CHEMISTRY AND ECOLOGY

Proceedings of the Scientific Session of the Division of General Chemistry and Chemical Engineering of the Academy of Sciences of the USSR, Moscow, 27–28 February 1989

During the last decade humanity fully recognised the necessity for thrift as regards all kinds of natural resources and for the reduction of the anthropogenic stress exerted on the environment. This recognition has been reflected in the concept of a steady development of the world community, whose elements are already being realised in countries possessing a strong economic base.

There has been a sharp growth of attention devoted to ecological problems also in our country—both in the community and at the governmental level. Serious attention is being devoted to such problems also in the activity of the Academy of Sciences of the USSR. A "program for the biosphere and ecological research by the Academy of Sciences of the USSR" was adopted in 1989 within the framework of which the "Chemistry and Ecology" section was formulated.

Ecology and its problems are connected by many links to chemistry. These involve the chemical reactions and processes in our environment, the wide variety of chemical industries with an enormous need for resources and energy and a large amount of harmful waste, the chemical pollutants arising from power engineering and transport, and the wide-scale employment in our economy and in the social sphere of a wide variety of chemical substances and products.

However, although chemistry and chemical substances and products constitute one of the principal sources of pollution of the environment, they at the same time open the most universal and effective routes leading to the overcoming of these undesirable phenomena.

The scientific session of the Division of General and Technical Chemistry of the USSR Academy of Sciences was held on 27–28 February, 1989 and the principal aspects and specific results of studies carried out within the framework of the "Chemistry and Ecology" subprogram were discussed. The proceedings of this session are published in the present issue of the journal *Uspekhi Khimii*.

The reports combined under the heading "Chemosphere and Ecology" analyse a series of important aspects of the pollution of the environment by chemicals and describe the present state of the corresponding research. In considering the problems concerning the protection of nature, it is at the same time important not to be content with merely raising the alarm but to become involved as soon as possible in the constructive solution of such problems. In this connection, interesting reports are included in the section "Introduction of Ecological Factors into Chemical Industries" and "Introduction of Ecological Factors into Power Engineering and Transport".

Overall, the proceedings of the scientific session constitute an effective base for the provision of a systematic framework and for speeding up the work of research chemists on acute modern ecological problems.

The preparation and holding in our country of the International Conference on "Chemistry and Steady Development—A Clean Environment, Waste-Free Technologies, Effective Utilisation of Energy" in September of next year should stimulate a new wide-scale employment of the advances in modern chemical science and technology for the solution of complex ecological problems and for improving the quality of the environment.

Academician V A Koptyug
Academician O M Nefedov