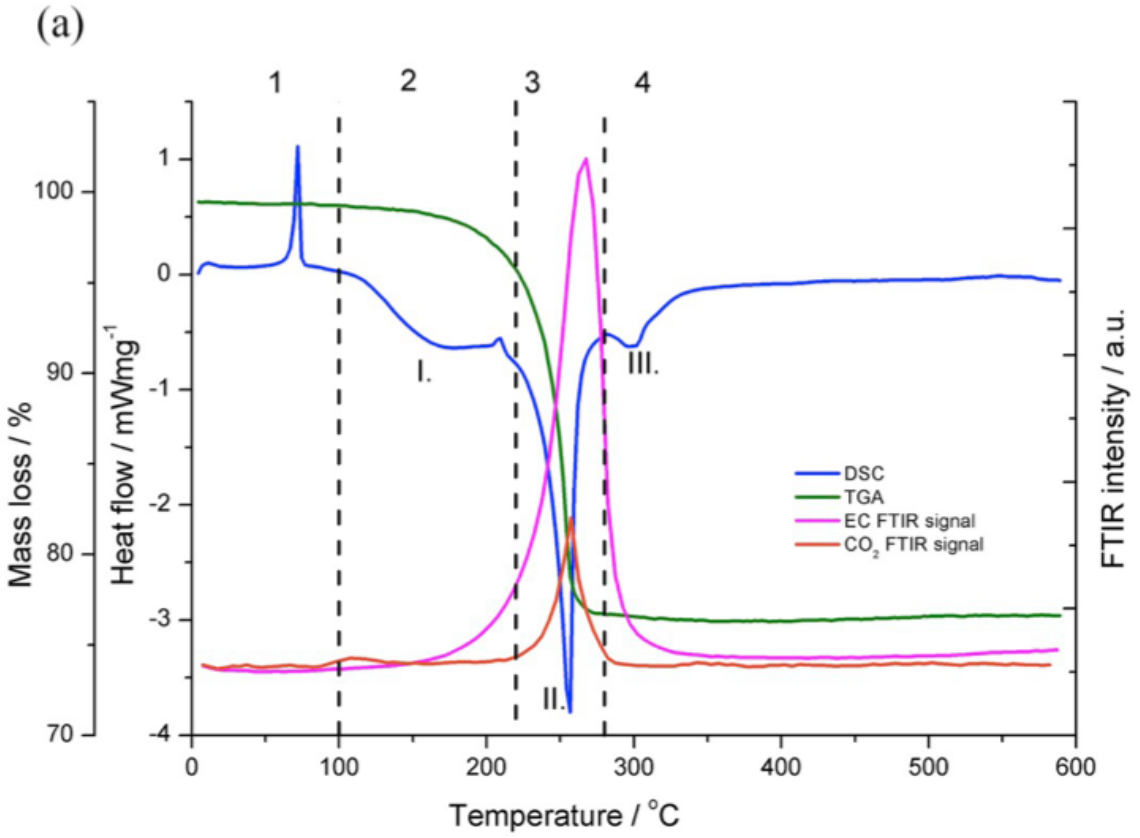

→ Blue curve shows heat absorption / heat release

→ Region 1 is not considered

→ Region 2, 3 and 4 important

Kinetic equation for Region 2

$$\frac{dx_{LiC}}{dt} = -A_{LiC}\, x_{LiC} \exp\left(\frac{-E_{LiC}}{KT}\right) \exp\left(\frac{-t_{SEI}}{t_{SEI,ref}}\right)$$

$$\frac{dt_{SEI}}{dt} = A_{LiC}\, x_{LiC} \exp\left(\frac{-E_{LiC}}{KT}\right) \exp\left(\frac{-t_{SEI}}{t_{SEI,ref}}\right)$$

$$Heat = \Delta H \times \frac{dx_{LiC}}{dt}$$

Kinetic equation for Region 3

$$\frac{dx_{LiC}}{dt} = -A_{Li\text{-}EC}\, x_{Li\text{-}EC} \exp\left(\frac{-E_{Li\text{-}EC}}{K_B T}\right) - A_{LiC}\, x_{LiC} \exp\left(\frac{-E_{LiC}}{K_B T}\right) \exp\left(\frac{-t_{SEI}}{t_{SEI,ref}}\right)$$

$$\frac{dt_{SEI}}{dt} = A_{LiC}\, x_{LiC} \exp\left(\frac{-E_{LiC}}{K_B T}\right)$$

Kinetic equation for Region 4

$$\frac{dx_B}{dt} = -A_B x_B \exp\left(\frac{-\epsilon_B}{k_B T}\right)$$