Crystal Data


Crystal data for triuraniumpentoxide pyrophosphate, $\text{U}_3\text{O}_5\text{P}_2\text{O}_7$. By H. BARTEN,† Netherlands Energy Research Foundation ECN, Petten, The Netherlands

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Abstract

$\text{U}_3\text{O}_5\text{P}_2\text{O}_7$ is orthorhombic, space group $\text{Cmca}$ or $\text{C2cb(Aba2)}$, with $a = 7.018(2)$, $b = 9.057(1)$, $c = 16.009(3)$ Å, $V = 1017.5(6)$ Å$^3$, $z = 4$, $D_x = 6.318$ Mg m$^{-3}$. A Nonius Guinier camera and Cu $K\alpha$ radiation ($\lambda = 1.5418$ Å) was used. Indexed powder data are given and compared with previous data. The JCPDS Diffraction File No. for $\text{U}_3\text{O}_5\text{P}_2\text{O}_7$ is 34-1984.

*The full text has been deposited with the British Library Lending Division as Supplementary Publication No. SUP 39414 (4 pp.). Copies may be obtained through The Executive Secretary, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England.

†Present address: KEMA Laboratories, Arnhem, The Netherlands.


Crystal data for $7\text{HgI}_2\text{.Fe(C}_5\text{H}_5\text{)}_2$. By J. VOTINSKÝ, L. BENEŠ, J. KLÍKORKA, J. KALOUSOVÁ, J. HORÁK and P. Lošták, Department of General and Inorganic Chemistry, University of Chemical Technology, 532 10 Pardubice, Czechoslovakia

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Abstract

The new compound $7\text{HgI}_2\text{.Fe(C}_5\text{H}_5\text{)}_2$ was prepared by the reaction of solid tetragonal mercuric iodide with ferrocene vapours at 423 K. The product is a dark green powder, stable in air, and decomposes at 463 K. The cubic unit-cell parameters (298 K) are: $a = 20.12(2)$ Å, $V = 8157.3$ Å$^3$, $Z = 8$, $M_r = 3368$, $D_x = 5.49$ Mg m$^{-3}$; extinctions indicate a face-centered space group. X-ray (Cu $K\alpha$ radiation) powder diffraction data (50 lines) are reported. The compound has interesting electrical properties. The JCPDS Diffraction File No. for $7\text{HgI}_2\text{.Fe(C}_5\text{H}_5\text{)}_2$ is 35-2000.

‡The full text has been deposited with the British Library Lending Division as Supplementary Publication No. SUP 39429 (5 pp.). Copies may be obtained through The Executive Secretary, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England.

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