



Condensed Matter and Interphases

Kondensirovannye Sredy i Mezhfaznye Granitsy
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A special message from the editor-in-chief of the Condensed Matter and Interphases journal to the readers in connection with the anniversary of Ya. A. Ugai



Dear colleagues and readers!

On September 20, 2021 we celebrate the 100th anniversary of the birth of an outstanding scientist and teacher of Voronezh State University, DSc in Chemistry, Professor Yakov Aleksandrovich Ugai, the founder of a new priority branch of science "The chemistry of semiconductors". Yakov Aleksandrovich was the founder and head of the leading scientific school "Solid state chemistry and semiconductors". The school has had more than 650 studies (including certificates of authorships and patents) published in central domestic periodicals: Proceedings of the USSR Academy of Sciences and RAS, Russian Chemical Reviews, Russian Journal of Inorganic Chemistry, Russian Journal of Physical Chemistry, Russian Journal of General Chemistry, Inorganic Materials, Journal of Applied Chemistry, Semiconductors, Solid-state Physics and in foreign press. In addition, 7 monographs have been published, including: Shevchenko V. Ya., Ugai Ya. A., et al. "Crystallochemical problems of semiconductors". M.: Science, 1975. 132 p., Ugai Ya. A., Goncharov E. G., Semenova G. V., et al. "Phase equilibria between phosphorus, arsenic, antimony, and bismuth". M.: Science, 1989. 204 p.

The first studies by Yakov Aleksandrovich and his colleagues on the identification of new semiconductor substances (Proceedings of the USSR Academy of Sciences 1961–1965, Russian Journal of Inorganic Chemistry 1962–1964) have laid the foundations for a scientifically grounded classification of semiconductors. (Ugai Ya. A. "Introduction to the chemistry of semiconductors". M.: High School, 1965. 332 p. and 1975. 300 p.).

The idea of the dependence of the properties of solids, not only on the qualitative and quantitative composition, but also on their crystallochemical



structure, runs like a golden thread in all the textbooks of Ya. A. Ugai, intended for students of chemical faculties of classical universities (Ya. A. Ugai “General chemistry”. M.: High School, 1977. 408 p. and 1984. 438 p.). He was one of those who redefined the concepts and problems of inorganic chemistry relating to the solid state of matter. (Ya. A. Ugai “Inorganic Chemistry”. M.: High School, 1989. 463 p.). His textbook “General and Inorganic Chemistry”. M.: High School, 1997. 527 p. was reprinted several times from 1997 to 2007. This textbook is still in demand, not only in the leading universities of Russia, but also abroad.

For his research on the chemical thermodynamics of semiconductors as part of a group of scientists in 1981, Ya. A. Ugai was awarded the USSR National Prize in Science. Ya. A. Ugai took an active part in the certification of scientific personnel, for more than two decades he was a member of the expert committee on inorganic chemistry of the State Commission for Academic Degrees of the USSR and the Russian Federation. For more than 10 years he was the head of the doctoral dissertation board on chemical sciences of Voronezh State University and was a member of the editorial board of the journal “Inorganic materials” of the Russian Academy of Sciences.

From 1962 to 1966 he was the head of the Department of Semiconductor Chemistry, the first

of its kind in the USSR, which he created. From 1975 to 1984 he was the vice-rector for research of Voronezh State University, at the same time he was the head of the Department of General and Inorganic Chemistry. He was awarded the Order of Friendship of Peoples. In 1995, the city council elected him as a Distinguished Citizen of Voronezh.

Yakov Aleksandrovich was the supervisor of more than 70 PhD students, out of which 9 people obtained DSc degree. Ya. A. Ugai was a bright, outstanding personality: highly erudite, cheerful, and possessed encyclopaedic knowledge. Until now, there are legends about his lectures, which were attended by both his students, who became teachers, and employees of other faculties and universities. In addition to the excellent, clear presentation of the main material, he kept the attention of the audience alive and always found the opportunity and time to share facts regarding the history of chemistry and the biography of scientists.

The staff of the Faculty of Chemistry, his students, and followers try to preserve all the traditions laid down by Yakov Aleksandrovich Ugai, as evidenced by the articles of this anniversary issue of the journal, which cover topics related to materials science in solid state chemistry and inorganic and physical chemistry.

Editor-in-chief of the journal “Kondensirovannye sredy i mezhfaznye granitsy = Condensed matters and interphases”, Dean of the Chemical Faculty of Voronezh State University, DSc in Chemistry, Professor V. N. Semenov

Translated by Valentina Mittova