

substance: HoH₃
property: crystal structure

crystal structure	hexagonal (D _{6h} ⁴ – P6 ₃ /mmc)	62P, 63W
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lattice parameters

<i>a</i>	3.642 Å
<i>c</i>	6.560 Å

HoH_{2+x} [95V]

semiconductor:	x = 0.095	SC-M transition: <i>T</i> = 40.5 K M-SC transition: <i>T</i> = 264(1) K (cooling) M-SC transition: <i>T</i> = 273(1) K (heating)
<i>ρ</i>	106 μΩcm 108 μΩcm	<i>T</i> = 264 K <i>T</i> = 273 K
semiconductor:	2 + x = 1.99 + 0.11	SC-M transition: <i>T</i> = 55 K M-SC transition: <i>T</i> = 264(1) K (cooling) M-SC transition: <i>T</i> = 285(1) K (heating)
<i>ρ</i>	126 μΩcm 129 μΩcm	<i>T</i> = 264 K <i>T</i> = 285 K
semiconductor:	2 + x = 1.98 + 0.12	SC-M transition: <i>T</i> = 100 K M-SC transition: <i>T</i> = 255.5(1) K (cooling) M-SC transition: <i>T</i> = 260.5(1) K (heating)
<i>ρ</i>	210 μΩcm 212 μΩcm	<i>T</i> = 255.5 K <i>T</i> = 260.5 K
semiconductor:	x = 0.13	SC-M transition: <i>T</i> = 132.5 K M-SC transition: <i>T</i> = 252(1) K (cooling) M-SC transition: <i>T</i> = 255(1) K (heating)
<i>ρ</i>	425 μΩcm 428 μΩcm	<i>T</i> = 252 K <i>T</i> = 255 K

References:

- 62P Pebler, A., Wallace, W. E.: J. Phys. Chem. 66 (1962) 148.
- 63W Wallace, W. E., Kubota, Y., Zanolwick, R. L.: "Magnetic Characteristics of Gadolinium, Terbium and Ytterbium Hydrides in Relation to the Electronic Nature of the Lanthanide Hydrides" in "Advances in Chemistry Series" No. 39, p. 122, Washington, D. C.: American Chemical Society 1963.
- 95V Vajda, P.: "Hydrogen in rare-earth metals, including RH_{2+x} Phases" in: Handbook on the Physics and Chemistry of Rare Earth, Vol. 20, Gschneidner, K.A., Jr., Eyring, L. (eds.), Elsevier Science, 1995, p. 207.