

Quantum Electronics 2007 vol.37 N12, pages 1119-1123

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## Anti-Stokes femtosecond photon echo in a polymer film

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### Abstract

An anti-Stokes model is proposed which explains the room-temperature blue shift of the echo-signal spectrum compared to the spectrum of exciting femtosecond pulses in a polymer film doped with dye molecules. The possibility of realising the anti-Stokes regime of coherent laser cooling of such films is analysed. © 2007 Kvantovaya Elektronika and Turpion Ltd.

<http://dx.doi.org/10.1070/QE2007v037n12ABEH013667>

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### Keywords

Femtosecond pulses, Optical cooling, Photon echo