Dr J. Karle for supplying new heavy-atom parameters based on the absorption-correction data.

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Acta Cryst. (1973). B29, 1170

The crystal structure of D-iso-ascorbic acid. Errata. By NEZHAT AZARNIA, HELEN M. BERMAN and R. D. ROSENSTEIN, Department of Crystallography, University of Pittsburgh, Pittsburgh, Pa. 15213, U.S.A.

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Typographical errors in several numerical results in the paper by Azarnia, Berman & Rosenstein [Acta Cryst. (1972). B28, 2157–2161] are corrected.

The x parameter of O(6) in Table 1 should be 0.1292 (6), not 0.2192 (6). In Table 3 the hydrogen-bonding distance d(jk) of H(O2) \rightarrow O(6a) should be 1.76 Å, not 176 Å, and the torsion angle O(6)-C(6)-C(5)-O(5) should be 67.2°, not 70.7° (p. 2161, first line).

We are indebted to Dr David L. Hughes for informing us of these errors.

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Azarnia, N., Berman, H. M. & Rosenstein, R. D. (1972). Acta Cryst. B28, 2157–2161.

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The crystal structure of β -tantalum. By P. T. MOSELEY and C. J. SEABROOK, Applied Chemistry Division, A.E.R.E., Harwell, Berks, England

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The X-ray powder pattern of β -tantalum has been indexed in terms of a tetragonal unit cell with a = 10.194 and c = 5.313 Å. β -Tantalum appears to be isomorphous with β -uranium.

In recent years a second crystalline modification of elemental tantalum has been reported in addition to the body centred cubic form (Read & Altman, 1965; Mills, 1966).

The new phase, which is now generally referred to as β -tantalum exhibits rather different electrical properties from the cubic variety and is thus of some concern to those employing tantalum films in microcircuits (Westwood, 1970).

Previously β -tantalum was prepared during sputtering experiments and the diffraction data available have in some cases suffered from the effect of preferred orientation. In other cases the material was not single phase. X-ray powder patterns were indexed in terms of a tetragonal unit cell, initially having a = 5.34, c = 9.94 Å (Read & Altman, 1965) and later a = 5.32, c = 9.92 Å (Mills, 1966). The electron diffraction powder pattern of β -tantalum has recently been indexed with the tetragonal parameters a = 10.29, c = 9.2 Å (Das, 1972).

 β -Tantalum has now been prepared as a single phase by electrodeposition from a molten fluoride bath at 800 °C. The X-ray powder pattern has been recorded using a Nonius Guinier camera calibrated against a silicon standard (a=5.4307 Å) and re-indexed as shown in Table 1. The unit cell is indeed tetragonal but the parameters, which have been derived with the aid of a least-squares refinement program (Marples & Shaw, 1956), are a=10.194, c=5.313 Å.

The intensities of the powder lines were recorded using a microdensitometer and are also given in Table 1. The general form of these intensities is remarkably similar to