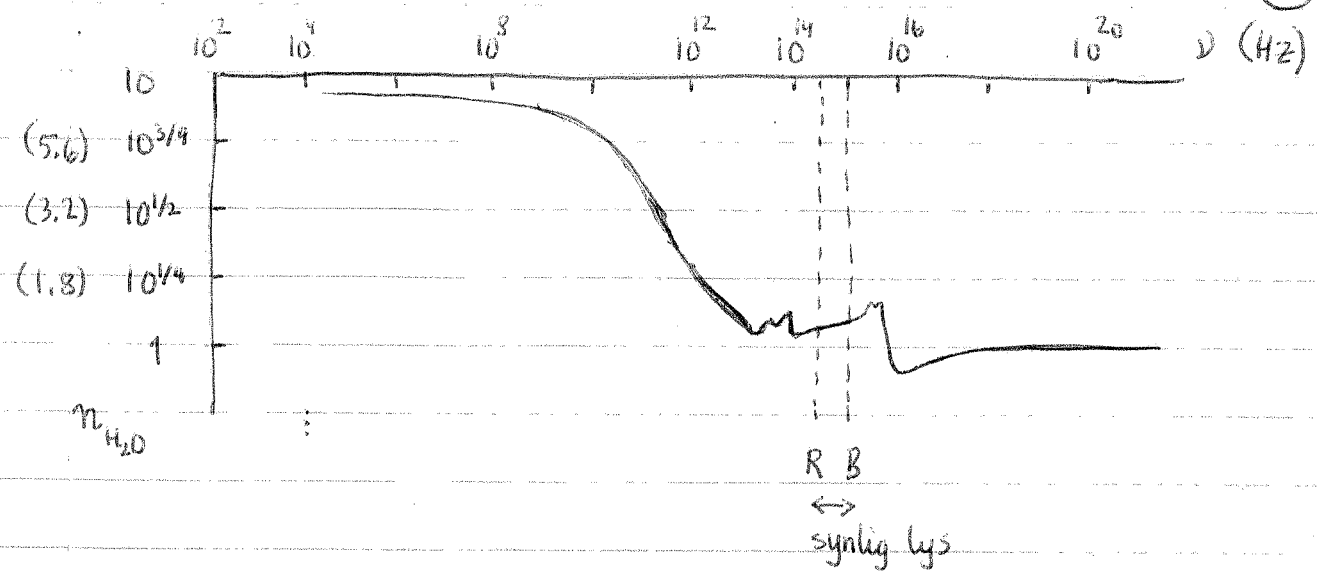
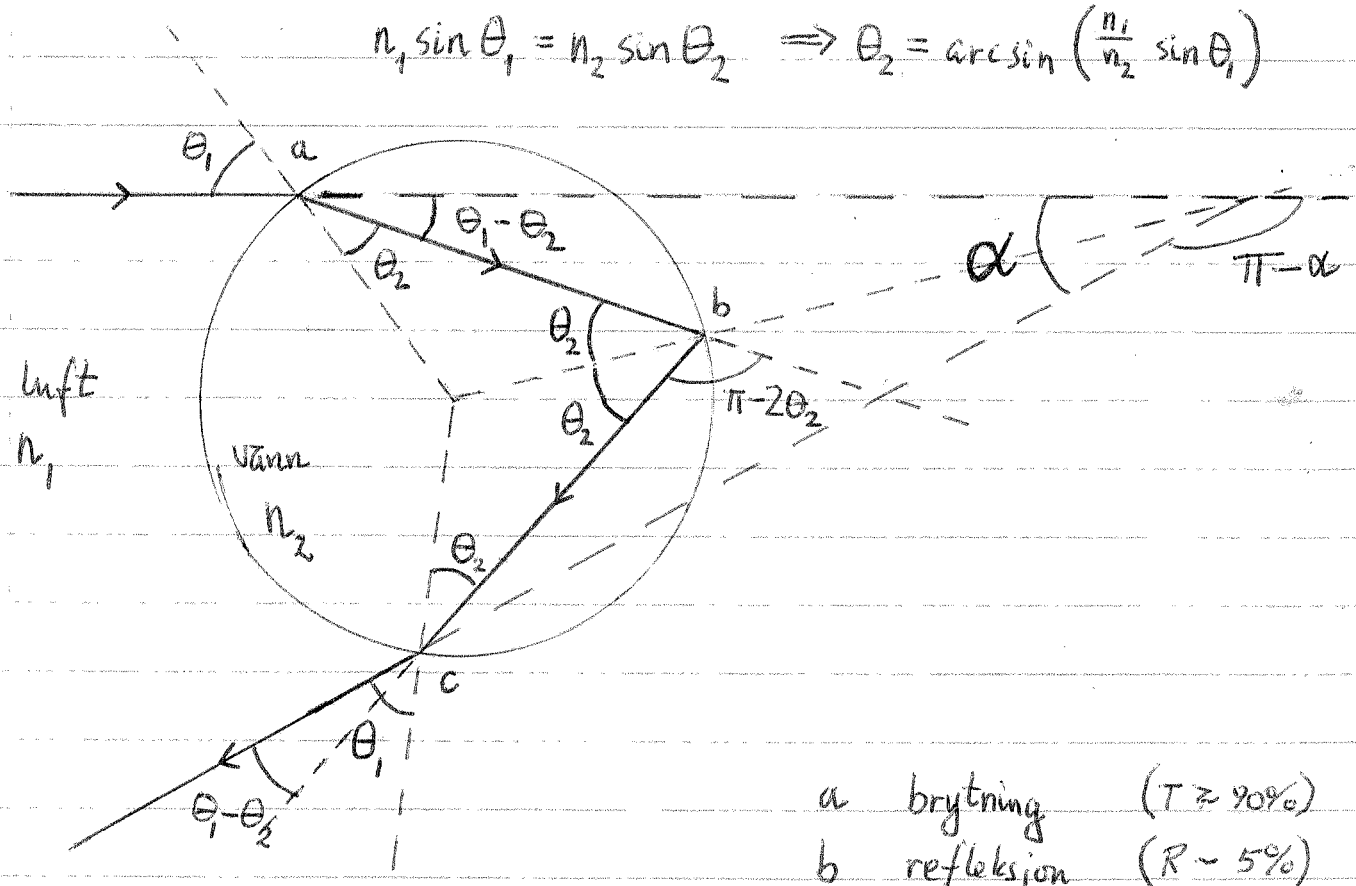


Regnbuen:

$$n_1 \sin\theta_1 = n_2 \sin\theta_2 \Rightarrow \theta_2 = \arcsin\left(\frac{n_1}{n_2}\sin\theta_1\right)$$



a brytning ($T \approx 90\%$)
b refleksjon ($R \sim 5\%$)
c brytning ($T \approx 90\%$)

Retningsendring =

$$(\theta_1-\theta_2)+(\pi-2\theta_2)+(\theta_1-\theta_2) = \pi+2\theta_1-4\theta_2 = \pi-\alpha$$

$$\Rightarrow \alpha = 4\theta_2 - 2\theta_1 = 4\arcsin\left(\frac{n_1}{n_2}\sin\theta_1\right) - 2\theta_1$$