

substance: OsSbSe
property: physical properties

energy gap

E_g	< 0.05 eV (?)	RT	60 μm thick samples were completely opaque to light with wavelengths from 0.5 to 25 μm estimated from ρ of sample No.7	66B
	>0.1 eV (?)			

resistivity

ρ	1.59 $\Omega\text{ cm}$	RT	sample No.7, prepared at	66B
	376 $\Omega\text{ cm}$	$T = 77\text{ K}$	$T \approx 1250\text{ K}$, $p = 45\text{ kbar}$	
	0.12 $\Omega\text{ cm}$	RT	sample No.9, prepared in a	
	1.18 $\Omega\text{ cm}$	$T = 77\text{ K}$	similar way	

thermoelectric power

(in $\mu\text{V K}^{-1}$)

S	+ 137	RT	sample No.7	66B
	+ 157	RT	sample No.9	

Knoop microhardness

H_K	672 kg mm^{-2}	RT		66B
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decomposition temperature

T_{dec}	< 1370 K		OsSbSe was converted to the elements when heated above 1370 K under a pressure of about 40 kbar	66B
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For structure, chemical bond and comparative tables on crystallographic and physical properties of transition metal-V-VI compounds, see documents , , , .

References:

66B Banus, M. D., Lavine, M. C.: Mat. Res. Bull. 1 (1966) 3.