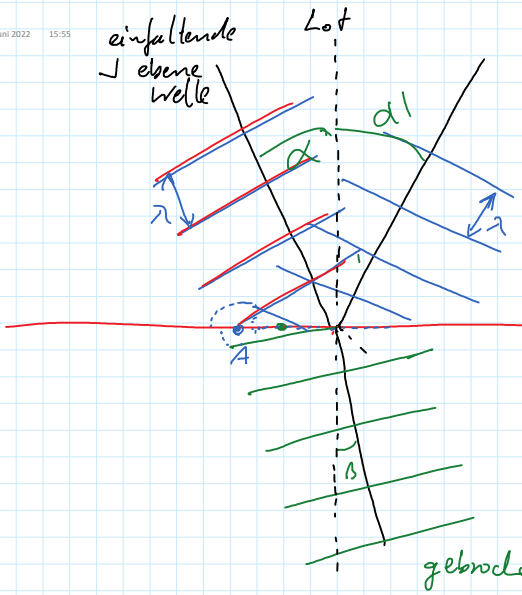


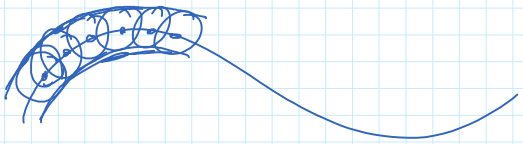
$\alpha = \alpha'$
Einfallswinkel = Ausfallswinkel

Brechungsindex
$n_2 > n_1 \Rightarrow$ zum Lot hin gebrochen
$\beta < \alpha$

Ausbreitungsgeschw. c

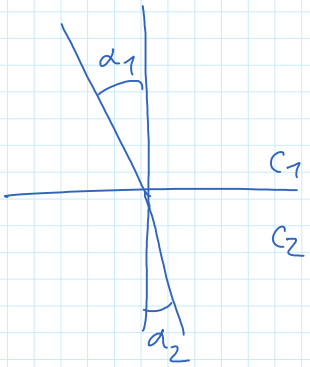
Medium 1 $c_1 = \frac{c}{n_1}$

2 $c_2 = \frac{c}{n_2}$



Gesetz von Snellius

(8.32) $\frac{\sin\alpha}{\sin\beta} = \frac{c_1}{c_2}$



$\frac{\sin\alpha_1}{\sin\alpha_2} = \frac{c_1}{c_2}$

$\boxed{n_1 \sin\alpha_1 = n_2 \sin\alpha_2}$ → wichtige Formel Optik

Prisma

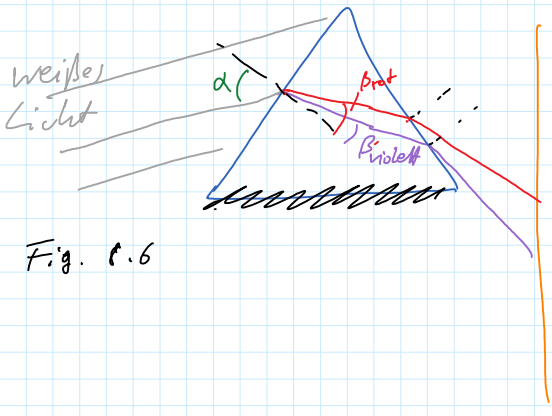


Fig. 8.6

$c_{Medium} = \frac{c_0}{n}$ ← Brechungsindex

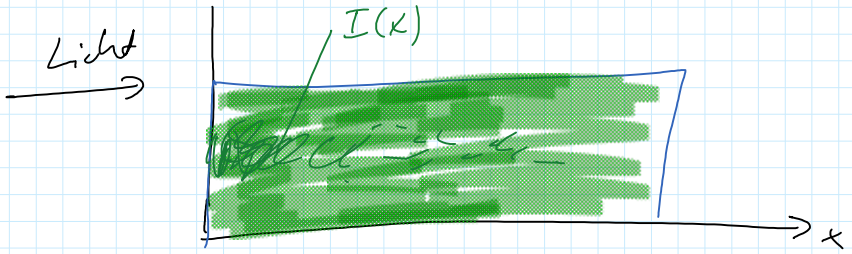
wird stärker abgelenkt weil $c_{violett} < c_{rot}$

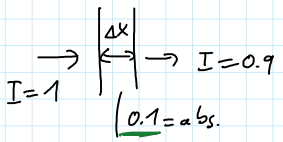
$n_{violett} > n_{rot}$

Absorptionskurve : $I(x) = I_0 \cdot e^{-\alpha x}$

$n = 1{,}0$ Vakuum
$= 1{,}0001$ Luft

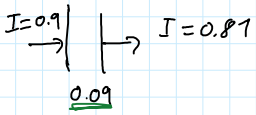
α · Absorptionskoeffizient = 1,5 Glas

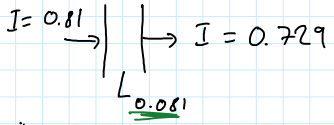


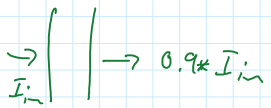


$\alpha = 10\% / \Delta x$

$dI = \alpha I dx$







(V) absorbierende Filme

$I_1 = 2,8$ ↓ $\Delta = 1,2$
$I_2 = 1,6$ ↓ $\Delta = 0.6$
$I_3 = 1,0$ ↓ $\Delta = 0,3$
$I_4 = 0,7$