Appendix 4. Enthalpies and entropies of formation of Ag_2S-Cu_2S-ZnS-FeS-Sb_2S_3 sulfosalts from the simple sulfides at 1 bar.

		$\Delta\bar{H}_f$ (kJ/gfw)	$\Delta\bar{S}_f$ (J/K-gfw)
$Ag_{16}Sb_2S_{11}$	Ag-*Plb*	−27.8188	6.273
$Cu_{16}Sb_2S_{11}$	Cu-*Plb*	−12.3114	−17.42
$Ag_{10}Zn_2Sb_4S_{13}$	Ag-*Fah*	−19.5393	7.880
$Cu_{10}Zn_2Sb_4S_{13}$	Cu-*Fah*	−119.8472	−6.928
Ag_3SbS_3	Ag-*Prg*	−13.3101	8.234
Cu_3SbS_3	Cu-*Prg*	−18.7724	3.792
Ag_3SbS_3	Ag-*Skn*	−0.1101	8.234
Cu_3SbS_3	Cu-*Skn*	−19.7724	3.792
$AgSbS_2$	α-*Mia*	−4.9207	6.066
$AgSbS_2$	β-*Mia*	−12.4483	−5.459
$Cu_{10}Fe_2Sb_4S_{13}$	Cu-*Fah*	−139.2217	−14.672
$Ag_{10}Fe_2Sb_4S_{13}$	Ag-*Fah*	−47.9138	0.136
FeS*	Fe-*Sph*	−1.0188	−3.872
$CuPbSbS_3$	*Bno*	−12.41	25.225

*Calculated from the expression of Balabin and Urusov (1995)

$$X_{FeS}^{Sph} = 0.4409 + 0.000125T\ (K)$$

for sphalerite coexisting with 1C pyrrhotite and iron metal at 1 bar and between 400 and 850°C, using the activity-composition relations given by Balabin and Sack (2000) and assuming this pyrrhotite is stoichiometric FeS.