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APPENDIX

a) hexane : acetone (9:1)

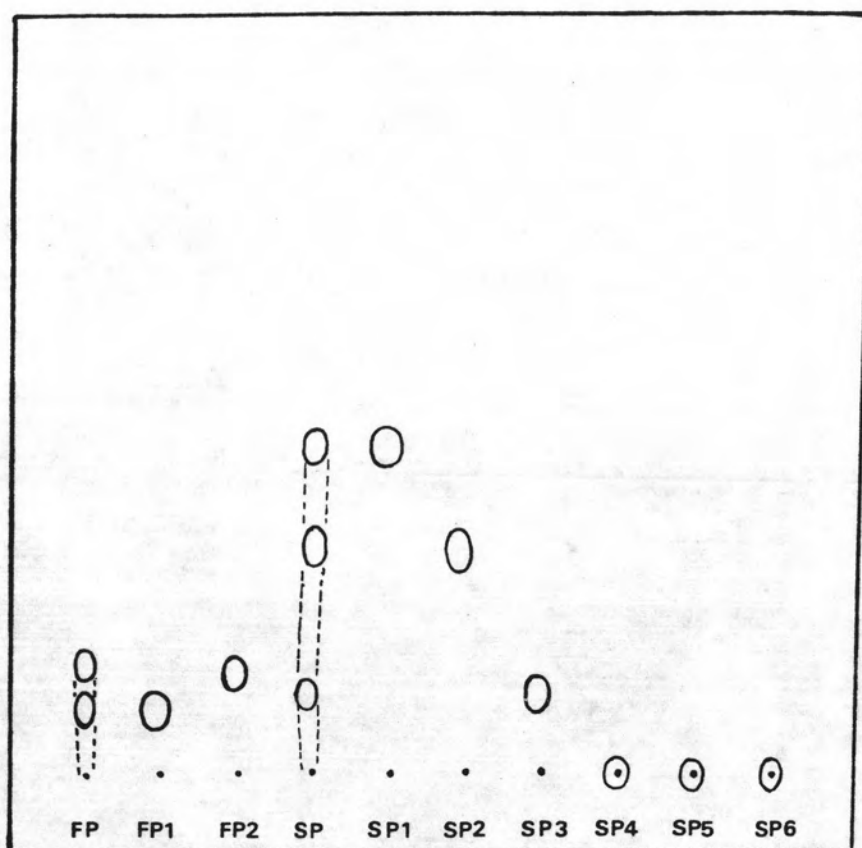


Fig.24

Thin-layer chromatograms of isolated compounds from *Piper ribesioides* Wall.

b) hexane : chloroform (7:3)

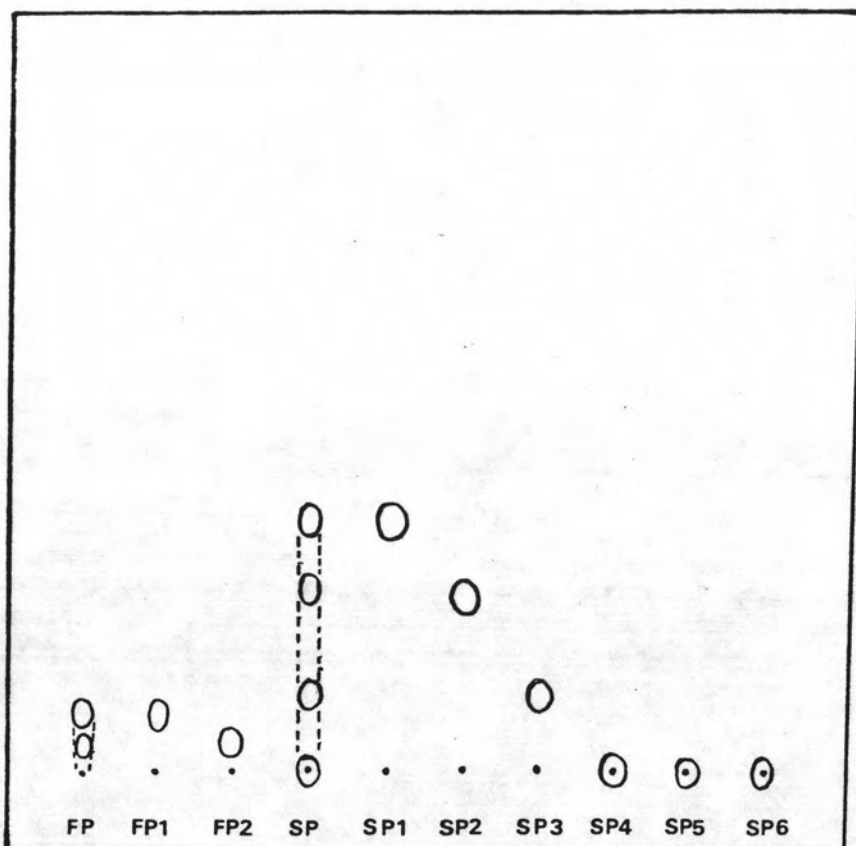


Fig. 25

Thin-layer chromatograms of isolated compounds from *Piper ribesioides* Wall.

c) hexane : chloroform (3:7)

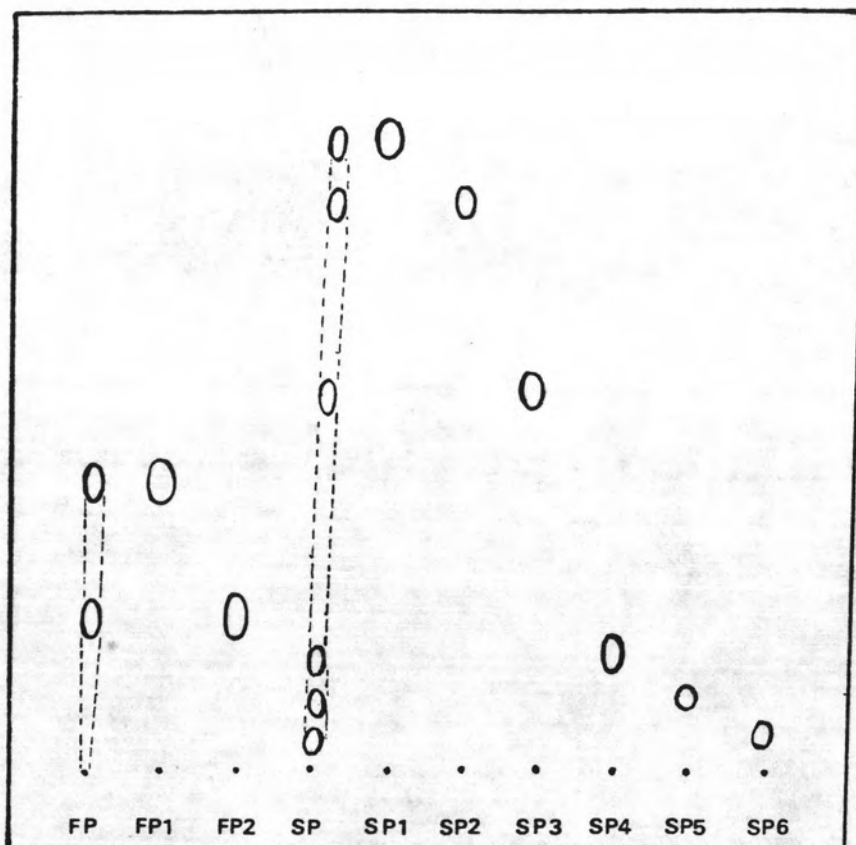


Fig.26

Thin-layer chromatograms of isolated compounds from *Piper ribesioides* Wall.

d) benzene

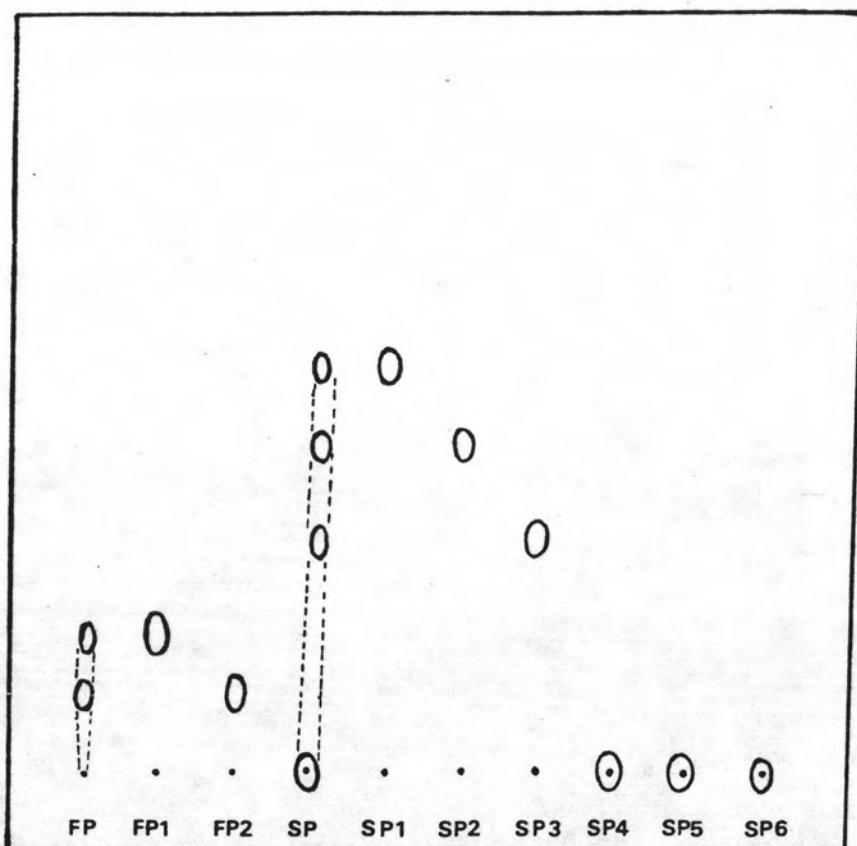


Fig. 27

Thin-layer chromatograms of isolated compounds from *Piper ribesioides* Wall.

e) chloroform

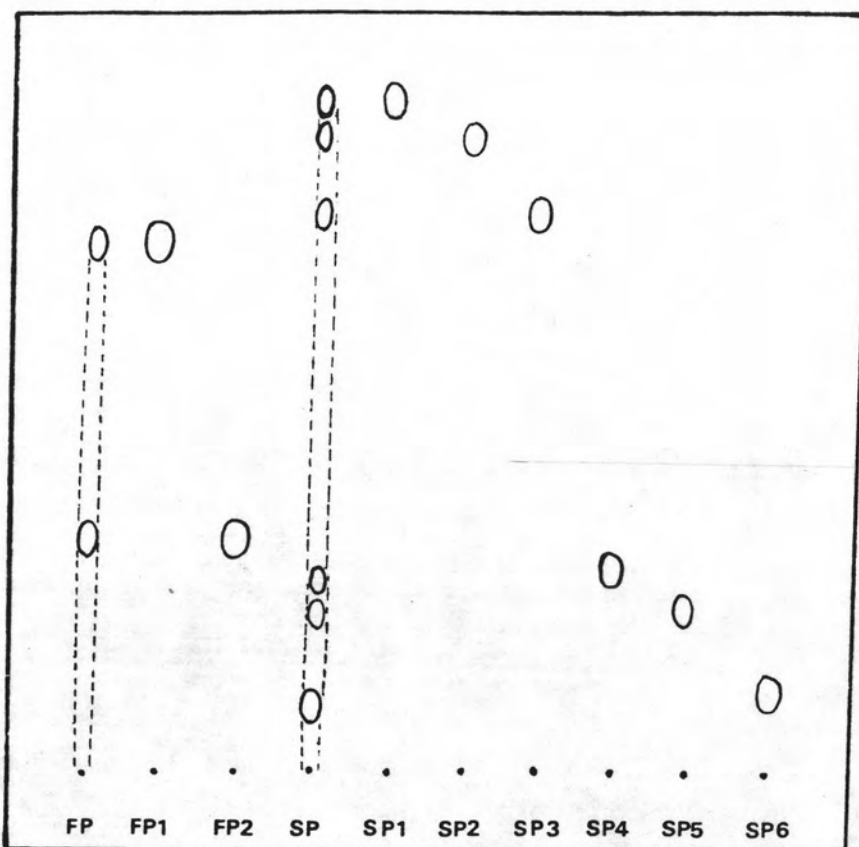


Fig. 28

Thin-layer chromatograms of isolated compounds from *Piper ribesioides* Wall.

f) chloroform : methanol (95:5)

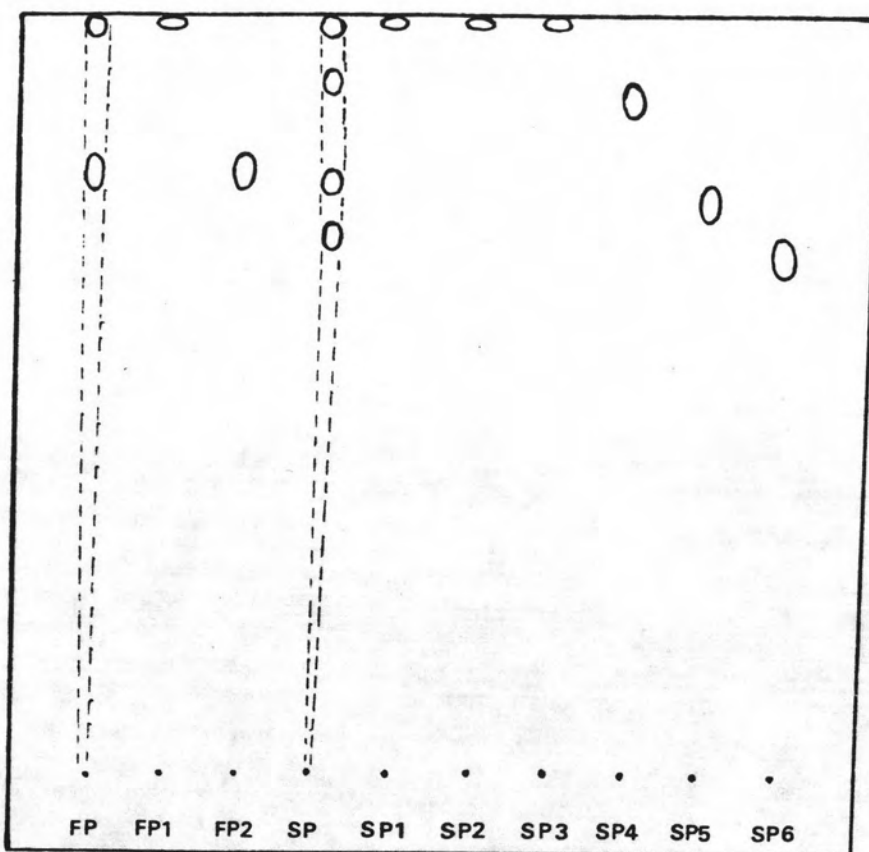


Fig.29

Thin-layer chromatograms of isolated compounds from *Piper ribesioides* Wall.

