

CHAPTER IV



CONCLUSIONS

A flavonoid and a sterylglucoside were isolated from the stem bark of *Albizzia julibrissin*. Their structures were elucidated as 7,3',4'-trihydroxyflavone and α -spinasteryl-D-glucoside respectively. Both compounds were found to be inactive in antifertility. However, a triterpenoid saponin composed of acacic acid and 3 sugars, namely glucose, rhamnose and fucose, isolated from the butanolic fraction exhibits a strong uterotonic activity.

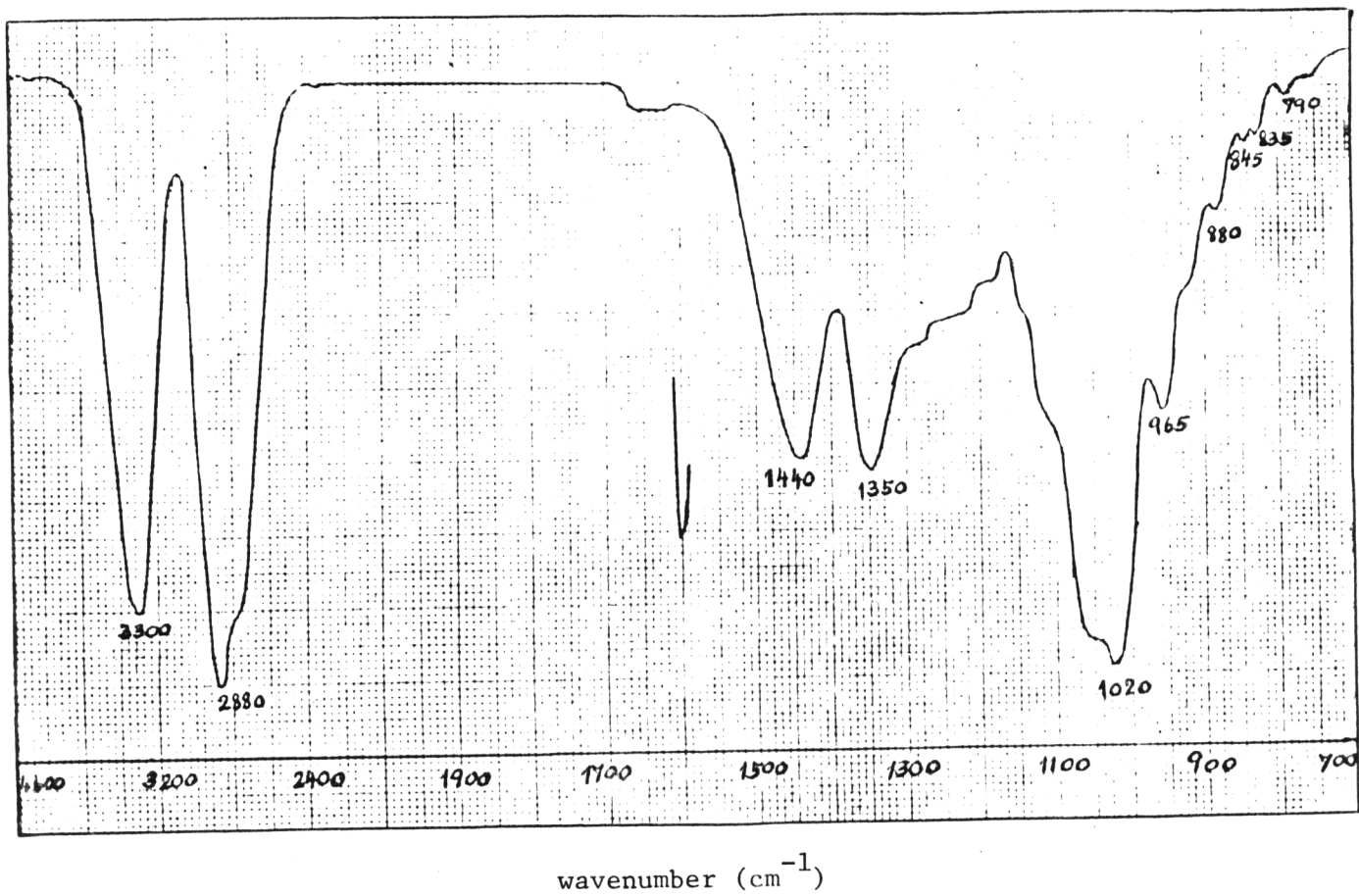


Fig. I IR spectrum of Compound I

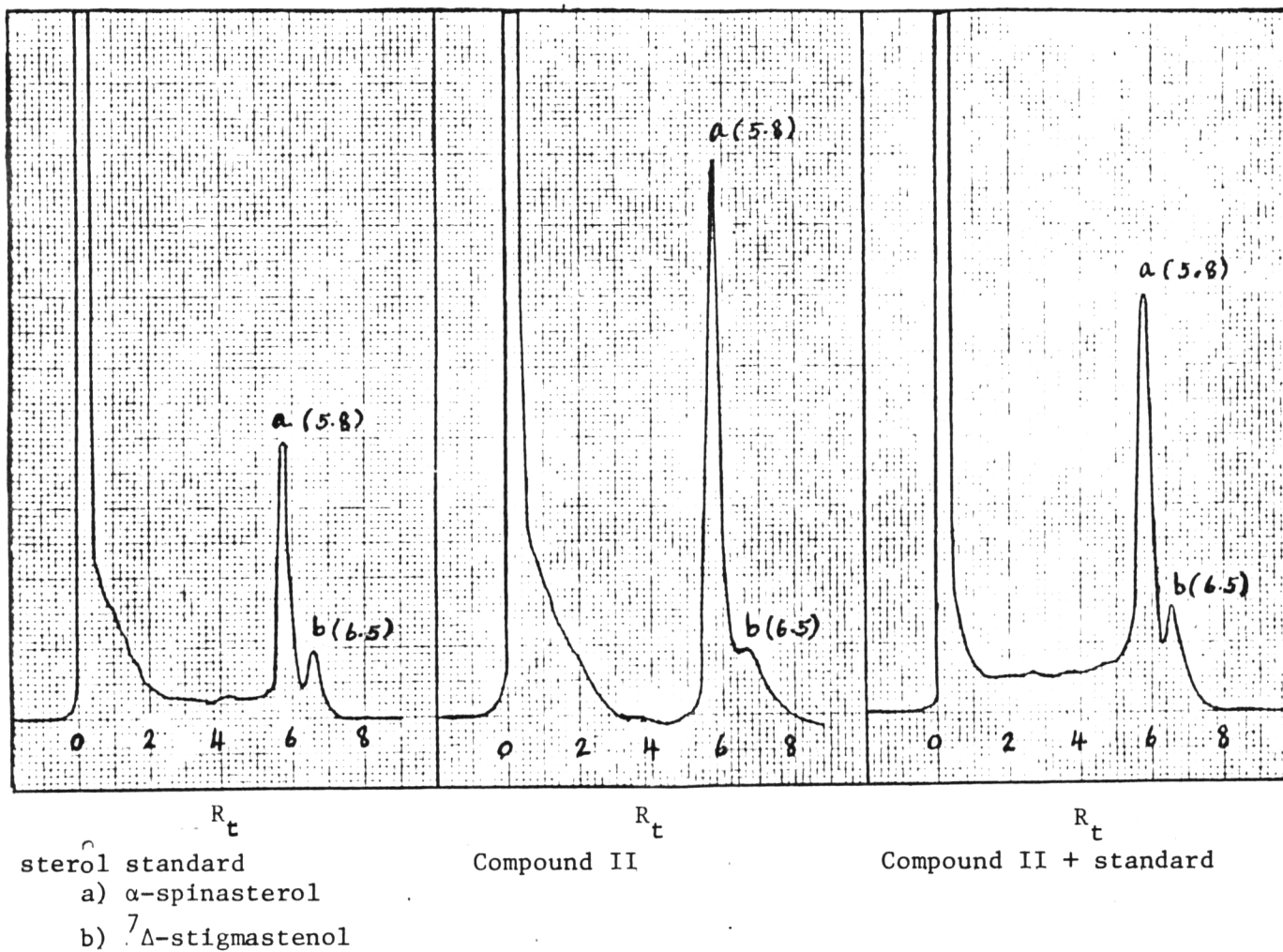


Fig. II Gas chromatograph of Compound II

CONDITION : column OV-1 (60-80 mesh), temperature; injector 190° ,
detector (FID) 200° , column 170° , Chart speed 1 cm/min,
carrier gas (N_2) $45\text{ cm}^3/\text{min}$

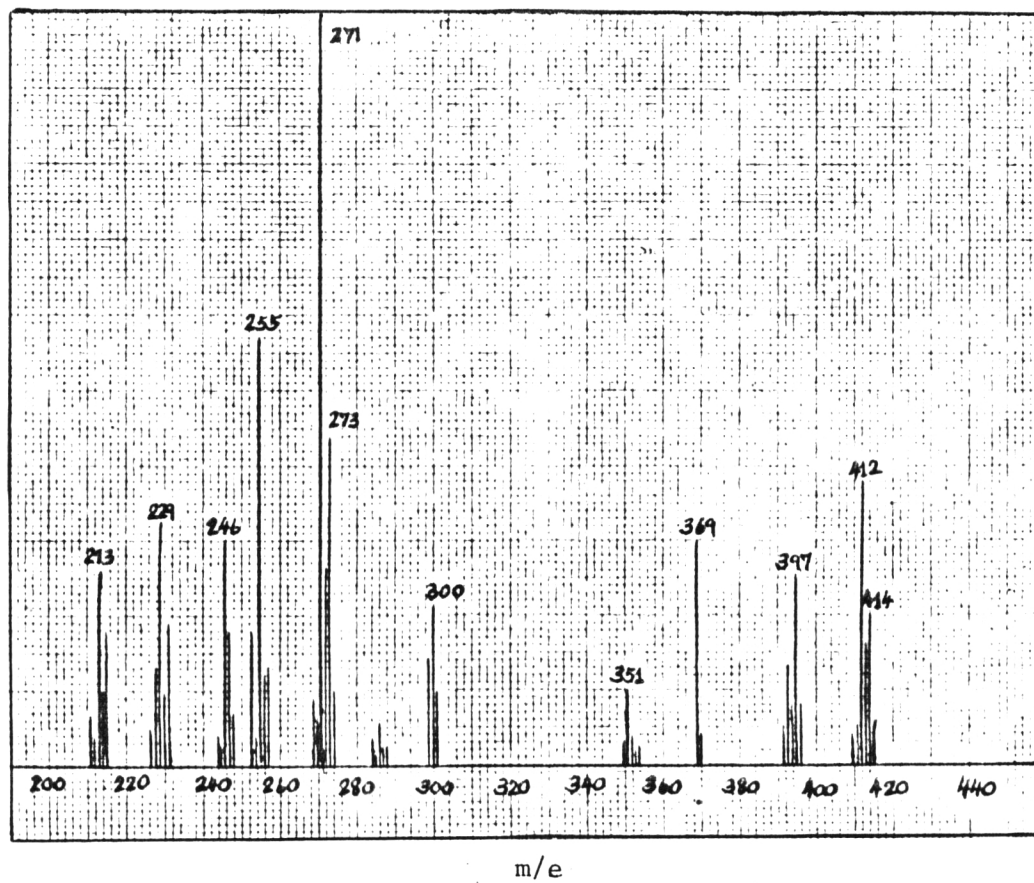
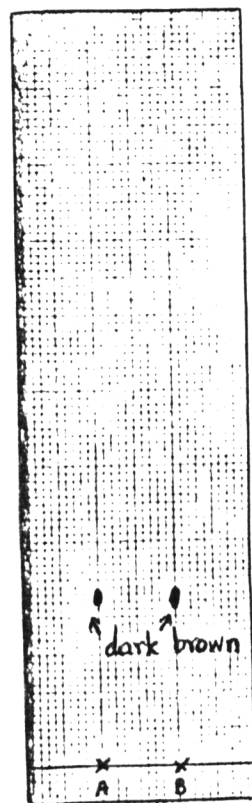


