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QUANTITATIVE EVALUATION OF CHROMATOGRAMS BY DIGITAL COMPUTERS

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Quant. GC with computers depends fundamentally on the accuracy of peak area measurements. In this invest. of the accuracy of area recovery by on-line digital computers, the influence of scan rate, data smoothing, peak detection and baseline recovery was detd. A Varian-Data Machines 620/i computer with an 8K 16-bit memory and cycle time of 1.8 microseconds was used. Peak detection and baseline correction methods are described which due to the inherent flexibility of the computer can be systematically changed to match the conditions during an isothermal chromatog. analysis.

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GAS CHROMATOGRAPHIC ANALYSIS OF REACTIVE GASES IN AIR

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The authors reviewed the literature for cols. which have been used for qual. sepn. of reactive (NO, $NO_2$, $SO_2$, HCl, $H_2S$, $Cl_2$, $NH_4$) and other gases ($CO_2$, $N_2O$) in air. They selected 21 cols. for further evaluation, criteria being that peak shapes should be suitable for qual. analysis of several of the project gases and that the col. be useful for quant. analysis in concns. below 100 ppm. A Varian Aerograph Model 1520-B dual col., dual detector (TCD) GC was used in the screening program. A two section col. of Porapak Q and Porapak R adequately sepd. NO and air. The air-$N_2O$-$CO_2$ sepn. was best on a QF-1 Fluoro col. $H_2S$, $Cl_2$ and $SO_2$ could be analyzed either on silicone oils SF-96 or triacetin. These cols. also effectively sepd. air-$CO_2$-$NH_3$. $NO_2$ was well sepd. on Kel-F 90 grease and Fluorolube HG 1200 cols.
Retention data: Tabulated, p. 660

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DIRECT GAS CHROMATOGRAPHIC DETERMINATION OF DIETHYL CARBONATE IN WINE

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Deut. Lebensm. Rundschau 64, No. 3: 71-73 (1968) [In German]

The sample is injected directly onto a precol., 17 cm x 3 mm, contg. SE-30, 1%, on Chromosorb G, a.w., DMCS, 80-100 mesh, operated at 160°C. The volatilized diethyl carbonate then passes to the GC col. for analysis. The error is within ± 6%.



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