



NLO properties of functionalized DNA thin films

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Résumé en anglais	In this paper we investigate the third-order nonlinear optical properties of spin deposited thin films of DNA-based complexes using the optical third harmonic generation (THG) technique at a fundamental wavelength of 1064 nm. We found that the third-order susceptibility, $\chi^{(3)}(-3\omega; \omega, \omega, \omega)$, of DNA-based films was about one order of magnitude larger than that of our reference, a pure silica slab. In thin films doped with 5% of the chromophore disperse red 1 (DR1), a two order of magnitude larger value of $\chi^{(3)}(-3\omega; \omega, \omega, \omega)$ was observed.
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