his work with a balance and scale, and made collaboration a continuing source of enjoyment.

With such a record John was the subject of many marks of distinction, the listing of which would have been a source of distaste and embarrassment to him but one, at least, must be mentioned, namely his election to the Fellowship of the Australian Academy of Sciences in 1980.

I count it as one of the greatest privileges in my life to have collaborated with John Sanders, a fine scientist and the most unassuming of men, deeply appreciative of the arts and bringing elegance, as well as incisiveness, to the sciences.

A. F. MOODIE

Dr **P. M. Colman**, CSIRO Division of Protein Chemistry, Melbourne, Australia, has been awarded the 1988 Lemberg Medal of the Australian Biochemical Society for his work on influenza viruses. Dr Colman is also the President of the Society of Crystallographers in Australia.

Professor **L. F. Dahl**, Chemistry Department, University of Wisconsin, Madison, Wisconsin, USA, Professor **H. A. Hauptman**, President of the Medical Foundation of Buffalo, Buffalo, New York, USA, and Professor **J. Kraut**, Chemistry Department, University of California, San Diego, La Jolla, California, USA, were elected Members of the US National Academy of Sciences on 26 April 1988.

On the same date, Professor **J. D. Dunitz**, Laboratorium für Organische Chemie, ETH-Zentrum, Zürich, Switzerland, was elected a Foreign Associate of the US National Academy of Sciences.

Dr **J. Deisenhofer**, Howard Hughes Medical Institute, Dallas, Texas, USA, Professor **R. Huber**, Max-Planck-Institut für Biochemie, Martinsried, Federal Republic of Germany, and Dr **H. Michel**, Max-Planck-Institut für Biophysik, Frankfurt/Main, Federal Republic of Germany, have jointly been awarded the 1988 Nobel Prize for Chemistry by The Royal Swedish Academy of Sciences for their work on the determination of the three-dimensional structure of a photosynthetic reaction centre.

They were the first to succeed in unravelling the full details of how a membrane-bound protein is built up, revealing the structure of the molecule atom by atom. The protein is taken from a bacterium which, like green plants and algae, uses light energy from the Sun to build organic substances. All our nourishment has its origin in this process, which is called photosynthesis and which is a condition for all life on earth.

The organic substances serve as nourishment for both plants and animals. Using the oxygen in the air, they consume these nutrients through what is termed cellular respiration. The conversion of energy in photosynthesis and cellular respiration takes place through transport of electrons *via* a series of proteins, which are bound in special membranes. These membrane-bound proteins are difficult to obtain in a crystalline form that makes it possible to determine their structure, but in 1982 Hartmut Michel succeeded in doing this. Determination of the structure was then carried out in collaboration with Johann Deisenhofer and Robert Huber between 1982 and 1985.

Photosynthesis in bacteria is simpler than in algae and higher plants, but the work now rewarded has led to increased understanding of photosynthesis in these organisms as well. Broader insights have also been achieved into the problem of how electrons can, at an enormously high speed, be transferred in biological systems.

International Union of Crystallography

J. Appl. Cryst. (1989). **22**, 77

Report on the IUCr Logo Design Contest

A total of 165 designs sent in by 68 entrants from 21 different countries (see Table 1) were received by the IUCr Logo Committee as entries for the Logo Design Contest [*J. Appl. Cryst.* (1988). **21**, 209–210]. The Committee reached the final conclusion on Sunday 28 August 1988 in Vienna, prior to the Eleventh European Crystallographic Meeting. The sealed envelope containing the name of the winner was opened in the presence of the President of the IUCr, Professor M. Nardelli, and another member of the Executive Committee, Dr E. N. Maslen. The winning entry was designed by

Professor Giovanni Predieri
Istituto di Chimica Generale
ed Inorganica
Università di Parma
Italy

and

Mrs Susanna Ciribolla
Centro Grafico
Università di Parma
Italy.

The final design of the IUCr logo will be published in the Union's journals after some small adjustments have been made to the winning submission.

Table 1. *Entrants to logo competition*

Country	Number of entrants	Number of entries
China PR	1	1
Czechoslovakia	2	7
Denmark	1	3
France	1	3
Germany DR	3	9
Germany FR	1	1
Hungary	7	18
Iran	1	3
Israel	1	2
Italy	7	18
Mexico	1	2
Netherlands	4	8
Philippines	1	3
Poland	7	19
South Africa	1	2
Spain	1	1
Sweden	2	6
Switzerland	4	7
UK	8	23
USA	13	28
Yugoslavia	1	1
	68	165

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, 5 Abbey Square, Chester CH1 2HU, England).

J. Appl. Cryst. (1989). **22**, 77–78

European Microbeam Analysis Society

The European Microbeam Analysis Society (E-MAS) was founded in 1987 as a scientific society focusing on ultrastructural analysis methodology, with primary interests in education, communication and innovation. The Society summarizes its aims and scope as follows:

The Society has been founded to meet the growing need and demands of microbeam analysis users and scientists for further education, communication and counselling. The Society is independent but wants to cooperate in a synergic way with national groups and European societies with related interests. The Society applies to scientists and technicians active in the development and application of microbeam analysis techniques and equipment. The activities of the Society should promote this branch of science and stimulate technical and scientific developments on a European scale. In order to achieve these goals the Society will be active in the development and operation of technical and scientific education programs. Further the Society will stimulate communication and cooperation between scientists and will try to act as a counselling agent for its members whenever there is a general interest to promote. The Society is operated on a non-profit basis and is run by an Executive Board which is assisted by an international Advisory Board.