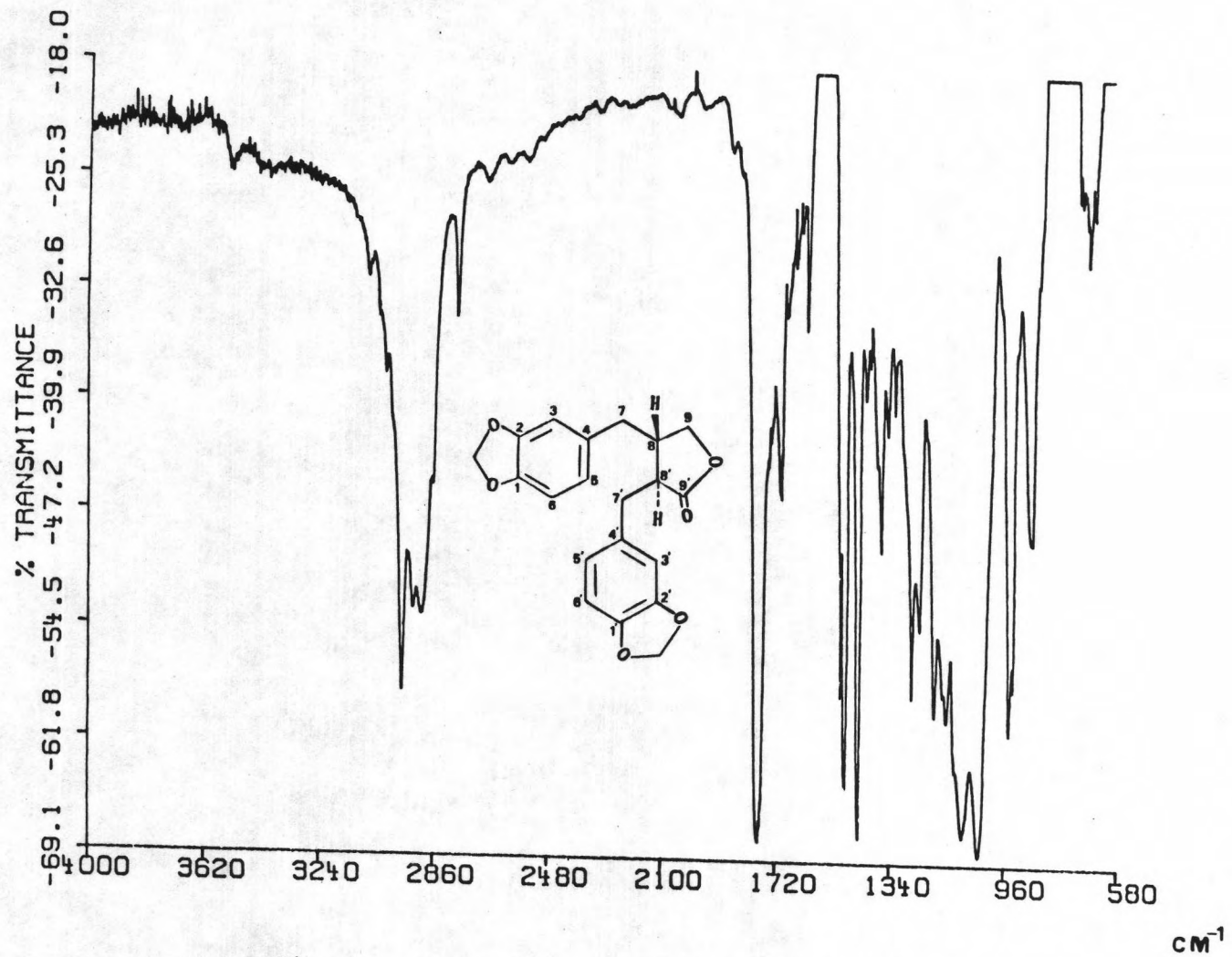


Fig.30 Infrared absorption spectrum of FP-1

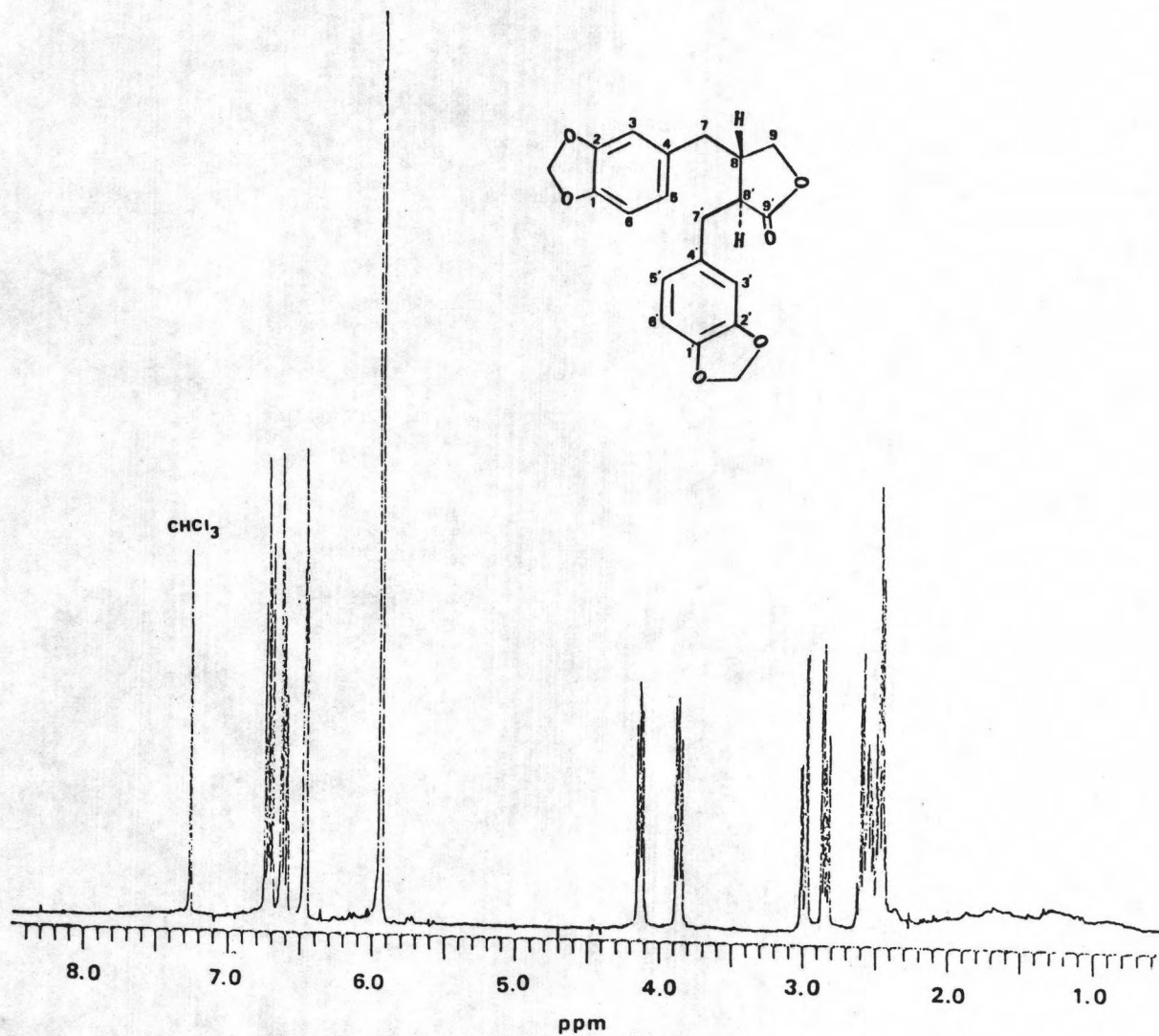


Fig.31 Proton NMR spectrum of FP-1

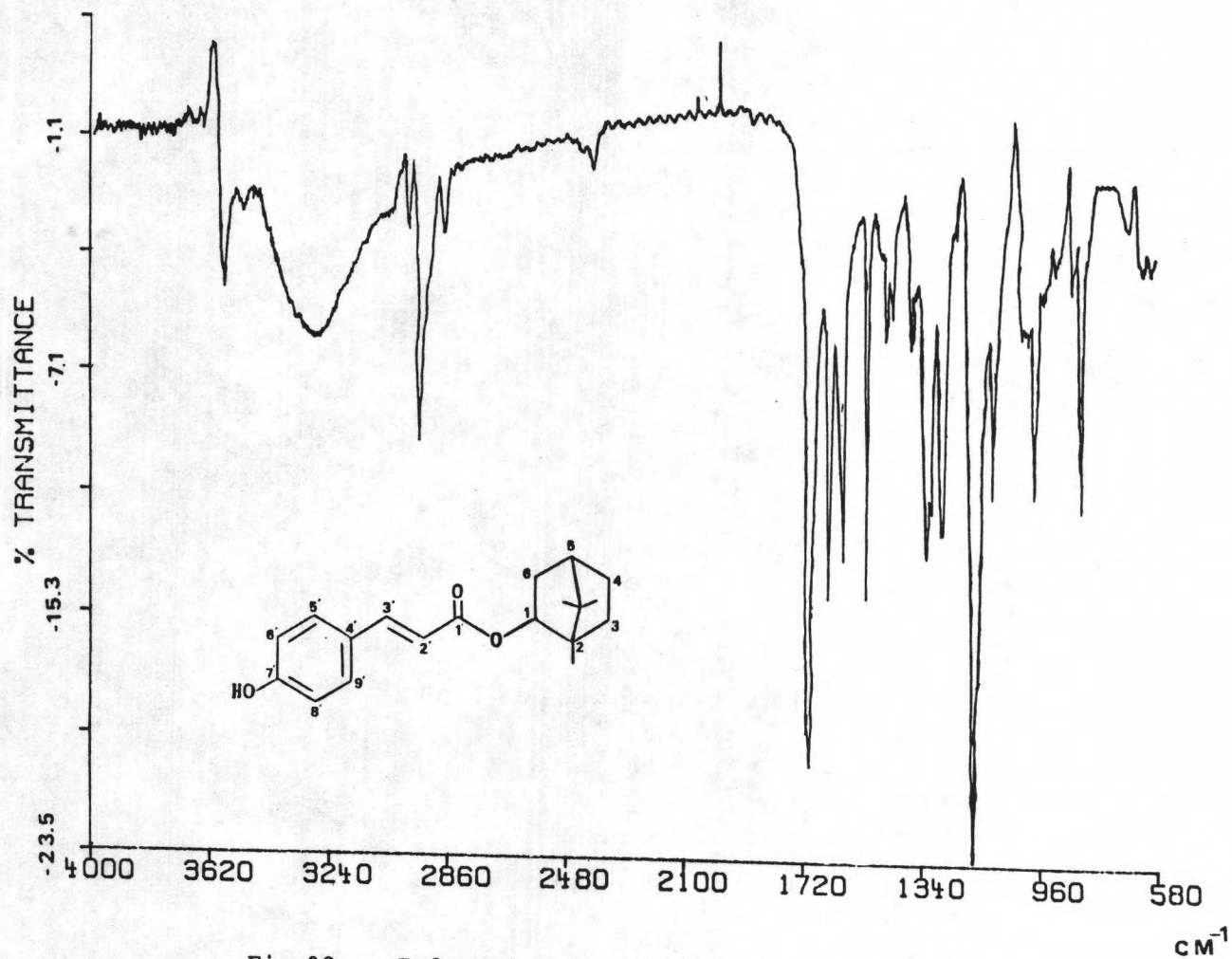


Fig.32 Infrared absorption spectrum of FP-2

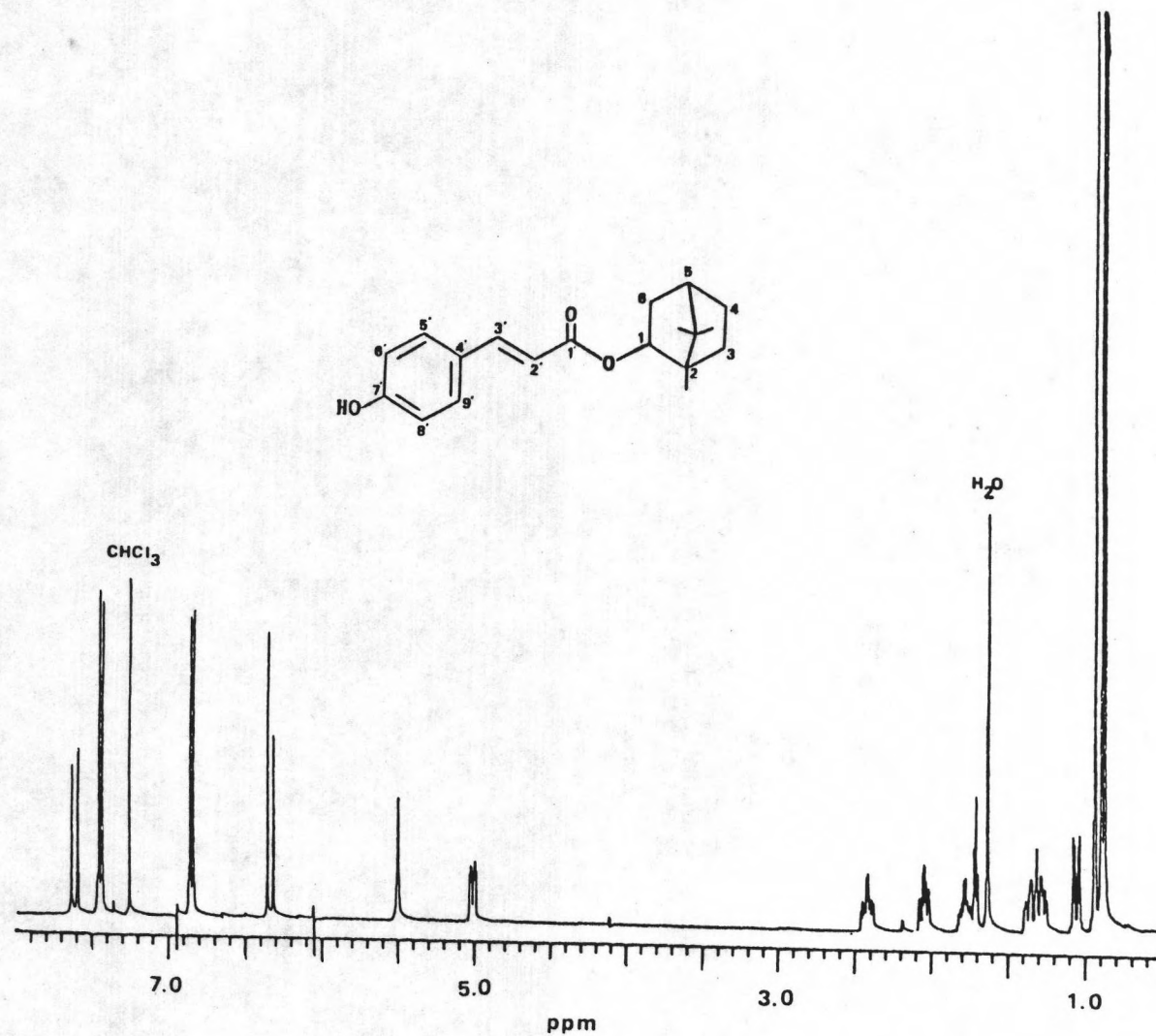


Fig.33 Proton NMR spectrum of FP-2

