

ZnAs₂—MnAs system phase diagram creation.

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The ZnAs₂ — MnAs system was investigated by X – ray power diffraction, thermo differential and microstructure analyses. The system is an eutectic type. The eutectic coordinates are 73 mol % ZnAs₂, 27 mol % MnAs and T_{melt} = 716 °C. The MnAs solubility in ZnAs₂ was lower than ~1 mol %. Zinc diarsenide with manganese arsenide compound was ferromagnetic, with T_c ~ 318 K. Compound magnetization was increased with MnAs content rise.