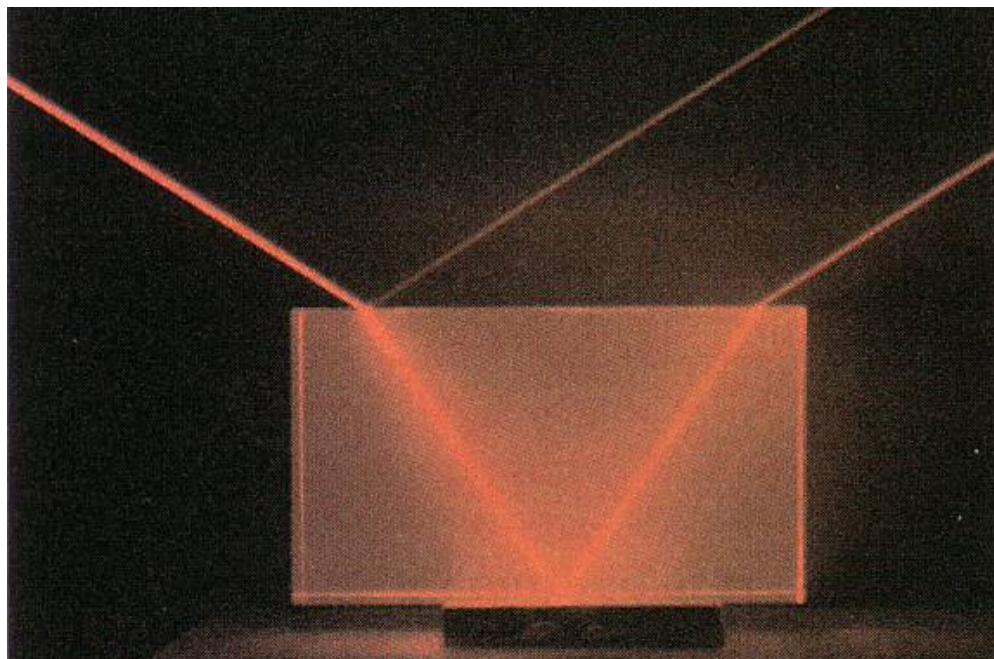
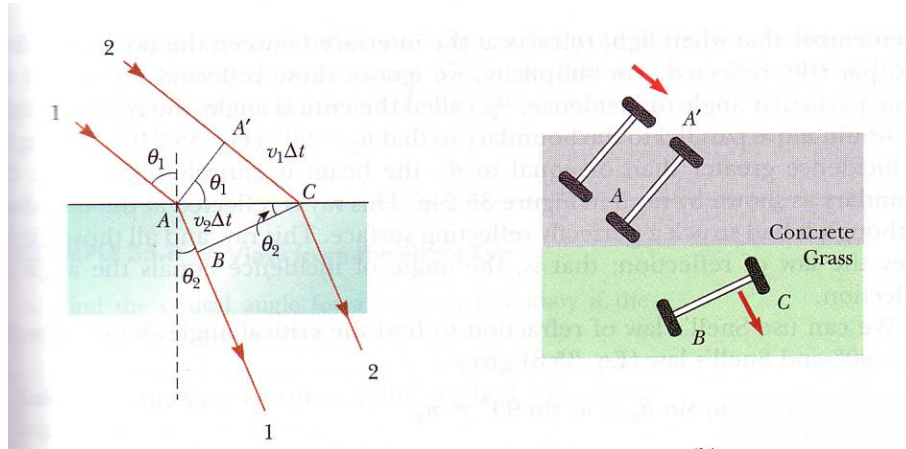