Fig. III Mass spectrum of Compound II



A = glucose standard

B = Liquid II (R_f 0.23)

Solvent system

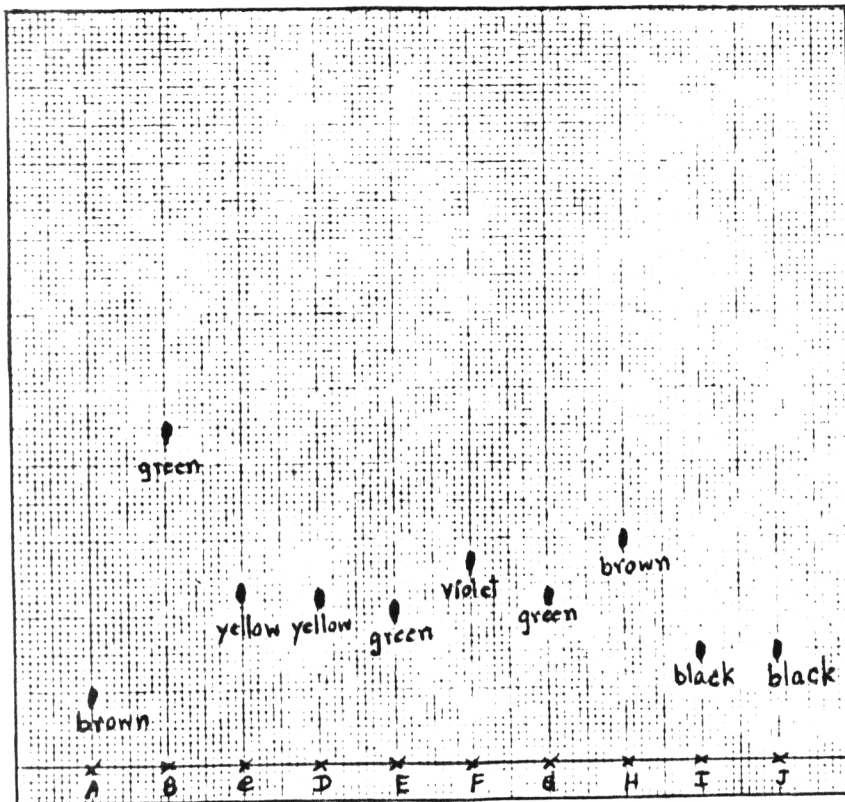
MeOH-CHCl₃-Me₂CO-NH₄OH 5:2:2:3 v./v.

(lower layer)

The spots turned into dark brown

when heated with 50% H₂SO₄.

