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Report

Gas Chromatography Discussion Group

The thirteenth Annual General Meeting and Spring Informal Symposium was held on Friday, 2nd April 1971 at the Royal Institution, London. Approximately 100 members attended the Symposium at which five papers were given by invited speakers, covering a variety of topics.

A report on the 8th International Symposium on Gas Chromatography, held in Dublin 28th September to 3rd October 1970, was presented by the Honorary Editor, Dr. R. STOCK. He said that the meeting had been attended by about 560 delegates, representing 25 countries, and had been a technical and social success. The technical programme had comprised four plenary papers, twenty-two contributed papers and a session of twenty-four informal discussions.

Mr. R. D. COLE of Esso Research next gave a paper on the *Capillary Column* Fingerprinting of Crude Oils. This paper highlighted the important problem of oil pollution and showed how the use of high resolution GC could identify sources of crude oil, even after prolonged weathering and leaching by sea water. Sources as little as 100 miles apart of some Middle East Crude Oils could be characterized by the nature of the minor components.

Flame Spectrophotometry in Gas Chromatography was the title of a lecture by Professor G. HERRMANN from the University of Giessen. This was concerned with the specific detection of halogenated compounds, based on the use of a two-tier flame and an indium coated surface. Volatile indium halides are formed which give characteristic emission bands in the UV. By an appropriate selection of interference filters it is possible to distinguish between chlorine-, bromine-, and iodine-containing compounds.

Dr. C. J. PILLINGER of the University of Bristol next discussed the Analysis of Lunar Carbon Compounds and this consisted of an interesting account of GC investigations into the organic content of Lunar samples from the Apollo II and I2 missions. By the use of a deuterium isotope labelling technique all samples were shown to contain indigenous methane and carbide, the methane largely being due to the solar wind and the carbide from meteoric origin. Volatile compounds such as hydrocarbons, alcohols, carboxylic acids, phenols, and amines have not been detected in amounts in excess of 5 p.p.b.

Finally, Mr. G. IVESON of the British Nuclear Fuel Company in a paper entitled *Corrosive Inorganic Gas Chromatography* described methods he had developed for the separation of fluoro- and chlorofluoro-hydrocarbons used as coolants in a diffusion plant. The analysis of the breakdown products of bromine trifluoride and chlorine trifluoride was also discussed. An interesting feature of this paper was the description of an electron capture detector suitable for use with corrosive materials.

The Annual General Meeting was held during the day and Mr. HARBOURN, the Chairman, welcomed the attendance of the Honorary Secretary of the Scandinavian Section, Dr. PREBEN GAEDE. Preliminary arrangements for the 1972 International Symposium were described. This would be held at the Hofburg Conference Centre in Vienna on the week commencing 2nd October 1972, and would be organized as a joint venture between the Discussion Group, GAMS, and the Austrian Chemical Society. This new co-operation between GAMS and the Group is felt to be a significant step which, it is hoped, will extend to all future International European Symposia on Column Chromatography which, before the agreement, would have been organized independently.

Liquid Chromatography Sub-Group

The increasing importance of liquid chromatography is evidenced by the appearance, during the past twelve months, of liquid chromatography abstracts in the quarterly abstracts. This, and the activities of the Liquid Chromatography Sub-Group, have already attracted a number of new members. One informal meeting was held during the year, attended by about seventy people, and four papers were read covering theory, technique and applications. Plans have also been announced to hold a practically-oriented "Workshop" in high performance liquid chromatography in Nottingham in June.

Pyrolysis Chromatography Sub-Group

This sub-group has been primarily concerned with programmes of collaborative testing to achieve standardization of fingerprinting techniques for polymers. The latest scheme has involved over thirty laboratories and an assessment of the results have been given first at the Dublin Symposium and then at the Royal Society of Tropical Medicine and Hygiene, London, on April 1st.

Computer Sub-Group

A meeting, organized jointly by the Group and Hatfield Polytechnic, was held on October 23rd 1970. Six papers of an introductory nature were given by known experts in the field and over 100 delegates attended.

Scandinavian Section

This section, which comprises some 265 members from Denmark, Sweden, Norway, Finland and Iceland has organized three special meetings during the past year in Denmark, covering such diverse subjects as the GC of Pharmaca and Steroids, characterization methods for stationary phases, and head space and aroma analysis. The 3rd Andreas Klit Memorial Lecture was given in Stockholm by Dr. J. F. K. HUBER of the University of Amsterdam. His theme was *Recent Developments in Liquid Chromatography* and the rest of the meeting was devoted to liquid chromatography and gas chromatography combined with mass spectrometry.

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