Lom svetlobe



Lomni zakon

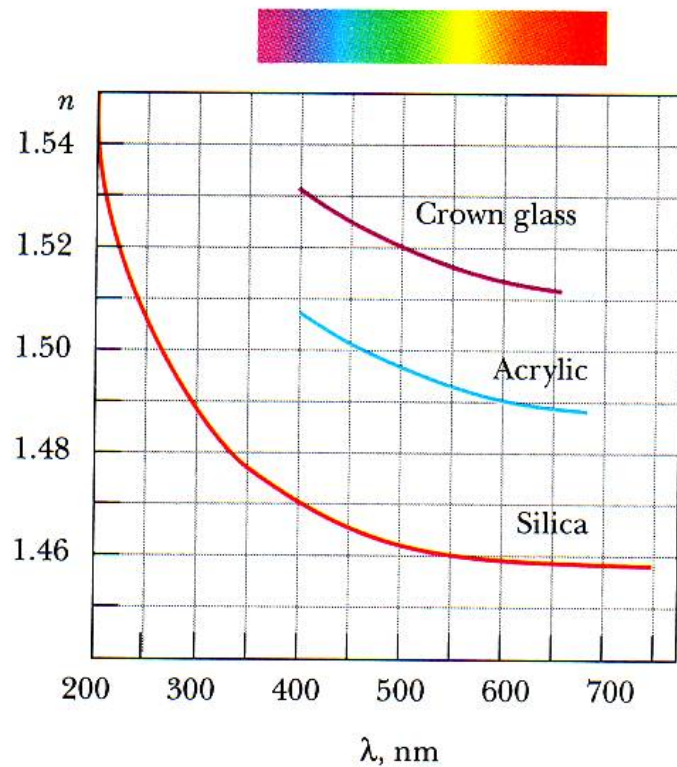


$$n_1 \sin \alpha = n_2 \sin \beta$$

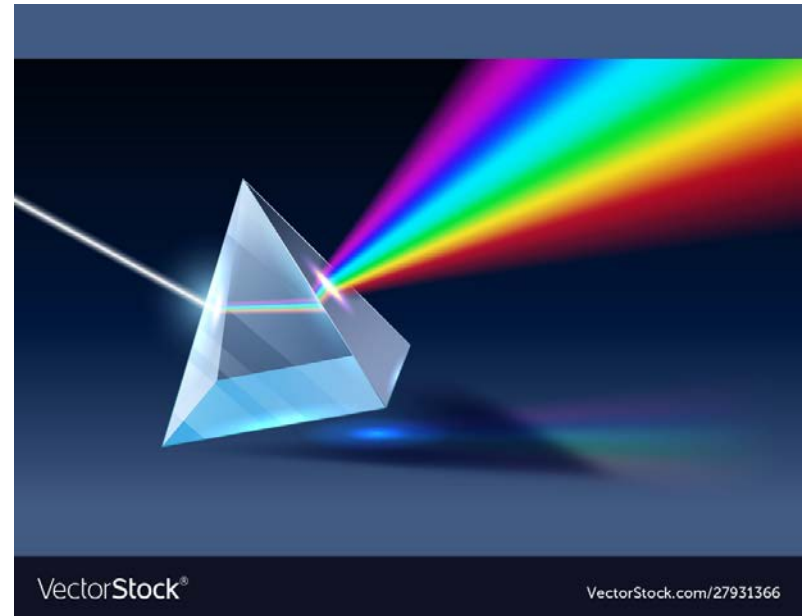
$$n_1 = c_0/c_1$$

Fermat!!

Lomni zakon – n odvisen od valovne dolžine



DISPERZIJA

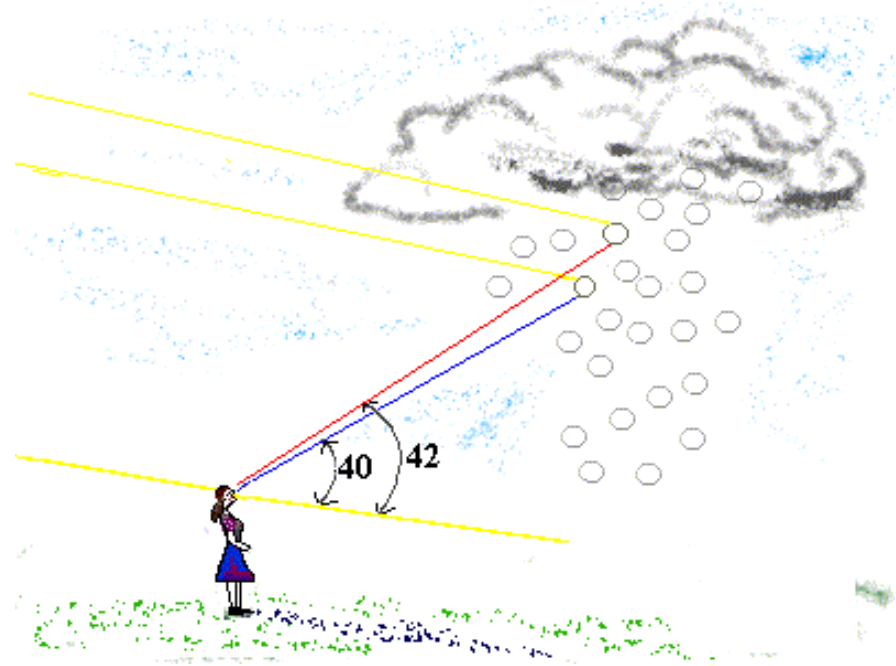
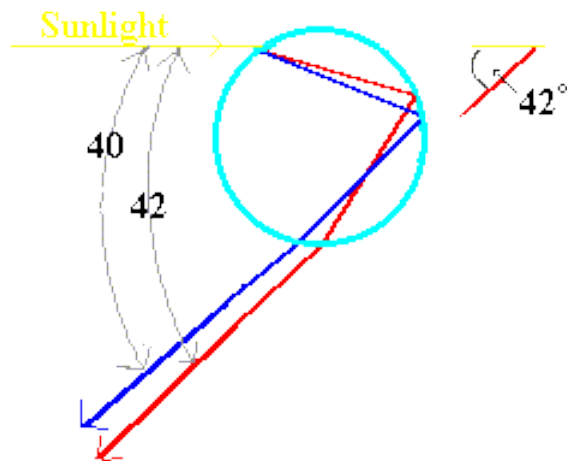


