ERRATA

3. Review of Theory

1. Note:

In equation (3.4.15), $T_s = \frac{I_{s2}^t}{I_{s1}^t} = \frac{\mathrm{Re}(\xi_2)}{\xi_1}\left|t_s\right|^2$

t_s denotes the ratio of the amplitudes of the **electric** fields determined using equation (3.4.10).

In equation (3.4.16), $T_p = \frac{\mathrm{Re}\left(\xi_2 / \hat{n}_2^2\right)}{\xi_1 / \hat{n}_1^2}\left|t_p\right|^2$

t_p denotes the ratio of the amplitudes of the **magnetic** fields determined using equation (3.4.12). Since typically it is important to determine the phase shift of the **electric** fields, equation (3.4.17) should be written as:

$\delta_s^t = Arg(t_s)$ and $\delta_p^t = Arg\left(\frac{n_1}{\hat{n}_f} t_p\right)$

where t_s and t_p are the quantities determined using equation (3.4.10) and (3.4.12) respectively. The ratio of the refractive indices of the first (n_1) and the last phase (n_f) is used to convert the t_p expressed as the ratio of the **magnetic** field amplitudes to the t_p expressed as the ratio of the **electric** field amplitudes.

2. Error:

Equation (3.4.33)

$$\begin{bmatrix} U_1 \\ V_1 \end{bmatrix} = \begin{bmatrix} H_{y1} \\ E_{x1} \end{bmatrix} = \begin{bmatrix} H_{y1}^t + H_{y1}^r \\ E_{x1}^t + E_{x1}^r \end{bmatrix} = \begin{bmatrix} 1+r_p \\ \frac{\xi_1}{n_1^2}(1-r_p) \end{bmatrix} H_{y1}^t = \begin{bmatrix} n_1(1+r_p) \\ \frac{\xi_1}{n_1^2}(1-r_p) \end{bmatrix} E_{x1}^t$$

should be written as

$$\begin{bmatrix} U_1 \\ V_1 \end{bmatrix} = \begin{bmatrix} H_{y1} \\ E_{x1} \end{bmatrix} = \begin{bmatrix} H_{y1}^t + H_{y1}^r \\ E_{x1}^t + E_{x1}^r \end{bmatrix} = \begin{bmatrix} 1+r_p \\ \frac{\xi_1}{n_1}(1-r_p) \end{bmatrix} H_{y1}^t = \begin{bmatrix} n_1(1+r_p) \\ \frac{\xi_1}{n_1}(1-r_p) \end{bmatrix} E_{x1}^t$$

3. Error:

Equation (3.4.36) $$\left\langle E_{xk}^{p\,2} \right\rangle = \frac{1}{2}\left|U_k(z)\right|^2$$

should be written as $$\left\langle E_{xk}^{p\,2} \right\rangle = \frac{1}{2}\left|V_k(z)\right|^2$$

4. Error:

Equation (3.5.2) $$I_D(\varphi) = \frac{I_s + I_p}{2} + \frac{I_s - I_p}{2}\cos\varphi$$

should be written as $$I_D(\varphi) = \frac{I_s + I_p}{2} + \frac{I_p - I_s}{2}\cos\varphi$$

5. Error:

Equation (3.5.7) $$I_D(t) = \frac{I_s + I_p}{2} + \frac{I_s - I_p}{2}\cos\left(\frac{\lambda_0}{\lambda}\pi\,\cos(\omega_m t)\right)$$

should be written as $$I_D(t) = \frac{I_s + I_p}{2} + \frac{I_p - I_s}{2}\cos\left(\frac{\lambda_0}{\lambda}\pi\cos(\omega_m t)\right)$$

6. Error:

Equation (3.5.10) $$I_D(t) = I_S + \frac{I_s - I_p}{2}\left\{1 + \cos\left(\frac{\lambda_0}{\lambda}\pi\right)\right\}$$

should be written as

$$I_D(t) = I_S + \frac{I_p - I_s}{2}\left\{1 + \cos\left(\frac{\lambda_0}{\lambda}\pi\right)\right\}$$

7. Error:

Equation (3.5.13) $$\left(\frac{\Delta I}{\langle I\rangle}\right)_{Theor.} = \frac{I_s - I_p}{(I_s + I_p)/2}$$

should be written as $$\left(\frac{\Delta I}{\langle I\rangle}\right)_{Theor.} = \frac{I_p - I_s}{(I_s + I_p)/2}$$

8. Error:

Equation (5.3.8) $$n_i(\bar{\nu}_0) = n_\infty + \frac{2}{\pi} P\int_{\bar{\nu}_1}^{\bar{\nu}_2} \frac{\bar{\nu} k_i(\bar{\nu})}{(\bar{\nu}^2 - \bar{\nu}_0)} d\bar{\nu}$$

should be written as $$n_i(\bar{\nu}_0) = n_\infty + \frac{2}{\pi} P\int_{\bar{\nu}_1}^{\bar{\nu}_2} \frac{\bar{\nu} k_i(\bar{\nu})}{(\bar{\nu}^2 - \bar{\nu}_0^2)} d\bar{\nu}$$