

3.12 Analysis of Magnetic Tape - GCMS

■ Explanation

Magnetic tape contains polyethylene terephthalate (PET) for the film base and polyurethane and nitrocellulose for the binder as well as a cross linking agent.

Measurement of the magnetic tape involved thermal decomposition using a pyrolyzer and qualification of generated components.

■ Analytical Conditions

Instrument : GCMS-QP1100EX PYR-4A
 Column : PEG-20M 2.6mm × 3m 25%
 Col.Temp. : 80 °C-220 °C (4 °C/min)
 Inj.Temp. : 300 °C
 I/F Temp. : 260 °C
 Carrier Gas : 30mL/min
 Pyrolysis Temp. : 500 °C

References

Application News No. M69

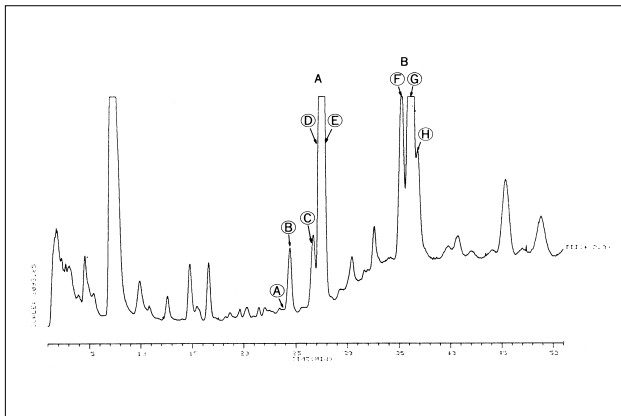


Fig. 3.12.1

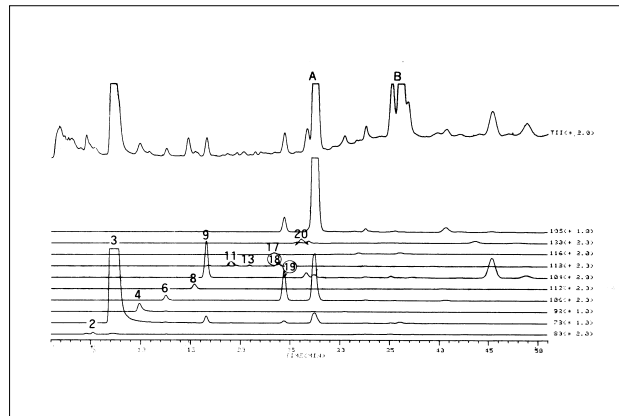


Fig. 3.12.2

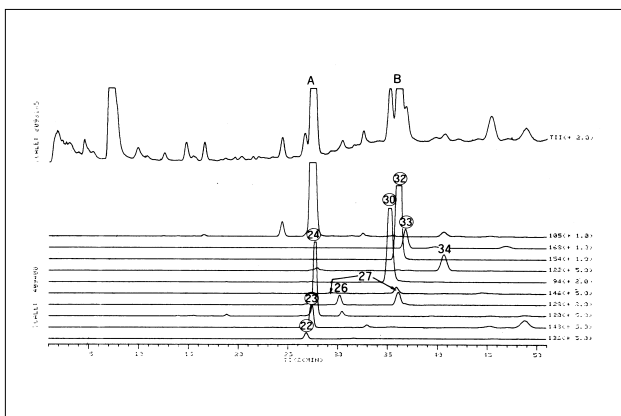


Fig. 3.12.3

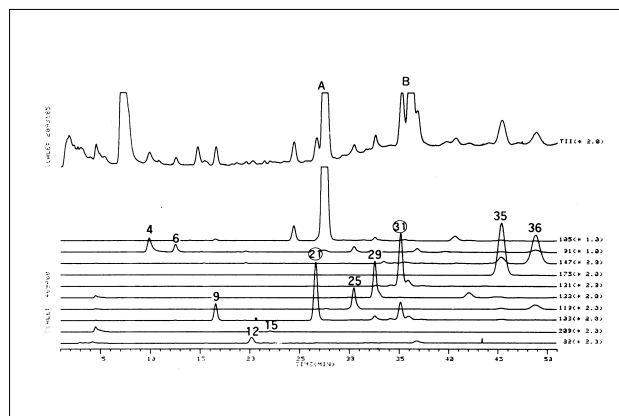


Fig. 3.12.4

Magnetic Tape TIC and MC

- A. Benzofuran B. Benzaldehyde C. Cyanobenzene D. 1,2-Propanedion-1-phenyl E. Acetophenone
 F. Phenol + ethyl cyanobenzene G. Biphenyl H. Diphenylmethane 4. Toluene 6. Ethyl benzene 9. Styrene
 21. Cyanobenzene 22. Methyl benzoic acid 23. 1,2-Propanedion-1-phenyl 24. Acetophenone 25. Phenyl isothiocyanate
 26. Naphthalene 29. Methyl phenyl isothiocyanate 30. Phenol 31. Ethyl cyanobenzene 32. Biphenyl
 33. Dipheylmethane 34. Benzoic acid