Lomni zakon – n odvisen od valovne dolžine

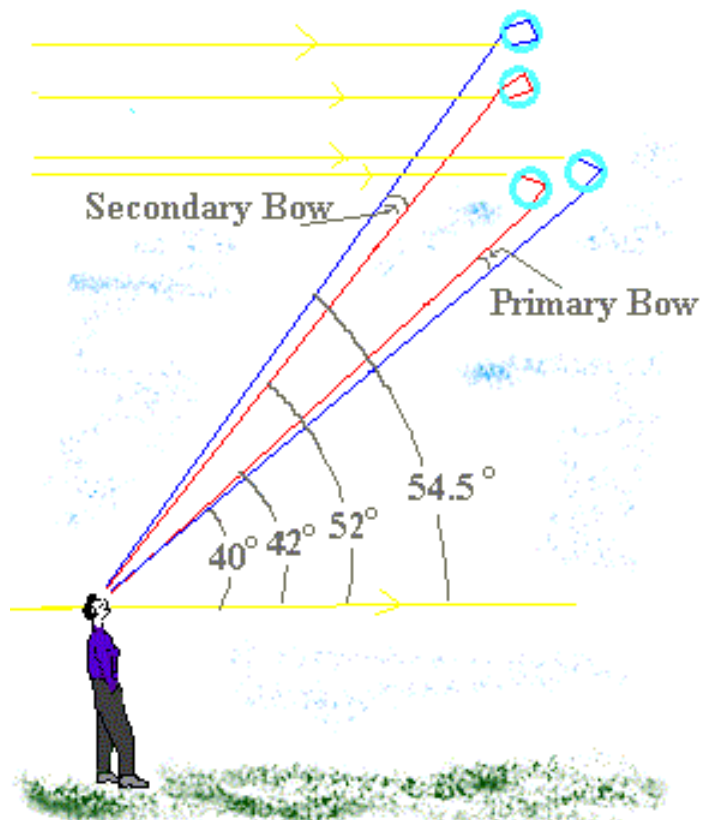
Posledice ...



Lomni zakon – n odvisen od valovne dolžine



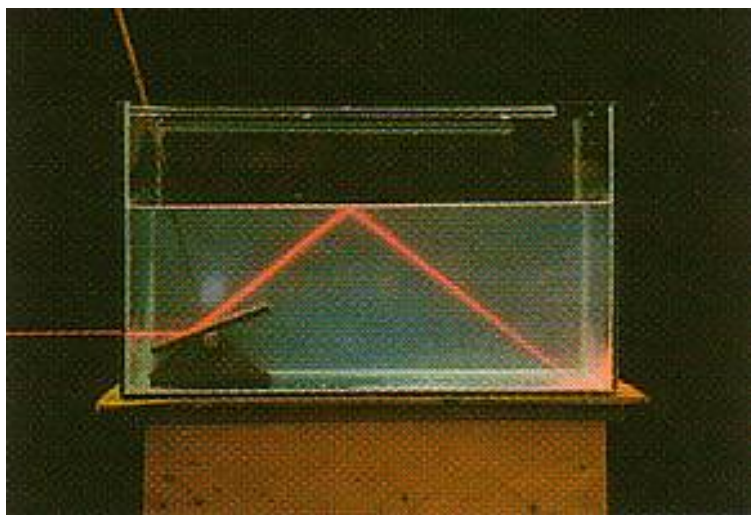
Lomni zakon – n odvisen od valovne dolžine