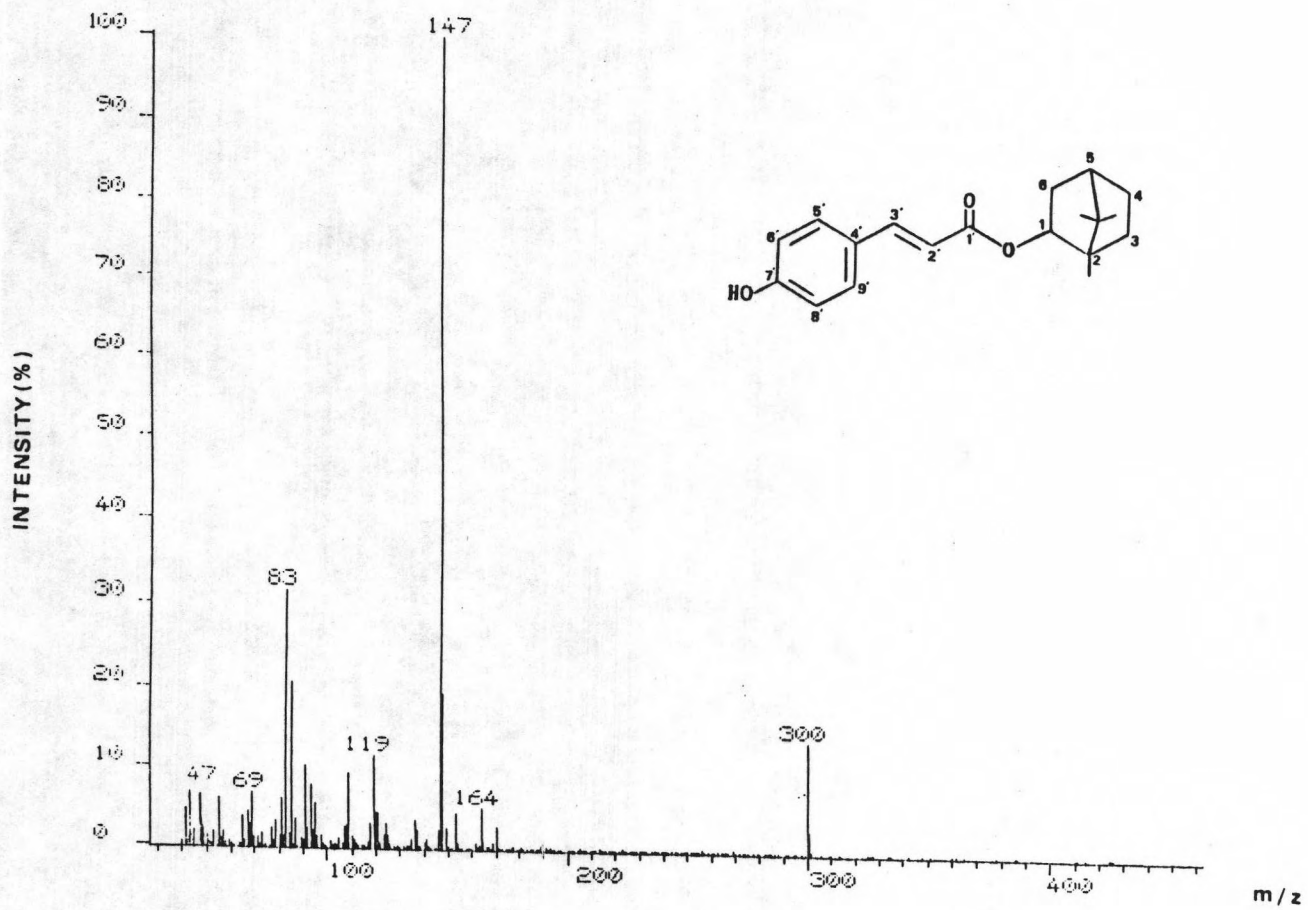


Fig.34 Electron impact mass spectrum of FP-2

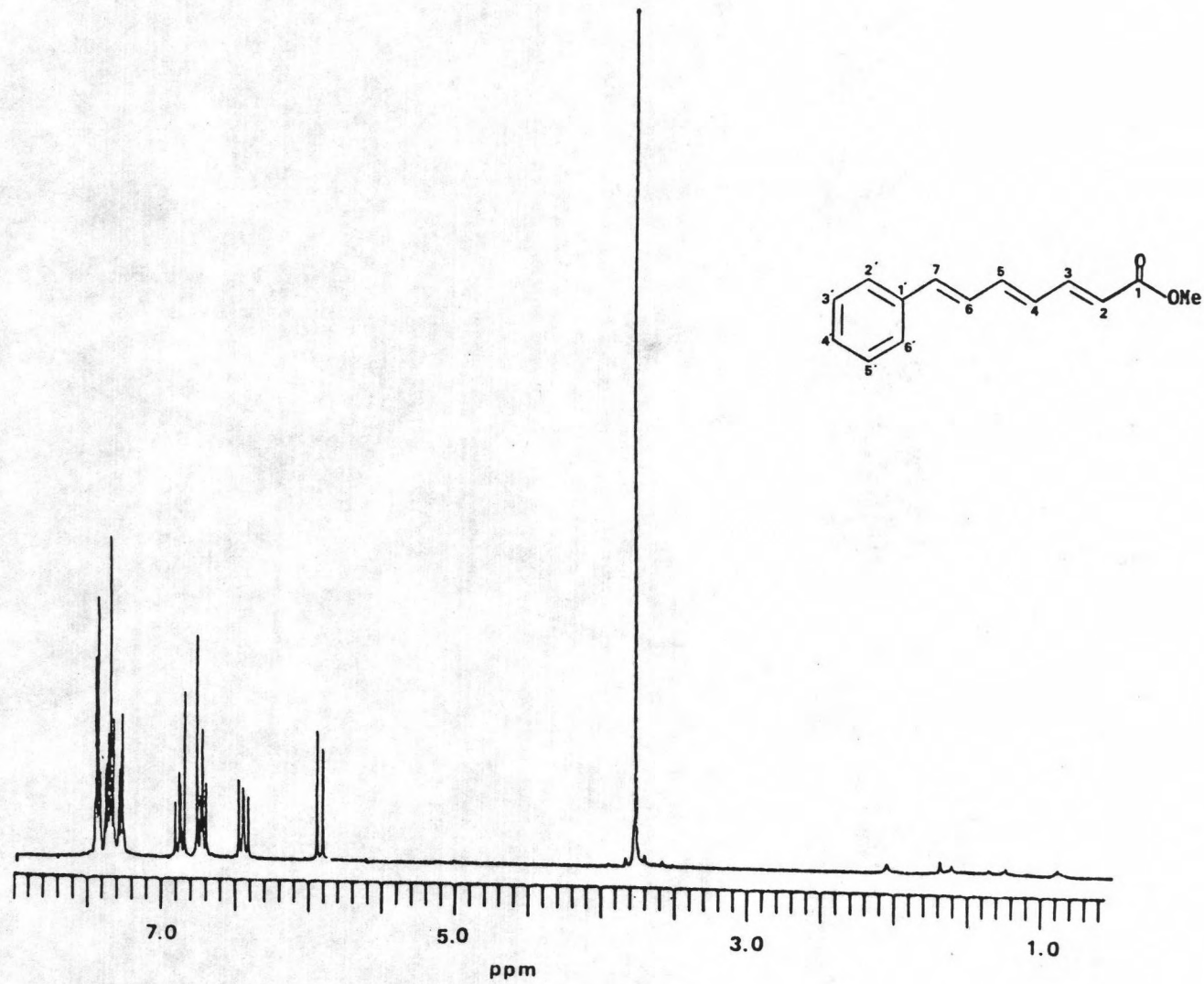


Fig.35 Proton NMR spectrum of SP-1

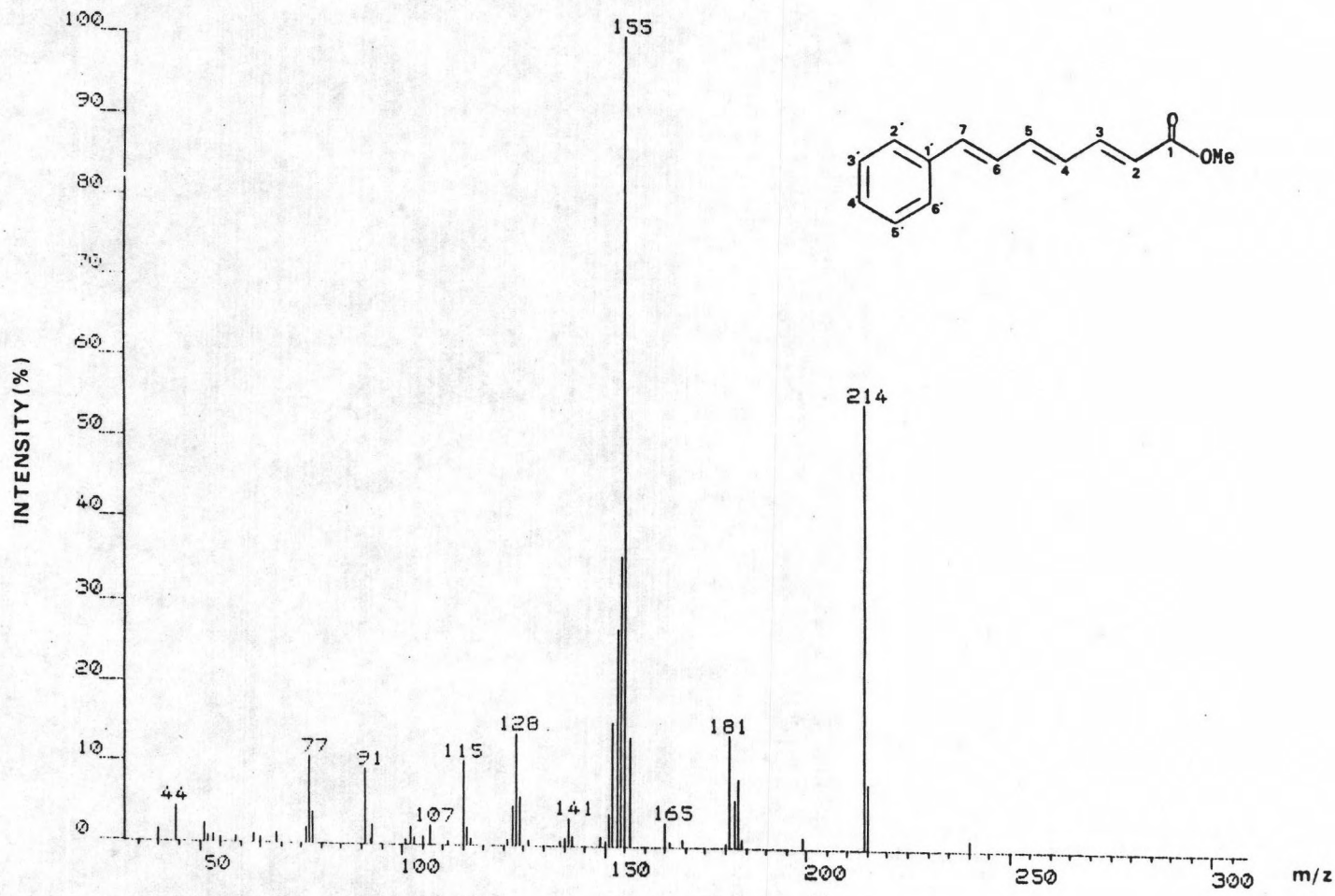


Fig.36 Electron impact mass spectrum of SP-1

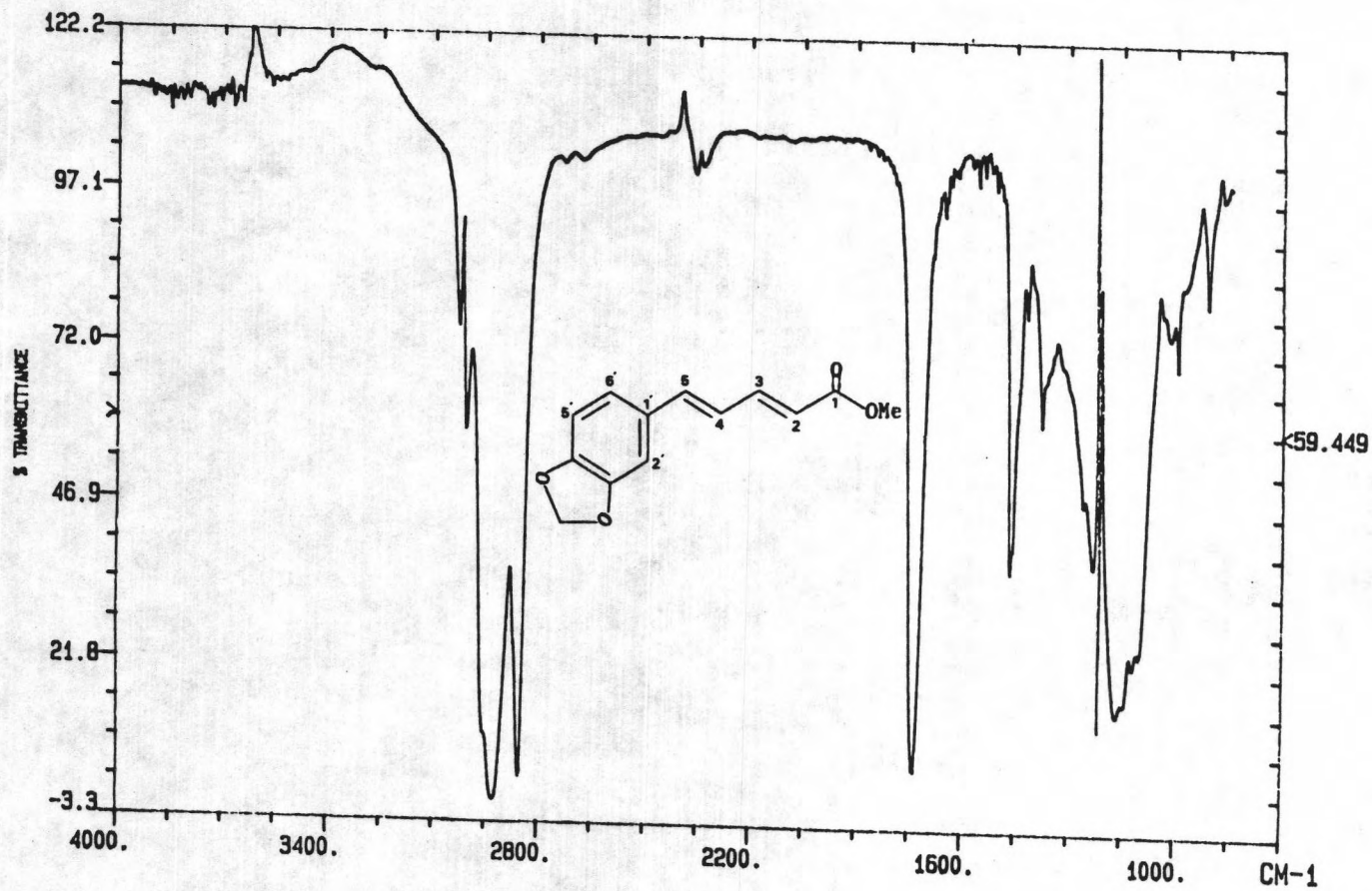


Fig.37 Infrared absorption spectrum of SP-2

