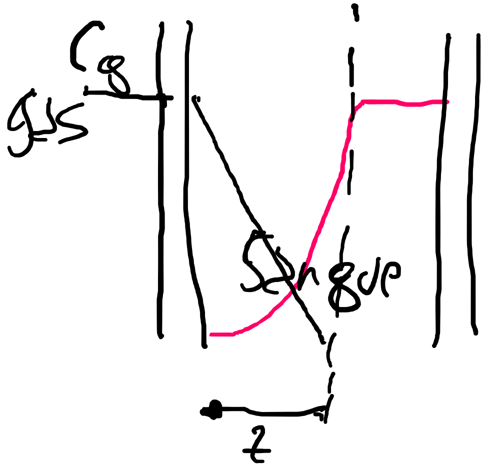
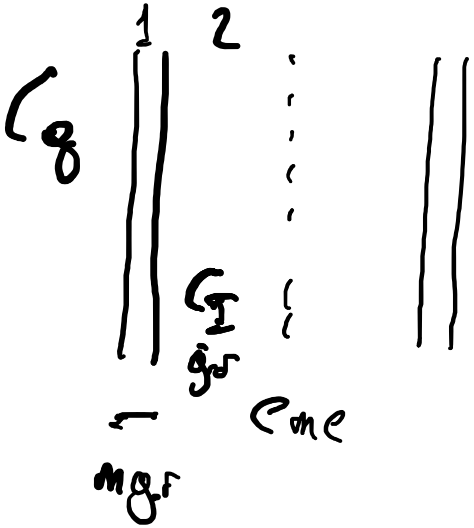
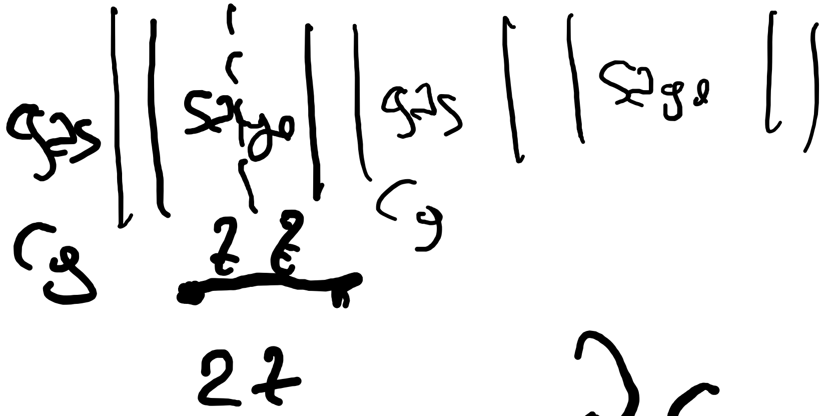




$$\frac{\partial c^1}{\partial t} = D_1 \frac{\partial^2 c^1}{\partial x^2}$$

$$\frac{\partial c}{\partial t} = D_2 \frac{\partial^2 c}{\partial x^2} + \underline{K'(y_0 - y) - Kcy}$$

$$\frac{\partial y}{\partial t} = D_{Hb} \frac{\partial^2 y}{\partial x^2} + K'(y_0 - y) - Kcy$$



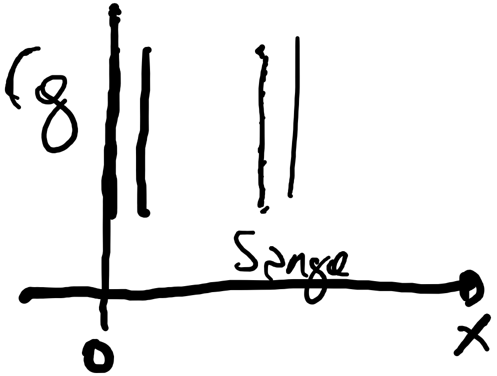
$$\frac{\partial c}{\partial t} = \underline{D_M} \frac{\partial^2 c}{\partial x^2}$$

$$D_M \simeq D'_L$$

$$\frac{1}{D_L} = \frac{1}{D_M} + \frac{1}{\theta v c}$$

$$\frac{\partial c}{\partial t} = D_m \frac{\partial^2 c}{\partial x^2}$$

$$c(x,t)$$



$$\begin{cases} \dfrac{\partial c}{\partial t} = A & (1) \\[2ex] \dfrac{\partial^2 c}{\partial x^2} = \dfrac{A}{D_m} & (2) \end{cases}$$

