

study is the almost pseudohexagonal dimensionality of a and $c - a = 1.71 c$ (ideally the ratio is 1.732). Were one to relate monoclinic GeS_2 and CdI_2 knowing only the cell dimensions of each (say based on powder data) one would likely choose (010) of our cell as the basal plane, (001), of the hexagonal CdI_2 subcell. This would position the pronounced layers of the two structures almost at right angles. Clearly one must be careful in relating these structures solely on the basis of cell dimensions. Knowing the orientation of the monoclinic cell relative to the pronounced layering, we can relate monoclinic GeS_2 to CdI_2 by $a = 2c_{\text{cdi}_2}$, $b = 4a_{\text{cdi}_2}$, and $c = \sqrt{3}a_{\text{cdi}_2}$. This gives approximate values for the CdI_2 subcell dimensions of $a = 3.94$, $c = 5.73$, $c/a = 1.45$. In known CdI_2 -like structures c/a lies between 1.40 and 1.50 (Wyckoff, 1963). A number of disulfides do have CdI_2 -like structures, e.g. PtS_2 , SnS_2 , but in

GeS_2 the CdI_2 -type substructure would have to be considerably distorted to account for the many structural absences in the precession photographs, and we hesitate to conclude a relation between the two until complete structural data become available.

References

- CH'ÜN-HUA, L., PASHINKIN, A. S. & NOVOSELOVA, A. V. (1963). *Dokl. Akad. Nauk SSSR*, **151**, 1335.
 PREWITT, C. T. & YOUNG, H. S. (1965). *Science*, **149**, 535.
 VIAENE, W. & MOH, G. H. (1970). *Neues Jb. Miner., Mh.* p. 283.
 WYCKOFF, R. W. G. (1953). *Crystal Structures*, Vol. 1. New York: Interscience.
 ZACHARIASEN, W. H. (1936). *J. Chem. Phys.* **4**, 618.

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 Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 13 White Friars, Chester CH1 1NZ, England).

Fedorov's Symmetry of Crystals

An English version of the 1890 Russian Classic, *Symmetry of Crystals* by E. S. Fedorov, has been prepared under the joint sponsorship of the American Crystallographic Association and the National Science Foundation. Translated by David and Katherine Harker, it encompasses the five monographs which together contain Fedorov's development of the principles of crystalline symmetry and his derivation of the 230 space groups. This work also embodies his complete theory of the division of three-dimensional periodic space into stereohedra, a subject not well known to scholars unable to read Russian. Many of Fedorov's analytical and mathematical methods are original and, the translators note, could be used profitably by modern workers and teachers. Published in 1971 as ACA Monograph 7, the ~325 page hard cover book is available at \$25 from the ACA, c/o Polycrystal Book Service, P.O. Box 11567, Pittsburgh, Pennsylvania 15238, U.S.A. Additional information may be obtained from the ACA Secretary, Dr Walter Roth, General Electric Research and Development Center, P.O. Box 8, Schenectady, New York 12301.

Denver conference on applications of X-ray analysis

The 20th annual Denver Conference on Applications of X-ray Analysis will be held on 11, 12, and 13 August 1971, at the Albany Hotel, Denver, Colorado. Technical papers on subjects related to X-rays and their applications will be presented during the three-day conference. The emphasis this year will be on instrumentation as applied to diffraction, fluorescence, microprobe, and other related techniques; this will include developments in automation. Also, as in the past, general papers concerning any aspect of X-ray analysis will be welcomed. Proceedings of the conference will be published as a bound volume entitled, *Advances in X-Ray Analysis*, Volume 15.

Abstracts of papers for presentation at the conference are now invited. Three copies of titles and abstracts (about 300 words) should be sent before 15 April 1971, to Dr C. O. Ruud, Conference Co-chairman, Department of Metallurgy and Materials Science, University of Denver, Denver, Colorado 80210, U.S.A. Final manuscripts are due by 16 July 1971.