



Higher order coefficient measurements in nonlinear absorption process

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Auteur	Cherukulappurath, S. [1], Godet, Jean-Luc [2], Boudebs, Georges [3]
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Résumé en anglais	<p>Intensity-dependent two-photon absorption in chalcogenide glasses has been experimentally observed. Analytical solution of the basic differential equation giving the intensity at the output of the sample is difficult to obtain in this case. A quasi-analytical solution is provided. Second and third-order nonlinear coefficients are deduced from experimental data using Runge-Kutta numerical integration on data obtained via Z-scan technique. Results of the measured higher-order nonlinear coefficients are given. Comparison of these results with those obtained by various approximate analytical solutions of the differential equation is made.</p>
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- [1] [http://okina.univ-angers.fr/publications?f\[author\]=8659](http://okina.univ-angers.fr/publications?f[author]=8659)
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- [4] [http://okina.univ-angers.fr/publications?f\[keyword\]=20099](http://okina.univ-angers.fr/publications?f[keyword]=20099)
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