

substance: YbH_x

property: crystal structure, physical properties

crystal structure	orthorhombic (D _{2h} ¹⁶ – Pnma) (x = 2)	66W
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lattice parameters

<i>a</i>	5.889(5) Å	x = 2	75H
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<i>b</i>	3.576(2) Å		
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<i>c</i>	6.789(5) Å		
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σ	10 ⁻⁷ Ω ⁻¹ cm ⁻¹	x = 1.9	temperature dependence for x = 1.90: Fig. 1	69H
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optical phonon energies of 130 meV, 91 meV, 81 meV and 71 meV have been reported for x = 2

References:

- 66W Warf, J. C., Hardcastle, K.: Inorg. Chem. 5 (1966) 1736.
- 69H Heckman, R. C.: Electronic Properties of Rare Earth Hydrides, Report No. SC-RR-69-571, Sandia Laboratories, Albuquerque, N. M., Nov. 1969.
- 75H Haschke, J. M., Clark, M. R.: High Temp. Sci. 7 (1975) 152.

Fig. 1.

$\text{YbH}_{1.90}$. Conductivity vs. reciprocal temperature [69H].

