

Cl-W

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The W-Cl phase diagram was unknown in [Massalski2].

Figure 1 shows the W-Cl phase diagram determined by [1977Dro1] using DTA and x-ray diffraction. Part of this phase diagram between WCl_5 and WCl_6 had been reported earlier by [1977Dro2].

W-Cl crystal structure data in Table 1 were taken from [2007Vil].

References

1977Dro1: D.V. Drobot and A.V. Nikolaev, Equilibrium Diagram of the WCl_4 - WCl_6 System, *Zh. Neorg. Khim.*, 1977, **22**(8),

Table 1 W-Cl crystal structure data

Phase	Composition, at.% Cl	Pearson symbol	Space group	Strukturbericht designation	Prototype
(W) (a)	0	<i>cI2</i>	<i>Im$\bar{3}m$</i>	<i>A2</i>	W
WCl_2 (a)	66.7	<i>oC72</i>	<i>Cmca</i>	...	MoCl_2
WCl_3 (a)	75	<i>hR72</i>	<i>R$\bar{3}$</i>	...	...
WCl_4	80	<i>mC20</i>	<i>C12/m1</i>	...	...
βWCl_5	83.3	...	...	...	...
αWCl_5	83.3	<i>mC72</i>	<i>C12/m1</i>	...	...
γWCl_6	85.7	...	...	...	...
βWCl_6	85.7	<i>hP21</i>	<i>P$\bar{3}m1$</i>	...	UCl_6
αWCl_6	85.7	<i>hR21</i>	<i>R$\bar{3}$</i>
(Cl) (a)	100	<i>oC8</i>	<i>Cmca</i>	<i>A14</i>	I

(a) Not shown in Fig. 1

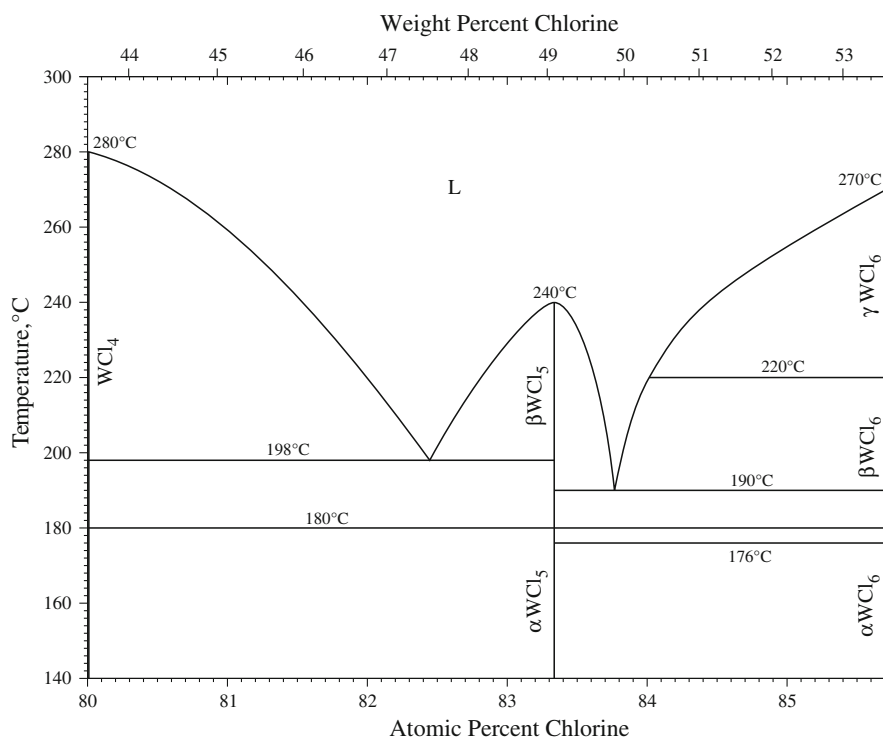


Fig. 1 W-Cl phase diagram

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1977Dro2: D.V. Drobot, S.A. Ulanov, and A.V. Nikolaev, Phase Equilibria in the Tungsten-Chlorine-Oxygen System, *Zh. Neorg.*

Khim., 1977, **22**(8), p 1956-1960, in Russian, TR: *Russ. J. Inorg. Chem.*, 1977, **22**(8), p 1062-1064
2007Vil: P. Villars and K. Cenzual, *Pearson's Crystal Data CD-ROM*, ASM International, OH, 2007