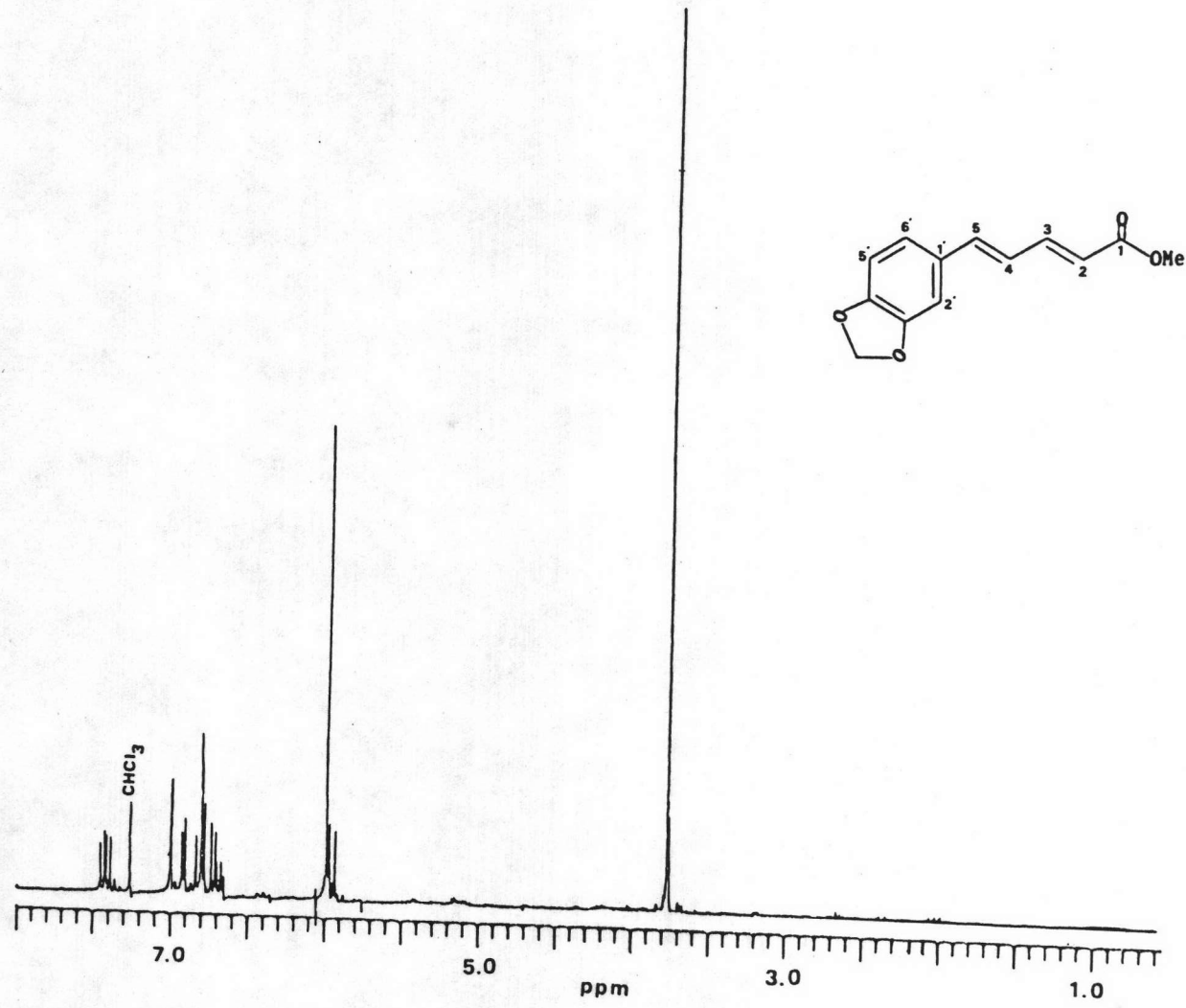


Fig.38 Proton NMR spectrum of SP-2

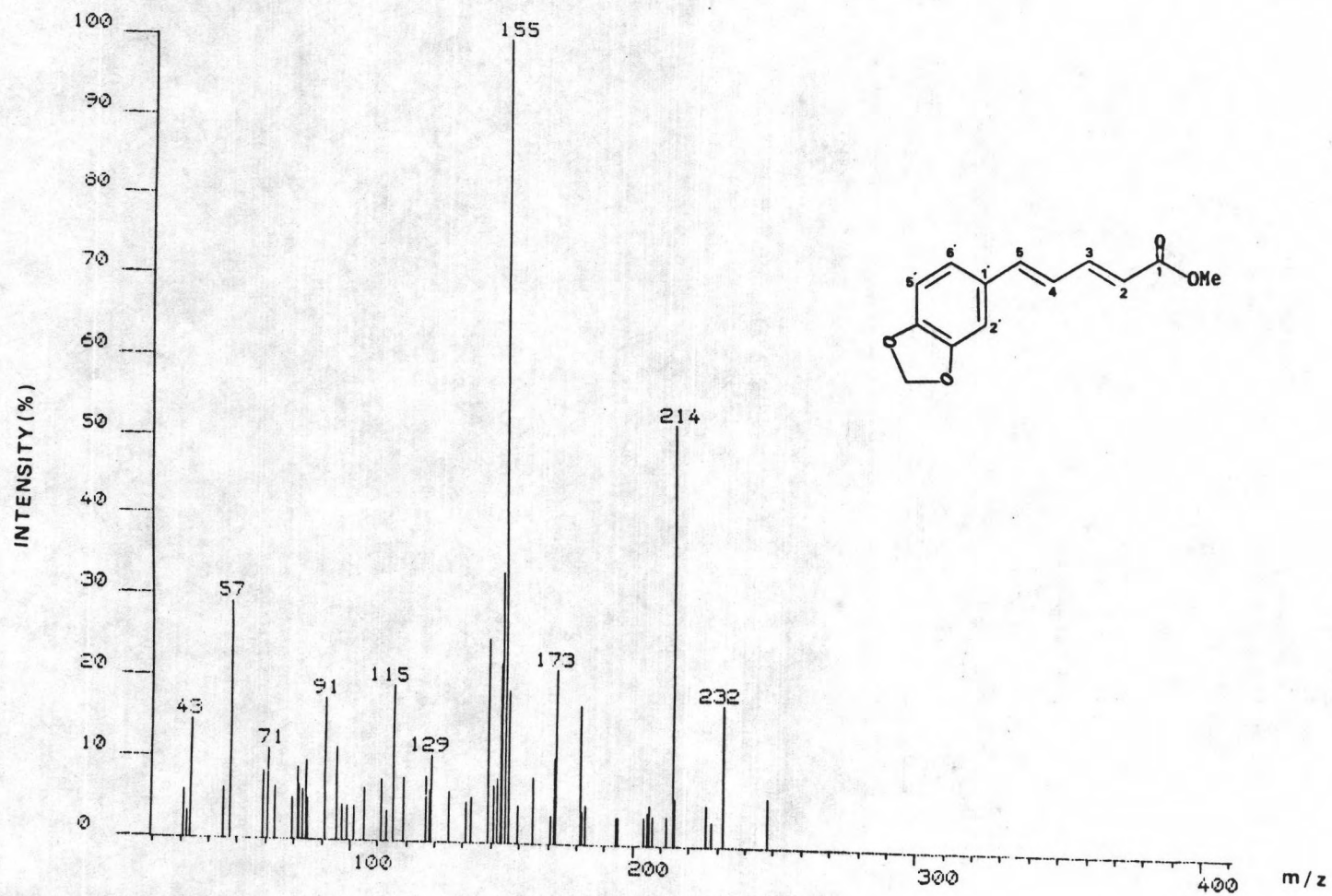


Fig.39 Electron impact mass spectrum of SP-2

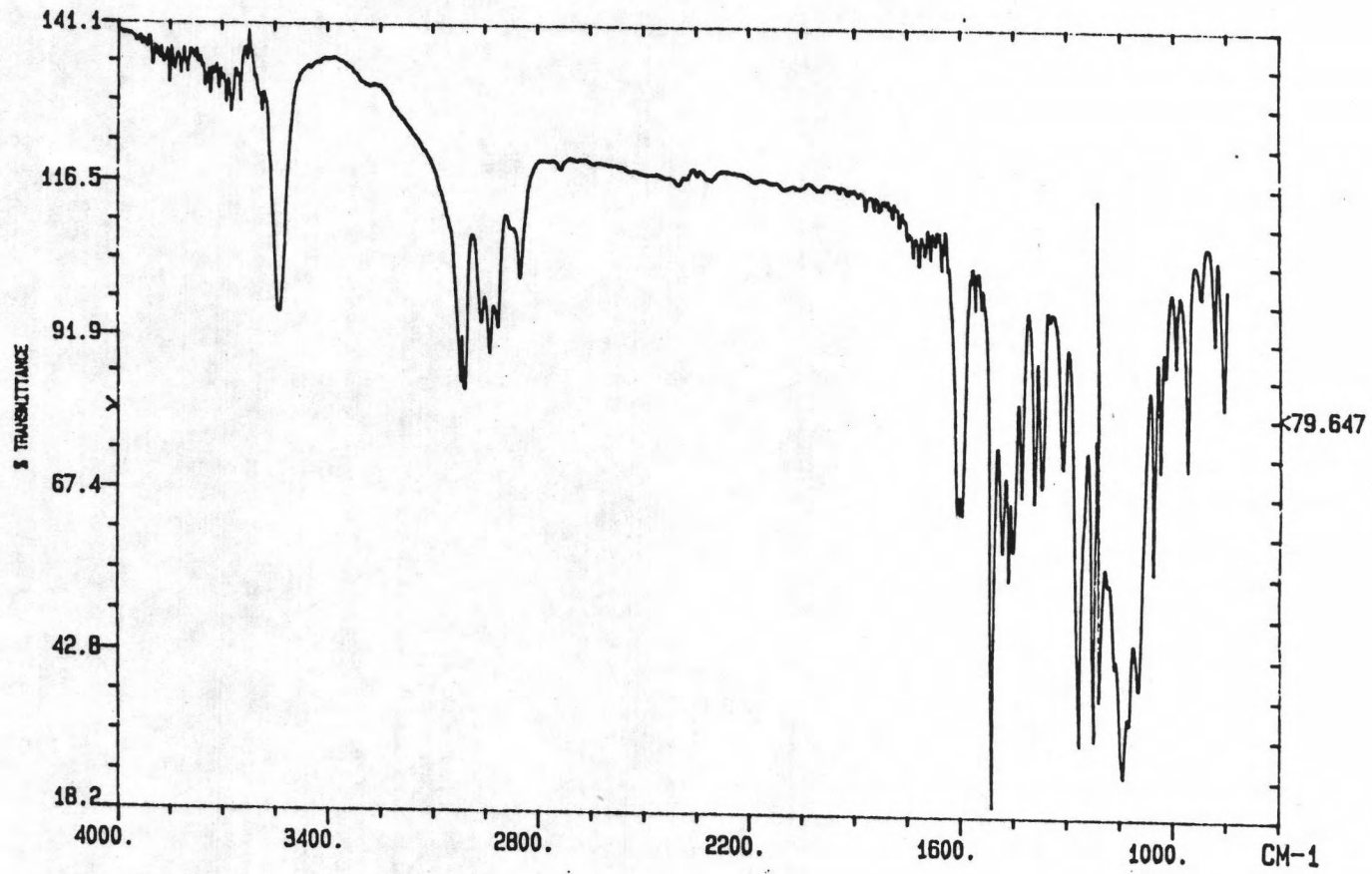


Fig.40 Infrared absorption spectrum of SP-3

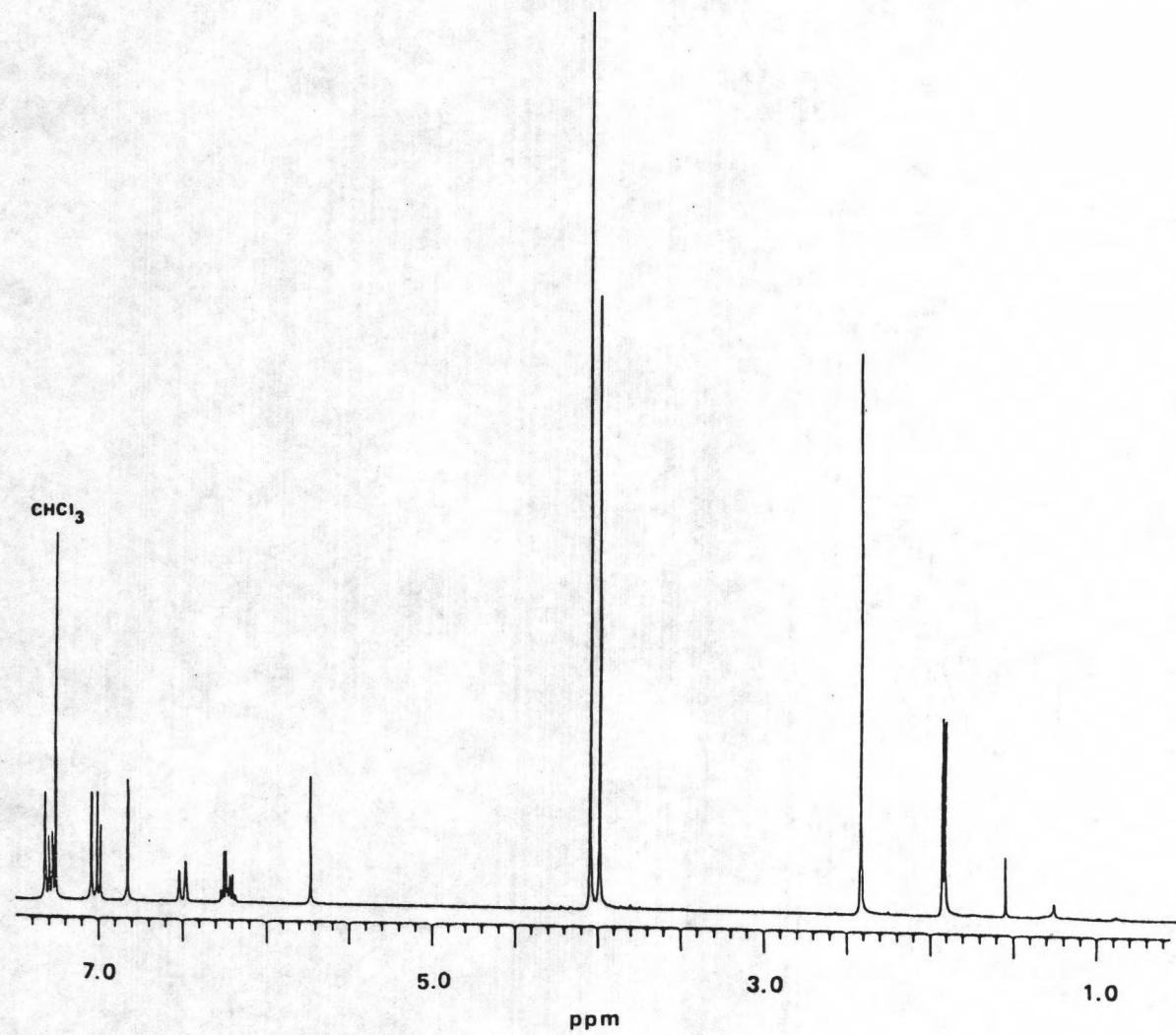


