samples in special environments. Such devices do not permit visual checking of the sample mounting without an often time-consuming dismounting of the device. This note describes a simple and fast radiographic technique of testing the sample arrangement in X-ray diffraction work with synchrotron radiation (SR).

Experimental conditions for radiographing the sample arrangement in angular dispersive diffraction studies are sketched in Fig. 1. From the small area *A*, where the narrow incident SR beam impinges on the monochromator crystal a narrow well collimated beam of the selected wavelength is diffracted. In addition, Compton radiation and X-ray flourescence radiation are emitted in all directions. The small area *A* therefore can act as a point source for radiographic recording provided the narrow intensive beam is blocked. The radiograph shown in Fig. 2(*a*) of the sample arrangement in a displex cryostat was obtained in this way. The experiment was performed at the storage ring DORIS (HASYLAB, Hamburg) with a germanium monochromator crystal. The intense diffracted beam was blocked by the sample holder, which could be moved by remote control. The sample crystal mounted on a copper pin and encapsulated in a sealed Lindemann-glass capillary tube is clearly depicted. In recording the radiograph Fig. 2(*b*), the sample crystal was put in position and oriented for a certain Bragg reflection of the intense monochromatic beam. The sample crystal is therefore not depicted due to over-exposure, but the Bragg reflection appears as a small white spot outside the radiographic image.

In energy-dispersive diffraction studies no monochromator crystal is applied. In this case, a thin metal foil intercepting the incident narrow SR beam can act as a source for radiographic recording.

The technique is useful in all cases where the sample arrangement is not shielded by too heavily X-ray-absorbing materials.

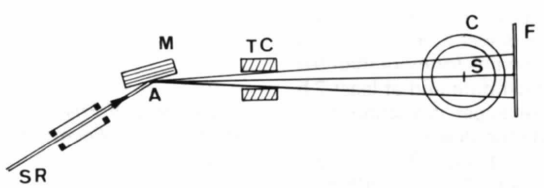

Fig. 1. Experimental set up for radiographic recording of sample arrangement in angular dispersive diffraction studies. *M* = monochromator crystal, *TC* = tube collimator, *C* = special environment device, *e.g.* a cryostat, *S* = sample, *F* = photographic film, *e.g.* polaroid. The area *A*, where SR impinges on *M*, acts as radiation source for the radiographic recording.

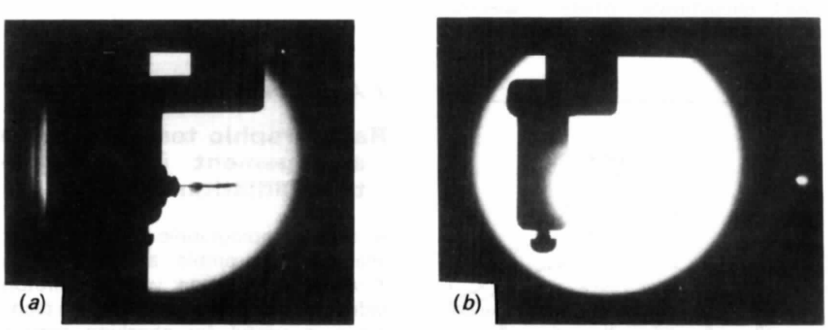

Fig. 2. Radiographs of the sample arrangement in a displex cryostat. The area depicted is determined by the diameter of the exit hole of *TC* and its distance from *A* (Fig. 1). (*a*) The sample was slightly displaced so the sample holder was blocking the central intense monochromatic beam. (*b*) The sample was irradiated by the monochromatic beam. The white spot outside the radiographic image is a Bragg reflection from the sample crystal. The radiographs were recorded on Polaroid film. Exposure time was 4 min.

A. LINDEGAARD-ANDERSEN

Laboratory of Applied Physics
Building 307
Technical University of Denmark
DK 2800 *Lyngby*
Denmark

(*Received* 25 *July* 1989;
accepted 9 *October* 1989)

Crystallographers

J. Appl. Cryst. (1990). **23**, 78

This section is intended to be a series of short paragraphs dealing with the activities of crystallographers, such as their changes of position, promotions, assumption of significant new duties, honours, etc. Items for inclusion, subject to the approval of the Editoral Board, should be sent to the Executive Secretary of the International Union of Crystallography (J. N. King, International Union of Crystallography, 5 Abbey Square, Chester CH1 2HU, England).

Professor **David S. Eisenberg**, Molecular Biology Unit, University of California, Los Angeles, California, USA, and Professor **Stephen J. Lippard,** Department of Chemistry, MIT, Cambridge, Massachusetts, USA, have been elected members of the (US) National Academy of Sciences.

Dr **Robert A. Laudise**, Director of the Materials Chemistry Research Laboratory at AT&T Bell Laboratories, Murray Hill, New Jersey, USA, and Adjunct Professor of Materials Science at the Massachusetts Institute of Technology, will be the recipient of the 1990 American Chemical Society Award in the Chemistry of Materials. The award, sponsored by DuPont, recognizes his contributions to the systematic study of the chemistry of hydrothermal syntheses of crystalline materials of wide-ranging commercial application.

Professor **Fumiyuki Marumo**, of the Tokyo Institute of Technology, has been elected President of the Crystallographic Society of Japan, from April 1990.

Dr **Robert E. Newnham**, Pennsylvania State University, University Park, Pennsylvania, USA, has been elected a member of the (US) National Academy of Engineering.

Sir **Charles Oatley**, Emeritus Professor of Electrical Engineering, University of Cambridge, England, has been awarded the Howard N. Potts Medal of the Franklin Institute 'for his pre-eminent contributions, in both technical and leadership roles, in the development of the scanning electron microscope'.