

## MD.8.

**Title**

**Excitonic polaritons in ZnAs<sub>2</sub> nanocrystals**

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**Description EN**

The proposed method of high resolution spectroscopy gives the possibility to study the spectral dependencies of ordinary and extraordinary dispersion of refractive index for ZnAs<sub>2</sub> crystals in the region of excitonic transitions. The method permits to estimate the magnitudes of electrons  $m_c^* = 0.10m_0$  and holes  $m_{v1}^* = 0.89m_0$  effective masses. It was observed the change of holes mass  $m_{v1}^*$  from  $1.03m_0$  down to  $0.55m_0$  with temperature change from 10K up to 230K. The fundamental states and parameters of C and D excitons, which are formed by the V<sub>3</sub> - C<sub>1</sub> and V<sub>4</sub> - C<sub>1</sub> zones, had been determined.

**Class no.**

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