Fig. IV TLC of Liquid II and glucose standard

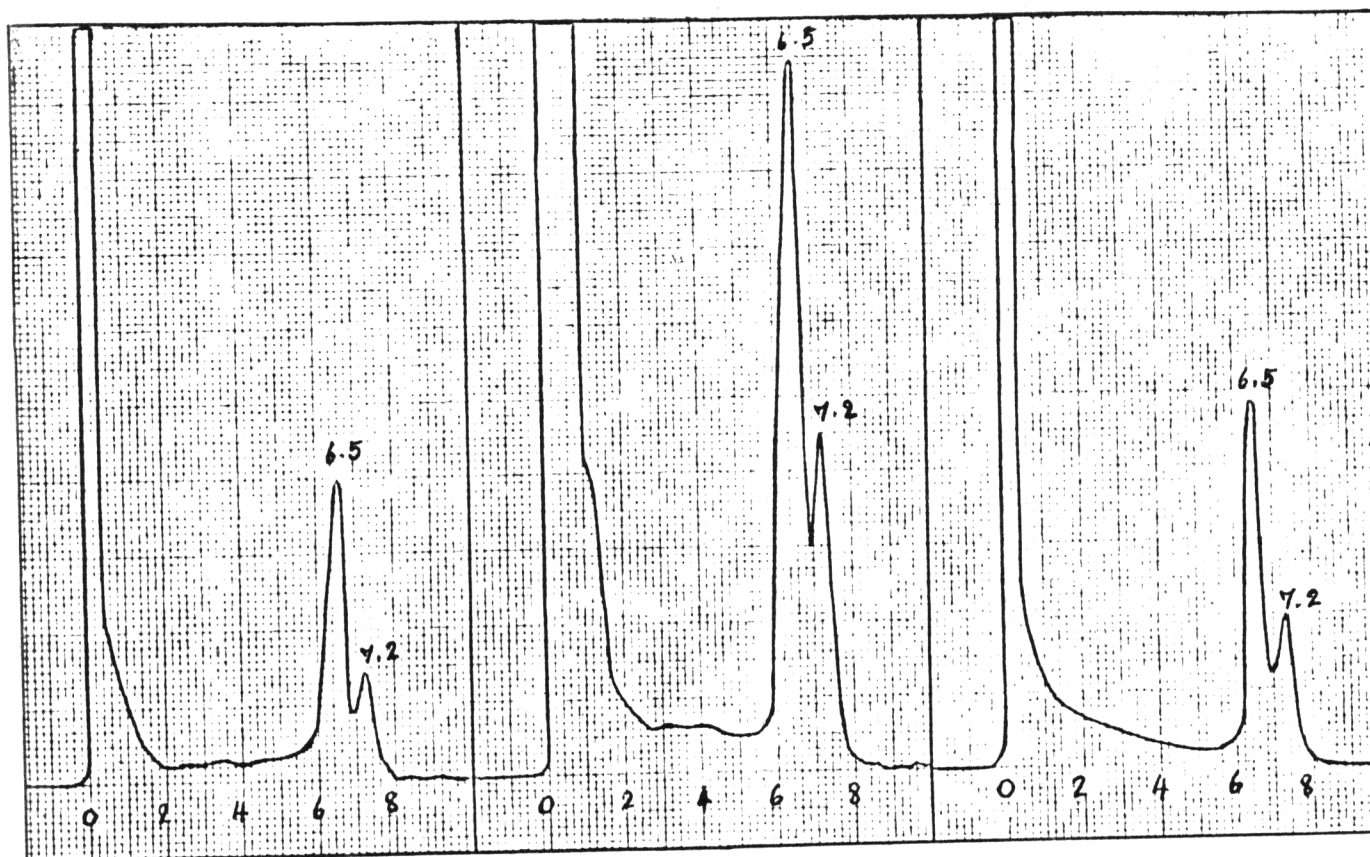


- A = raffinose
- B = β -methyl-D-xylose
- C = rhamnose
- D = fucose
- E = arabinose
- F = xylose
- G = mannose
- H = ribose
- I = glucose
- J = Liquid II (R_f 0.15)

Solvent system :

CHCl_3 -MeOH- H_2O 52:25:8 v./v. (lower layer).
 The spots appeared after spraying 50% H_2SO_4
 and heating.

Fig. V TLC of Liquid II and suger standards



R_t
glucose standard

R_t
Liquid II

R_t
Liquid II + standard

R_t 6.5 = α -glucose

7.2 = β -glucose

Fig. VI GLC of Liquid II and glucose standard.

CONDITION : column OV-2 (60-80 mesh), temperature; injector 190°
 detector (FID) 200°, column 170°, chart speed 1 cm/min,
 carrier gas (N_2) 45 cm³/min