Fig.41 Proton NMR spectrum of SP-3

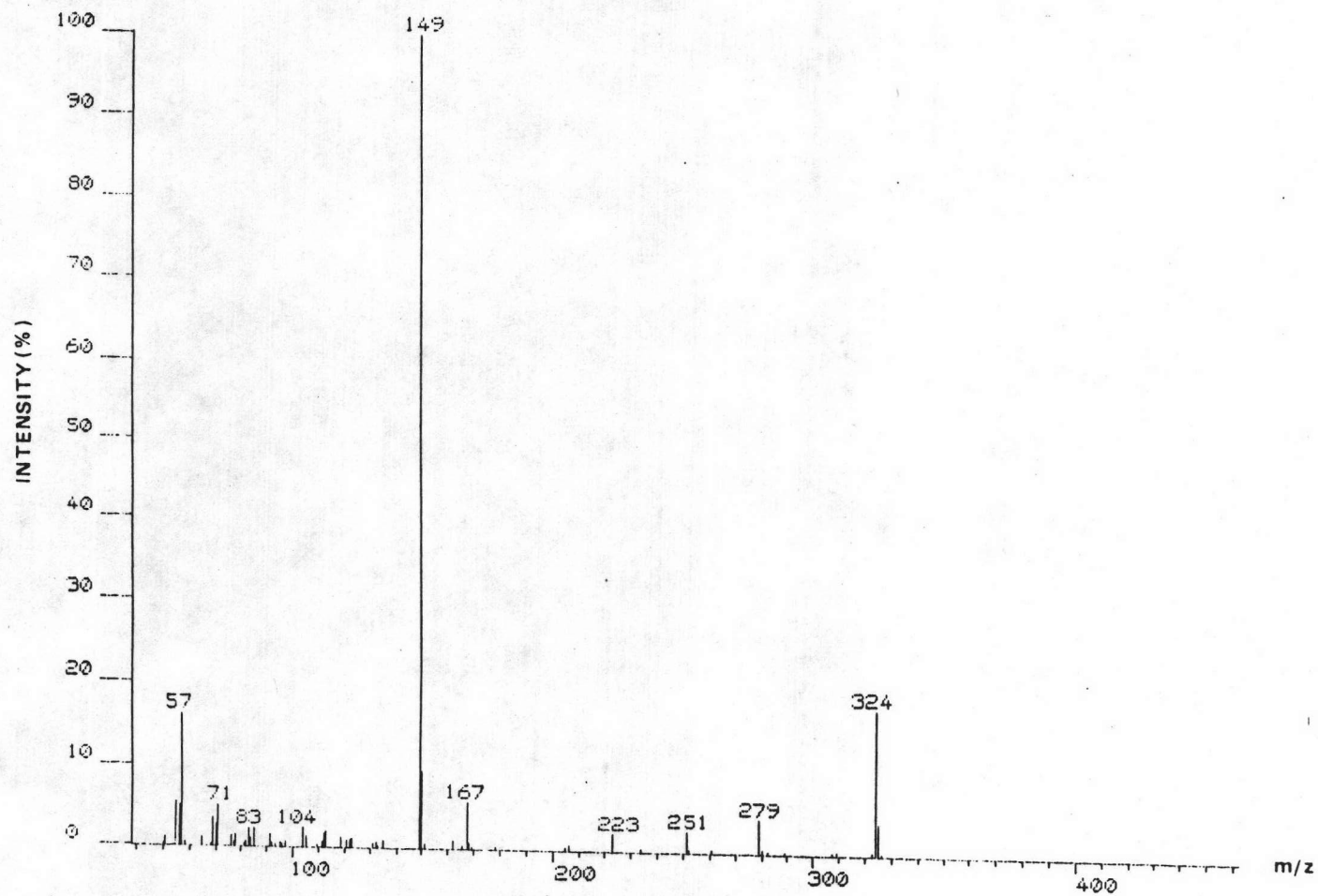


Fig.42 Electron impact mass spectrum of SP-3

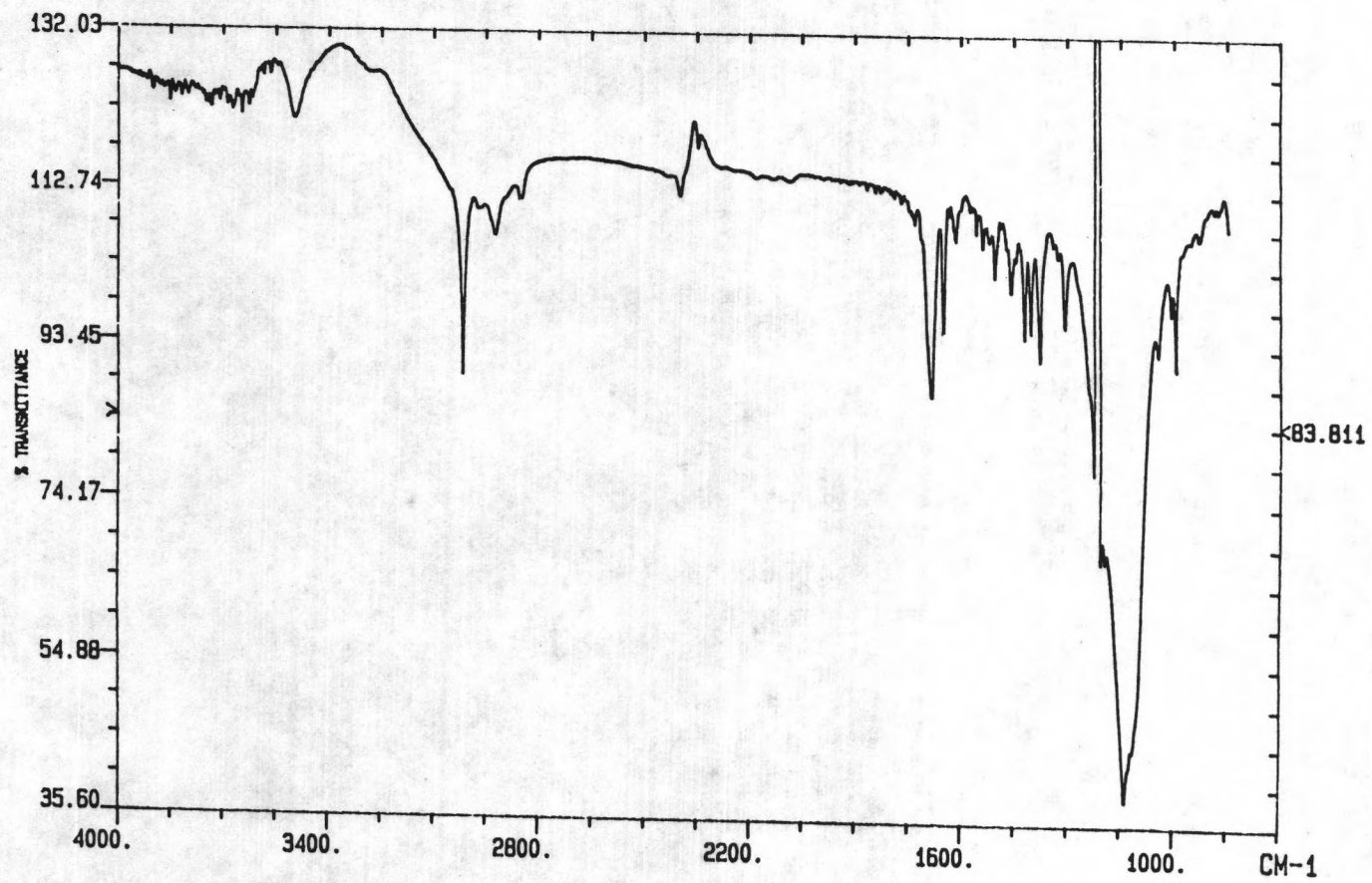


Fig. 43 Infrared absorption spectrum of SP-4

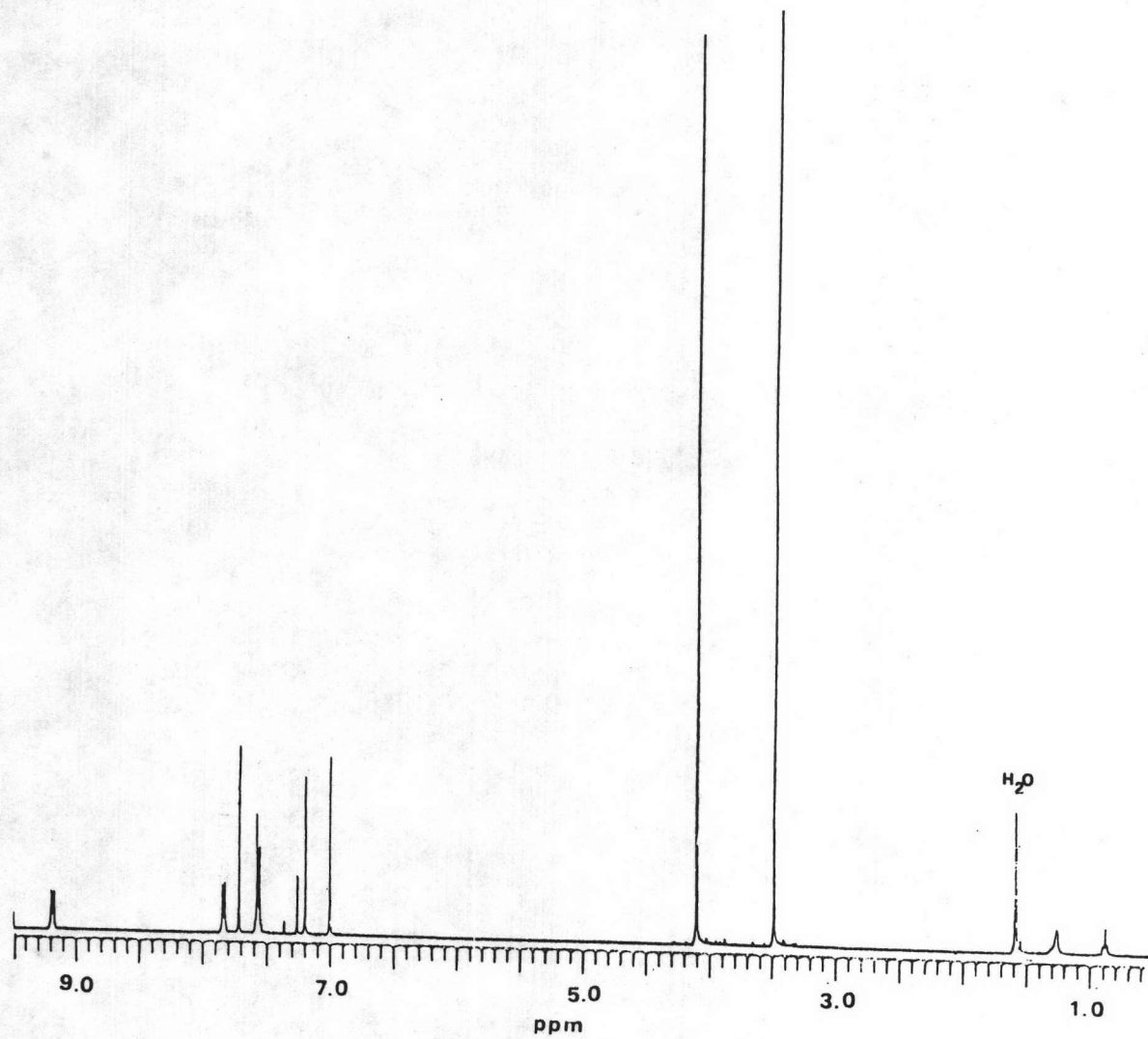


Fig.44 Proton NMR spectrum of SP-4

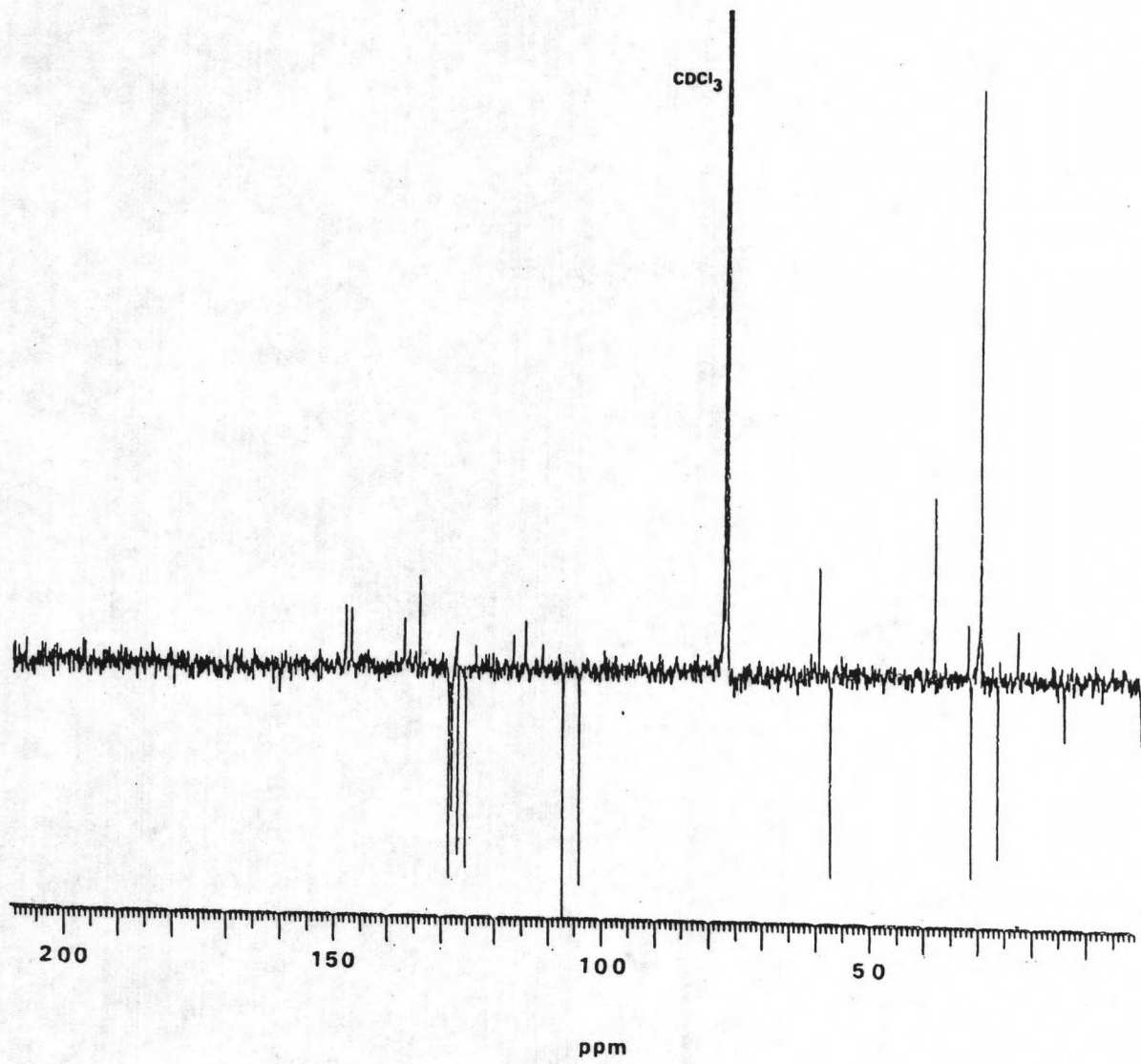


