

## FIFTH ALL-UNION CONFERENCE ON THE CHEMISTRY OF ACETYLENE

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The Fifth All-Union Conference on the Chemistry of Acetylene Compounds was held in Tbilisi on October 28-30, 1975. A total of 257 papers with respect to the following sections were presented and discussed in 20 sessions: 1) the synthesis and transformations of acetylene compounds, 2) the synthesis and reactions of heterocycles based on acetylene compounds, 3) the synthesis and transformations of heteroorganic acetylene derivatives, 4) the kinetics and reactivities of acetylene compounds, 5) physical methods of investigation in the chemistry of acetylenes, and 6) the manufacturing technology and application of acetylene compounds.

Most of the papers on heterocyclic compounds were devoted to a study of cyclization to pyrazole derivatives [Lensovet Leningrad Technological Institute (LLTI)], the ethynylation of ketones of the piperidine and tetrahydropyran series (Institute of Chemical Sciences, Academy of Sciences of the Kazakh SSR), and the vinylation of alkylpyrazoles, indazole, 1,2,3- and 1,2,4-triazoles, and pyridazone [Irkutsk Institute of Organic Chemistry, Siberian Branch, Academy of Sciences of the USSR (IIOC SB AS USSR); Institute of Organic Chemistry, Academy of Sciences of the Armenian SSR; and Voronezh University].

Of the multitude of synthetic studies presented at the conference, one should single out a communication regarding a novel condensation of ketoximes with acetylene, which leads to 1-vinylpyrrole derivatives in higher than 80% yield. Strictly controlled dispensing of acetylene makes it possible to stop the condensation at the step involving the formation of nitrogen-unsubstituted pyrroles (B. A. Trofimov and A. I. Mikhaleva. IIOC SB AS USSR).

Corresponding Member of the Academy of Sciences of the USSR A. A. Petrov and co-workers A. A. Tamm and V. N. Chistokletov (LLTI) reported that 1,4-dihydrophosphoniapyridazine derivatives are formed in the reaction of alkynylphosphines with nitrilimines. The reaction of alkynyl phosphonites with substituted nitrilimines proceeds similarly, but it is accompanied by Arbuzov rearrangement to give cyclic phosphinates. Thus the acetylene compounds of trivalent phosphorus can be considered to be a new type of 1,3-dipolar system. Hydrosilylation of propargyloxiranes, which proceeds with retention of the oxirane ring, has been realized (S. F. Karaev and M. M. Movsumzade, Azerbaidzhan Institute of Petroleum and Chemistry). It was observed that the hydrosilylation of acetylene compounds with furylhydrosilanes is accompanied by reduction (N. P. Erchak, Institute of Organic Synthesis of the Academy of Sciences of the Latvian SSR).

Technology for the conversion of diacetylene-containing gases from the production of acetylene to 1-ethoxy-1-buten-3-yne, from which acetoacetaldehyde diethylacetal - the raw material for the synthesis of pyridines, pyrimidines, and vitamin B<sub>6</sub> - has been developed (N. V. Korol'kov, L. N. Reshetova, A. A. Petrov, et al., LLTI).

It was resolved that the next conference on the chemistry of acetylene compounds will be organized in 1978.

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