OBITUARY



SERGEI IVANOVICH SKLYARENKO

(1897–1962)

On the 27th May, 1962, after a brief but severe illness, Professor Sergei Ivanovich Sklyarenko, Doctor of Chemical Sciences, who rendered valuable services to science and engineering in the RSFSR, passed away. Soviet science has lost in him a great scientist, a public figure, a brilliant teacher and methodologist, a charming, transparently honest man, and an indefatigable worker.

Sklyarenko was born into a Moscow doctor's family on the 2nd April, 1897. His independent career began at the age of 16. In 1915 he entered the natural science division of the Faculty of Physics and Mathematics at Moscow University, graduating from there in 1923 in physical chemistry. He carried out his first researches while he was still a student. During the subsequent forty years he published about 200 scientific papers.

Sklyarenko's scientific and teaching activities developed in several directions at once. His main place of work was the Military Chemical Defence Academy, where he started as a deputy departmental head, and from 1938 was Head of the Department of Physical Chemistry

An outstanding physical chemist, he contrived throughout all his creative work to bring pure scientific research into intimate combination with the solution of current problems affecting defence and the national economy.

The main field of Sklyarenko's work was the electrochemistry of the rare elements. His researches in this field cover almost all the rare elements, with particular attention to the study of lithium, rubidium, caesium, the rare-earth elements, tantalum, niobium, antimony, and rhenium. He developed general techniques for the electrolytic preparation of certain groups of rare metals, their alloys and compounds, and coatings of rare metals and their alloys, and also electrolytic methods for obtaining rare metals of high purity. A large number of his pupils and colleagues, working in a number of organisations and in many of our cities, took part in the researches into the electrochemistry of rare elements. For his work in this field, the results of which were applied in industry, Sklyarenko was twice (in 1941 and 1950) awarded a State Prize.

Since 1932 a course on the electrochemistry of the rare elements, which was started by Sklyarenko, has been given at the Moscow Lomonosov Institute of Fine Chemical Engineering.

Recently Sklyarenko had been working on the generalisation of his extensive and many-sided researches into the electrochemistry of rare elements, but unfortunately he did not manage to complete his fundamental monograph.

Also prominent among Sklyarenko's numerous researches is his work on the kinetics of evaporation. In it he elucidated for the first time, with exhaustive completeness and clarity, the difference between azeotropic and constant-boiling mixtures, gave means for finding the composition of the latter, and studied the effect of films of surface-active substances on the rate of evaporation of liquids and solutions.

Sklyarenko's thorough investigations of the kinetics of hydrolysis are of great interest: they have led to a number of researches both in the Soviet Union and abroad, and their basic conclusions have found their way into textbooks of physical chemistry.

In the course of 40 years Sklyarenko with his pupils studied the physicochemical properties of various substances and mixtures. During these investigations he formulated many valuable generalisations, and devised new methods for studying the physicochemical properties of multicomponent systems, which are of special value in solving a number of practical problems. Together with his colleagues he developed and perfected techniques for measuring many physicochemical quantities, and also designed a number of original instruments; many of his instruments and techniques have been adopted into analytical laboratory practice.

Sklyarenko was a happy combination of a great scientist with a wide range of scientific interests, and a talented lecturer, teacher, and methodologist. During his 40 years of teaching at universities and technical colleges he educated a great number of students and created a number of teaching aids of high quality for use in colleges. He also supervised a large number of students who read for a Candidate's Degree (Ph.D. equivalent). A number of his own pupils are now Doctors of Science, and occupy responsible posts in research institutes, higher educational institutions, and industry.

Sklyarenko's considerable public activity in connection with scientific matters must also be mentioned. For a number of years he was a member of the Commission of Experts of VAK, and recently its Chairman; he was also a member of the section for chemistry and chemical engineering of the USSR Council of Ministers' Committee on Lenin Prizes.

He was a member of the Scientific Councils of the Military Chemical Defence Academy and the Lomonosov

Moscow Institute of Fine Chemical Engineering, and also a member of the Scientific and Engineering Council of the State Research Institute for Rare Metals. He was an active member of the Mendeleev All-Union Chemical Society, and for many years the Chairman of its local organisation at the Military Chemical Defence Academy.

Sklyarenko was an exceptionally sensitive and sympathetic man, who was always ready with help and support for anyone in need of it. His shining example will remain for ever in the memory of all his many friends, pupils, and colleagues.

A group of colleagues