substance: $FeSb_{2-x}Te_x$
property: physical properties

$FeSb_{2-x}Te_x$

Sintered and annealed (873 K) samples (x = 0...2) show monoclinic arsenopyrite type for x ≈ 0.8...1.2 [80Y]; for resistivity in the range 77...300 K, see Fig. 1.

$FeSb_{1.2}Te_{0.8}$ (arsenopyrite structure)

magnetic susceptibility
(in 10^{-6} cm^3 mol^{-1})

χ_m	– 52.4	T = 300 K	the original data were 100 times larger (misprints?); χ in CGS-emu	80Y
	– 54.5			79K

$FeSb_{0.8}Te_{1.2}$ (arsenopyrite structure)

magnetic susceptibility
(in 10^{-6} cm^3 mol^{-1})

χ_m	– 12.5	T = 300 K	the original data were 100 times larger (misprints?); χ in CGS-emu	80Y
	– 12.1	T = 77 K		

For structure, chemical bond and comparative tables on crystallographic and physical properties of transition metal-V-VI compounds, see documents , , , .

References:

79K Kjekshus, A., Rakke, T.: Acta Chem. Scand. A33 (1979) 609.
80Y Yamaguchi, G., Shimada, M., Koizumi, M., Kanamaru, F.: J. Solid State Chem. 34 (1980) 241.

Fig. 1.

$FeSb_{2-x}Te_x$. Electrical resistivity vs. reciprocal temperature [80Y]. Compounds with x = 0.8, 1 and 1.2 crystallize in the monoclinic arsenopyrite structure.