



Photosensitivity of pulsed laser deposited Ge-Sb-Se thin films

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Résumé en anglais	<p>Pulsed laser deposition was used to prepare amorphous thin films from $(\text{GeSe}_2)_{100-x}(\text{Sb}_2\text{Se}_3)_x$ system, where x is varying from 0 to 60. Fabricated films present a good morphology with no cracks nor breaks and relatively low roughness. To study their photosensitivity under irradiation with energy close to band gap, a comparison of their optical properties (refractive index and band gap energy) before and after irradiation is performed in both, as-deposited and annealed states. In linear regime, annealed films seem to be photostable when $x \geq 30$. In nonlinear regime, highest photoinduced threshold intensity values were found for films with $x = 10, 16.7$ and $x = 30, 40$. Thus, the highest photostability in both, linear and nonlinear regimes of irradiation, was observed for layers with $x = 30$ and 40. Finally, the structure of the films is discussed based on Raman scattering spectroscopy results.</p>
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