Fig.45 Carbon-13 NMR spectrum of SP-4

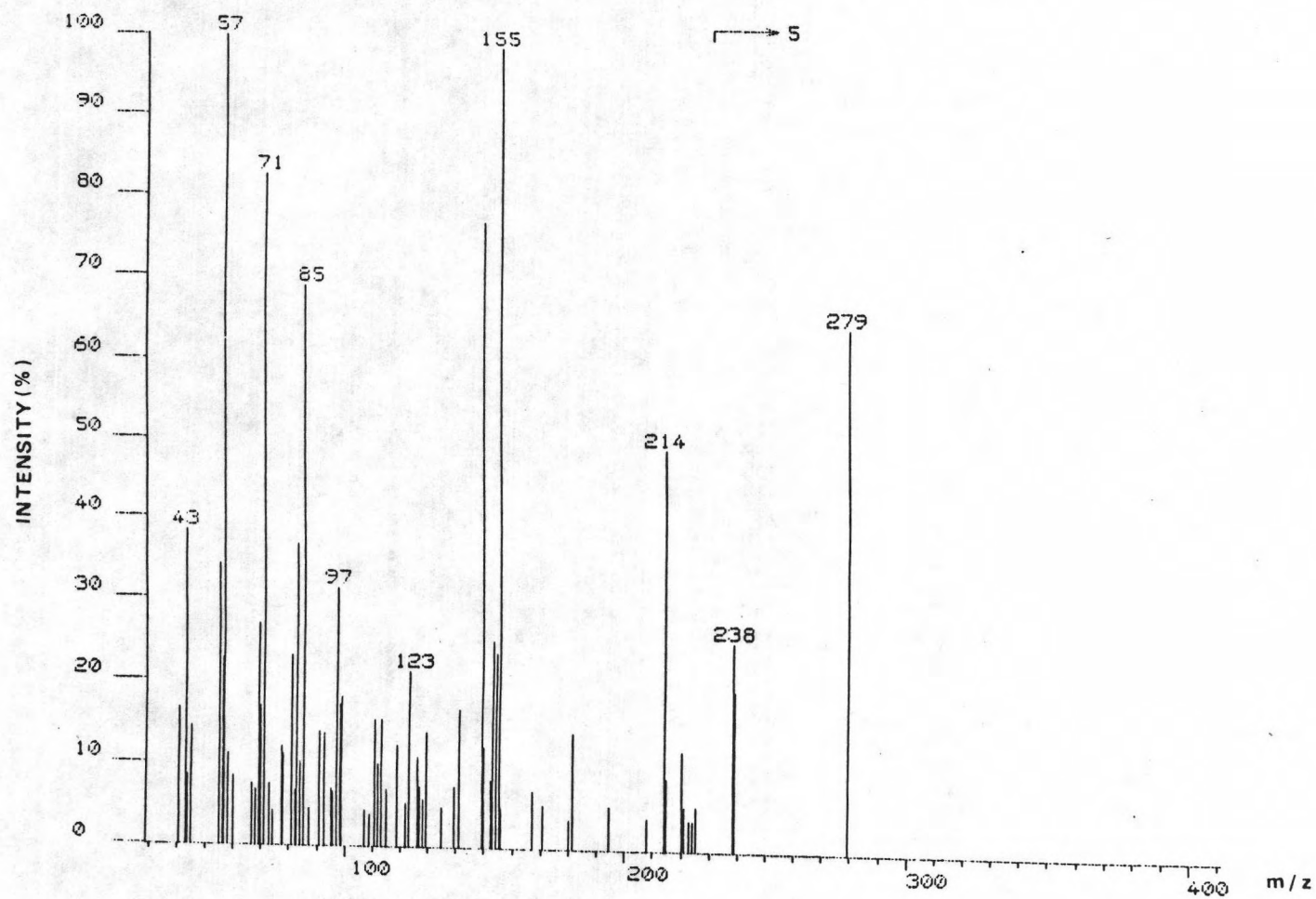


Fig.46 Electron impact mass spectrum of SP-4

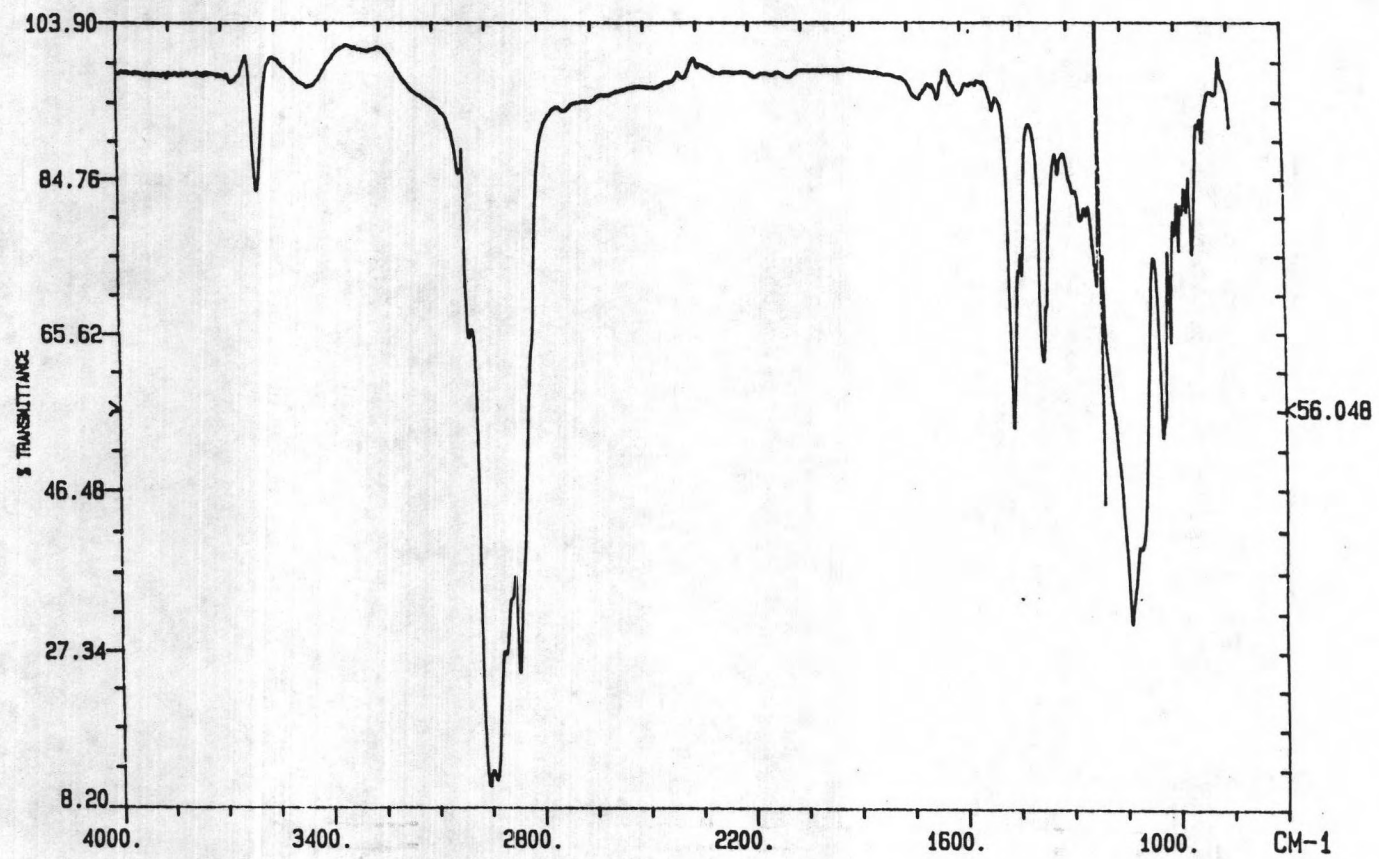


Fig.47 Infrared absorption spectrum of SP-5

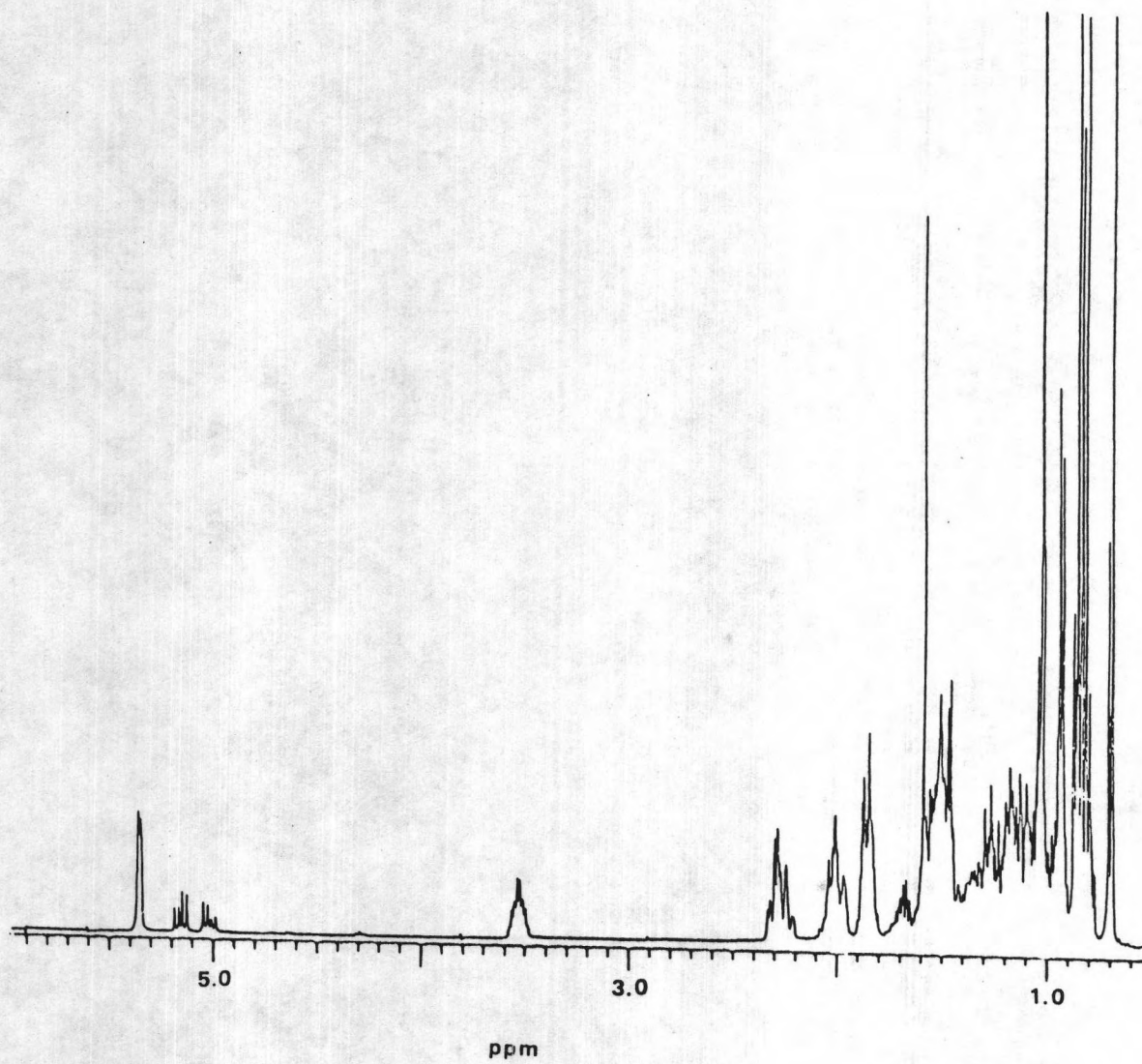


Fig.48 Proton NMR spectrum of SP-5

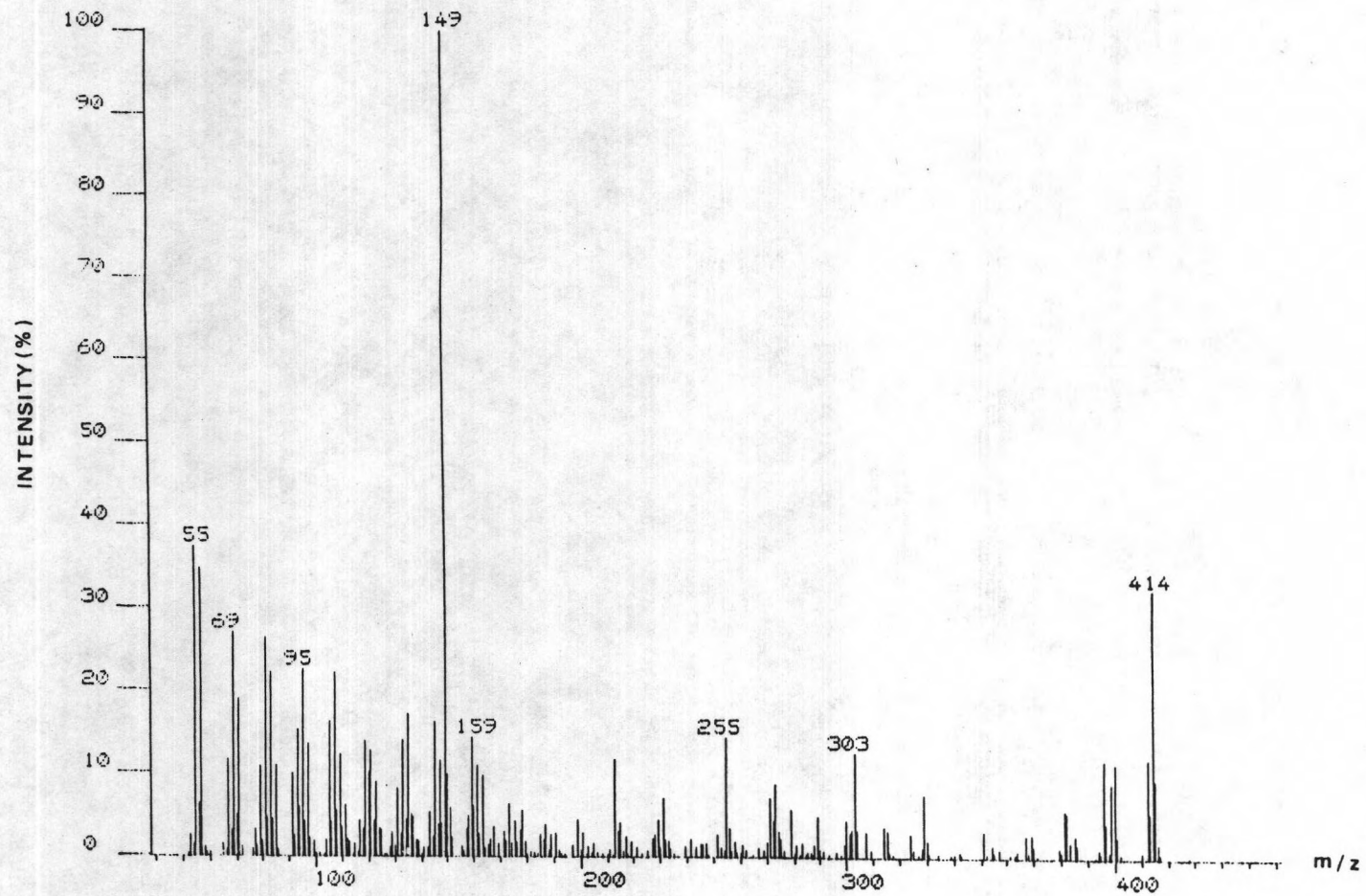


