Short Communications

Contributions intended for publication under this heading should be expressly so marked; they should not exceed about 1000 *words; they should be forwarded in the usual way to the appropriate Co-editor; they will be published as speedily as possible. Publication will be quicker if the contributions are without illustrations.*

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Lattice parameters and space groups of two diethyldithiocarbamates.

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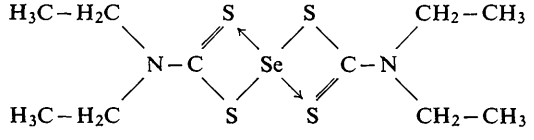
Crystals of selenium(II) diethyldithiocarbamate, $Se[S_2CN(C_2H_5)_2]_2$, are orthorhombic, space group $P2_12_12_1$ with 4 molecules in a unit cell of dimensions $a=25{\cdot}54$, $b=9{\cdot}74$, $c=6{\cdot}65$ Å. Crystals of tellurium(II) diethyldithiocarbamate, $Te[S_2CN(C_2H_5)_2]_2$, are also orthorhombic with 12 molecules in a unit cell of dimensions $a=19{\cdot}78$, $b=35{\cdot}15$, $c=9.44$ Å.

The compounds selenium(II) diethyldithiocarbamate and tellurium(II) diethyldithiocarbamate are very interesting for their pharmacological, chemical and analytical properties. They were prepared and kindly supplied by Professor Pino, University of Seville. The cell parameters were determined by X-ray single-crystal diffraction techniques with Cu $K\alpha$ and $K\beta$ radiation.

(1) Selenium(II) diethyldithiocarbamate, structural formula



The crystals, recrystallized from ethyl acetate solution, are prisms of red-yellow colour. From rotation and Weissenberg photographs, they were found to be orthorhombic with unit-cell dimensions:

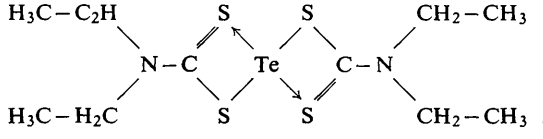
$$a=25{\cdot}536\pm25,\quad b=9{\cdot}743\pm9,\quad c=6{\cdot}648\pm6\text{ Å},$$
$$V=1654\pm2\text{ Å}^3.$$

Assuming four molecules per unit cell, the density was calculated to be 1·48 g.cm^{-3}, the observed density being 1·46 ± 0·02 g.cm^{-3}.

From systematic absences of reflexions the space group was determined to be $P2_12_12_1$ (No. 19).

A detailed structure analysis of this compound is being carried out.

(2) Tellurium(II) diethyldithiocarbamate, structural formula



recrystallizes from solution in benzene as red-yellow crystals.

Crystallographic data were determined from rotation and Weissenberg photographs using $K\alpha$ and $K\beta$ radiations. The unit cell is orthorhombic with:

$a=19{\cdot}780\pm20$	$V=6559\pm7$ Å
$b=35{\cdot}147\pm35$	$D_m=1{\cdot}25\pm0{\cdot}02$ g.cm^{-3}
$c=9{\cdot}435\pm9$ Å	$D_x=1{\cdot}25$ g.cm^{-3}
$Z=12$	

The conditions for observed reflexions are consistent with the space group *Pnma* (No. 62) with $Z=8$. As there are twelve molecules per unit cell, eight of them must be in general positions and the other four in special positions.

No further work on tellurium(II) diethyldithiocarbamate is contemplated at present.