

3.11 Analysis of Paint Resin - GCMS

■ Explanation

Polymers and solvents coexist in the resin used in paint. Solvents remain in the paint after application. For this reason, in paint resin analysis, components generated at the thermal decomposition temperature change vastly. Introduced here are examples at thermal decomposition temperatures of 450 °C and 700 °C.

■ Analytical Conditions

Instrument : GCMS-QP1100EX PYR-4A
Column : SE30 2.6mm × 3m 10%
Col.Temp. : 60 °C-250 °C (5 °C/min)
Inj.Temp. : 300 °C
I/F Temp. : 250 °C
Carrier Gas : 30mL/min

References

Application News No. M78

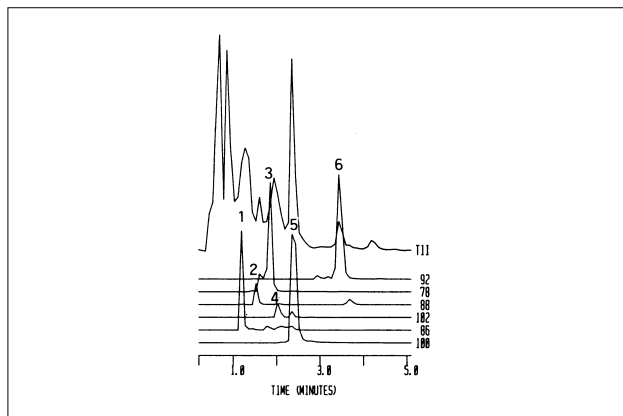


Fig. 3.11.1 Paint resin MC (450 °C)

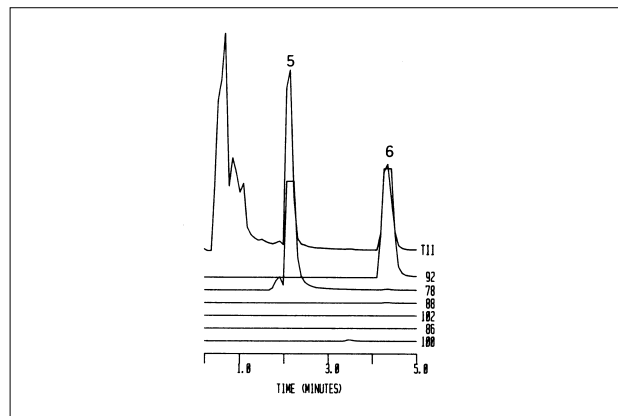


Fig. 3.11.2 Paint resin MC (700 °C)

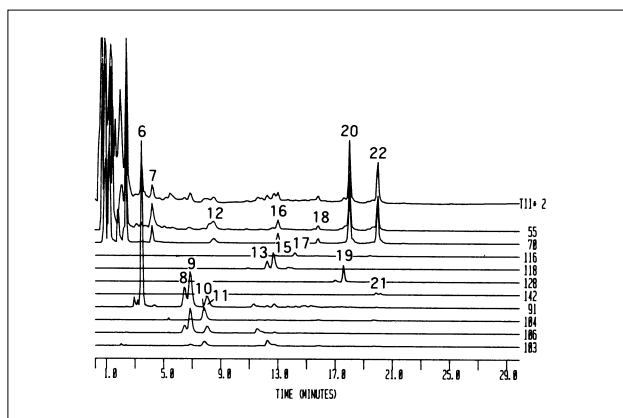


Fig. 3.11.3 Paint resin MC (450 °C)

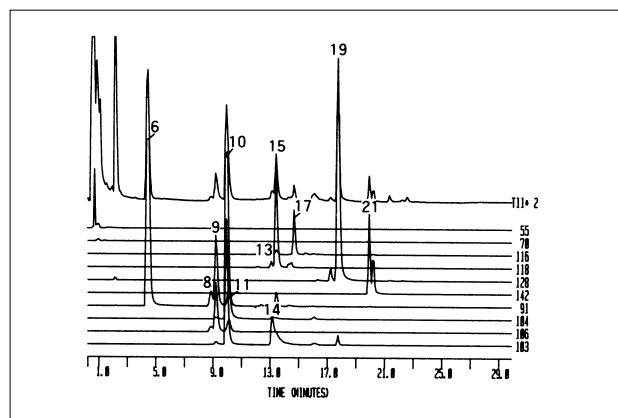


Fig. 3.11.4 Paint resin MC (700 °C)

1. Methyl acrylate 2. Methyl propanate 3. Benzene 4. Methyl isobutylate 5. Methyl meta acrylate 6. Toluene
7. 1-Octene 8. Ethyl benzene 9. m-, p-Xylene 10. Styrene 11. o-Xylene 12. 1-Nonene 13. α -Methylstyrene
14. Cyanobenzene 15. β -Methylstyrene 16. 1-Decene 17. Indene 18. 1-Undecene 19. Naphthalene 20. 1-Dodecene
21. Methyl naphthalene 22. 1-Tridecene