Fig.49 Electron impact mass spectrum of SP-5

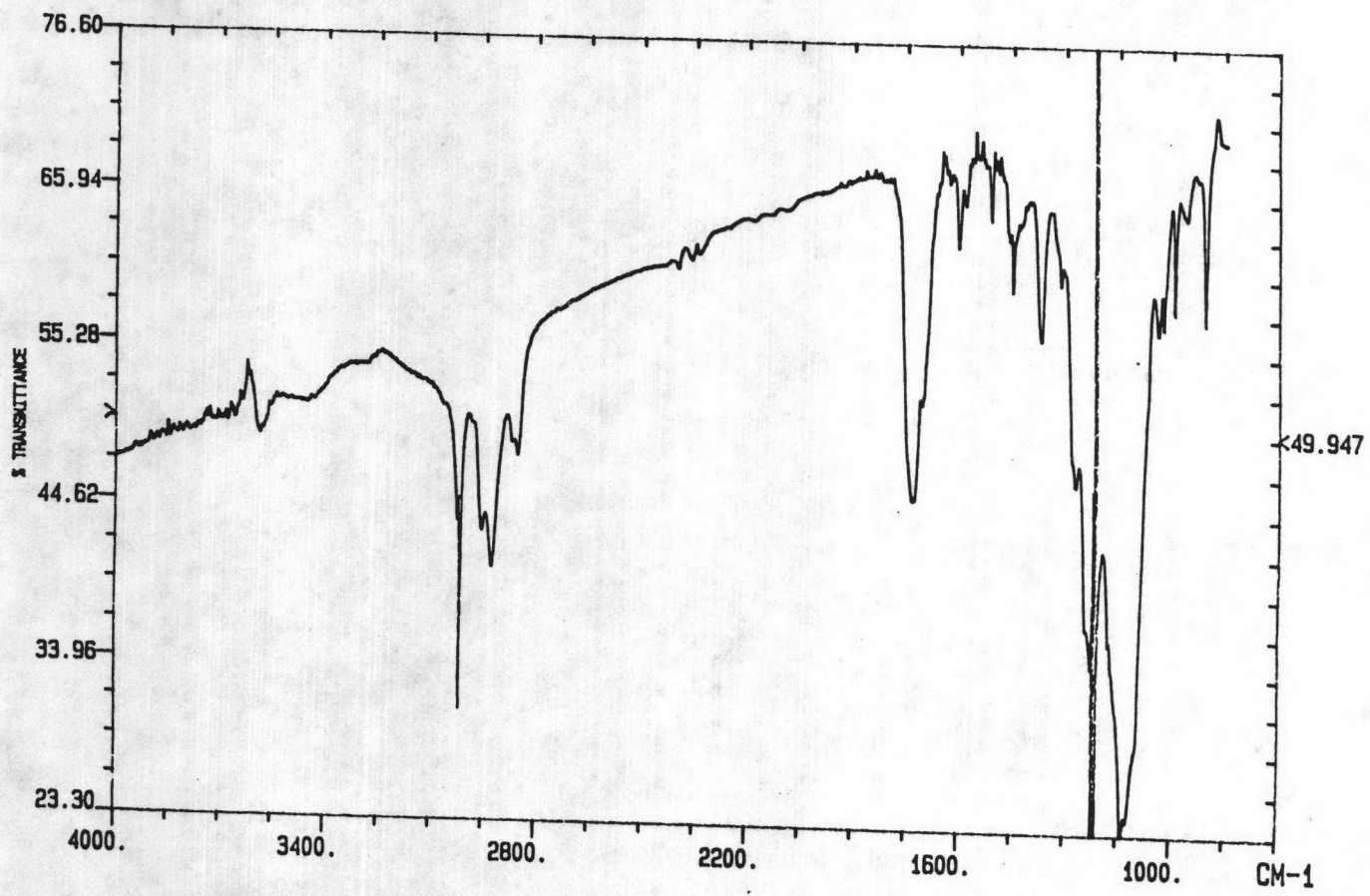


Fig.50 Infrared absorption spectrum of SP-6

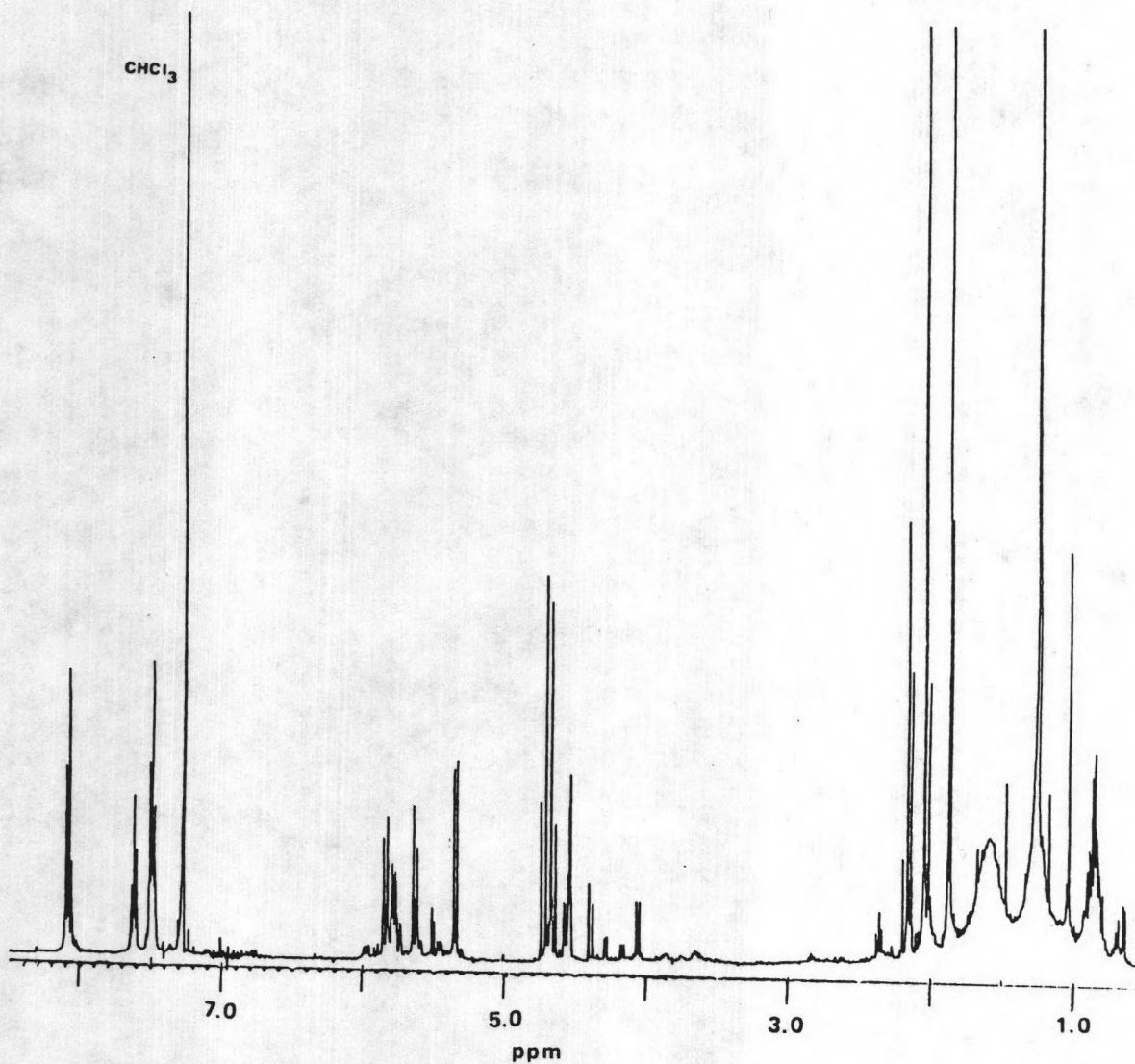


Fig.51 Proton NMR spectrum of SP-6

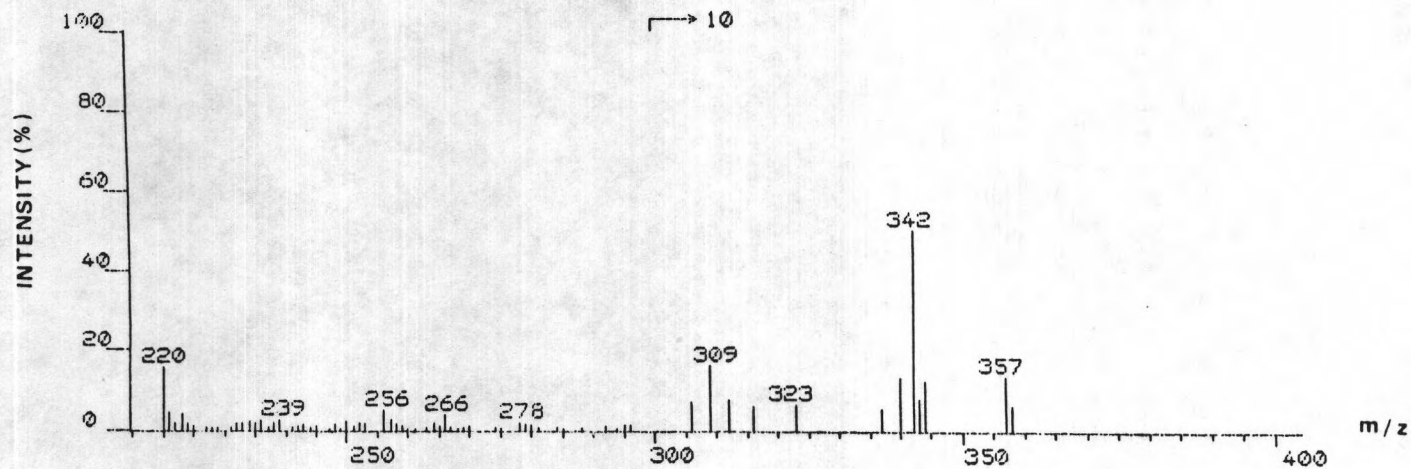
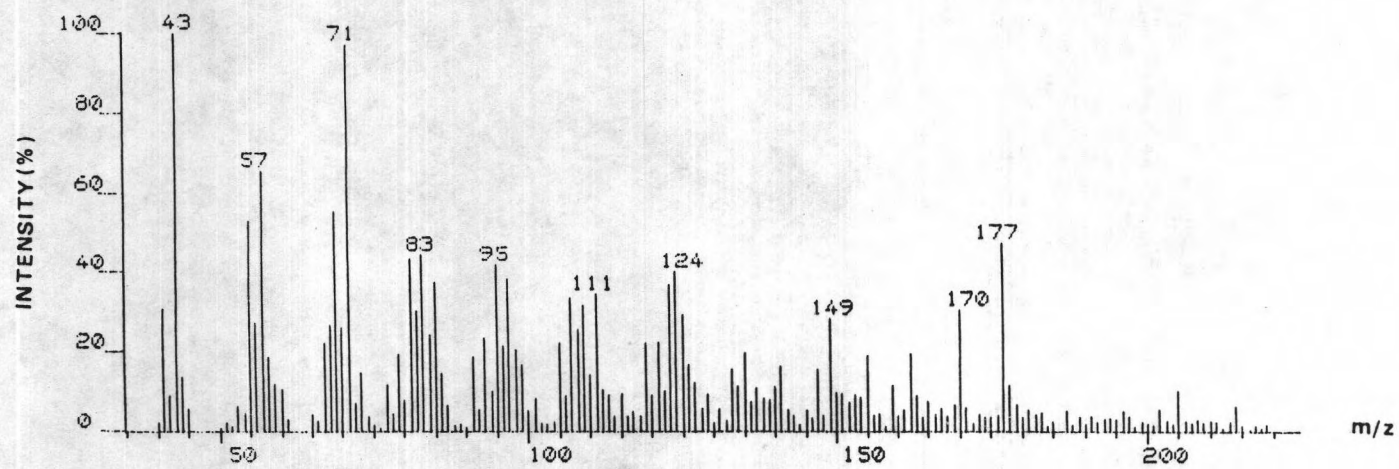


