



# NLO investigations of self-assembled organometallic thin films

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Auteur	Zawadzka, Anna [1], Karakas, Asli [2], Płociennik, P. [3], Łukasiak, Z. [4], Sahraoui, Bouchta [5]
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Résumé en anglais	<p>This work contains investigation results of the structural and nonlinear optical properties of self-assembled organometallic thin films. The films were successfully grown by Physical Vapor Deposition technique in high vacuum on transparent (quartz, glass) and semiconductor (n-type silicon) substrates kept at room temperature during the deposition process. Selected films were undergone an annealing process in ambient atmosphere for 24 hours in order to observe the process of self-organization. Nonlinear optical properties were examined using Second and Third Harmonic Generation's techniques. The experimental spectra allowed determining optical constants of the films. Structural properties and self-assembling process were investigated by AFM and XRD measurements. The films exhibit very interesting structural properties strongly dependent on the temperature of the annealing process. NLO properties of self-assembled organometallic thin films were strongly related with the morphology and the annealing process can significantly change the structure of the organometallic films.</p>
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## Liens

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