

## Engenharia Bioquímica I / Engenharia Bioquímica 2019-20

## Formulário:

$$k = A \, e^{-E/R \, T} \qquad \qquad ln \frac{N}{N_0} = -k \, t \label{eq:k_def}$$

$$\frac{K_L D_P}{D_{02}} = 0.42 \left( \frac{D_P^3 \rho_L \Delta \rho g}{\mu_L^2} \right)^{\frac{1}{3}} \left( \frac{\mu_L}{\rho_L D_{02}} \right)^{0.5} \qquad t_b = \frac{h}{V_t} \qquad a' = \frac{nF_0}{V_L} t_b \cdot \frac{6}{D_P}$$

$$V_{t} = \sqrt{\frac{3,33g\Delta\rho}{\rho_{L}}D_{p}}$$

$$D_{p} = \sqrt[3]{\frac{6.\sigma.d}{g.\Delta\rho}}$$

$$\frac{1}{h} = \frac{1}{h_i} + \frac{B}{K_W} + \frac{1}{h_o}$$

$$\frac{1}{\overline{ho} d_o} = \frac{1}{h_i d_i} + \frac{\ln \frac{do}{d_i}}{2 \text{ Kw}} + \frac{1}{\text{ho do}}$$