

PROJECT TITLE : ANALYTICAL INVESTIGATIONS
PERIOD COVERED : JULY 24 - AUGUST 18, 1981
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SUGAR ANALYSIS (JJP)

As support to project Savoury, sugars were analysed in various RF samples. No glucose could be found by the combined HPLC/GC (after derivatization) technique. The detection limit of the applied procedure was estimated to be below 100 µg/ml.

CO AND NO (YVG/JJP)

CO and NO in mainstream and sidestream smoke of 26 undiluted prototype cigarettes of Study Compo (1) having different cigarette paper porosities are currently being determined.

Two experimental cigarettes submitted by Biotechnology were analysed for CO and NO (2).

CO mainstream and sidestream smoke deliveries of 5 urea treated experimental cigarettes of project ROSA (urea concentrations between 0 and 10%) were determined (3).

GAS PHASE ANALYSIS (YVG)

On Toimil-R's request a comparative study on the retention of 10 selected organic components of organic gas phase of mainstream smoke, plus CO and NO, by two filters, PELA 06 and PALINKA 07, was carried out.

POLYETHYLENE GLYCOL (YVG)

Investigations to analyse polyethylene glycols PEG 550, 600 and 750, together with TEGDA and triacetin in cigarette filters by GC² (4) after derivitization were completed (5). Results show that PEGs investigated even after trimethylsilylation and under drastic conditions (1 m column, 320°) cannot be analysed by gas chromatography.

FS CAPILLARY COLUMNS (YVG)

Superox 0.1 and 20, two polar phases known to be suitable for coating FS columns, have been received and FS columns were treated with these new phases by applying static coating technique (6).

Two FS capillary columns have been prepared for other groups.

MISCELLANEOUS

Miss Micheline Niklaus, a technician, joined the Analytical & Chemical Service Group on July 1.

A summer student, Mr. Christian Quellet, was assigned to YVG.

REFERENCES

- 1) Memo from Erkohen-E. to Fink-W., June 24, 1981.
- 2) Report by Genoud-Y. to Schulthess-D., June 7, 1981.
- 3) Memo from Murray-M. to Fink-W., June 25, 1981.
- 4) Genoud-Y. "Triacetin and TEGDA in filter plugs by gas-chromatography" PME Analytical Method, July 1981.
- 5) Quellet-C., Internal Report, August 1981.
- 6) Sandra-P., et al., "Superoxes, high temperature universal phases in (GC)²", HRC and CC, Vol. 2 (1979) pp. 288-292.

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