The Secretary is Professor Dr R. Gijbels, Department of Chemistry, University of Antwerp (UIA), B-2610 Wilrijk-Antwerp, Belgium, to whom requests to join the Society and receive its newsletter, or enquiries about the Society, should be directed.

New Commercial Products

Announcements of new commercial products are published by the Journal of Applied Crystallography *free of charge. The descriptions, up to 300 words or the equivalent if a figure is included, should give the price and the manufacturer's full address. Full or partial inclusion is subject to the Editor's approval and to the space available. All correspondence should be sent to the Editor, Professor M. Schlenker, Editor* Journal of Applied Crystallography, *Laboratoire Louis Néel du CNRS, BP166, F-38042 Grenoble CEDEX, France.*

The International Union of Crystallography can assume no responsibility for the accuracy of the claims made. A copy of the version sent to the printer is sent to the company concerned.

J. Appl. Cryst. (1989). **22**, 78

DSM 940 – a New Economical Scanning Microscope from Carl Zeiss

The **DSM 940**, a new **scanning electron microscope** (SEM) for research and routine applications, is simple and efficient to use. Thanks to the use of microprocessors, optimum combinations of the electron-optical parameters are digitally stored and automatically called up when any of the basic functions, such as high voltage, is changed. The frame store permits instant assessment of the specimen and of the image quality on a clear steady-screen picture. This means a reduction in the use of photographic material since photography is necessary purely for documentation purposes. A video interface for video recorder, hardcopy unit, image analysis programs and additional monitors are available for other recording and analysing techniques.

The DSM 940 scanning electron microscope

The electron optics of the DSM 940 are designed to produce outstanding image quality over the whole voltage range. The high voltage is variable from 490 V to 30 kV in small steps. The triple-lens electron-optical system zooms though a magnification range from four to 200 000 times.

A turbomolecular pump produces a hydrocarbon-free vacuum in the column and the specimen chamber within two minutes. The specimen chamber is fitted with a eucentric stage, ensuring that the specimen area selected remains in the field of view and in focus even when the stage is tilted.

For element analysis the instrument can accept units for EDX (energy-dispersive X-ray analysis) and WDX (wavelength-dispersive X-ray analysis). The simultaneous use of several detectors for imaging secondary electrons, backscattered electrons and cathodoluminescence is also possible, allowing the DSM 940 to be continuously adapted to new requirements.

Carl Zeiss Oberkochen, Postfach 1369/1380, *D*-7082 *Oberkochen, Federal Republic of Germany*

J. Appl. Cryst. (1989). **22**, 78

Carl Zeiss Launches the DSM 960, its Top-Class Scanning Electron Microscope

The new **Digital Scanning Microscope** from Carl Zeiss, the **DSM 960**, the flagship of the company's SEM range, can be adapted for a wide variety of tasks and can operate with all current signal detectors and analytical systems simultaneously.

All instrument functions are monitored and controlled by a central computer, which automatically ensures optimum imaging conditions even when basic operating modes are changed. Standard equipment includes valuable aids such as autofocus, variable raster, raster rotation and other refinements. An integrated frame store facility enables the user to assess specimen and image quality immediately on a clear steady-screen picture and choose the display option he wants. A colour monitor is also available for pseudocolour display of backscattered electron images or triple-element mapping in combination with energy-dispersive spectrometry.

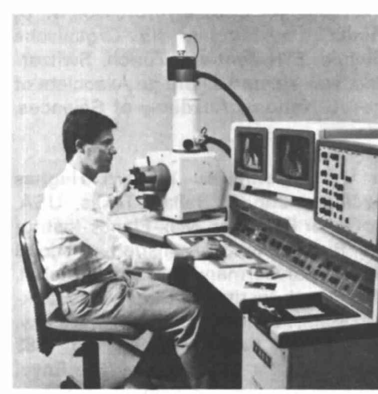
The electron-optical system incorporates the latest technology with digitized lens-current control and water-cooled lenses, producing outstanding resolving powers at the high and medium range voltages. It can be equipped with a lanthanum hexaboride cathode (LaB_6), which emits extra high probe currents and guarantees maximum emission constancy and long life.

The specimen chamber is larger than usual with dimensions of 270 × 310 × 270 mm, providing enough room for the larger specimens even when tilted. A five-axis eucentric specimen stage holds the desired area in the field of view and in focus flat or tilted. Optional motorized control permits storage of up to 120 stage positions, with four coordinates each, which are automatically relocateable after programming.

An integrated camera produces images in seconds from the frame store or on-line.

Zeiss has a whole range of image analysis options available for the new DSM 960, from the basic instrument allowing user interaction to the fully automated system which can control both the SEM and an energy-dispersive X-ray spectrometer in combination.

Carl Zeis Oberkochen, Postfach 1369/1380, *D*-7082 *Oberkochen, Federal Republic of Germany*



The DSM 960 scanning electron microscope