$$c(x,t) - c(x,0) = At + B$$

$$c(x,0) = \phi \quad \forall x \neq \phi \; t = \phi$$

$$c(x,t) = At \qquad c(0,0) = C_g$$

$$c(0,0) = C_g = B.$$

$$c(x,t) = At + C_g. \qquad A = \frac{c(x,t) - C_g}{t}$$

$$\frac{\partial^2 c}{\partial x^2} = \frac{A}{D\eta} \qquad \frac{\partial c}{\partial x} = \frac{A}{D\eta} x + E$$

$$c(x,t) - c(0,t) = \frac{A}{2D\eta} x^2 + Ex + F$$

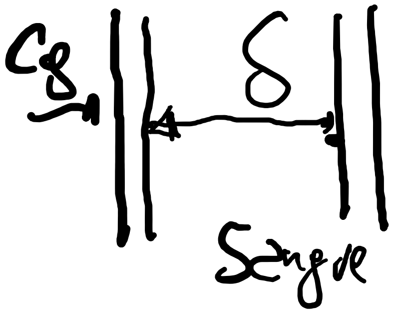
$$\underset{c_8}{\parallel}$$

$$c(x,t) = c_8 + \frac{c(x,t) - c_8}{t} \frac{x^2}{2D\eta} + Ex + F$$

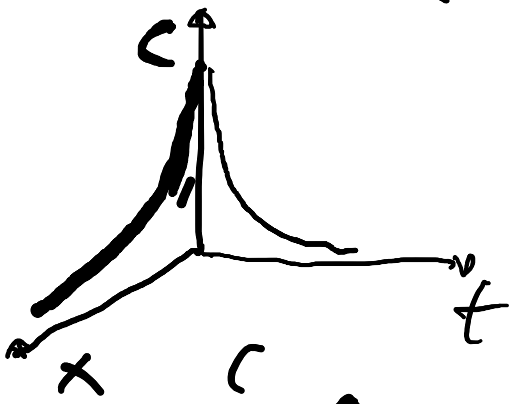
$$c(x,t) = c_8 + c(x,t) \cdot \frac{x^2}{2D\eta t} - \frac{c_8 x^2}{2D\eta t} + Ex + F$$

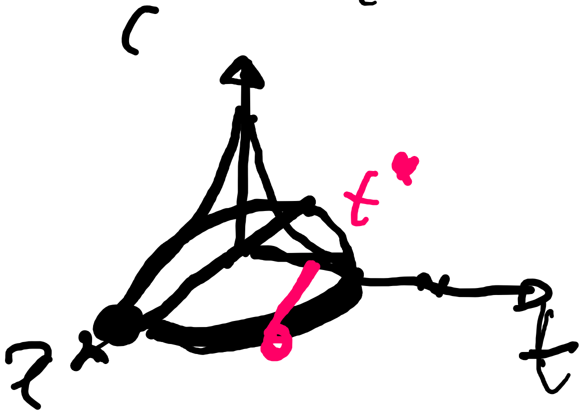
$$c(x,t) \left[1 - \frac{x^2}{2D\eta t}\right] = c_8 \left[1 - \frac{x^2}{2D\eta t}\right] + Ex + F$$

$$c(x,t) = \frac{c_g\left[1-\frac{x^2}{2Dt}\right] + Ex + F}{\left[1-\frac{x^2}{2Dt}\right]}$$



$$C(\delta,t) = 0$$





$$C(x,t) \simeq C_g + E\frac{x}{-x^2} + \frac{F}{-x^2}$$

$$-\frac{1}{x}$$

$$\frac{\partial c}{\partial t} = D_2 \frac{\partial^2 c}{\partial x^2} + R_{O2}$$

$$R_{O2} = \left[\frac{moli}{cm^3 \cdot sec}\right].$$

$$\frac{\partial y}{\partial t} = D_{HB} \frac{\partial^2 y}{\partial x^2} + R_{Hb}$$

$$R_{O2} + R_{Hb} = \phi$$

$$D_{Hb} \simeq \phi$$

$$\frac{\partial c}{\partial t} = \phi$$

$$\begin{cases} D_2 \dfrac{\partial^2 c}{\partial x^2} = -R_{O2} \\ \dfrac{\partial y}{\partial t} = R_{Hb} \end{cases}$$