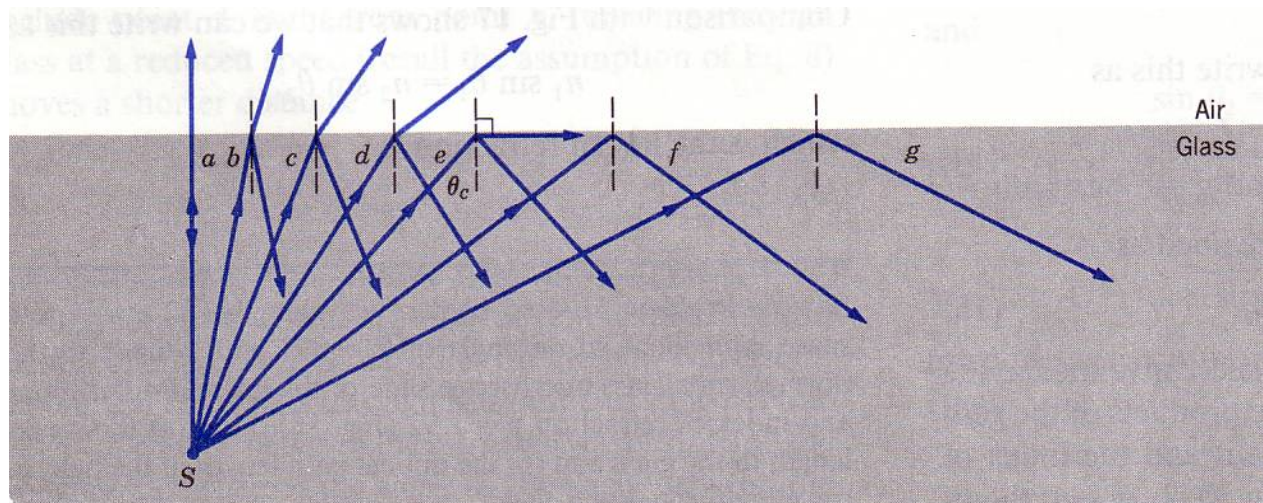
Lomni zakon – popolni odboj



Lomni zakon – popolni odboj

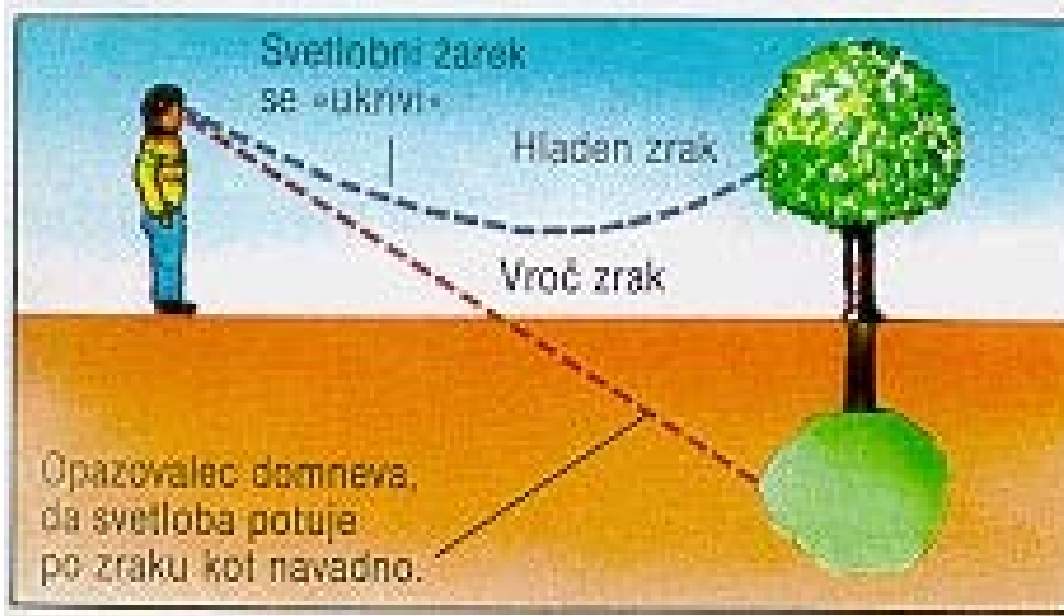


