

CHRONICLES

FOURTH ALL-UNION COLLOQUIUM ON THE CHEMISTRY AND PHARMACOLOGY OF INDOLE COMPOUNDS

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The Fourth All-Union Colloquium on the Chemistry and Pharmacology of Indole Compounds, organized by the Academy of Sciences of the Moldavian SSR (AS MSSR), was held from May 28 to May 30, 1975, in Kishinev. Approximately 150 individuals participated in the work of the colloquium.

The following communications may be noted as among the most interesting. Member of the AS MSSR G. V. Lazur'evskii reviewed the occurrence of indole compounds in plants, animals, and microorganisms and noted their important role as natural medicinals, growth stimulants, vegetable dyes, and biogenic amines. Special attention was directed to the indole alkaloids, for which a classification with respect to chemical structure was given and a unified nomenclature was proposed. Professor N. N. Suvorov examined recent advances in the biochemistry and pharmacology of indolyalkylamines. A paper presented by L. G. Yudin and A. N. Kost was devoted to the principles of electrophilic substitution in the indole series and to correlation of the spectral-kinetic studies in this area. They noted that the orientation in the introduction of electrophilic substituents in the indole ring is determined by the form (neutral, protonated, or deprotonated) of the reacting indole molecule and by the substituents in the ring. Data characterizing the peculiarities of its behavior in solutions of strong acids were correlated.

A paper presented by Professor A. I. Razumov contained a review on methods for the preparation of phosphorylated indoles. Interesting rearrangement processes were observed during the Fischer cyclization of acetals of phosphorylated aldehydes to give 2-substituted rather than 3-substituted indoles. The mechanisms and kinetics of the phosphorylation reactions of sodium and lithium derivatives of indole with the chlorides of tri- and tetracoordinated acids of phosphorus were investigated. The considerable role of the phosphorylated compounds in numerous vital processes was noted.

A communication by Professor I. I. Grandberg and N. M. Przheval'skii regarding a new concept of the Fischer reaction via a scheme involving a [3,3]-sigmatropic shift stimulated definite interest and lively discussion.

The direction of the Nenicescu reaction as a function of the substituents in the quinone ring was discussed in a paper presented by V. I. Shvedov and A. N. Grinev. A great deal of attention was directed to hitherto little-studied 4,5,6,7-tetrahydroindoles, on the basis of which methods for the preparation of condensed heterocyclic systems including an indole fragment have been developed.

Studies of charge-transfer complexes based on N-vinylindoles with halogens and organic acceptors were correlated in a paper presented by E. S. Domnina, G. G. Skvortsova, L. P. Makhno, and M. G. Voronkov.

Most of the research reported in the colloquium was aimed at the search for new medicinal preparations in the indole series. A series of communications touched upon purely pharmacological problems in a number of indole compounds, the relationship between structure and pharmacological activity, and problems of metabolism.

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