

As – Te (Arsenic – Tellurium)

Crystal structure

Three intermediate phases have been found. The results of the investigations are given in Table 1.

AsTe was found by annealing of amorphous alloys at 418 K [74 Qui].

The hexagonal modification of As₂Te₃ is metastable [86 Shu].

Table 1. As–Te. Crystallographic data for intermediate phases [Pearson].

Phase	Structure	Prototype	Lattice parameters [nm]			Reference
			<i>a</i>	<i>b</i>	<i>c</i>	
AsTe	cub	NaCl	0.5778			[74 Qui]
As ₂ Te ₃	mon	As ₂ Te ₃	1.43573	0.40199	0.9899	[85 Ste]
				$\beta = 95.107^\circ$		
As ₂ Te ₃	hex	Bi ₂ Te ₃	0.4058		2.959	[88 Shu]
As ₂ Te ₃	hex	In ₂ Se ₃	0.406		2.959	[86 Shu]

References

- [74 Qui] Quinn, R.K.: Mater. Res. Bull. **9** (1974) 803
 [85 Ste] Stergiou, A.C., Rentzeperis, P.J.: Z. Kristallographie **172** (1985) 139
 [86 Shu] Shu, H.W., Jaulumes, S., Flahaut, J.: Mater. Res. Bull. **21** (1986) 1509
 [88 Shu] Shu, H.W., Jaulumes, S., Flahaut, J.: J. Solid State Chem. **74** (1988) 277
 [Pearson] Pearson, W.B.: “Handbook of Lattice Spacings and Structure of Metals and Alloys”, Pergamon Press, New York, (1958), Vol. 1, (1967) Vol. 2