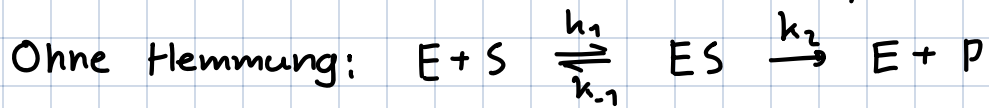
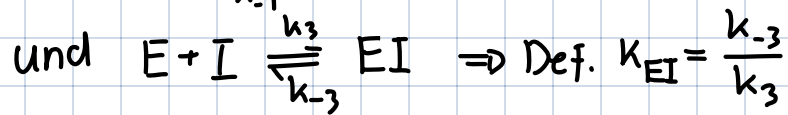
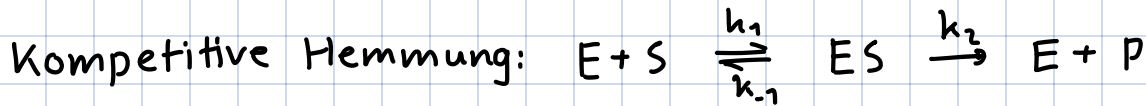


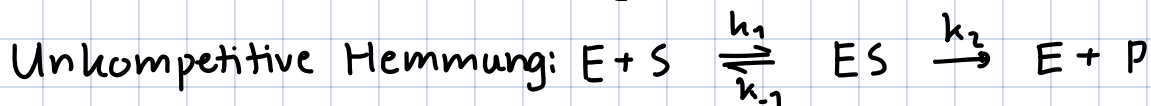
Michaelis-Menten: Wichtige Formeln, Konsistent



$$\Rightarrow v = \frac{d[P]}{dt} = \frac{v_{\max}[S]}{K_m + [S]}, \quad \text{mit } v_{\max} = k_2[E]_0, \quad K_m = \frac{k_{-1} + k_2}{k_1}$$

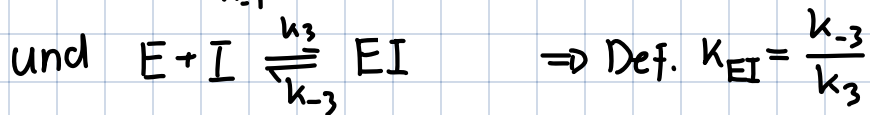
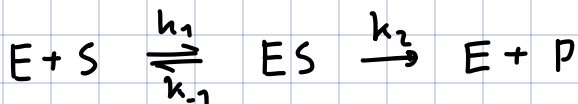


$$\Rightarrow v = \frac{d[P]}{dt} = \frac{v_{\max}[S]}{K_m \left(1 + \frac{[I]}{K_{EI}}\right) + [S]} = \frac{v_{\max}[S]}{K_m \alpha + [S]}, \quad \alpha = 1 + \frac{[I]}{K_{EI}}$$



$$\Rightarrow v = \frac{d[P]}{dt} = \frac{v_{\max}[S]}{K_m + \beta[S]}, \quad \text{mit } \beta = 1 + \frac{[I]}{K_{ESI}}$$

Nicht-Komp. Hemmung: "Beide zusammen"



$$\Rightarrow v = \frac{v_{\max}[S]}{K_m \alpha + [S] \beta} \quad \text{mit } \alpha, \beta \text{ wie oben:}$$

$$\alpha = 1 + \frac{[I]}{K_{EI}}$$

$$\beta = 1 + \frac{[I]}{K_{ESI}}$$

der gleiche Inhibitor