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INFLUENCE OF ADDITIVES ON SMOKE COMPOSITION

PART 1: TAR AND NICOTINE

(Laboratory Report No. L.132-R)

SUMMARY

It is possible that significant changes in combustion and smoke composition may be brought about by the addition of chemical compounds to cigarettes.

Preliminary examinations, involving the injection of both inorganic and organic compounds into cigarettes, have shown only marginal changes (maximum of $\pm 20\%$) in the tar and nicotine delivery to the mainstream smoke.

For further work it is intended to concentrate on attempting to reduce the phenol yield using additives, and initial experiments will entail the use of a furnace technique rather than the smoking of cigarettes.

NOTE:

This laboratory report is concerned with results obtained using an injection technique and is of interest for comparing the effects of different additives put onto cigarettes in this way.

The results obtained by injecting cigarettes are different from those obtained by mixing materials more uniformly with the cut tobacco before cigarettes are made and, indeed, in the case of potassium carbonate, in which there is considerable current interest, the results reported here appear to be the opposite.

Results from injection experiments cannot, therefore, be accepted as an indication of what would happen with the same substance applied as a commercial casing and must be limited entirely to use in laboratory studies at present.

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