

Frumeinda og ljósfræði Ljósfræðihluti

$$r_p = \frac{n_2 \cos \theta_1 - n_1 \cos \theta_2}{n_2 \cos \theta_1 + n_1 \cos \theta_2} = \frac{\tan(\theta_1 - \theta_2)}{\tan(\theta_1 + \theta_2)}$$

$$r_s = \frac{n_2 \cos \theta_2 - n_1 \cos \theta_1}{n_2 \cos \theta_2 + n_1 \cos \theta_1} = \frac{\sin(\theta_1 - \theta_2)}{\sin(\theta_1 + \theta_2)}$$

$$t_p = \frac{2n_1 \cos \theta_1}{n_2 \cos \theta_1 + n_1 \cos \theta_2} \quad t_s = \frac{2n_1 \cos \theta_1}{n_2 \cos \theta_2 + n_1 \cos \theta_1}$$

$$r_{ij} = -r_{ji} \quad n_j t_{ij} = n_i t_{ji} \quad R = |r|^2 \quad T_{12} = \frac{n_2 \cos \theta_2}{n_1 \cos \theta_1} |t_{12}|^2$$

$$n_1 \sin \theta_1 = n_2 \sin \theta_2 \quad \tan \theta_B = n_2/n_1 \quad I = \frac{1}{2} n c \epsilon_0 |E|^2$$

$$r_{ij} = \frac{n_i - n_j}{n_i + n_j} \quad r = \frac{r_{01} + r_{12} e^{2i\phi}}{1 + r_{01} r_{12} e^{2i\phi}} \quad r_{\lambda/4} = \frac{n_0 n_2 - n_1^2}{n_0 n_2 + n_1^2}$$

$$c = 3 \cdot 10^8 \text{ m/s} \quad n_{\text{loft}} = 1.00028$$

$$R_{\text{etalon}} = \frac{4R \sin^2 kd}{(1 - R)^2 + 4R \sin^2 kd} \quad \Delta\phi = \frac{1 - R}{\sqrt{R}} \quad (FWHM)$$

$$\Delta\nu = \frac{c}{2nL} \quad \epsilon = n^2 \epsilon_0 \quad \frac{1}{a} + \frac{1}{b} = \frac{1}{f}$$

$$g_i = 1 - \frac{d}{2f_i} \quad 0 < g_1 g_2 < 1 \quad -1 < (A + D)/2 < 1$$

$$\begin{bmatrix} 1 & d \\ 0 & 1 \end{bmatrix} \quad \begin{bmatrix} 1 & 0 \\ 0 & \frac{n_1}{n_2} \end{bmatrix} \quad \begin{bmatrix} 1 & 0 \\ \frac{-1}{f} & 1 \end{bmatrix} \quad \begin{bmatrix} 1 & 0 \\ \frac{n_2 - n_1}{n_2} \frac{1}{R} & \frac{n_1}{n_2} \end{bmatrix} \quad \begin{bmatrix} r \\ r' \end{bmatrix}$$