parallel to the vertical axis of the grid). Fig. 1 is a graphical illustration of this situation. Whether the crystal face lies parallel to the line-of-sight can be verified by rotating $\pm 10°$ about φ and observing that the grazing angle approaches zero as φ approaches the setting for that reflection

It is helpful to make scale drawings (similar to Fig. 1) on graph paper for each face of the crystal at the χ and φ settings of the corresponding reflection. By taking the intersection point of the axes of the χ, φ, and θ–2θ circles of the diffractometer as the origin, the scale drawings can be measured to determine origin-to-face distances for each crystal face. In Fig. 1, the origin (indicated by a dot at the center of the crystal) is deliberately shown as being displaced from the center of the grid (a common occurrence!) and the distances to the two parallel faces (hkl) and $\bar{h}\bar{k}\bar{l}$) are indicated. It is essential to calibrate the grid to determine the spacing between grid lines and to determine the location of the origin with respect to the grid.

With the unit-cell parameters, the indices and origin-to-face distance for every face constitute the data set necessary to describe the external geometry and dimensions of a single crystal. This data set is much easier to obtain than many others [*e.g.*, those that consist of the coordinates of three points on each crystal face, or of the coordinates of the crystal's apices (Tichy, 1970), or of the equations describing the plane of each crystal face (Alcock, 1970)]. The naturalness of viewing and measuring the crystal optically, and of describing the external geometry of a crystal in terms of the indices of its faces, makes it less likely to make mistakes in obtaining or in handling the data.

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(*Received* 29 *March* 1971; *accepted* 30 *April* 1971)

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International Union of Crystallography

Ninth General Assembly and International Congress of Crystallography

The *First Circular* for this meeting was despatched during September by air-mail to those persons who completed and returned a Pre-Registration Card. Requests for further copies of the *First Circular* should be sent to Professor Y. Saito, General Secretary, Organizing Committee Crystallography, Science Council of Japan, 22–34 Roppongi 7-chome, Minato-ku, Tokyo 106, Japan, or to Dr J. N. King, Executive Secretary, International Union of Crystallography, 13 White Friars, Chester CH1 1NZ, England.

The American Crystallographic Association is organizing a charter flight from the U.S.A. to Japan. European members of the A.C.A. might also seriously consider this method of travel to Japan. Further information may be obtained from ACA Charter Flight, c/o Dr B. C. Wang, Department of Crystallography, University of Pittsburgh, Pittsburgh, Pa. 15213, U.S.A. The European Crystallographic Committee is not organizing a charter flight from Europe but is considering several proposals for group flights from various cities in Europe.

Crystallographers

We regret to record the death in September of Professor **J. D. Bernal**, F.R.S., who was Professor of Physics at Birkbeck College, London from 1937 onwards and became its first Professor of Crystallography in 1963. He was a pioneer in the application of crystallographic methods to biological materials and carried out some of the early work on hormones and vitamins. His X-ray photographs of pepsin in 1933 were the first ever taken of single crystals of a protein. Professor Bernal was for many years closely associated with the work of the International Union of Crystallography, having been a member of the Commission on *Structure Reports* from 1948 to 1951, a member of the Executive Committee from 1951 to 1957, and Chairman of the Commission on Crystallographic Data from 1957 to 1963. In 1963 he was elected President of the Union, but owing to ill health he was subsequently unable to take a very active part in Union affairs and resigned in 1966 a short time before the opening of the Seventh General Assembly in Moscow. The eightieth birthday of Professor **N. V. Belov**, Full Member of the Academy of Sciences of the USSR and known worldwide for his work on silicates and in other fields of crystal chemistry, will be celebrated on 15 December 1971. Professor Belov is a permanent Chairman of the USSR National Committee of Crystallography and has for many years been a member of the Executive Committee of the International Union of Crystallography. He was President of the Union from 1966 to 1969. The November 1971 issue of *Acta Crystallographica* (Section A) will contain a photograph of Professor Belov and a review of his scientific and social activities.