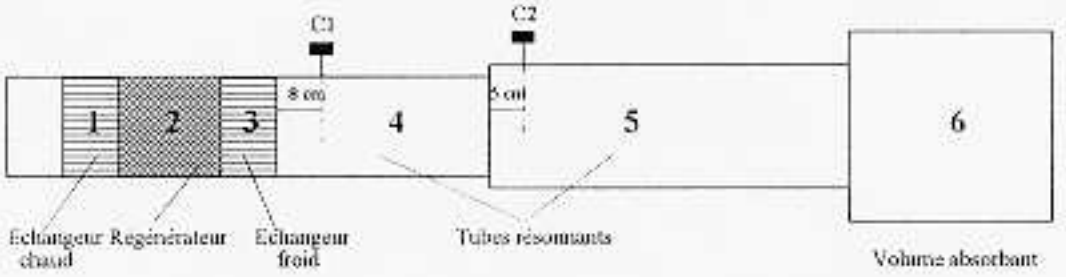
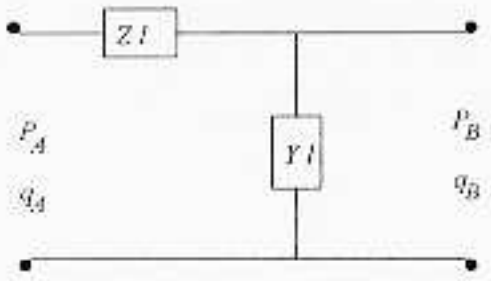
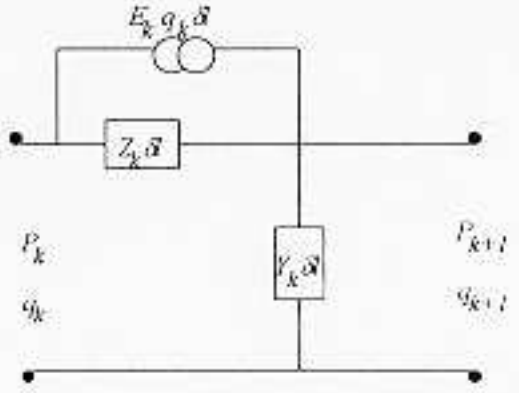



Figure 1: Compresseur thermoacoustique




$$\begin{bmatrix} P_A \\ q_A \end{bmatrix} = \begin{bmatrix} 1 & Z l \\ Y l & 1 \end{bmatrix} \begin{bmatrix} P_B \\ q_B \end{bmatrix}$$

Figure 2-a : Quadripôle passif




$$\begin{bmatrix} P_{k+1} \\ q_{k+1} \end{bmatrix} = \begin{bmatrix} 1 & \dfrac{Z_k \delta l}{1 + E_k \delta l} \\ \dfrac{Y_k \delta l}{1 + E_k \delta l} & 1 \end{bmatrix} \begin{bmatrix} P_k \\ q_k \end{bmatrix}$$

Figure 2-b : Quadripôle actif d'un tronçon $k$

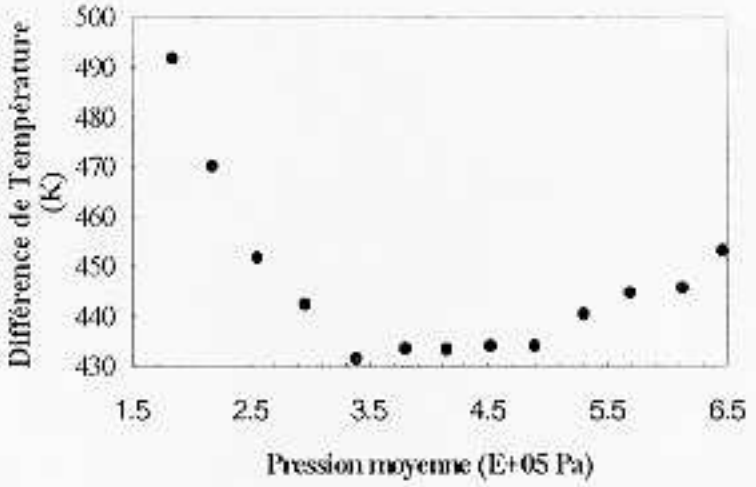



Figure 3 : Différence de température $T_c$-$T_f$ en fonction de la pression moyenne

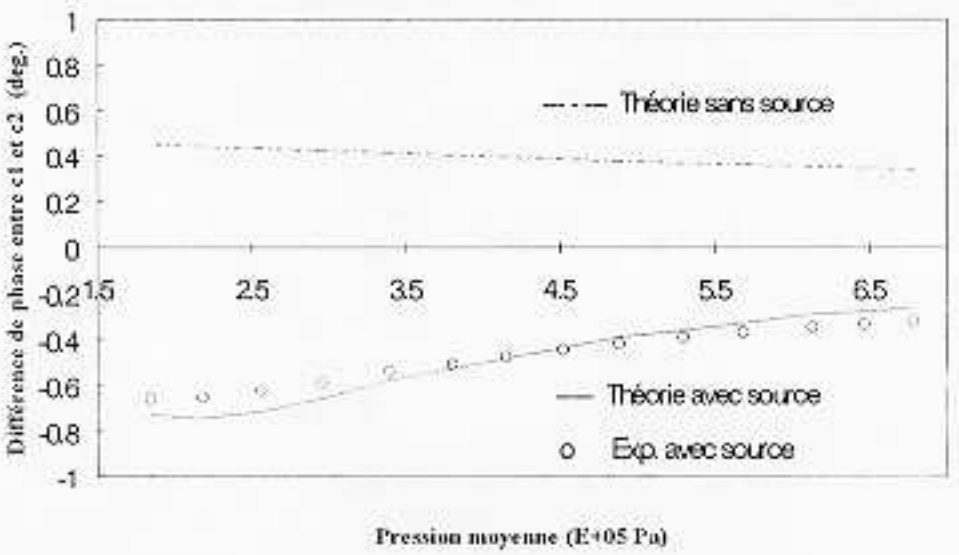



Figure 4: Différence de phase entre les capteurs $C_1$ et $C_2$ en fonction de la pression moyenne