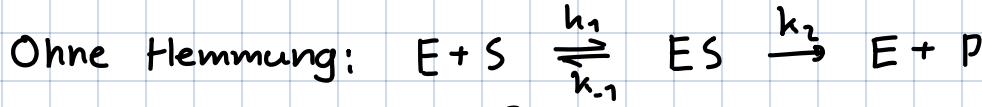
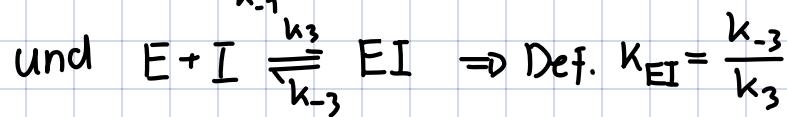
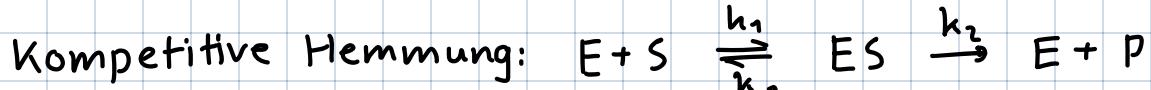


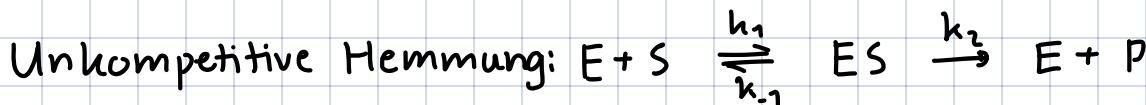
Michaelis-Menten: Wichtige Formeln, konsistent



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

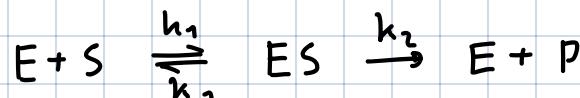


$$\Rightarrow v = \frac{d[P]}{dt} = \frac{v_{max}[S]}{K_m \left(1 + \frac{[I]}{K_{EI}}\right) + [S]} = \frac{v_{max}[S]}{K_m \alpha + [S]}, \alpha = 1 + \frac{[I]}{K_{EI}}$$



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

Nicht-Komp. Hemmung: "Beide zusammen"



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

$$\alpha = 1 + \frac{[I]}{K_{EI}} \quad \text{der gleiche Inhibitor}$$

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