Reversible "On-Off" Reaction Kinetics

$$A \underset{k_{-1}}{\overset{k_{+1}}{\rightleftharpoons}} B$$

$$\frac{[B]}{[A]} \approx \frac{k_{+1}}{k_{-1}}$$
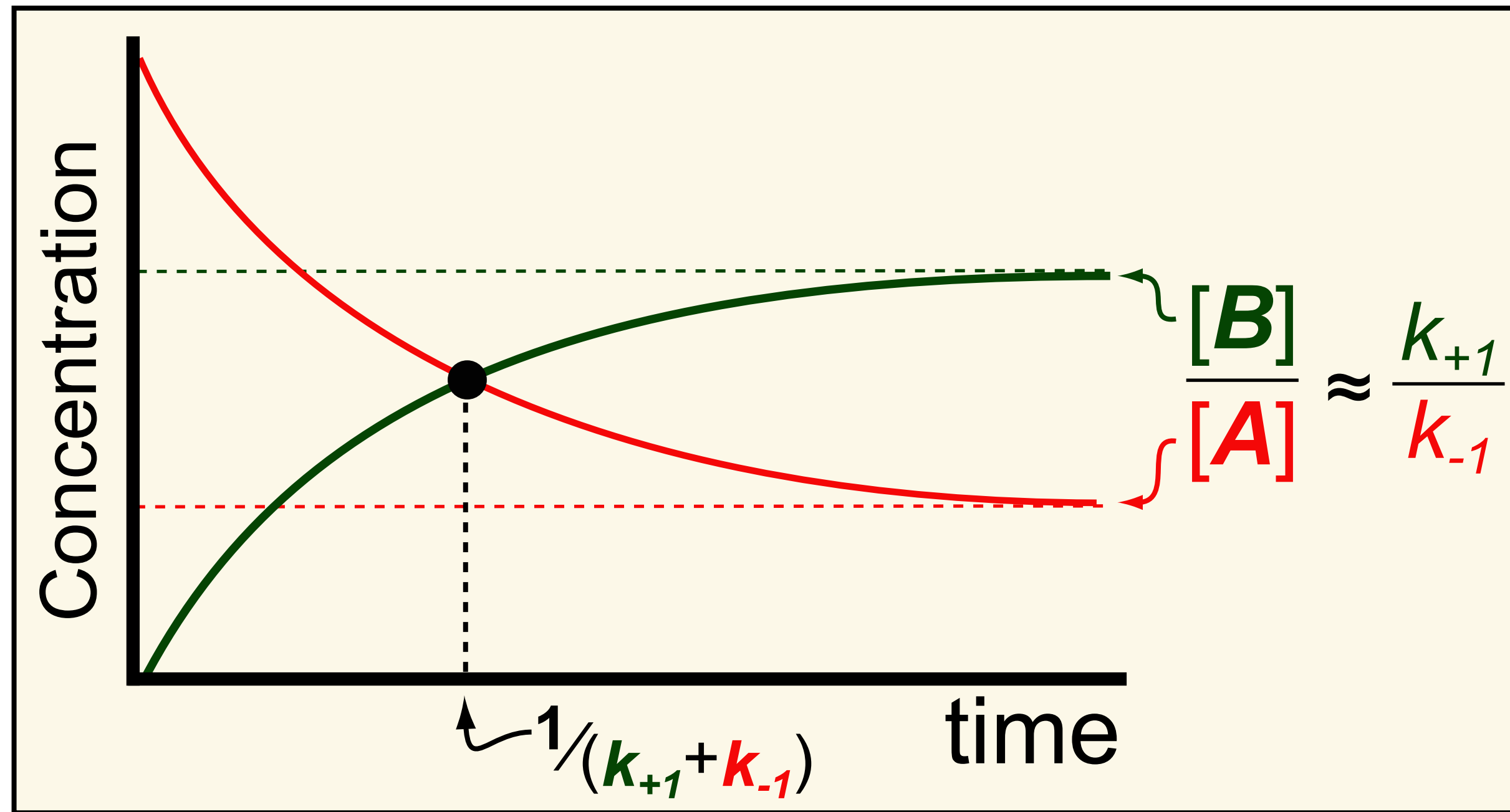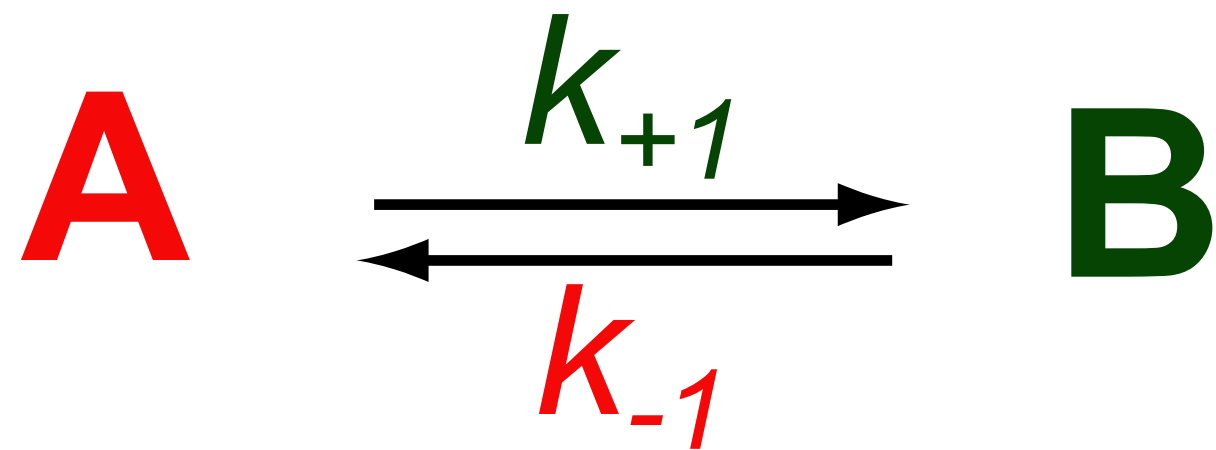
$$[A] = [A]_0 \frac{k_{-1}}{k_{+1} + k_{-1}}(1 + e^{-(k_{+1}+k_{-1})\cdot t})$$

$$[B] = [A]_0 \frac{k_{+1}}{k_{+1} + k_{-1}}(1 - e^{-(k_{+1}+k_{-1})\cdot t})$$