

Patrylak Kazymyr Ivanovych *To 75 anniversary of the birth*



Patrylak Kazymyr Ivanovych was born in Poland, on December 16, 1938. In 1946 his family has been moved to Ukraine (Ternopil obl., Zboriv reg., vil. Gai Roztotski), where he completed the secondary school. In 1956–1961 he studied in Lviv Polytechnic Institute (“Oil and Gas Technology” specialty) and then has been directed to Polymer and Monomer Chemistry Institute of Academy of Sciences of Ukraine. Since then he work in the system of Ukrainian National Academy, where he was promoted from Engineer to Head of Department. He is Candidate of Chemical Sciences (PhD) from 1969 and Doctor of Sciences (Chemistry) from 1986. During 1991–2012 K.I.Patrylak headed the Department of Catalytic Synthesis of Institute of Bioorganic Chemistry and Petrochemistry of National Academy of Sciences of Ukraine (IBCP NASU), where presently he fills the position of Leading Researcher holding at the same time the position of Professor of National Technical University of Ukraine “Kyiv Polytechnic Institute” (NTUU “KPI”).

K.I. Patrylak is author and co-author of over 250 scientific works, including two monographs and 25 patents. His scientific interests are centered on the investigation of complex heterogeneous and heterogeneous-catalytic systems using developed by him precision experimental methods and the theoretical approaches.

In 1970–1980 K.I. Patrylak has proposed a non-equilibrium physico-chemical urea-inclusion-compounds-formation model which is based on the sign variable differences of the fundamental physico-chemical properties of urea in the bulk state and in the form of clusters in the wide temperature range.

The last time these ideas are transferred to disperse catalyst systems what allowed to conclude about some optimum size of particles, when catalyst, starting from a certain temperature, is characterized by maximum efficiency for particles of a minimum size, but of being fully-formed in their crystalline structure.

It is shown that on above sign variable differences the oscillatory adsorption and oscillatory proceeding of a range of carbonium-ion reactions as well as the driving forces and switching mechanisms of these processes are based.

By K.I. Patrylak a number of acid zeolite catalysts basing on domestic raw materials are developed. The studies of the reactions, which underlie the major oil refining and petrochemistry processes, together with the nature of the catalytic activity are resulted in the proposed mechanisms for corresponding carbonium-ion hydrocarbon reactions.

In 1986-1989 K.I. Patrylak was an active participant of the Chornobyl nuclear power plant catastrophe liquidation. He has developed and implemented on hundreds of hectares the technology of lasting chemical-biological consolidation of the dustiest sand areas of the Estrange zone.

At this time, K.I.Patrylak is working successfully upon the creation of original homogeneous and heterogeneous catalytic technologies for production of biodiesel fuel on the base of different vegetable oils by their transesterification with ethanol.

An especial attention K.I. Patrylak pays to the preparation of scientific change: among his students are 11 PhDs, one Doctor of Sciences (Chemistry), more than 30 engineers and masters. He is a member of the Specialized Scientific Council at IBCP of NASU for defense of candidate and doctor theses, a member of the NTUU “KPI” State Examination Committee, is a member of the Editorial Boards of the journals "Theoretical and Experimental Chemistry" (Ukraine), “Petrochemistry” (Russia) and digest “Catalysis and Petrochemistry” (Ukraine).

He was awarded by Government by three medals, by Charter of Chornobyl nuclear power plant catastrophe liquidation Government Committee, Honorary Charter of the Presidium of National Academy of Sciences of Ukraine, and Charter of the Supreme Soviet of Ukraine.

Editorial boards of Digest, colleagues, students, post-graduate students congratulate Kazymyr Ivanovych with his birthday and wish him good health, inspiration for new discoveries and creative longevity.