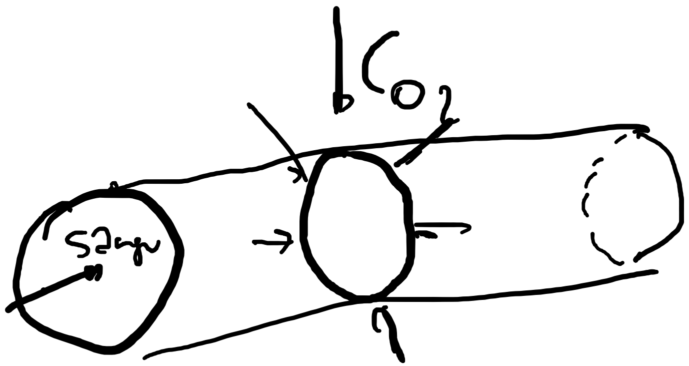
$$D_2 \frac{\partial^2 c}{\partial x^2} + \frac{\partial y}{\partial t} = -R_{O2} - R_{Hb} = -(R_{O2} + R_{Hb})$$

$$= \phi$$

$$D_L \frac{\partial^2 C}{\partial x^2} - \frac{\partial y}{\partial t} = \phi$$

$$\frac{\partial y}{\partial t} = D_L \frac{\partial^2 C}{\partial x^2}$$

equazione del fronte di avanz. in regime reversibile



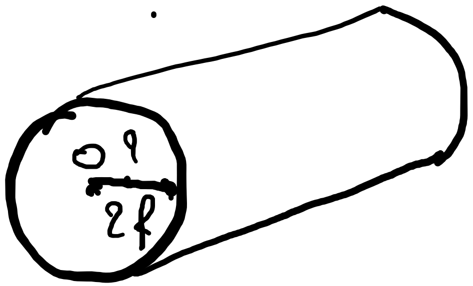
$$J_{O_2} = -D \frac{\partial C}{\partial r}$$

$$-D \frac{\partial C}{\partial r} \cdot 2\pi r = A$$

$$\left[\frac{\cancel{m^2}}{s}\right] \cdot \left[\frac{moli}{\cancel{m^3}}\right]\left[\frac{\cancel{\ }}{\cancel{m}}\right]$$

$$\left[\frac{moli}{m \cdot s}\right].$$

$$\int_{C(r)}^{C(2R)} \partial C = -\frac{A}{D} \int_{r}^{2R} \frac{\partial r}{2\pi r}$$

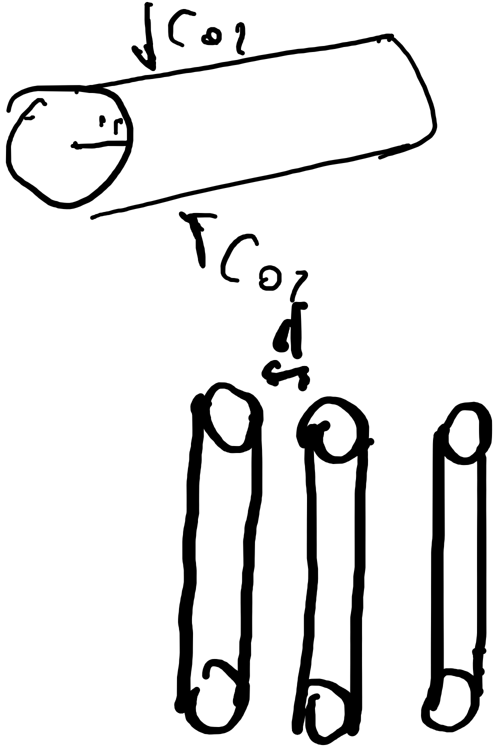


$$C(2R) - C(r) = -\frac{A}{2\pi D} \cdot \ln \frac{2R}{r} = \frac{A}{2\pi D} \ln \frac{r}{2R}$$

$$C(r) = C(r_f) - \frac{A}{2\pi D} \ln \frac{r}{r_f}$$

$$C(r) = C_0 - \frac{A}{2\pi D} \ln \frac{r}{r_f}$$

$$C(r) = \emptyset$$



$$\underline{W} = \underline{K}\,(P_G - P_B)$$

$$P_{G\,in} - P_{G\,OUT}$$

$$\underline{\Delta P_G}$$

$$W = \begin{cases} 250 \frac{ml}{min} & O_2 \\ 200 \frac{ml}{min} & CO_2 \end{cases}$$

K