Polarization

Malus Law

$$I = I_0 \cos^2 \theta$$

Phase difference in birefringent material

$$\phi = \frac{2\pi}{\lambda} d|n_e - n_o|$$

Reflection at normal incidence

$$R \equiv \frac{I_{ref}}{I_{in}} = \left(\frac{n_2 - n_1}{n_2 + n_1}\right)^2$$

Brewster's Angle in Air

$$\theta_{air} = \arctan n$$

Wiens Displacement Law

$$\lambda_{max} T = 2,898 \cdot 10^3 \, \mu m \cdot K$$