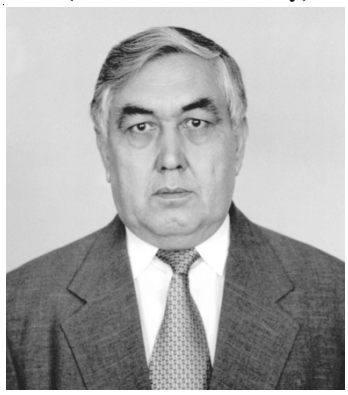
KHUSNUTDIN MUKHITOVICH SHAKHIDOYATOV
(on his 70th birthday)



Doctor of Chemical Sciences, Professor, and Chief Editor of the journal Chemistry of Natural Compounds Khusnutdin Mukhitovich Shakhidoyatov celebrated on March 15 his 70th birthday and 47 years of scientific and society activity.

In 1963, after graduating from Tashkent Pharmaceutical Institute, he was a graduate researcher at the Scientific Research Institute of Cellulose Chemistry and Technology and then started graduate studies at the Institute of the Chemistry of Plant Substances (ICPS), Academy of Sciences (AS) of the Uzbek SSR, and moved to the N. D. Zelinskii Institute of Organic Chemistry, Academy of Sciences of the USSR (1965-1968). Since 1968, he rose from a Scientific Assistant to Director of the ICPS (1998-2003). From 2004 until now, he has been the Head of the Department of Organic Synthesis, ICPS, AS of the Republic of Uzbekistan. In 1968 he defended his candidate dissertation; in 1984, his doctoral dissertation. In 1990, he was awarded the title of Professor.

Kh. M. Shakhidoyatov is a knowned scientist in the area of organic chemistry and the chemistry of natural and biologically active compounds. His scientific interests are multi-faceted, including the isolation, synthesis, and transformation of natural compounds; the development of targeted synthetic methods for chemical plant protective agents; medical preparations; and the elucidation of structure—biological activity relationships.

Research on the modification of quinazoline, quinolizidine, and pyrrolizidine alkaloids, lactones, and polyisoprenoids is conducted under the direction of Kh. M. Shakhidoyatov. Polyisoprenoids from leaves of various genetic and industrial cotton varieties were studied. Polyprenols, α-tocopherol, sterols, bombiprenones, glycinoprenols, and diols were observed in them for the first time. HPTLC methods for isolation and analysis were developed. Local plant sources of polyprenols were found as a result of studying the components in neutral extracts from plants of the families Malvaceae, Moraceae, Vitaceae, and Platanaceae and were used as the basis for creating the biostimulant "Uchkun", which is approved for use in cotton production, and for developing the technology for its production. The plant-growth stimulators "Pakhtaoi" and "Yulduzcha" were created.

In-depth research was carried out on the modification of tricyclic quinazoline alkaloids. This enabled the development of simple methods for producing alkaloids from the plants *Peganum harmala*, *Mackinlaya subulata Philipson*, and their thiophene and pyridine analogs and homologs. The creation of a facile method for producing deoxypeganine was responsible for its incorporation into medical practice and the manufacturing of synthetic "Deoxypeganine Hydrochloride". A new anomalous reaction of tricyclic quinazolone alkaloids and their derivatives with formylating agents that gave products with a formylated α-methylene group was discovered.

Methods for forming C–C bonds in several tricyclic quinazoline alkaloids (deoxyvasicinone, maackinazolinone, deoxypeganine, maackinazoline) and their derivatives via reaction with carbonyl compounds were elaborated.

Modification of the quinolizidine alkaloid cytosine produced various *N*-acyl- and alkyl-derivatives containing thiadiazole, lactam, and other rings. Stable *Z*- and *E*-conformers of chloroacetylcytisine were found.

Research on the introduction of electrophilic agents into alkaloids with a CH-group next to a N atom enabled methods for preparing deoxypeganine derivatives with a chiral center to be developed. He first demonstrated the ability to create an optically active center using chiral catalysts and synthesized substituted deoxypeganines with two chiral centers.

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The research performed by Kh. M. Shakhidoyatov on the chemistry of five- and six-membered heterocycles led to the creation of the fungicide KMAX and the bactericide "Nikamizolon", which are approved for use in agriculture.

The results of his research are published in more than 600 scientific works, including two monographs, three student handbooks, more than 20 patents, scientific articles, and abstracts of papers of international symposiums and conferences.

His research is related to leading world scientific centers in Great Britain, France, the USA, Italy, Belgium, Poland, Russia, Turkey, Ukraine, and Kazakhstan.

Professor Kh. M. Shakhidoyatov pays special attention to the training of young scientists, giving lectures in higher education institutions on Pharmaceutical chemistry, the Chemistry of heterocyclic compounds, and the Chemistry of pesticides. One doctoral and 34 candidate dissertations were defended under his direction. Twenty five masters and ten baccalaureate dissertations were defended in the last five years.

Professor Kh. M. Shakhidoyatov is Chief Editor of the journal "Chemistry of Natural Compounds" and a member of the Editorial Board of the Uzbek Chemistry Journal. He was chair of a Specialized Committee in 1998-2003 and a member of two Specialized Committees for the defense of doctoral dissertations.

Kh. M. Shakhidoyatov greets his 70^{th} birthday with new creative ideas.

The Editorial Board of the Chemistry of Natural Compounds and the staff of the ICPS and the scientific society sincerely congratulate Khusnutdin Mukhitovich with his jubilee and wish him good health and great creative success.