

Integrated rate laws

second order reactions

$$\text{rate} = k [A]^2$$

$$\frac{1}{[A]_t} = kt + \frac{1}{[A]_0}$$

many second order reactions $\text{rate} = k[A][B]$

$A + B \rightarrow C$ A and B consumed
stoichiometrically

$$[A]_0 = [B]_0$$

if not, no analytical solution