Metal-induced efficient enhancement of nonlinear optical response in conjugated azo-based iminopyridine complexes

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Résumé en anglais	The nonlinear optical (NLO) properties of conjugated azo-based iminopyridine complexes with zinc and silver metal cations were studied. The processes of second and third harmonic generations in guest-host polymeric films were investigated and NLO parameters were extracted. Obtained second and third order NLO susceptibilities of zinc containing complex exceeds the latter of silver containing one. Using the Z-scan technique the NLO refractive index, NLO absorption coefficient, second order hyperpolarizability and NLO absorption cross section for the azo-based iminopyridine zinc (II) and silver (I) complexes were obtained and analyzed. Estimated nonlinearity/loss figure of merit of these complexes show promise for optical device applications.
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