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Measuring the dynamics of circular dichroism in a pump-probe experiment with a Babinet-Soleil compensator: erratum

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The calculation in Ref. 1 utilized the Jones matrix formalism developed in Ref. 2. Unfortunately, there has been a confusion in the definition of the right- and left-handed polarization of light, which results in a sign error in the formulas of Ref. 1. With the usual definition of the circular dichroism given in Eq. (3), η should be replaced by $-\eta$ in all the subsequent equations. The same is true for $\Delta\eta$. In particular, Eq. (8) should read

$$I^{out} = e^{-\alpha L} \left[\left(\epsilon - \frac{\delta}{2} \right)^2 + \left(X - \frac{\eta}{4} \right)^2 \right], \quad (1)$$

and Eq. (18) should read

$$LI = -\Delta\alpha LZ^2 - \frac{1}{2}\Delta\eta Z + K_8. \quad (2)$$

The signs of the experimental values of η and $\Delta\eta$ measured in the article are nevertheless correct.

A typo also occurred in Eq. (15), which should read

$$Z = Y - \frac{\Delta\eta e^{-\Delta\alpha L}}{4(e^{-\Delta\alpha L} + 1)}. \quad (3)$$

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2. X. Xie and J. D. Simon, "Picosecond circular dichroism spectroscopy: a Jones matrix analysis," *J. Opt. Soc. Am. B* **7**, 1673-1684 (1990).