

Polarization tomography of a narrow-band biphoton field

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Abstract

Narrow-band orthogonally polarized collinear frequency-degenerate biphotons are generated in the process of the spontaneous parametric down-conversion of light in a nonlinear BBO crystal placed in an optical resonator. Quantum polarization tomography and polarization transformation of the generated biphoton states are performed. The results from our experiment agree well with theoretical calculations. © Allerton Press, Inc., 2011.

<http://dx.doi.org/10.3103/S1062873811120240>