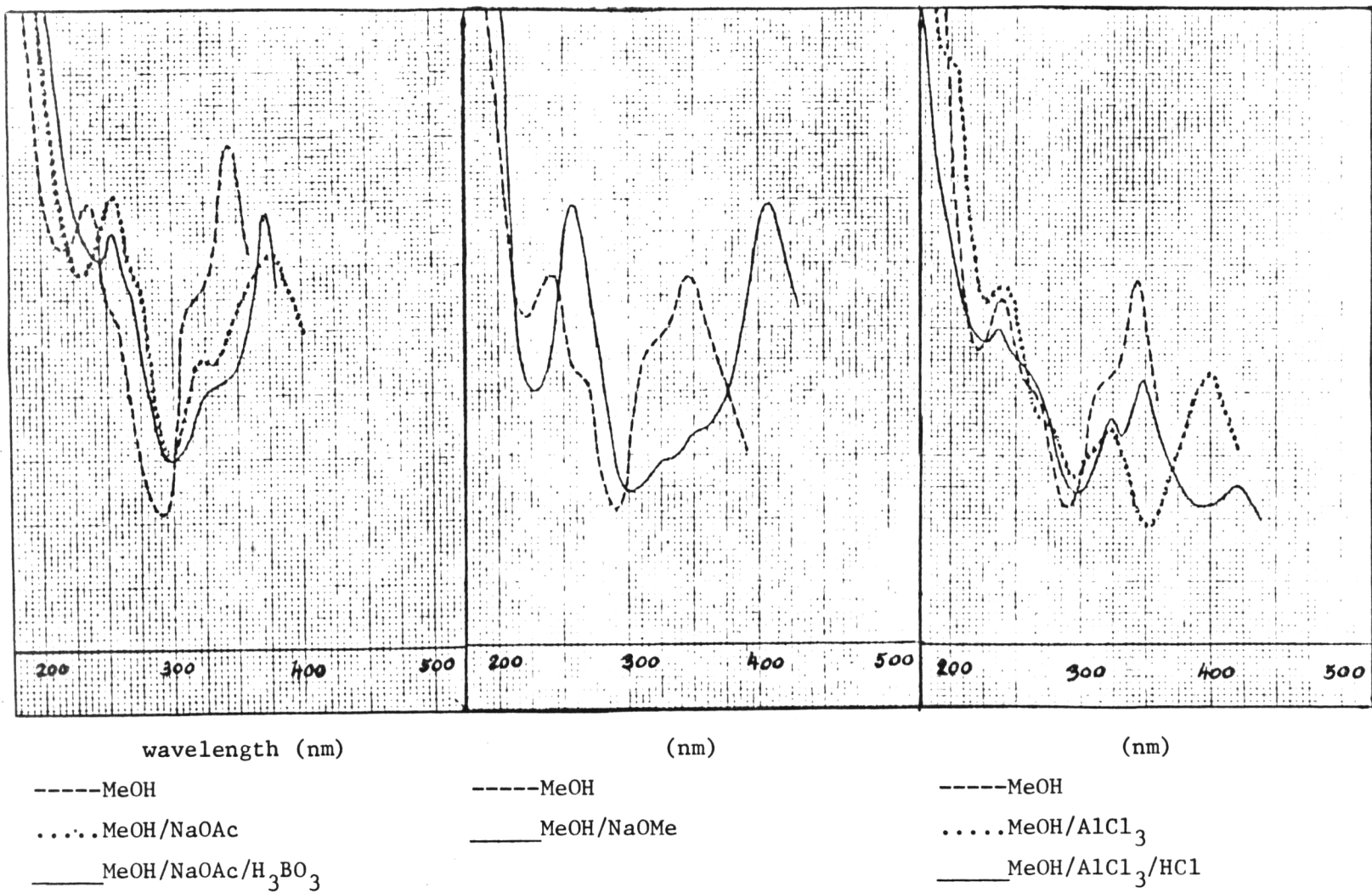


Fig. VII UV spectra of Compound IV in MeOH

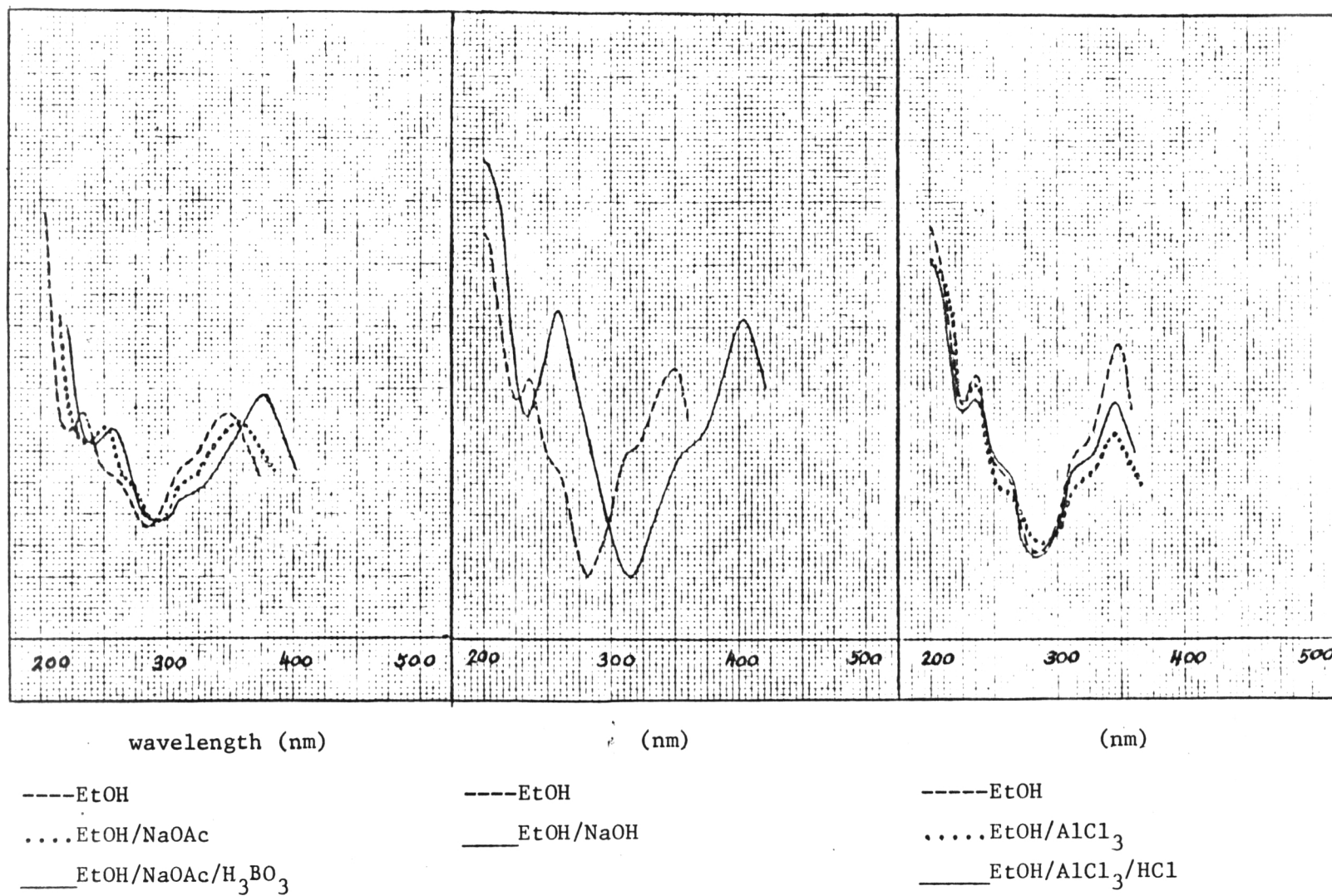


Fig. VIII UV spectra of Compound IV in EtOH

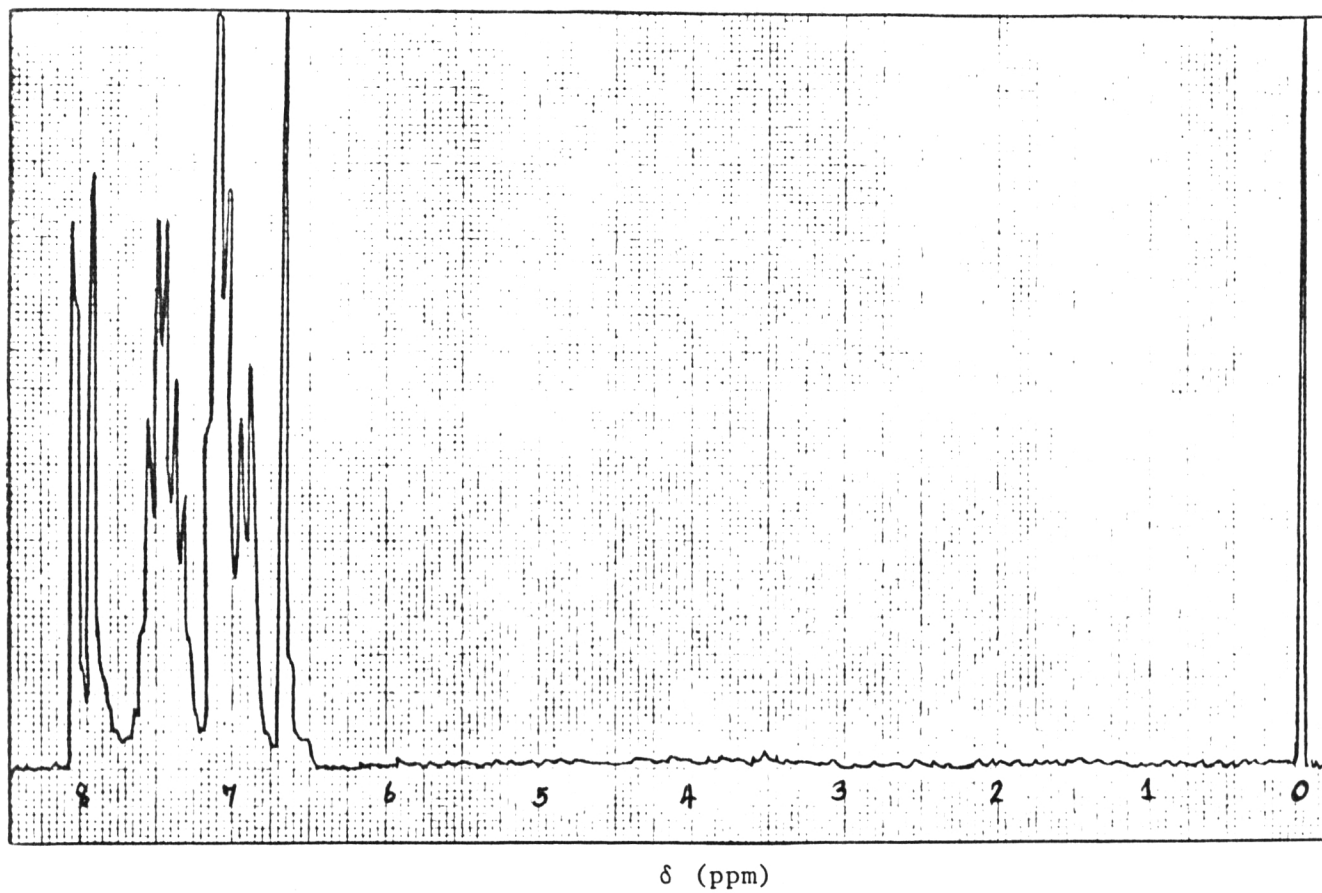


