substance: $OsAs_2$
property: physical properties

Energy level scheme is similar to that given for $FeAs_2$ (Fig. 1).

energy gap

E_g	≈ 0.9 eV	RT	from diffuse reflectance	63H

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

χ_m	– 78	T = 85 K	powder sample, Gouy method	63H
	– 100	T = 295 K		
	– 110	T = 90 K	$\chi(T)$ linear from 90 to 775 K,	63H
	– 115	T = 775 K	polycrystalline sample	

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 ,

interatomic distances in marcasite- and loellingite-type compounds, see document .

References:

63H Hulliger, F.: Nature (London) 198 (1963) 1081.
72F Fan, A. K. L., Rosenthal, G. H., McKinzie, H. L., Wold, A.: J. Solid State Chem. 5 (1972) 136.
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.

$FeAs_2$. One-electron energy levels for the valence electrons in loellingite [72F, 72G].