substance: CoP_2
property: physical properties

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

energy gap

$E_{g,th}$	> 0.02 eV		from $\rho(T)$ below room temperature	72D

electrical resistivity

ρ	0.0057 Ω cm	T = 298 K	crystals grown from a Ge flux at T = 1100...1500 K, p = 65 kbar	72D
	0.22 Ω cm	T = 4.2 K		

magnetic susceptibility: diamagnetic at room temperature [72D]. far infrared absorption: for spectrum in the range 50...400 cm^{-1}, see [83L].

Comparative tables on structural data of transition metal dipnictides:

structure, chemical bond: see document ,

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

References:

72D Donohue, P. C.: Mat. Res. Bull. 7 (1972) 943.
72G Goodenough, J. B.: J. Solid State Chem. 5 (1972) 144.
83L Lutz, H. D., Schneider, O., Kliche, G.: Phys. Chem. Minerals 9 (1983) 109.

Fig. 1.

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