Lomni zakon – popolni odboj



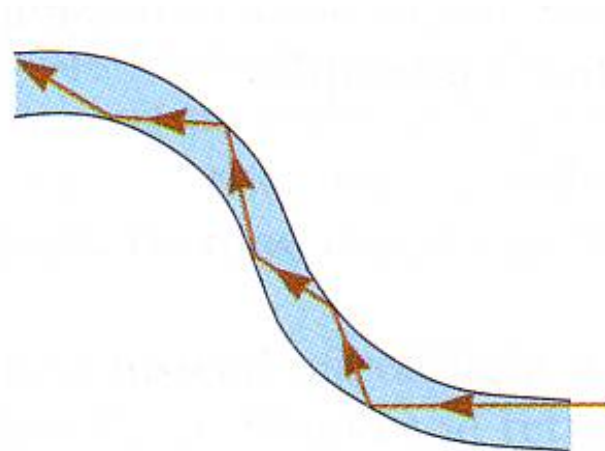
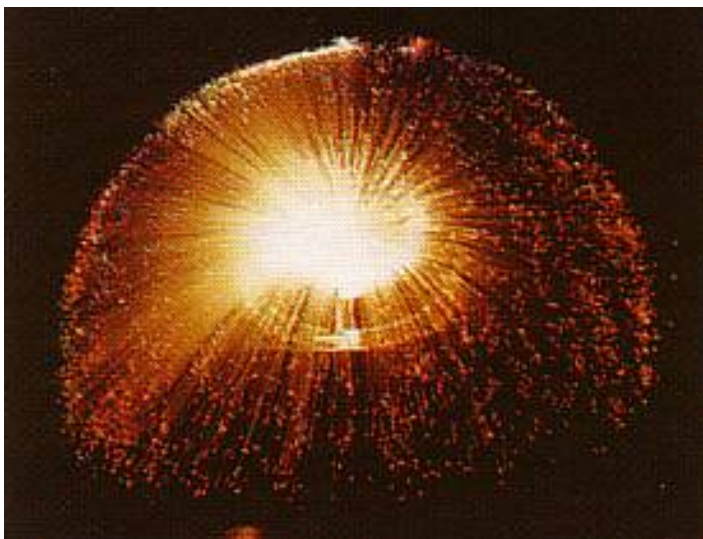
Mejni kot: $\sin \beta_0 = n_1/n_2$

