

phologique par Piccini (1895; see also Groth), par un changement d'axes de matrice:

$$\begin{vmatrix} 3 & 0 & 0 \\ 0 & 3 & 0 \\ 0 & 0 & 1 \end{vmatrix}$$

Les enregistrements des plans réciproques suivant les axes [100] et [010] ont été réalisés à l'aide d'un rétigraphe Rimsky-Nonius. Les extinctions systématiques relevées dans ces plans sont du type:

$$h0l \text{ avec } l = 2n + 1 \text{ et } 0k0 \text{ avec } k = 2n + 1$$

Ces extinctions systématiques sont caractéristiques du groupe de symétrie monoclinique $P2_1/c$.

Le nombre de groupements $K_2MoO_3F_4 \cdot H_2O$ par maille est de 4. (densité mesurée: $3,00 \text{ g.cm}^{-3}$, densité calculée: $2,96 \text{ g.cm}^{-3}$).

La détermination de la structure atomique est en voie d'achèvement.

Références

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 PICCINI, A. (1892). *Z. anorg. Chem.* **1**, 51.
 PICCINI, A. (1895). *Z. anorg. Chem.* **10**, 443.

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Crystal data (I) for some estrone-related compounds.* By JEAN M. OHRT and DORITA A. NORTON,
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Estrone, $C_{18}H_{22}O_2$, the estrogenically active phenolic metabolite of estradiol, is used in the treatment of prostatic carcinoma and inoperable mammary carcinoma as well as for replacement therapy in estrogen deficiency. It is characterized by the presence of reactive groups at carbon atoms 3 and 17. Table 1 lists crystal data for

a series of estrone derivatives with substituents in either or both of these positions.

Lattice constants were determined on a General Electric XRD-5 goniostat-equipped X-ray diffraction unit with $Cu K\alpha$ radiation. Space groups were established on the basis of systematic absences and optical activity. Flotation density measurements were used in calculating the number of molecules per unit cell. The measured and calculated densities agree within the experimental error (3.0%). Melting points, before and after crystallization, agreed with values recorded in the literature.

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Table 1. *Crystal data (I) for some estrone-related compounds*

- 1,3,5(10)-Estratrien-3-ol-17-one 3-methyl ether
- 1,3,5(10)-Estratrien-3-ol-17-one 3-acetate
- 1,3,5(10)-Estratrien-3-ol-17-one 3-ethyl ether
- 1,3,5(10),16-Estratetraen-3,17-diol diacetate
- 1,3,5(10)-Estratrien-3-ol-17-one 3-benzoate

	1	2	3	4	5
Formula	$C_{10}H_{24}O_2$	$C_{20}H_{24}O_3$	$C_{20}H_{26}O_2$	$C_{22}H_{26}O_4$	$C_{25}H_{26}O_3$
Mol. wt.	284.40	312.41	298.43	354.45	374.48
D_m (g.cm^{-3})	1.222	1.205	1.170	1.215	1.247
D_x (g.cm^{-3})	1.239	1.202	1.208	1.243	1.244
Space group	$P2_12_12_1$	$P2_12_12_1$	$P2_12_12_1$	$P2_12_12_1$	$P2_1$
Z (calc.)	4	4	4	4	2
a (Å)*	11.820	10.834	11.560	11.384	10.562
b (Å)*	18.449	14.838	19.504	21.902	10.146
c (Å)*	6.988	10.733	7.274	7.597	10.357
β (°)	—	—	—	—	115.78
V (Å ³)	1524	1725	1640	1894	999
Solvent	Acetone	Heptane	Acetone- methanol	95% Ethanol	Acetone

* $\pm 0.005 \text{ \AA}$