

Obituary

Academician M. M. Shemyakin

MIKHAIL MIKHAILOVICH SHEMYAKIN, who died on June 26, was one of the leading organic chemists and biochemists in the Soviet Union.

He was born in 1908 in Moscow, and was educated at Moscow State University, where he graduated in 1930. In the years that followed, he was attached to a number of research institutes and establishments: the Institute of Organic Semi-products and Dyes (1930–35), the Moscow Institute of Precision Chemical Technology (1935–45), the All-Union Institute of Experimental Medicine (1937–59), the Moscow Textile Institute (1945–47) and also the Institute of Biological and Medical Chemistry of the Academy of Medical Sciences of the USSR. Since 1964 he had held the post of Academic Secretary of the Department of Biochemistry, Biophysics and Chemistry of Physiologically Active Compounds of the Academy of Sciences of the USSR; since 1960 he had been Director of the Institute for the Chemistry of Natural Compounds of the Academy of Sciences of the USSR.

Shemyakin's research covered the chemistry of natural compounds and molecular biology. He made outstanding contributions to the study of the structure and function of the principal biopolymers and bioregulators, and carried out fundamental research into the problems of proteins and peptides, biological membranes, antibiotics and vitamins. He was author or co-author of a number of definitive works in these fields, including *The Chemistry of Antibiotics* (1953), *Oxidizing-Hydrolytic Transformations of Organic Compounds* (1957) and *Stereochemistry and the Mechanism of the Wittig Reaction* (1963).

He played a considerable part in the development of biochemistry and organic chemistry throughout the Soviet Union, taking an active part in the organization of new research centres and institutes and in stimulating the work of biologists, chemists and physicists engaged on the solution of many currently pressing problems of Soviet science and the Soviet economy. For his services to the economic progress of his country, he had been awarded a number of Soviet orders and medals, and had been made a Hero of Socialist Labour. He also devoted much attention to the fostering of international links in science and was one of the Soviet representatives on the Scientific Advisory Panel of the Ciba Foundation. Shortly before his death, he had been Honorary President and Director of the International Symposium on the Chemistry of Natural Compounds in Riga.

Academician A. V. Shubnikov

ALEKSEI VASIL'EVICH SHUBNIKOV, the leading Russian crystallographer, died on April 27, in his eighty-fourth year.

Shubnikov was born in Moscow and began his research in 1910, while still a student at Moscow University. During the following sixty years, he carried out wide-ranging investigations of the theory and practice of crystallo-

graphy. His research into symmetry led to the formulation of the concept of generalized symmetry (antisymmetry). He made a considerable contribution to the development of the theory of piezoelectricity, and was responsible for the discovery and application of a number of piezoelectric materials. His outstanding work on the growing and processing of crystals made him a pioneer of the synthetic crystals industry of the Soviet Union.

In addition to his research work, Shubnikov was responsible for the initial organization of the Institute of Crystallography of the Academy of Sciences of the USSR, of which he was director for more than twenty years. He founded the Department of Crystal Physics of Moscow University, and was founder and first editor-in-chief of the journal *Kristallografiya*. He was the author of a number of standard works on crystallography, including original monographs and textbooks.

For his discoveries in crystallography and his services to Soviet science and industry, Shubnikov was awarded a number of prizes and honours, including two State Prizes, the Order of Lenin (twice), the Order of the Red Banner (twice) and the title of Hero of Socialist Labour.

Dr M. M. Gerasimov

MIKHAIL M. GERASIMOV, one of the most outstanding figures in modern Soviet archaeology, died on July 21, after a prolonged, unspecified illness.

Gerasimov, who was born in Leningrad in 1907, combined his studies as an anthropologist and archaeologist with a considerable talent as an artist and sculptor. In 1927, following his discovery of the upper Palaeolithic settlement of Mal'ta (80 km from Irkutsk), he became interested in the possibility of the reconstruction of the soft tissues of the face, using the principles of anthropology and the techniques of sculpture.

In 1927, he began work on a series of "portraits" of various anthropological types and historical figures, the latter including Timur (Tamerlane), Andrei Bogolyubskii, Yaroslav the Wise, Admiral Ushakov, Ivan the Terrible and Friedrich Schiller. His Palaeolithic and Neolithic reconstructions covered the main archaeological sites of the world; special emphasis was placed, however, on the Mal'ta settlement and also Trepole (Ukraine).

His work established plastic reconstruction as a recognized part of Soviet archaeological practice, and a special laboratory for this was founded under his directorship, a post which he held to the end of his life.

His work has also found an application in forensic science.

His principal publications include *The Principles of Facial Reconstruction on the Basis of Skull Formation* (1949) (for which he was awarded a Stalin Prize in 1951), *Facial Reconstruction on the Basis of Skull Formation, Modern and Fossil Man* (1955) and *The Mal'ta Palaeolithic Settlement and its Place among the Palaeolithic Relics of Siberia* (1961).

Announcements

University News

George B. Field has been appointed chairman of the Astronomy Department at the University of California (Berkeley), in succession to Ivan R. King. Dr Harold M. Agnew has assumed direction of the Los Alamos Scientific Laboratory, New Mexico, operated by the University of California for the US Atomic Energy

Commission. He succeeded Norris E. Bradbury, who has retired.

Michael B. McElroy, formerly at Kitt Peak National Observatory, has become Abbott Lawrence Rotch professor of atmospheric science at Harvard University. Dr Neal Balanoff has been appointed professor of instructional development and director of a newly