

Crystallographers

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 Editorial 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 2 HU, England).

Dr **W.H. Barnes** died on 25 October 1980. A full obituary will be published in *Acta Crystallographica*, Section A.

Professor **B. N. Delaunay**, a prominent Soviet geometrician, died on 17 July 1980, aged 90. He was a corresponding member of the Academy of Sciences of the USSR, a member of the Akademie der Naturforscher 'Leopoldina' Halle, a Fedorov prizewinner and a Lobachevsky International prizewinner. He was also famous not only as an outstanding scientist but as an experienced mountain climber. In his creative activities Professor Delaunay had the gift for finding simple and clear interpretations of the most complicated theoretical subjects. His superb lectures on geometry and the mathematical foundations of crystallography, which he delivered at the Moscow and Leningrad State Universities, are still remembered with admiration by the audience. Crystallographers pay tributes to him for his theoretical works which ensured the high mathematical level of modern crystallography.

Professor Delaunay's first investigations on crystallography, published in 1926–1934, were devoted to the problems of classification of lattices into 24 kinds and of the unique choice of a primitive unit cell. The results of some of the researches of these series were published in the 2nd volume of *International Tables*. His paper concerning the mathematical foundations of the structural analysis of crystals (published in 1934) has become a standard reference for crystallographers. Twenty five years later, having resumed crystallographic investigations, Professor Delaunay achieved remarkable results pertaining to the theory of homogeneous partitioning of a plane and of space, results which so far have remained unsurpassed. His brilliant monograph on the local determination of regular systems of points which he completed, together with his students, shortly before his ninetieth birthday was a bright culmination of his crystallographic investigations.

Professor Delaunay leaves behind a memory precious to his colleagues and to all the people who knew him as a classic figure of mathematics and crystallogra-

phy, a noble knight of truth and simplicity in science, a considerate teacher, and the embodiment of physical vigor and humor, which did not leave him till the last minutes of his life.

Dr **R. Henderson** and Dr **N. Unwin** of the Medical Research Council, Cambridge, England, have been awarded the first Ernst Ruska prize for their high-resolution electron microscopy and electron diffraction studies of the structure of proteins. Dr Ruska was a pioneer in electron microscopy.

Dr **Mary Porter**, who died on 25 November 1980, aged 94, was one of the last surviving crystallographers of the era before the application of X-rays to the subject. Professor H. Miers encouraged her early interest in crystallography, which she studied with him during a series of visits to Oxford between 1902 and 1908. Subsequently she worked with A. E. H. Tutton in London, P. H. von Groth in Munich and Victor Goldschmidt in Heidelberg. She returned to Oxford, being Lady Carlisle Research Fellow at Somerville College between 1919 and 1929, and was awarded a DSc in 1932. She was an Honorary Research Fellow of Somerville College from 1949 until her death. Her main work was *The Barker Index of Crystals, A Method for Identification of Crystalline Substances*, published in seven volumes from 1951 to 1964.

While Professor **J. B. Cohen** is continuing as a Co-editor of *Journal of Applied Crystallography* until the end of the Twelfth General Assembly and Congress of Crystallography in Ottawa, August 1981, as reported in *Crystallographers* in the December 1980 issue, new submissions should be sent to Dr **H. Yakel**, Metals and Ceramics Division, Oak Ridge National Laboratory, Tennessee.

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).

Historic Scientific Instruments

The Scientific Instrument Commission of the Division of History of Science of the International Union of History and Philosophy of Science aims to stimulate the production of inventories and catalogues of historic scientific instruments

and facilitate the exchange of information in this field. Priority is given to the latter objective and meetings will be held in Bucharest in 1981 and Kassel in 1982. National inventories of scientific instruments are available for Belgium, France, Italy, Poland and the USSR; one for the UK should be published in 1981. Anyone interested in these activities should write to Lt Cdr H. D. Howse, National Maritime Museum, Greenwich, London SE10, England, or Dr G.L.E. Turner, Museum of the History of Science, Oxford, England.

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.

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Molecular beam epitaxy. Edited by **B. R. Pamplin**. Pp. v + 174. Oxford: Pergamon Press, 1980. Price US \$ 35.00, £ 15.75.

'Molecular beam epitaxy (MBE) is a new technique of crystal growth that is rapidly expanding in research and applications. This book, the first on the subject and written by leading practitioners of the art, is a collection of articles which introduces the reader to the use of MBE in the III–V and IV–VI compounds and alloys and indicates the semiconductor and integrated optics reasons for using the technique.' Thus the book introduces itself on its back cover.

This 1980 volume is in fact a hard-cover version of a 1979 issue of *Progress in Crystal Growth and Characterization*, a review journal which describes its purpose as being 'addressed to (those) who are looking for a comprehensive summary and review of a subject in which they have no expert knowledge.' The reader may therefore expect this book to provide a good introduction to MBE. In fact, while the book's seven articles are interesting and informative, a good introductory chapter is lacking.

Actually, the editor, Dr Pamplin, has supplied an introduction. Less than two pages long, it is probably the most thought provoking part of the book. In this introduction, Dr Pamplin raises the possibilities of adapting MBE to space processing in orbital laboratories and to the creation of new, highly complex inorganic crystals. But the introduction also is an apology, since the articles in this volume reflect the conservative reality imposed upon MBE research and development by