two most important peaks in the chromatograms. The ratio of amts. of these pyrolysis prods. obtained under standardized conditions should be a good basis for estimating the branching degree in alkylbenzenes.

Instrument: Varian HyFi III
Detector: FID
Col. L/d: 300cm x 3mm, i.d., glass
Stat. ph./concn.: SE-30, 15%
Support/mesh size: Gas Chrom P, 80-100 mesh
Carrier gas/flow rate: N_2, 25 ml/min
Oper. Temp.: Prog. 50° to 250°C at 20°/min
Retention Data: Pyrograms, p. 679
Compds. Sepd.: Alkylbenzenes

2231

12-27-69 No. 69-2231

SOME STUDIES ON GLC COLUMN PERFORMANCE WITH RESPECT TO SAMPLE SIZE

W. J. A. VandenHeuvel and G. W. Kuron (Merck Inst. for Therapeutic Research, Rahway, N. J. 07065)

J. Chromatog. Sci. 7, No. 11: 651-55 (Nov. 1969). Presented at 5th Intern. Symp. on Advances in Chromatog., Las Vegas, Nevada, Jan. 20-23, 1969

A study of the relationship between col. performance (efficiency, overload and sepn.) and diam. and sample size in the GC of steroids showed that smaller diam. cols. were more efficient with small samples (less than 30 µg/component), whereas at higher levels (60-500 µg) performance of the larger col. was superior.

Instrument: Barber-Coleman Model 5000
Detector: FID
Col. L/d: (I) 8 ft x 4 mm, i.d.: (II) 8 ft x 11 mm, i.d., glass U-tubes
Stat. ph./concn.: (I) OV-17 (1.8%); (II) SE-30 (2%) Both used with both cols.
Support/mesh size: Gas Chrom P (60-80 mesh), a.w. and silanized
Carrier gas/flow rate: Gas not stated Rates (I) 35 ml/min; (II) 250 ml/min
Oper. Temp. (I) 240°C; (II) 250°C
Retention Data: Chromatograms, pp. 652-55
Compds. Sepd.: Coprostane, 5-cholestene, coprostanol, cholestanol and some derivs. of the sterols

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12-27-69 No. 69-2232

A METHOD FOR THE COLLECTION OF AIR SAMPLES FOR ANALYSIS BY GAS CHROMATOGRAPHY

R. Van Heuten and George Lee (Liberty Mutual Research Center, 71 Frankland Rd., Hopkinton, Mass. 01748)

Am. Ind. Hyg. Assoc. J. 30, No. 5: 465-69 (Sept.-Oct. 1969)

A method is descr. for collecting and transporting air samples that are to be anal. for solvent vapors by GC. Samples are collected in standard 4 oz. French square sample bottles which are filled by means of an aspirator bulb. The bottle caps are fitted with a seal made from 3 thicknesses of 2.0 mil, type 18 Saran, backed with 1 thickness of 8.0 mil latex rubber (Fig. I, p. 466). Before inserting the gasket, a 1/16 in hole is drilled in the bottle cap, so that samples can be withdrawn for anal. by inserting a syringe needle and puncturing the gasket. In addn. to the gasket, the bottles contain a mercury seal so that after removal of a sample, the hole in the cap can be covered with adhesive and resealed by inversion for indefinite holding. Sampling kits contg. 17 bottles packaged for protection during shipment and weighing approx. 10 lbs. have been tested after air and rail transport from remote locations and shown to give satisfactory performance. GC sepns. of solvent-air samples collected and held in the descr. sampling bottles are illustrated.

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