group. In view, however, of the complete structure determination of both forms (Rentzeperis, 1958*b*) the space groups can safely be taken as D_{2h}^{17}–*Cmcm* for the low temperature β-$CoSO_4$ and D_{2h}^{16}–*Pnma* for the high temperature α-$CoSO_4$. The first form, β-$CoSO_4$, belongs to the $NiSO_4$ series, i.e. is isostructural to $NiSO_4$ (Dimaras, 1957), $MgSO_4$ (Rentzeperis & Soldatos, 1958), $MnSO_4$ (Rentzeperis, 1958*a*), and $FeSO_4$ (Coing-Boyat, 1959). α-$CoSO_4$, on the other hand, is isostructural to $CuSO_4$ and $ZnSO_4$ (Kokkoros & Rentzeperis, 1958) and forms with them the chalcokyanite series.

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The unit cells and space groups of $S_4N_3NO_3$ and $S_2N_3HBr_4$.

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Muthmann & Seitter (1897) reported the preparation of a number of salts of the thiotrithiazyl ion, $S_4N_3^+$, and although these salts have been subject to a number of chemical studies (Goehring, 1956) no structural information is available for them. To determine the structure of the $S_4N_3^+$ ion we hoped to use S_4N_3Br, which is supposed to be made by reacting S_4N_4 with acetyl bromide. Good yields of the yellow S_4N_3Br were obtained at 0 °C., but the crystals were not suitable for X-ray use. Attempts to prepare S_4N_3Br by refluxing the reaction mixture gave $S_2N_3HBr_4$ instead.

$S_2N_3HBr_4$ forms dark purple, monoclinic crystals elongated in the *c*-direction and almost invariably twinned on (100). It melts sharply at 138 °C. Weissenberg photographs made with Cu $K\alpha$ radiation give

$$a = 10{\cdot}84,\ b = 10{\cdot}90,\ c = 10{\cdot}95\ \text{Å};\ \beta = 96°\ 5'.$$

The calculated density is 2·20 g.cm.$^{-3}$; flotation measurements give a density of 2·12 g.cm.$^{-3}$. There are four molecules per unit cell, and the absence of *h*0*l* reflections for *h* odd and 0*k*0 reflections for *k* odd indicates the space group $P2_1/a$.

The compound $S_4N_3NO_3$ is being used for structural study because it crystallizes so readily. Magnificent yellow crystals, grown from a solution of S_4N_3Cl in concentrated nitric acid, form as plates whose principal faces are (010) and (100) or as needles elongated in the *c*-direction. It decomposes upon heating. The dimensions of the monoclinic unit cell are

$$a = 5{\cdot}84,\ b = 10{\cdot}50,\ c = 14{\cdot}32\ \text{Å};\ \beta = 125°.$$

The space group is $P2_1/c$. Assuming four molecules per unit cell, one calculates a density of 2·13 g.cm.$^{-3}$. Flotation in dibromoalkanes shows the density to lie between 1·99 and 2·18 g.cm.$^{-3}$.

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Notes and News

Announcements and other items of crystallographic interest will be published under this heading at the discretion of the Editorial Board. The notes (in duplicate) should be sent to the General Secretary of the International Union of Crystallography (D. W. Smits, Mathematisch Instituut, University of Groningen, Reitdiepskade 4, Groningen, The Netherlands).

International Conference on Crystal-Lattice Defects

A conference under the above title is being planned by the Physical Society of Japan, to be held in Kyoto, Japan, 7–12 September 1962. The conference will cover point defects in metals, semi-conductors and ionic crystals. Suggested items of discussion will be electronic processes in imperfect crystals, properties of single and multiple point defects, radiation damage, association, dissociation and diffusion of point defects, *etc.* All correspondence should be addressed to Prof. R. R. Hasiguti, Department of Metallurgy, University of Tokyo, Bunkyo-ku, Tokyo, Japan.

Fifty Years of X-ray Diffraction

On the occasion of the 50th anniversary of the discovery of X-ray diffraction, the Ludwig-Maximilians-Universität at Munich, the Bayerische Akademie der Wissenschaften and the International Union of Crystallography are jointly organizing a Commemoration Meeting *Fifty Years of X-ray Diffraction*, which will be held in Munich from Wednesday 25 until Friday 27 July 1962. Following a commemoration session on Wednesday morning, invited lectures will be presented describing the development of the total field of X-ray diffraction.

In connection with the Commemoration Meeting, the International Union of Crystallography and the Sektion für Kristallkunde of the Deutschen Mineralogischen Gesellschaft will jointly organize a Symposium entitled *Recent Advances in the Experimental and Theoretical Methods of Crystal Structure Research*. This Symposium will take place from Friday afternoon 27 until Tuesday 31 July 1962; contributed papers will be welcome.

Those interested in the meetings are requested to register their names with the Chairman of the Local Committee (Prof. F. Bopp, Institut für Theoretische Physik der Universität München, Schellingstrasse 4–8, München 13, Germany) as soon as possible, preferably by filling in a pre-registration form which is attached to a First Notification. Further details about the meetings will be announced in a Second Circular which will be issued in December 1961, and which will contain a registration form.