Fig. IX $^1\text{H-NMR}$ spectrum of Compound IV

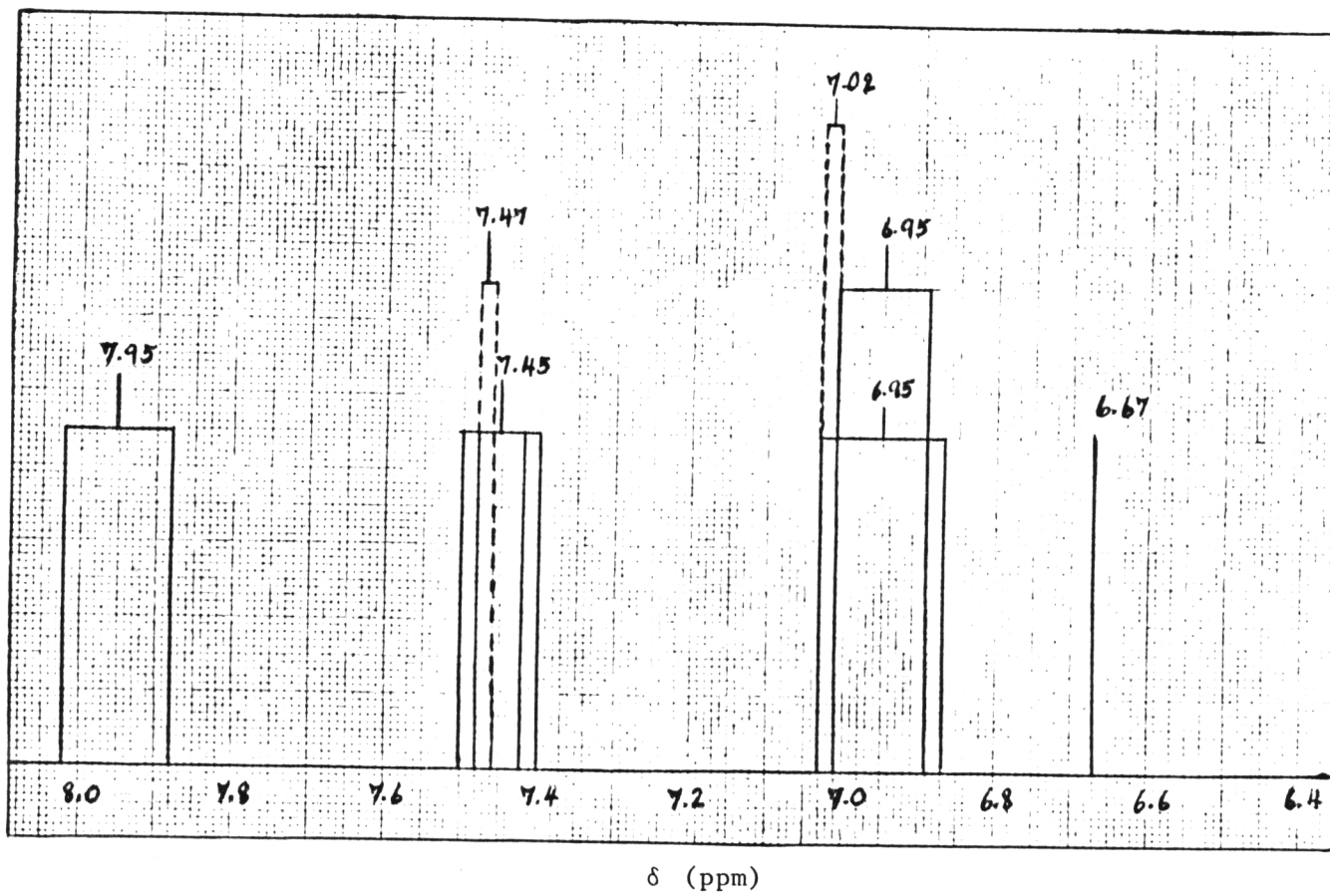


Fig. X ¹H-NMR splitting pattern of Compound IV

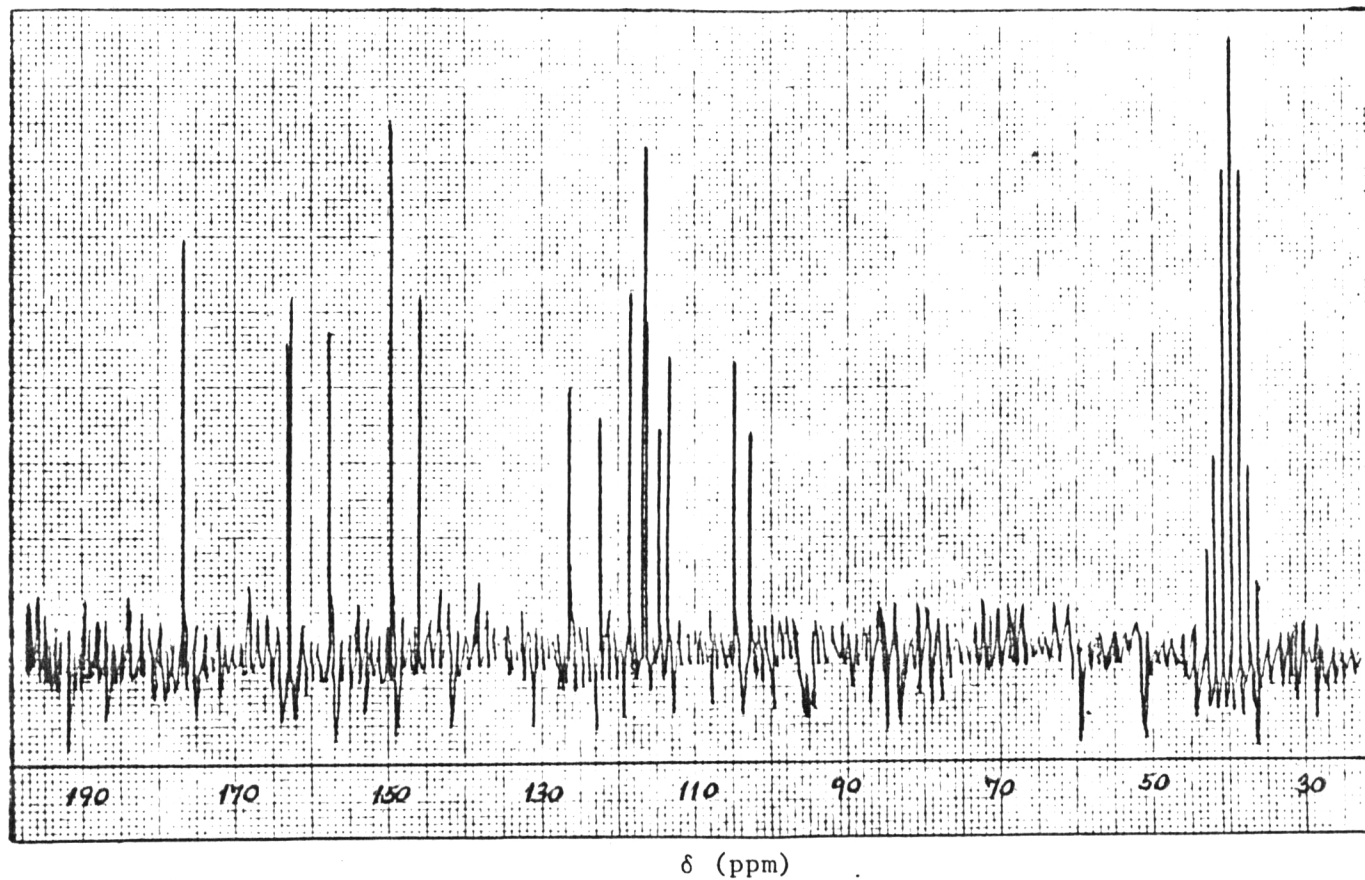


Fig. XI ^{13}C -NMR spectrum of Compound IV

176.6	___	C-4	122.2	___	C-1'	42.5	
163	___	C-2	118.2	___	C-6'	41.5	
162.8	___	C-7	116.2	___	C-5'	40.6	
157.6	___	C-9	116.	___	C-10	39.6	DMSO
149.1	___	C-4'	114.6	___	C-6	38.5	
145.8	___	C-3'	113.2	___	C-2'	37.2	
126.2	___	C-5	104.8	___	C-3	36.2	
			102.5	___	C-8		

