Spontaneous and electric field induced quadratic optical nonlinearity in ferroelectric crystals AgNa(NO2)2

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Résumé en anglais	We demonstrate the second harmonic generation (SHG) in ferroelectric AgNa(NO2)2 crystals resulting from the spontaneous and electric field induced polarizations. Relatively high effective nonlinear optic (NLO) susceptibility is combined in this crystals with the existing several phase matching geometries of NLO interaction. Anomalously large response of SHG with respect to an applied electric field has been found in the vicinity of the paraelectric-to-ferroelectric phase transition. The behavior of NLO properties in the ferroelectric phase and especially in the region of the Curie point is discussed within the phenomenological theory.
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