

Novel styrylquinoline containing polymers for nonlinear optical application

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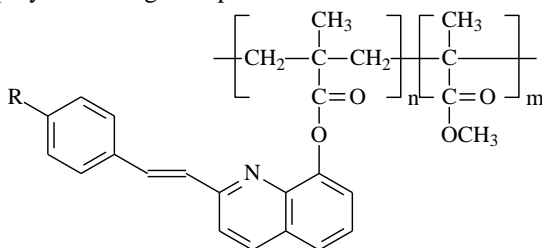
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Nonlinear optical materials play a major role in the technology of photonics. To further advance the performance of optical devices, researchers have sought for materials with enhanced nonlinear optical properties, including inorganic semiconductors, polymeric systems and other organic molecules. The latter, specifically, are of great interest because they present high nonlinear optical properties combined with versatility of available routes of synthesis, used to alter and optimize molecular structure to maximize nonlinear responses and other properties [1,2].

In this work we investigated the nonlinear optical properties of spin deposited high quality and transparent thin films of styrylquinoline containing methacrylic copolymers using the optical second and third harmonic Maker fringes techniques.



1. Ouazzani H. El, Dabos-Seignon S. et al. Novel styrylquinolinium dye thin films deposited by pulsed laser deposition for nonlinear optical applications // J. Phys. Chem.-2012.-**116**.-P. 7144-7152
2. Mahdi Z.F. Improvement of nonlinear optical properties for mixture laser dyes doped PMMA // Iraqi J. Laser.-2010.-**9**(2).-P. 9-14.