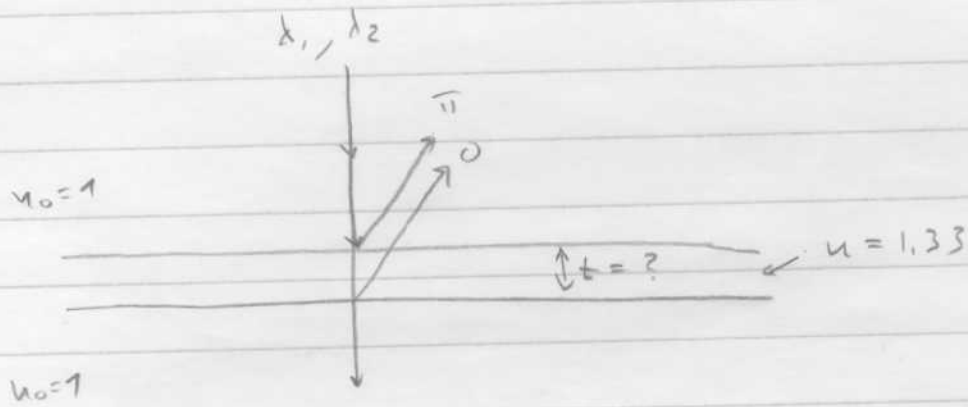


Pb- 5-13



$$\begin{cases} \lambda_1 = 600 \text{ nm} \Rightarrow \text{max} \\ \lambda_2 = 450 \text{ nm} \Rightarrow \text{min} \end{cases}$$

Förskift: $\delta = \frac{2\pi}{\lambda_n} \cdot 2t + \pi = \frac{4\pi n t}{\lambda_r} + \pi$

$$\begin{array}{ll} \text{Max } \delta & \delta = 2\pi \cdot m \\ \text{Min } \delta & \delta = (2m' + 1)\pi \end{array} \quad \begin{cases} m = 1, 2, \dots \\ m' = 0, 1, 2, \dots \end{cases}$$

$$\begin{cases} 2\pi m = \frac{4\pi n t}{\lambda_1} + \pi \\ (2m' + 1)\pi = \frac{4\pi n t}{\lambda_2} + \pi \end{cases}$$

$$\Rightarrow 2m - 2m' - 1 = 4n t \left(\frac{1}{\lambda_1} - \frac{1}{\lambda_2} \right)$$

$$(m - m') - \frac{1}{2} = 2n t \left(\frac{1}{\lambda_1} - \frac{1}{\lambda_2} \right)$$

Ingel min villan 600 nm och 450 nm $\Rightarrow m = m'$

$$\Rightarrow t = \frac{1}{4n} \left(\frac{1}{\lambda_2} - \frac{1}{\lambda_1} \right)^{-1} = \frac{1}{4n} \frac{\lambda_1 \lambda_2}{(\lambda_1 - \lambda_2)} = 338 \text{ nm}$$