substance: NbS_3
property: crystal structure, physical properties

(S: structure (space group), CG: crystal growth).

(The references in the last column refer to all data of this document)

lattice parameters

a	4.963 Å	S: distorted $ZrSe_3$ type, $C_i^1 - P\bar{1}$	62G,
b	6.730 Å	(Nb displaced 0.16 Å to form	69K,
c	9.144 Å	Nb – Nb pairs)	71L,
α	90°	CG: halogen transport at 600°C	78R
β	97.17°		
γ	90°		

density

d	4.143 g cm^{-3}		

resistivity, Seebeck coefficient

ρ	$6.6 \cdot 10^3$ Ω cm	p-type, poly-	diamagnetic
S	500 μV K^{-1}	crystalline sample	

Figures to this document:

electrical conductivity : Fig. 1

References:

62G Grigoryan, L. A., Novoselova, A. V.: Dokl. Chem. 144 (1962) 496.

69K Kadijk, F., Jellinek, F.: J. Less-Common Met. 19 (1969) 421.

71L Landolt-Börnstein (New Series), ed.: K. H. Hellwege, Vol. III/6, Springer Verlag: Berlin, Heidelberg, New York 1971.

78R Rijnsdorp, J., Jellinek, F.: J. Solid State Chem. 25 (1978) 325.

Fig. 1.

NbS_3. Electrical conductivity vs. reciprocal temperature [62G].