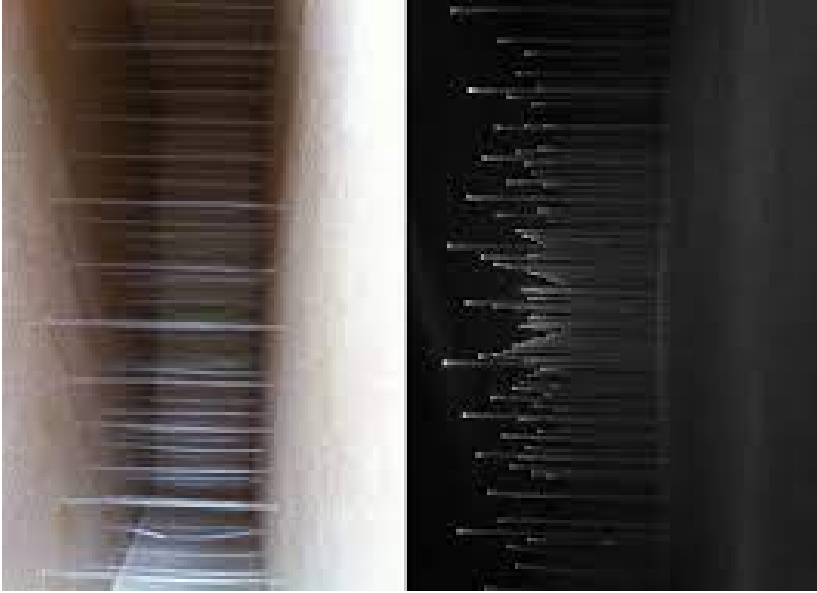
Lomni zakon – popolni odboj



Lomni zakon – popolni odboj

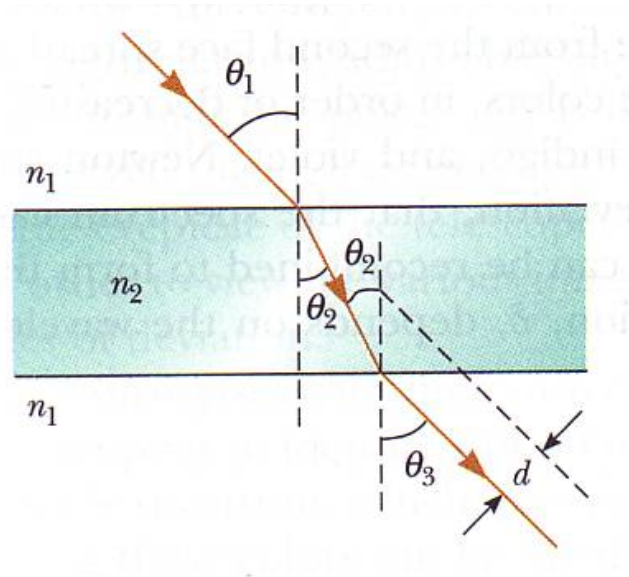
Optična vlakna





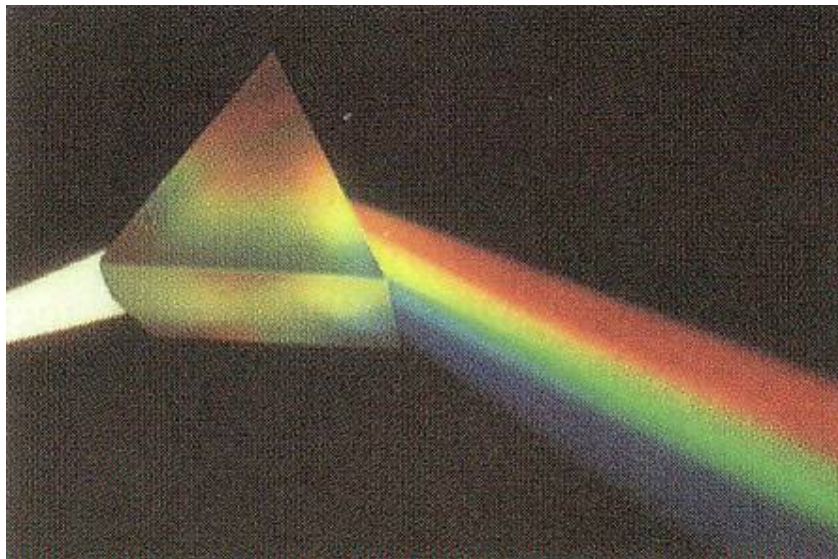
Preslikave na osnovi loma

Planvzporedna plošča



Preslikave na osnovi loma

Optična prizma



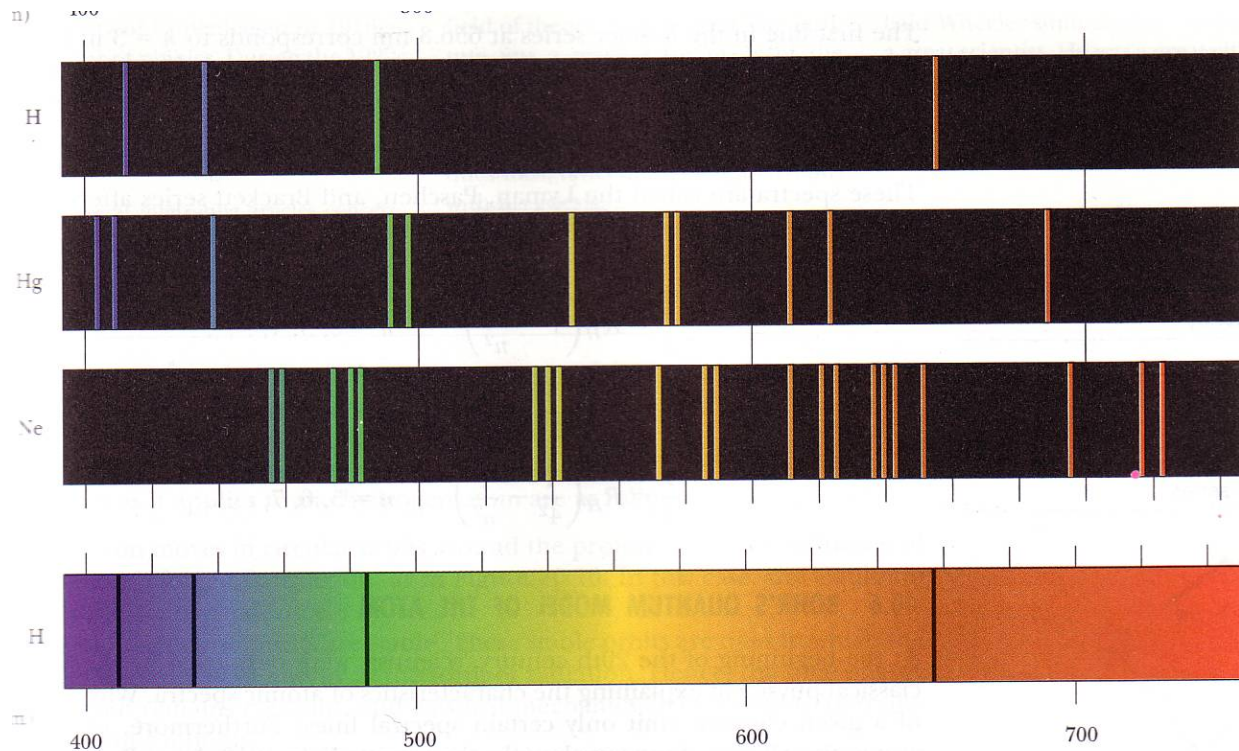
Preslikave na osnovi loma

