



## MAPLE deposited thin monomer films of maleimidic derivatives for photonics

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Auteur	Stanculescu, Anca [1], Albu, Adriana [2], Socol, G. [3], Stanculescu, Florin [4], Socol, Marcela [5], Preda, N. [6], Rasoga, Oana [7], Girtan, Mihaela [8], Iulian, I. [9]
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Résumé en anglais	<p>This paper presents a study of some thin monomer films deposited by MAPLE. These monomers have been synthesised from maleic anhydride and aniline derivatives and are characterized by a molecular structure adequate for the generation of optical non-linear phenomena. UV-VIS, FTIR, Raman and Photoluminescence spectroscopy have been used to investigate the influence of the experimental conditions on the properties of the films. X-Ray Diffraction has evidenced a certain degree of disorder in the thin films, which is correlated with the randomly orientated molecules and AFM images have revealed different roughness for different monomer layers and different substrates. Second harmonic measurements have shown a strong signal emitted by the thin film prepared from the monomer with one [-NH-NH-] donor and two [-NO<sub>2</sub>] acceptor groups. This thin film is characterized by good transparency and low photoluminescence emission at excitation with the wavelength of the second harmonic (<math>\lambda \sim 400</math> nm).</p>
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Lien vers le document	<a href="http://www.researchgate.net/publication/230854958_MAPLE_deposited_thin_m...">http://www.researchgate.net/publication/230854958_MAPLE_deposited_thin_m...</a> [11]

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