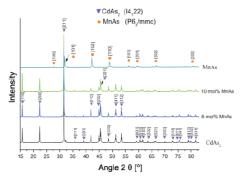
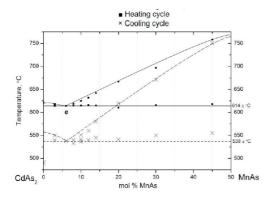
## Synthesis and magnetic properties of CdAs2 – MnAs system

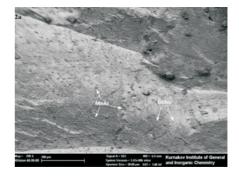
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**Figure 1.** X-ray diffraction patterns of samples.



**Figure 3.** DTA data for CdAs<sub>2</sub> – MnAs system alloys.



**Figure 2.** SEM image of the alloy for the 94 mol.% CdAs<sub>2</sub> – 6 mol.% MnAs, SE<sub>2</sub> image.

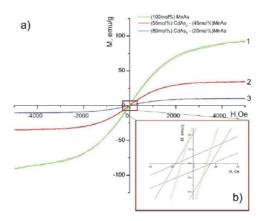


Figure 4. a) Magnetization for the: 1.  $CdAs_2$ —MnAs alloys: 1) 100 mol% MnAs; 2) 45 mol% MnAs; 3) 20 mol% MnAs; b) Magnetic hysteresis loops for 1, 2, 3 alloys.

The results of XRD, DTA, and microstructural cadmium and manganese investigations confirmed the eutectic nature of the interaction in the cadmium and manganese arsenides alloys. Crystallization of cadmium arsenides with manganese arsenide melts was going by significant supercooling, due to the cadmium diarsenide tendency to the glass transition. The DSC and magnetic measurements results showed dispersion influence on caloric and magnetic properties.