Optična prizma, uporaba: Spektroskop



Preslikave na osnovi loma

Optična prizma, uporaba: Spektroskop



Preslikave na osnovi loma

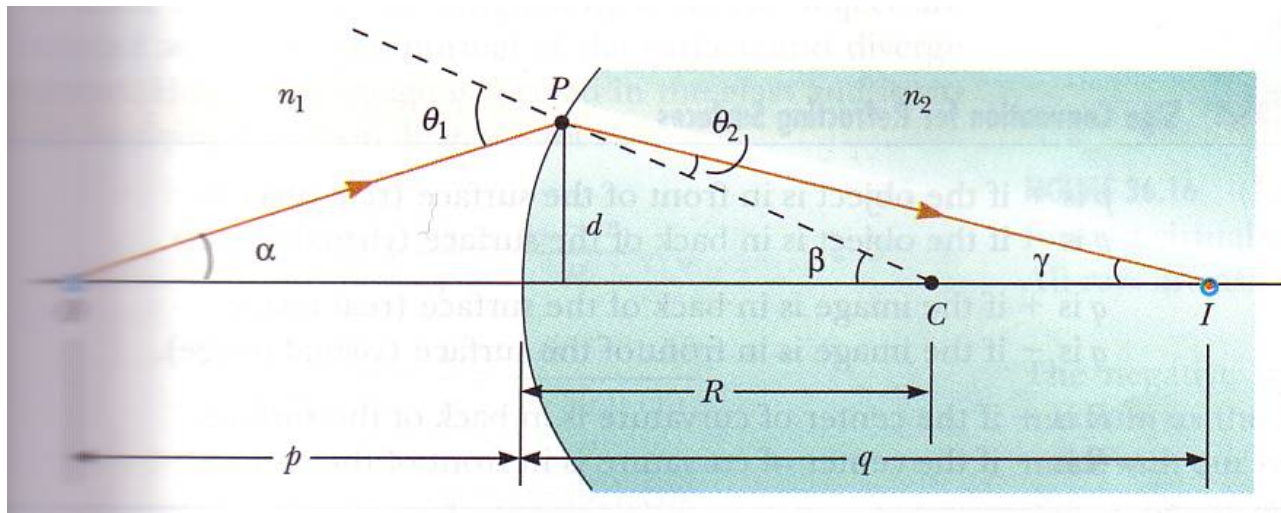
Optična prizma

Sprememba smeri žarka – primer:

ZFP-435 Žarek pada pod kotom 30° na optično prizmo, ki ima kot ob vrhu 60° . Za kolikšen kot se smer žarka spremeni po prehodu skozi prizmo? Lomni količnik prizme je 1,5.

