

Russian Academy of Sciences
Division of Chemistry and Material Sciences
A.N. Nesmeyanov Institute of Organoelement Compounds
Mendeleev Chemical Society



Modern trends in organometallic chemistry and catalysis

4th International symposium
dedicated to the 100th anniversary of academician
Mark Vol'pin
23-27 May 2023
INEOS RAS, Moscow, Russia

The day of May 23 2023 is the 100th anniversary of the birth of Mark Efimovich Vol'pin, chemist of genius and one of Russia's leading scientists.

Mark Efimovitch Vol'pin started his career as an organic chemist, then moved into organometallic chemistry, and ended it in bioinorganic chemistry. From 1988 he was the director of the A.N. Nesmeyanov Institute of Organoelement Compounds (INEOS) of the Russian Academy of Sciences.

Vol'pin came from a medical background but, after service during the Second World War, he graduated in Chemistry from Moscow State University in 1949. He first became well-known in the mid-1950s for his studies on the chemistry of tropylium, a remarkable organic compound with seven carbons in a ring, bearing a positive charge, which was isolable due to its 6-electron "aromatic" character. He later expanded the chemistry of such organic positively charged ions to the 3-membered ring, 2-electron analogues. For that work he was awarded the Lenin Prize in 1963. Deriving from this he became interested in the highly reactive unsaturated single carbon species called carbenes, which in turn led him to investigate related systems, including some highly reactive and unsaturated metal complexes. The successful synthesis of diphenylcyclopropanone via the reaction of dihalocarbenes with toluene led Vol'pin to very important theoretical generalizations for the concept of "carbenoids", heteroanalogs of carbenes (R_2Ge , R_2Sn , RB).

An interesting sidelight on the path of pure scientific research in the hands of a master like Vol'pin is seen in his progression from organic chemistry to a most remarkable discovery in inorganic chemistry: a metal complex with the ability to "fix" atmospheric nitrogen under very mild conditions. The catalytic system that Vol'pin and V.B. Shur developed offered a signpost to many other workers. For this research Vol'pin was awarded the USSR State Prize in 1982, as well as numerous other honours, and was elected to full membership of the USSR Academy of Science in 1987.

In his later work he studied biological metal complexes that could generate very active species, in this case free radicals. The object of these researches was to find compounds that were absorbed by tumours and would destroy them without harming healthy tissue. He felt that this work represented his most satisfying achievement.

In his later career he was the intellectual powerhouse that drove the research staff of INEOS by example and inspiration. Characteristically he ran a relatively small group himself and did not have his name on all the Institute publications, as was the custom elsewhere. He was a very approachable, gentle and nice man; and he was appointed Director on three separate occasions. Vol'pin was a tall youthful-looking man with a ready smile. He was a most convivial companion, and much enjoyed entertaining friends and visitors.

Adopted from [Prof. Peter Maitlis, *The Independent*. 24 October 1996.](#)

Dear colleague,

The Organizing Committee cordially invites you to participate in the **4th International symposium “Modern trends in organometallic chemistry and catalysis”** dedicated to the 100th anniversary of the academician M. E. Vol'pin, who was one of the eminent Russian chemists of XXth century and served as the INEOS Director in 1988-1996.

The symposium will be held at the A.N. Nesmeyanov Institute of Organoelement Compounds of the Russian Academy of Sciences (Moscow, Russia) on **May 23-27, 2023**.

Scientific Program

The major topics of the Symposium are

- Organometallic Chemistry
- Catalysis by Metal Complexes
- Bioinorganic Chemistry
- Materials

The Symposium Program will include plenary (30 min) and invited (20 min) lectures, oral contributions (15 min) and poster presentations.

The official symposium languages are **English and Russian**.

Key Deadlines

Oral abstract submission	31 March 2023
Poster abstract submission	7 April 2023
Standard registration	20 May 2023

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Symposium venue

The Symposium will be held at the A.N. Nesmeyanov Institute of Organoelement Compounds of the Russian Academy of Sciences, Vavilova St. 28, bld. 1., Moscow.

Sponsors

There is a number of sponsorship and exhibition opportunities available at the symposium, including sponsorship of social events, advertisements in the book of abstracts, table top exhibitions and presentations. Please contact symposium secretary for further information.

Contacts

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