

SWEDISH-SOVIET COLLOQUIUM ON ANALYTICAL METHODS IN ORGANIC CHEMISTRY

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A group (11 individuals) of members of the Swedish Chemical Society who arrived in the USSR to familiarize themselves with the scientific research of organic chemists and analytical chemists of Riga and to establish more intimate mutual contacts met in Riga from 7-11 October, 1976. The tour was organized by the analytical section of the Swedish Chemical Society, which has already undertaken similar tours in other countries of the Baltic Sea (in Finland, for example).

Four papers were presented by the Swedish chemists in the Institute of Organic Synthesis of the Academy of Sciences of the Latvian SSR. Professor D. V. Dirssen (Heteborg University) delivered a lecture entitled "Nitrogen balance in the seas: Can the problem of the analysis of dissolved organic nitrogen be solved?" He examined the pathways of the nitrogen cycle of organic substances (containing carbon, nitrogen, and oxygen) in the sea and the application of new analytical reagents for the determination of amino acids, peptides, amino sugars, and nitrogen bases in sea water, which is of great importance for the monitoring of the environment.

Research on heterocyclic compounds by ^{13}C , ^{77}Se , and ^{125}Te NMR spectroscopy was reviewed in a lecture by the well-known organic chemist Professor S. Gronowicz (Lund University). He systematized the chemical shifts and spin-spin coupling constants of the NMR spectra of thiophene, selenophene, and tellurophene, compared them with the analogous data on furan and, on the basis of the results, characterized the effects of substituents and their coupling with the heteroatom in a number of five-membered heterorings.

Professor B. Nigord (Upsala University) presented a paper on new possibilities for the application of voltamperometry in organic analysis, particularly in the analysis of vitamins and sulfur-containing biologically active compounds.

Professor J. Wessman (a pharmaceutical chemist from Kabi in Stockholm) examined the application of gas-liquid chromatography with electron capture for the analysis of trace concentrations of medicinals and their metabolites, particularly psychopharmacological preparations, and presented numerous examples from his rich experience in this field.

The lectures of the Swedish scientists, which contained novel material, generated a great deal of interest, and possible areas of future collaboration, including the chemistry of heterocycles, were uncovered during the discussions.

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