Fig.52 Electron impact mass spectrum of SP-6

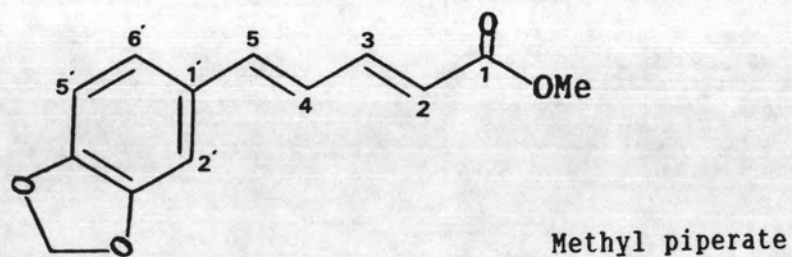
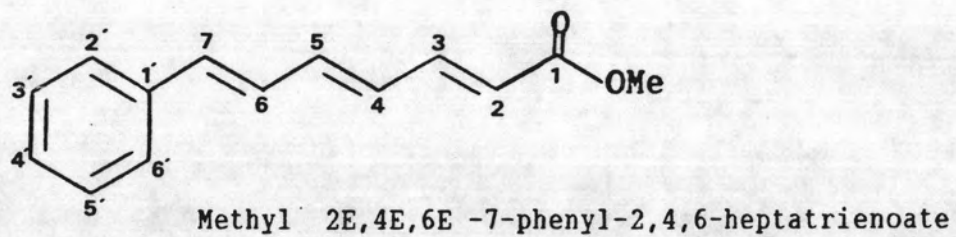
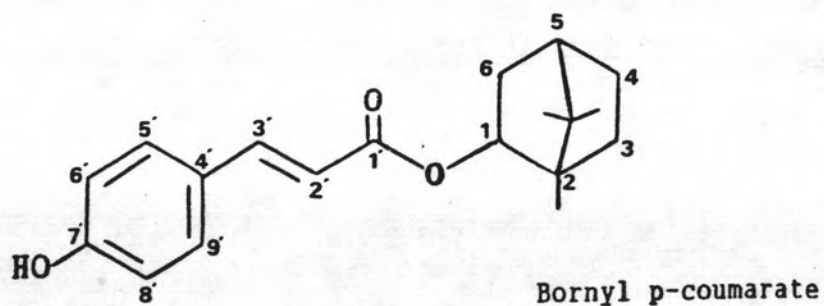
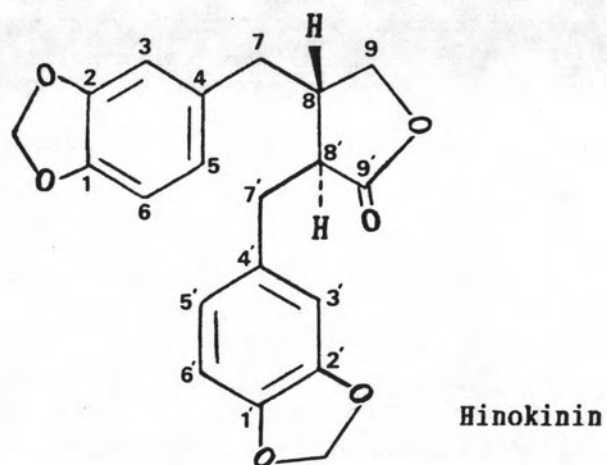


Fig.53 The structures of isolated compounds from *Piper ribesioides* Wall.

**VITA**

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