

phase tilt substituted by Ar_0 leads to a wave number which describes the tilted plane wave as it is shown in Eq. (A.9).

$$k = R \left(\frac{l}{q'(z)} \right) \frac{2pAr_0}{l}. \quad (\text{A.9})$$

In Subsection 3.2, the relative angles were calculated using Eq. (A.9), applying the measured distances of the red fiber end from the other two (r_{ob} , r_{og}) and the parameters of the optical system besides the corresponding wavelengths.

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