

## Chemical structure versus second-order nonlinear optical response of the push-pull type pyrazoline-based chromophores

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Auteur	Szukalski, Adam [1], Sahraoui, Bouchta [2], Kulyk, Bohdan [3], Lazar, C. A [4], Manea, A. M [5], Mysliwiec, Jaroslaw [6]
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R�sum� en anglais	<p>In this study, we present experimental results of the second-order nonlinear optical response of a series of pyrazoline derivatives. The main aim of this study was to determine the correlation between the chemical structure of the pyrazoline derivatives family and their nonlinear optical properties. The investigated group of materials consists of pairs or triplets of derivatives and structural isomers, which are characterized by the same electron-donor unit, whereas differ in their electron-accepting part. Moreover, some of them possess different moieties, which can change the electron cloud distribution in the molecule. Their efficient nonlinear optical responses and possibility of tuning in this group of materials promote them for various optoelectronic applications where optical nonlinearity plays a crucial role. Since material engineering enables the control of molecular structure, the nonlinear optical features of the created systems can be consequently optimized.</p>
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## Liens

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