

Structure

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SrAu_{4.76}In_{1.24} with YbMo₂Al₄-Type Structure. — SrAu_{4.76}In_{1.24} is synthesized by high frequency melting of the elements followed by annealing at 1400 K for 5 min and at 900 K for 4 h. The compound crystallizes in the space group I4/mmm with Z = 2 (YbMo₂Al₄-type structure; single crystal XRD). The structure contains Au₄ squares and In chains. The squares and chains are connected to form a three-dimensional network. Sr atoms are located in a large cage built up by twelve Au and eight In atoms. The compound is further characterized by DFT electronic band structure calculations. — (MUTS, I.; MATAR, S. F.; RODEWALD, U. C.; ZAREMBA, V. I.; POETTGEN*, R.; Z. Naturforsch., B: Chem. Sci. 66 (2011) 10, 993-999; Inst. Anorg. Anal. Chem., Westfael. Wilhelms-Univ., D-48149 Muenster, Germany; Eng.) — W. Pewestorf