Preslikave na osnovi loma

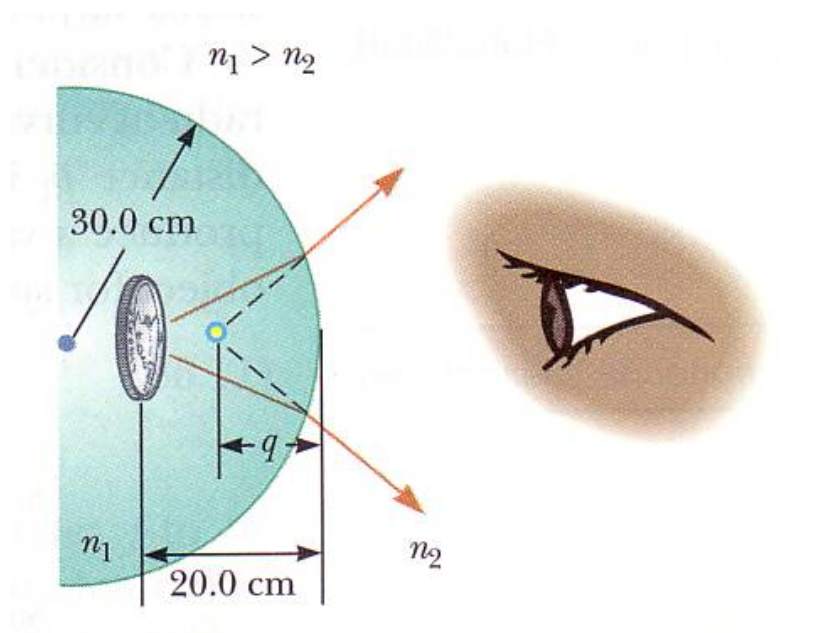
Preslikave na krogelni ploskvi



$$\frac{n_1}{a} + \frac{n_2}{b} = \frac{n_2 - n_1}{R}$$

Preslikave na osnovi loma

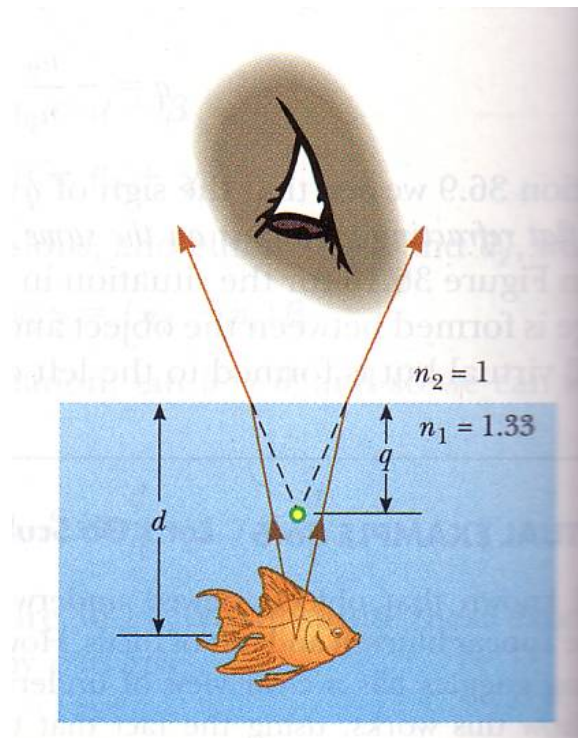
Preslikave na krogelni ploskvi



Preslikave na osnovi loma

Preslikave na krogelni ploskvi

$$R \rightarrow \infty$$

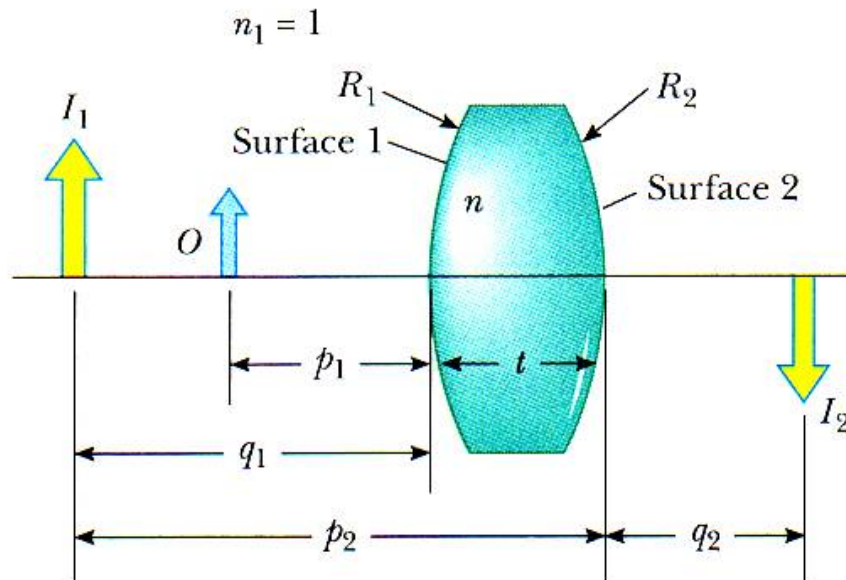


Navidezna globina:

$$h' = h/n$$

Preslikave na osnovi loma

Tanka leča



$$\frac{1}{a} + \frac{1}{b} = \left(\frac{n_{leca}}{n_o} - 1\right)\left(\frac{1}{R_1} - \frac{1}{R_1}\right)$$

Goriščna razdalja tanke leče:

$$\frac{1}{f} = \left(\frac{n_{leca}}{n_o} - 1\right)\left(\frac{1}{R_1} - \frac{1}{R_1}\right)$$