substance: $RhAs_2$
property: physical properties

Energy level scheme similar to that given for $CoAs_2$ (Fig. 1).

energy gap

E_g	1.15 eV	RT	from diffuse reflectance of powder samples	63H

magnetic susceptibility
(in 10^{-6} cm^3 mol^{-1}, χ in CGS units)

χ_m	– 70	T = 80 K		66B
	– 66	T = 540 K		
	– 104	T = 295 K	($\chi_g[cm^3g^{-1}]$ = – 0.400 – 0.00004 T; T = 80...850 K)	71K

far infrared absorption: spectrum in the range 50...400 cm^{-1} [83L].

lattice parameters $a(T)$, $b(T)$, $c(T)$, $\beta(T)$ at T = 300...1320 K: monoclinic → orthorhombic transformation above 1320 K, estimated at 1350 K [77K].

volume expansion coefficient

β	$2.4 \cdot 10^{-5}$ K^{-1}	T = 300 K	from graphical representation, unit-cell volume linear in T in the range 300...1300 K	77K

Comparative tables on structural data of transition metal dipnictides:

structure, chemical bond: see document ,

crystallographical data of compounds with octahedrally coordinated cations, see document ,

interatomic distances in arsenopyrite-type phases, see document .

References:

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Fig. 1.

$CoAs_2$. Energy-level scheme for the valence electrons in the arsenopyrite-type phase with formal d^5 configuration [72G].