

Erratum: Scattering-matrix analysis of periodically patterned multilayers with asymmetric unit cells and birefringent media [Phys. Rev. B 77, 035324 (2008)]

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Some of the equations in Sec. III, where a generalization of the scattering matrix method for birefringent media is presented, should be modified. The corrected Eq. (17) reads

$$\left\{ \begin{pmatrix} \hat{\eta}_Y & 0 \\ 0 & \hat{\eta}_X \end{pmatrix} \left[q^2 + \begin{pmatrix} \hat{k}_x \hat{k}_x & \hat{k}_x \hat{k}_y \\ \hat{k}_y \hat{k}_x & \hat{k}_y \hat{k}_y \end{pmatrix} \right] + \begin{pmatrix} \hat{k}_y \hat{\eta}_Z \hat{k}_y & -\hat{k}_y \hat{\eta}_Z \hat{k}_x \\ -\hat{k}_x \hat{\eta}_Z \hat{k}_y & \hat{k}_x \hat{\eta}_Z \hat{k}_x \end{pmatrix} \right\} \begin{pmatrix} \phi_x \\ \phi_y \end{pmatrix} = \omega^2 \begin{pmatrix} \phi_x \\ \phi_y \end{pmatrix}.$$

In Eqs. (19) and (30)

$$\mathcal{H}_{\parallel} = \begin{pmatrix} \hat{\eta}_Y & 0 \\ 0 & \hat{\eta}_X \end{pmatrix},$$

in Eq. (21)

$$\mathcal{E}_{\parallel} = \begin{pmatrix} \hat{\epsilon}_Y & 0 \\ 0 & \hat{\epsilon}_X \end{pmatrix},$$

and in Eq. (23)

$$\mathcal{E}_{xy} = \begin{pmatrix} \hat{\epsilon}_{YY} & -\hat{\epsilon}_{YX} \\ -\hat{\epsilon}_{XY} & \hat{\epsilon}_{XX} \end{pmatrix}.$$

All the other results presented in the paper, including eigenvectors' orthogonality relations and numerical calculations, are unaffected by the above corrections.