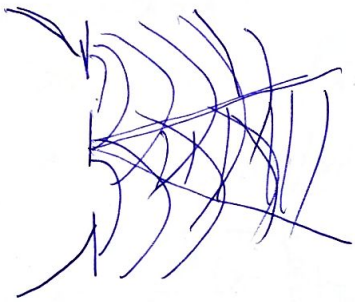
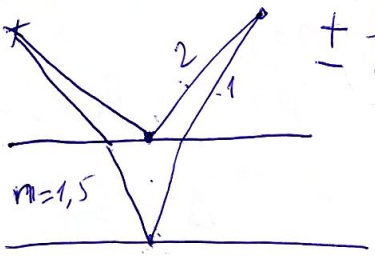
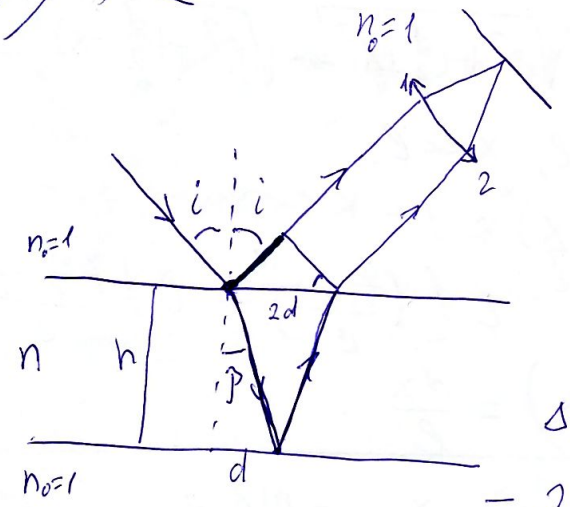




$\pm \frac{\lambda}{2}$ Л.



$$\Delta_{12} = L_2 - L_1 - \frac{\lambda}{2}$$

$$L_1 = 2d \sin i = 2h \sin i \operatorname{tg}\beta$$

$$d = h \operatorname{tg}\beta$$

$$L_2 = \frac{2hn}{\cos\beta}$$

$$\sin i = n \sin\beta.$$

$$\Delta = 2h\left(\frac{n}{\cos\beta} - \operatorname{tg}\beta \sin i\right) - \frac{\lambda}{2} =$$

$$= 2h\left(\frac{n}{\cos\beta} - \frac{\sin\beta \sin i}{\cos\beta}\right) - \frac{\lambda}{2} =$$

$$= 2hn\left(\frac{1}{\cos\beta} - \frac{\sin^2\beta}{\cos\beta}\right) - \frac{\lambda}{2} =$$

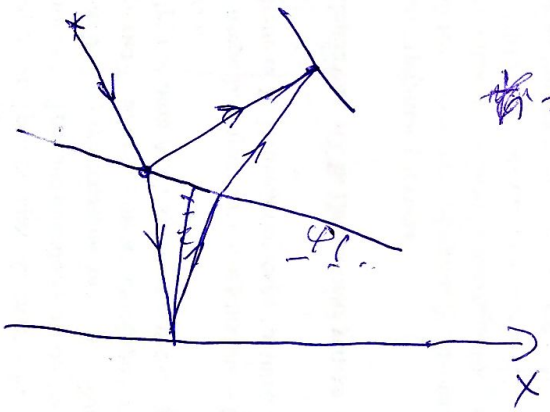
$$= 2hn\left(\frac{\cos^2\beta}{\cos\beta}\right) - \frac{\lambda}{2} = 2hn\cos\beta - \frac{\lambda}{2} = 2hn\sqrt{1-\sin^2\beta} - \frac{\lambda}{2} =$$

$$= 2hn\sqrt{1-\frac{\sin^2 i}{n}} - \frac{\lambda}{2} = 2h\sqrt{n^2 - \sin^2 i} - \frac{\lambda}{2}.$$

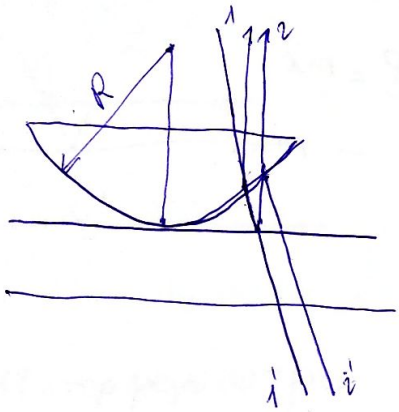
$$\Delta = 2h\sqrt{n^2 - \sin^2 i} \pm \frac{\lambda}{2}$$

max: $2h\sqrt{n^2 - \sin^2 i} \pm \frac{\lambda}{2} = m\lambda \quad m \in \mathbb{Z}$

min: $2h\sqrt{n^2 - \sin^2 i} \pm \frac{\lambda}{2} = (2m+1)\frac{\lambda}{2} \quad m \in \mathbb{Z}.$



$h = f(X)$ UK

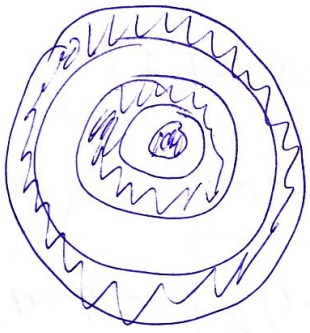


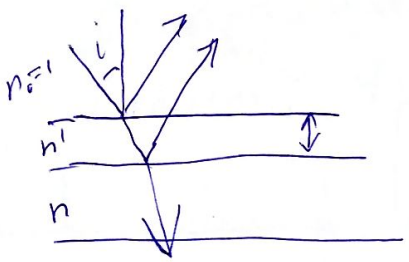
1 и 2 –

1' и 2'

отр. min $z_{mT}^{от} = \sqrt{mR\lambda}$, max: $z_{mc}^{от} = \sqrt{(2m+1)\frac{\lambda}{2}R}$

прох. min $z_{mT}^{пр} = \sqrt{(2m+1)\frac{\lambda}{2}R}$; max: $z_{mc}^{пр} = \sqrt{mR\lambda}$





h

$\Delta = (2m+1)\frac{\lambda}{2}$ <-> min. $i \approx 0$

100 нм

$\lambda = 0{,}4 \div 0{,}70$ мкм. $\lambda = 555$ нм.

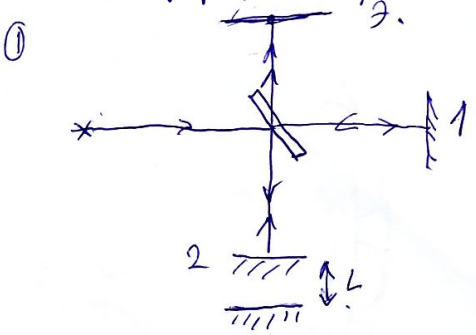
$n = \sqrt{n'}$

Интерферометр.

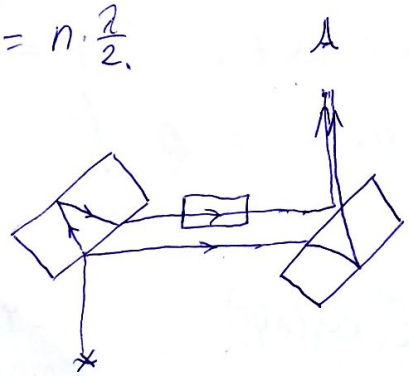
633 нм. $\frac{\lambda}{2} = 317$ нм.

$\lambda/2$

$L = n \cdot \frac{\lambda}{2}$.



Майкельсон.



Жамин.

Дифракция.

Гюйгенс, Френель.