

## OBITUARY

### TO THE MEMORY OF Aleksandr Arsen'evich Konkin



The II Interbranch Scientific–Technical Conference "Carbon and Other Heat-Resistant or Electrically Conducting Fibres, Composite Materials, and Their Application in the Economy," which was held October 17-19, 1990 in the Khimvolokno Scientific–Production Association, was confined to the 80th anniversary of Aleksandr Arsen'evich Konkin, who was a professor, doctor of chemical science, and state prize laureate of the USSR. He was one of the sources of studies devoted to developing unique technical materials – carbon fibres, and since 1967, he had been in charge of this problem in the "Khimvolokno" Scientific–Production Association. Although the first work in this region, which was performed under the direction and with participation of A. A. Konkin, may be assigned to the start of the 1960s, it was in 1967 that he began systematic and purposeful studies associated with developing domestic technology for the manufacture of carbon fibrous materials based on various types of raw materials.

The work of A. A. Konkin on the problem of developing carbon fibrous materials was preceded by lengthy pedagogical activity in the Moscow Textile Institute in the posts of Deputy Director and Director of the All-Union Scientific-Research Institute of Synthetic Fibers. The sphere of his scientific interests was vast: he worked in the field of cellulose chemistry, and the chemistry and technology of viscose tire cord, polyester, and polyolefin fibres. Once having started research in a new region, he brought to it his large experience as a director, extensive knowledge of the theoretical bases of the chemistry and technology of man-made fibres, and a broad scientific outlook.

Numerous institutes were drawn into solving this new complex scientific–technical problem, and from these a creative collective was formed which A. A. Konkin knew how to direct.

As a devotee of everything new and nontraditional, with great enthusiasm, he investigated all aspects of a problem and put the research on a high theoretical level. Under his direction, a set of scientific–investigative research work was carried out investigating the mechanism of the thermal transformations of polymers and man-made fibres, and scientific bases were developed for the preparation of carbon fibrous materials based on hydrocellulose or polyacrylonitrile fibres. In fact, during this time in the investigations of the All-Union Scientific-Research Institute of Synthetic Fibers, Scientific Research Institute Grafit, IGI, and the VNIIEI, which were united by a common purpose, a new chapter in polymer science was born – the chemistry and technology of fibrous carbon materials.

The results of these studies made it possible to scientifically find and develop scientific processes and equipment for the preparation of carbon fibres of various types and textile forms; in a short time, industrial manufacture of carbon fibre materials for various purposes were developed: the UUT-2, Ural, LU, UKN, and others.

The government thought highly of the services of the creative collectives in developing the new technical materials necessary for our country, and in 1977 and 1988 awarded the State Prize of the USSR for the development and introduction of high-strength carbon fibres and for the organization of industrial output of the Ural materials. The high authority of A. A. Konkin in manufacturing plants and his creative contact with the factories aided in the successful introduction of industrial manufacture of fibrous carbon materials.

The democratic situation in the division and the novelty of the subject matter predetermined a blossoming of creative activity and the development of scientific-research groups: during the lifetime of A. A. Konkin and even after his death, 11 candidate's and two doctoral dissertations on the subject matter of carbon fibres were defended.

A. A. Konkin paid much attention to popularizing scientific knowledge. He was one of the initiators in creating the journal, "Khimicheskie Volokna" and over the course of a number of years he was its principal editor.

Among the numerous publications and books devoted to current problems in the chemistry and technology of man-made fibres, his monograph, "Carbon and Other Heat-Resistant Fibres," has become a noteworthy appearance in the technical literature. Up until now it has remained a reference book and handbook about many questions relating to investigating the structure, properties, and methods of preparing carbon fibrous materials from various types of raw materials.

A. A. Konkin was an acknowledged authority in the field of the chemistry and technology of various types of man-made fibres, and repeatedly took part in international conferences. He gave much importance to the organization of scientific-technical information and to personal contact among scientists and research workers; on his initiative in 1982, the first All-Union conference on the problem of carbon fibres and composite materials was held in the "Khimvolokno" Scientific-Production Association. Regrettably, the conference was set-up after the death of A. A. Konkin.

Inherent to the personality of A. A. Konkin was not only scientific authority but also a many-sided set of interests. He was a man of encyclopedic knowledge, and he was interested in and deeply understood world-wide and domestic literature and history, especially those bright pages which are associated with the development of leading social ideas, with the names of the Decembrists, and of A. I. Gertsen.

Time has passed. For more than eight years, A. A. Konkin has not been among the living, but after him there remains his school, his students, and his successors, in whose hearts and minds lives the bright memory of him as a superior person and a great scientist.

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