which is a special case of our central theorem Eq. (8). On the other hand, we can define anisotropy factor γ as the ratio between the larger and smaller principal index. It is related to the permittivity $\boldsymbol{\varepsilon}$ tensor by

$$\gamma+\frac{1}{\gamma}=\frac{\mathrm{Tr}\left(\boldsymbol{\varepsilon}\right)}{\sqrt{\det\boldsymbol{\varepsilon}}} \tag{22}$$

Then, we fix the anisotropy factors γ_A and γ_B while we vary the product $\varepsilon_\alpha^A\varepsilon_\beta^A$ or $\varepsilon_\alpha^B\varepsilon_\beta^B$, we can prove by extremizing Eq. (22) that γ^{eff} is at local maxima or local minima at the condition specified by Eq. (21).

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