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### A capillary support apparatus for use in glove bags and dry boxes

Loading the small, delicate capillaries used in determining powder patterns by the Debye-Scherrer method can be a painstaking task under even ideal conditions, but when it is necessary to load a water or air sensitive compound in a glove bag or dry box the problem becomes substantially more difficult. The apparatus shown in Fig. 1 can greatly facilitate the filling of these capillaries under controlled atmospheres.

The plastic tubing, cut to a length of about 10 cm, both supports the capillary and protects its fine hairlike end during the loading process. The plastic tubing used in the Prentice-Hall model kits\* is perfect for this purpose because of inside ridges that run the length of the tubing. These ridges firmly but gently hold the capillary in place. The tubing support may be fashioned from a 5 × 9 cm piece of Plexiglas. The hole in this support should be of such a size that the tubing

is firmly held, or alternatively the tubing may be cemented into place with cement. The capillary support assembly stand is also constructed from Plexiglas. The use of Plexiglas in building this apparatus precludes any possibility of contamination of the atmosphere in the

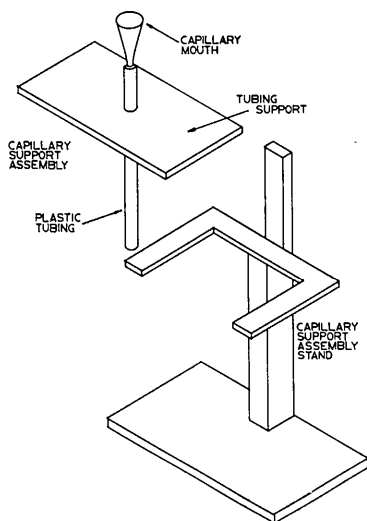


Fig. 1. Capillary support apparatus.

glove bag or dry box by the building materials.

After the required amount of sample has been poured into the mouth of the capillary, the capillary may be sealed by pressing a small, flattened piece of clay or soft wax over its mouth. The capillary support assembly can then be removed from its stand and taken out of the glove bag or dry box so that the sample may be vibrated to the tip of the capillary. After the capillary has been mounted on its camera mount, it may be broken to the desired length and the open end quickly sealed with glue or fingernail lacquer.

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\* 'Framework Molecular Models',  
Prentice-Hall, Inc. Englewood Cliffs,  
N.J., U.S.A.

### Letter to the Editor

#### Choice of Radiation with Demountable X-ray Tubes

Sir,

The reviewer (Matthews, 1972) of our book (Lipson & Steeple, 1970) on powder photographs queries our retention of the appendix on the plating of targets; he claims that this operation is relevant only for gas tubes. This is not so. We still use a demountable hot-cathode tube (Raymax) in this department. It is more trouble to operate but it is far cheaper to run than a sealed-off tube.

There is still scope for the use of unusual radiations for special problems, and we believe that all X-ray diffraction laboratories should possess such a tube. Many present-day crystallographers are unaware of the advantages of choice of radiation, but, with the increasing use of anomalous scattering for example, the demountable hot-cathode tube, with plated targets, may well come into its own again.

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11 April 1972*

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- LIPSON, H. & STEEPL, H. (1970). *Interpretation of X-ray Powder Diffraction Patterns*. London: Macmillan.  
MATTHEWS, F. W. (1972). *J. Appl. Cryst.* 5, 146.

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- (d) Tabular matter should be headed descriptively on the first page, with column headings recurring on each page.
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Structure factor tables prepared from computer printout must be presented in the form indicated above, not in the form of continuous printout, and must be arranged with the greatest economy of space possible. The printout must be in clear black type and must not be printed on paper with coloured stripes, if the legibility of the tables is not to be impaired seriously. A suitable program for producing com-

puter printout in the required page size (30 cm × 21 cm) and including table headings and page numbers is the *CRYSLSQ* program, which is part of the 'X-RAY' system of programs by Stewart, Kundell & Baldwin (1970). All columns must be headed. A 'paste-up' on white card of computer printout will be acceptable provided that the quality of the printout is adequate.

#### Reference

- STEWART, J. M., KUNDELL, F. A. & BALDWIN, J. C. (1970). *The X-ray System, version of 1970*. Chemistry Department Univ. of Maryland, College Park, Maryland 20740, U.S.A.

#### Index of Crystallographic Supplies – Third Edition

The third edition of the *Index of Crystallographic Supplies*, prepared for the International Union of Crystallography by its Commission on Crystallographic Apparatus and edited by Professor R. Rudman, was published recently. (Unfortunately, the cover and the title page of the *Index* refer erroneously to the 'Commission on Crystallographic Supplies' but the name of the Commission is given correctly in the Preface by Dr A. McL. Mathieson, Chairman of the Commission.) Copies of this *Index* have been sent to all subscribers to *Acta Crystallographica* and *Journal of Applied Crystallography*.

The *Index* is intended to present the practising crystallographer with a useful list of apparatus and suppliers. There is a detailed list of apparatus and relevant accessories, with supplies listed by the use of Keywords, which may also be used as a check of items for novices in crystallographic work. There is a list of the full names and addresses of manufacturers and suppliers. Very few specifications have been included in the descriptions of apparatus because manufacturers are constantly revising specifications of their products. For efficient use of the *Index* it is suggested that the manufacturers be contacted for the latest detailed information. The text of the *Index* extends over 56 pages. Copies may be ordered from A. Oosthoek's Uitgevers N.V., Domstraat 5-13, Utrecht, The Netherlands, from Polycrystal Book Service, P.O. Box 11567, Pittsburgh, Pa. 15238, U.S.A. or from any bookseller at a price of 10 Netherlands Guilders (U.S. \$3.50 or £1.35 at current rates of exchange).

#### Supplement to *Acta Crystallographica*, Section A

In the June issue of *Journal of Applied Crystallography* [*J. Appl. Cryst.* (1972), 5, 252], it was stated that the Abstracts of the Communications to the Ninth International Congress of Crystallography were published as Part S3 of *Acta Crystallographica*, Section A in May 1972. The Abstracts were not actually published until July 1972, and were consequently numbered as part S4.