



Investigation study on the nonlinear optical properties of natural dyes: Chlorophyll a and b

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| Résumé en anglais | <p>We report the results on third and second order nonlinear optical susceptibilities of two natural pigments extracted from spinach. The last were identified by UV-vis spectral analysis. Thin films were prepared by spin coating technique and deposited on glass substrate. The measurements of third order nonlinear optical susceptibilities were performed in solutions using degenerate four wave mixing technique (DFWM) at measurement wavelength of 532 nm. The third and second order nonlinear optical susceptibilities of the studied pigments were also evaluated on thin films using the third and second harmonics generation (THG and SHG) Maker fringes technique respectively at 1064 nm. All these results were in good agreement with the literature data.</p> |
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