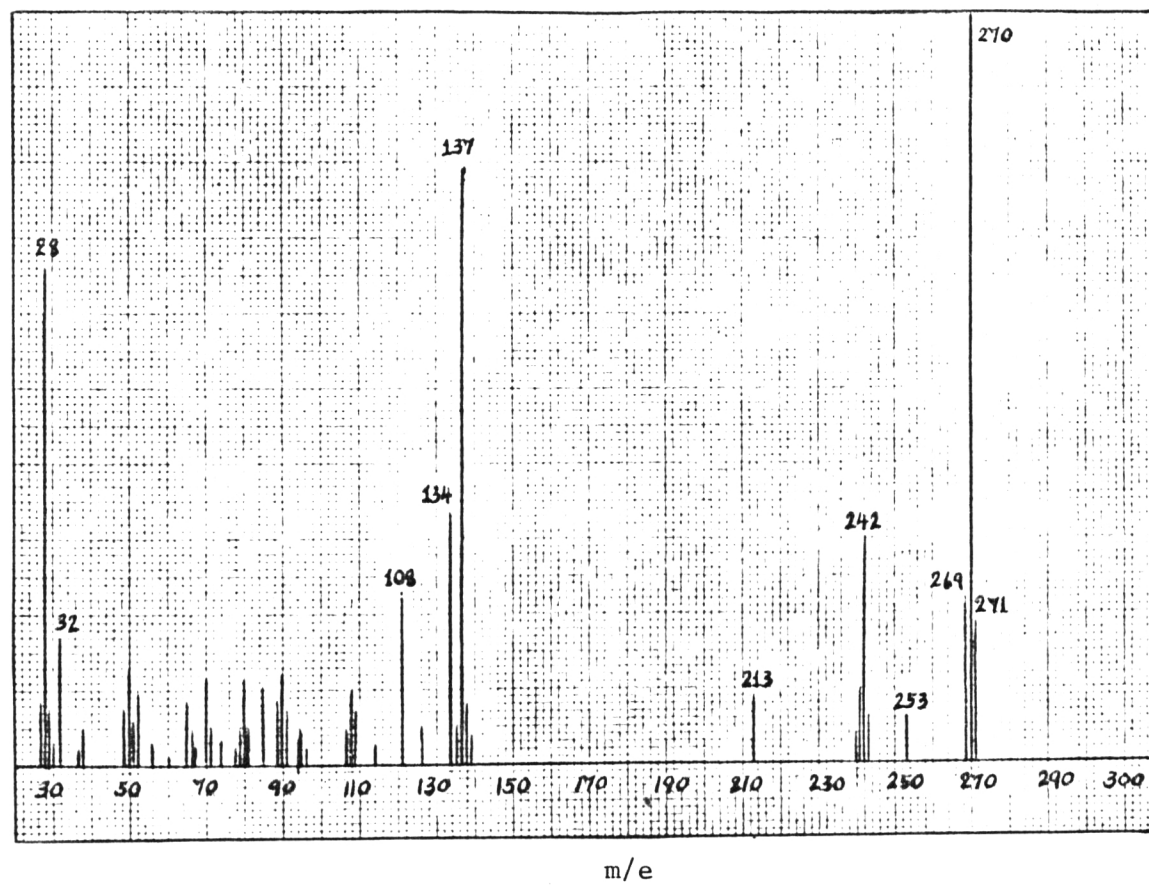


Fig. XII Mass spectrum of Compound IV

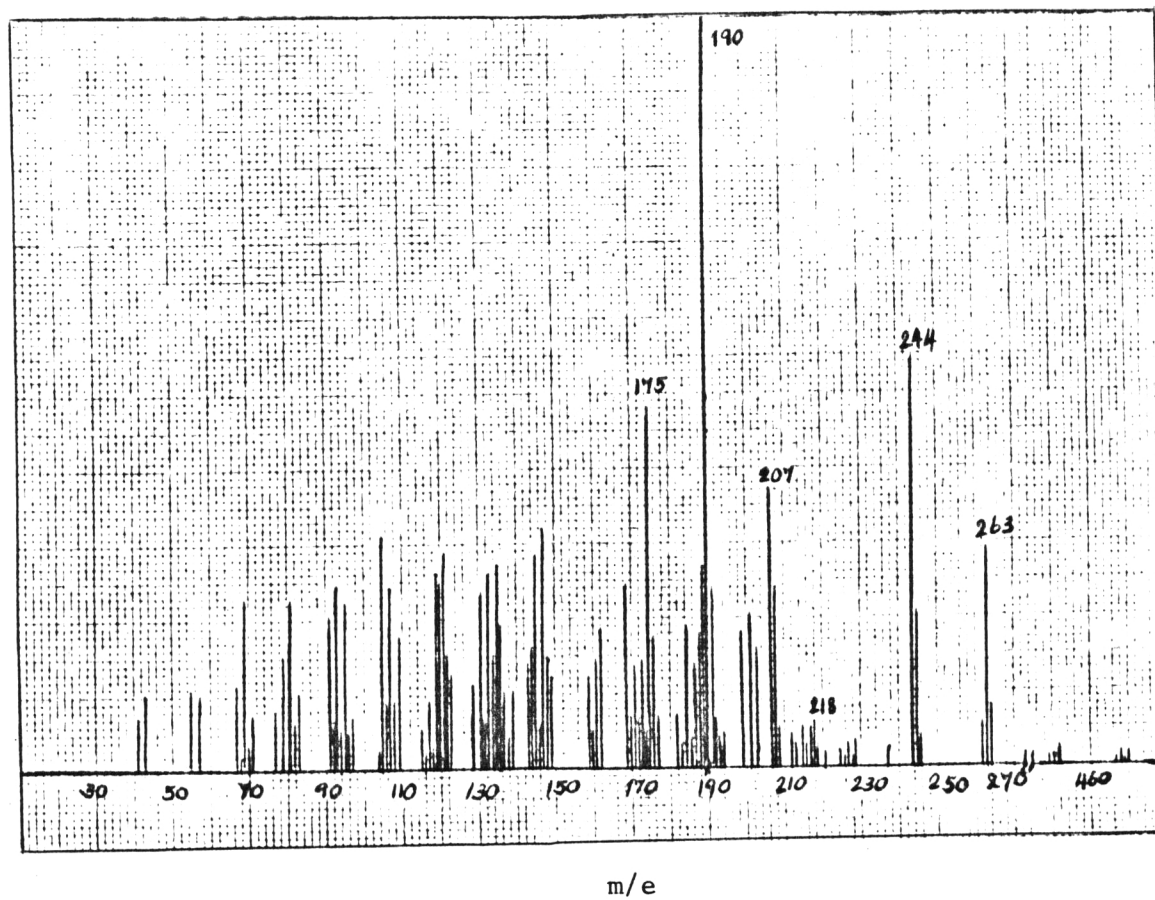


Fig. XIII Mass spectrum of Compound V