



Optical and photosensitive properties of lamellar nanocomposites obtained by Cd intercalation of GaTe

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Résumé en anglais	By Cd-vapor heat treatment, at temperatures from 623 to 833 K, of GaTe single crystals, GaTe-CdTe composite is formed. CdTe amount is increasing together with heat treatment temperature. Absorption, photoconductivity and photoluminescence spectra of the composite contain particularities characteristic to GaTe and CdTe components. The absorption and photoconductivity edges display two thresholds at 1.66 eV (GaTe) and 1.50 eV (CdTe). Short lifetime recombination states form at the surface of composite samples, leading to narrowing of the photoconductivity bands in the high energy region, up to 1.8 eV. Widening of the absorption and photoconductivity bands in the low energy region is determined by absorption processes taking place in both GaTe and CdTe components.
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