

Mo-W (Molybdenum-Tungsten)

Phase diagram

Experimental work to elucidate the phase equilibria has been done by Fahrenwald [17Fah1], Jeffries [17Jef1], Baron et al. [62Bar1], and Rudy [69Rud5]. The results have been taken by Nagender Naidu [84Nag1, 90Nag2] to construct an assessed phase diagram completing the experimental results by thermodynamic calculations. This latter diagram has been used for information to draw Fig. 1.

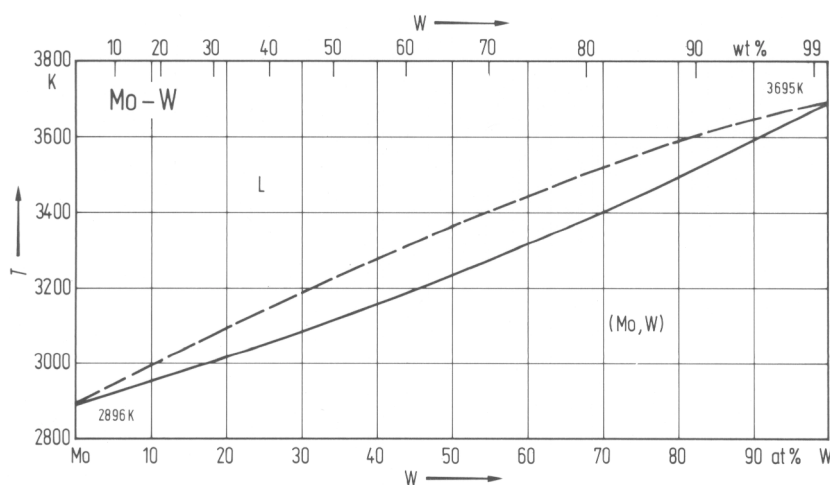


Fig. 1. Mo-W. Phase diagram.

Crystal structure

Lattice parameters of bcc (Mo,W) solid solutions have been determined by Van Arkel [28Ark1], Buckle [46Buc1], Taylor et al. [65Tay1] and Rudy [69Rud5]. The mean values of the results obtained are plotted in Fig. 2. As could be seen from Fig. 2, the lattice parameters do obey Vegard's law.

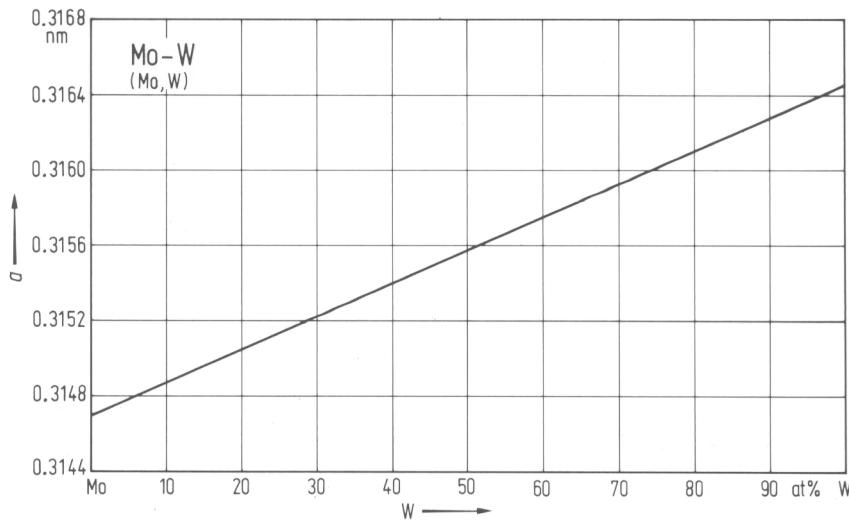


Fig. 2. Mo-W. Lattice parameter for bcc (Mo, W) solid solution.

References

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- 90Nag2 Nagender Naidu, S.V., Sriramamurthy, A.M., Rama Rao, P., in: "Binary Alloy Phase Diagrams", Second Edition, Vol. 3, T.B. Massalski (editor-in-chief), Materials Information Soc., Materials Park, Ohio (1990)