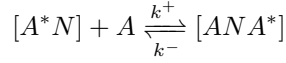
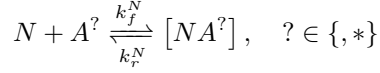
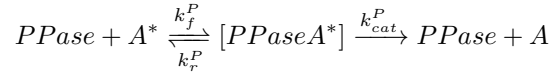
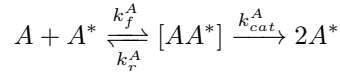
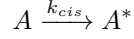


uravnenia

January 27, 2021

chemistry



model

$$\begin{aligned} (\partial_t - D\Delta) A &= -k_{cis}A - k_f^A A^* A - k^+ [NA^*] A \\ &\quad + k_r^A [AA^*] + k_{cat}^P [PPaseA^*] - k_f^N NA + k_r^N [NA] + k^- [ANA^*] \end{aligned}$$

$$\begin{aligned} (\partial_t - D\Delta) A^* &= k_{cis}A - k_f^A AA^* + k_r^A [AA^*] + 2k_{cat}^A [AA^*] - k_f^P PPaseA^* + k_r^P [PPaseA^*] - k_f^N NA^* + k_r^N [NA^*] \\ &\quad - k^+ [NA]A^* + (k^- + k_*^-)[ANA^*] \end{aligned}$$

$$(\partial_t - D\Delta)[AA^*] = k_f^A AA^* - (k_r^A + k_{cat}^A)[AA^*] \quad ? \approx 0?$$

$$(\partial_t - D\Delta)PPase = (k_r^P + k_{cat}^P)[PPaseA^*] - k_f^P PPaseA^* \approx 0$$

$$(\partial_t - D\Delta)[PPaseA^*] = k_f^P PPaseA^* - (k_r^P + k_{cat}^P)[PPaseA^*] \approx 0$$

$$\partial_t N = -k_f^N N(A + A^*) + k_r^N ([NA] + [NA^*])$$

$$\partial_t [NA] = k_f^N NA - (k_r^N + k^+ A^*)[NA] + k^- [ANA^*]$$

$$\partial_t[NA^*] = k_f^N NA^* - (k_r^N + k^+ A) [NA^*] + (k^- + k_*^-) [ANA^*]$$

$$\partial_t[ANA^*] = -(2k^- + k_*^-)[ANA^*] + k^+ ([NA]A^* + [NA^*]A)$$

$$N + [NA] + [NA^*] + [ANA^*] = N_0$$