

substance: OsSb₂

property: physical properties

Energy level scheme is similar to that given for FeAs₂ (Fig. 1).

energy gap

$E_{g,th}$	> 0.3 eV		from $\log \rho \propto E_g/2kT$ above 600 K; sintered material	63H
	> 0.2		from $\log \rho \propto E_g/2kT$, sintered material	65J

resistivity

ρ	150 Ω cm	RT	sintered sample	63H
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thermoelectric power

S	– 200 $\mu V K^{-1}$	RT	sintered sample	63H
	– 115 $\mu V K^{-1}$	RT	sintered material	61J, 65J

magnetic susceptibility

(in $10^{-6} \text{ cm}^3 \text{ mol}^{-1}$, χ in CGS units)

χ_m	– 92	$T = 85 \text{ K}$	powder sample	63H
	– 94	$T = 295 \text{ K}$		
	– 136	$T = 90...800 \text{ K},$ $B < 0.8 \text{ T}$	polycrystalline sample	68H

far infrared absorption: for spectrum in the range $50...400 \text{ cm}^{-1}$, see [83L].

Brinell hardness

H_B	560 kg mm^{-2}		polycrystalline sample reacted at 1373 K	60K
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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:

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Fig. 1.

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

