

$$F_{A1} = F_{A0} - \sum \xi_1 \Rightarrow \xi_1 = F_{A0} - F_{A1} = 1 - 0,345 = 0,655$$

$$F_{F1} = F_{F0} + \sum \xi_2 = 0,345$$

$$F_{F1} = F_{F0} + F_0 \gamma_2 \Rightarrow \gamma_2 = \frac{F_{F1}}{F_0} = \frac{0,345}{2,33} = 0,148$$

3/ calcul des débits molaire à la sortie de réaction.

$$F_{A2} = 0,345 \text{ mol/s}$$

$$F_{F2} = 0,345 \text{ mol/s}$$

$$F_{S2} = F_{S0} + F_0 (-\gamma_1 - \gamma_2)$$

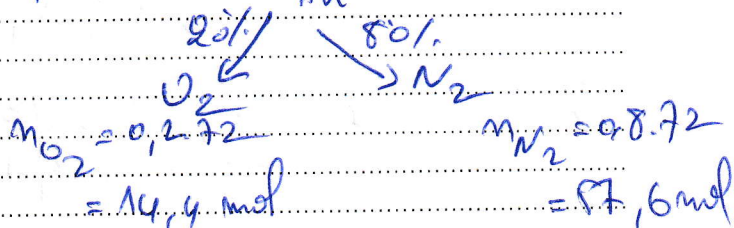
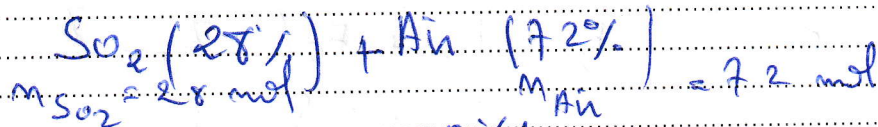
$$= \frac{1}{0,75} + 2,33(-0,28 - 0,148) = 0,336 \text{ mol/s}$$

$$F_{O2} = F_{O20} + F_0 (3\gamma_1 + \gamma_2)$$

$$= 2,33(3 \cdot 0,28 + 0,148) = 2,3 \text{ mol/s}$$

$$F_{N2} = F_{N20} + (\xi_1 - \xi_2) = 0,655 - 0,345 = 0,31 \text{ mol/s}$$

Exercice 2:



1/ calcul de γ

$$F_{A1} = F_{A0} / (1 - X_A) = F_{A0} + F_0 \alpha_1 \gamma_1$$

$$\gamma_1 = \frac{F_{A0}}{F_0} \cdot X_A = \frac{n_{SO_2}}{n_0} \cdot X_A = \frac{28}{4,24} \cdot 0,45 = 0,30$$

2/ calcul de α et β

$$\beta = \frac{P_0 / P_0}{P_A} = \frac{15 / 273}{14,85 \cdot 10^5 / 10^5} = 0,123 < 1 \text{ dilution}$$

$$\alpha = \frac{\Delta P}{P_A}$$

$I = \text{Rapport d'Inerte}$ $I = \frac{n_{N_2}}{n_0}$ Si $\beta > 1$ contraction.