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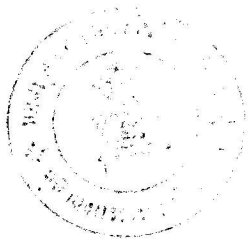

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APPENDIX I

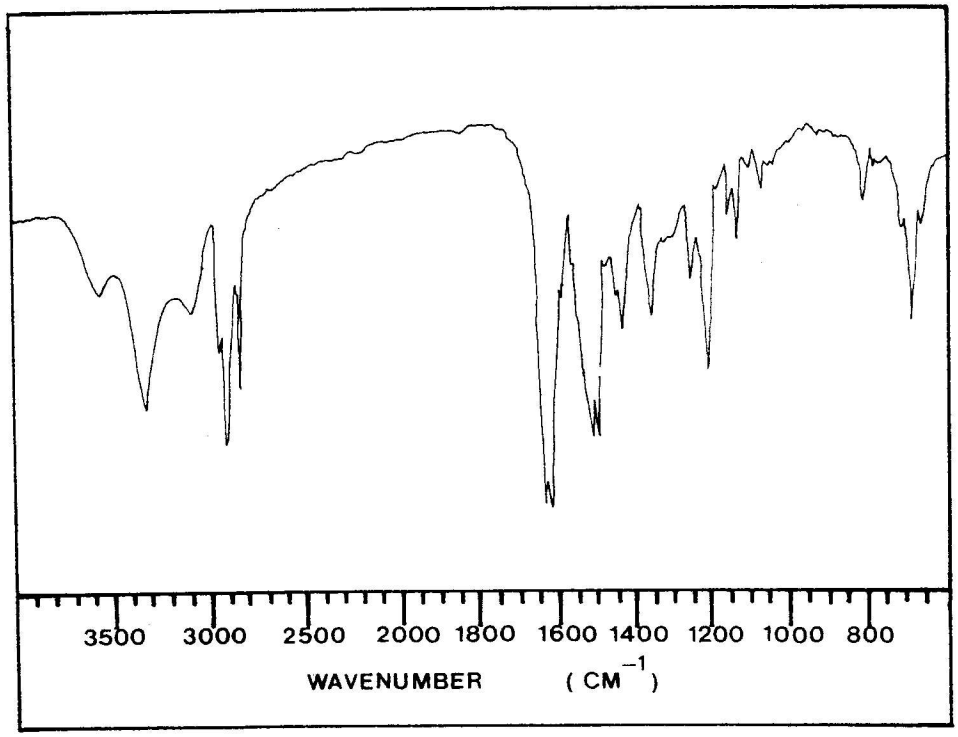


Fig. I.1 IR spectrum of compound I in KBr disc.

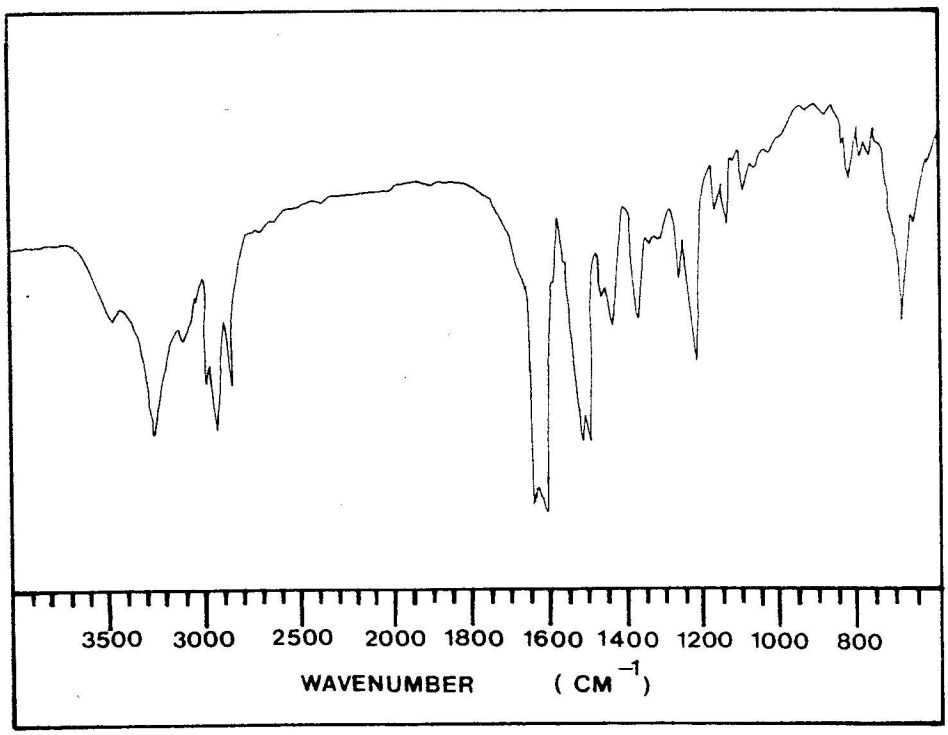


Fig. I.2 IR spectrum of compound II in KBr disc.

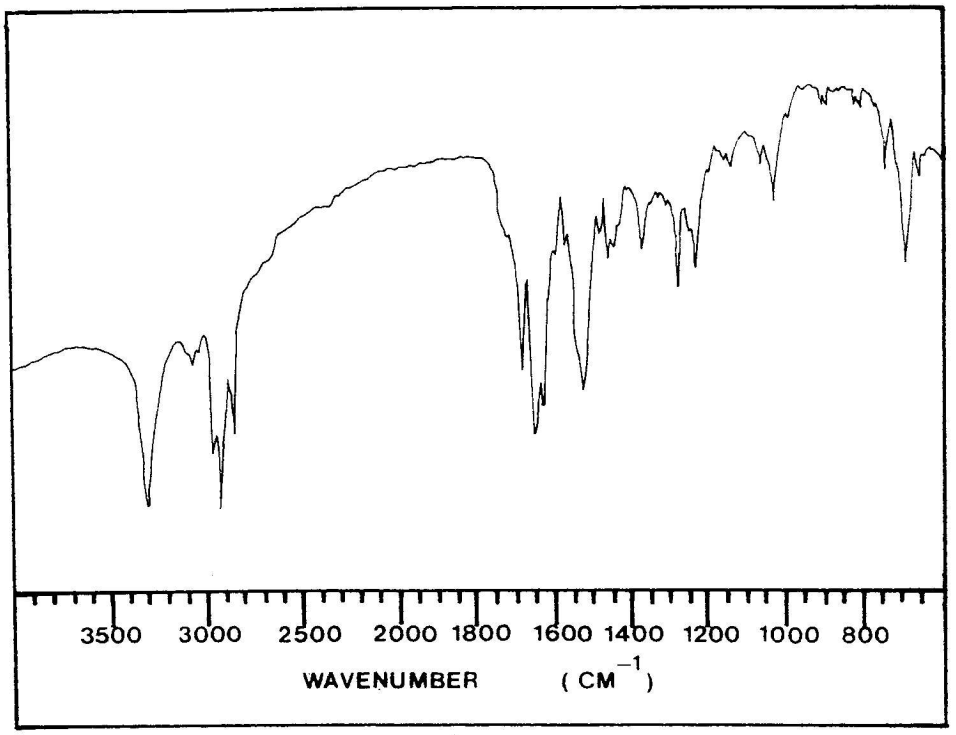


Fig. I.3 IR spectrum of compound III in KBr disc.

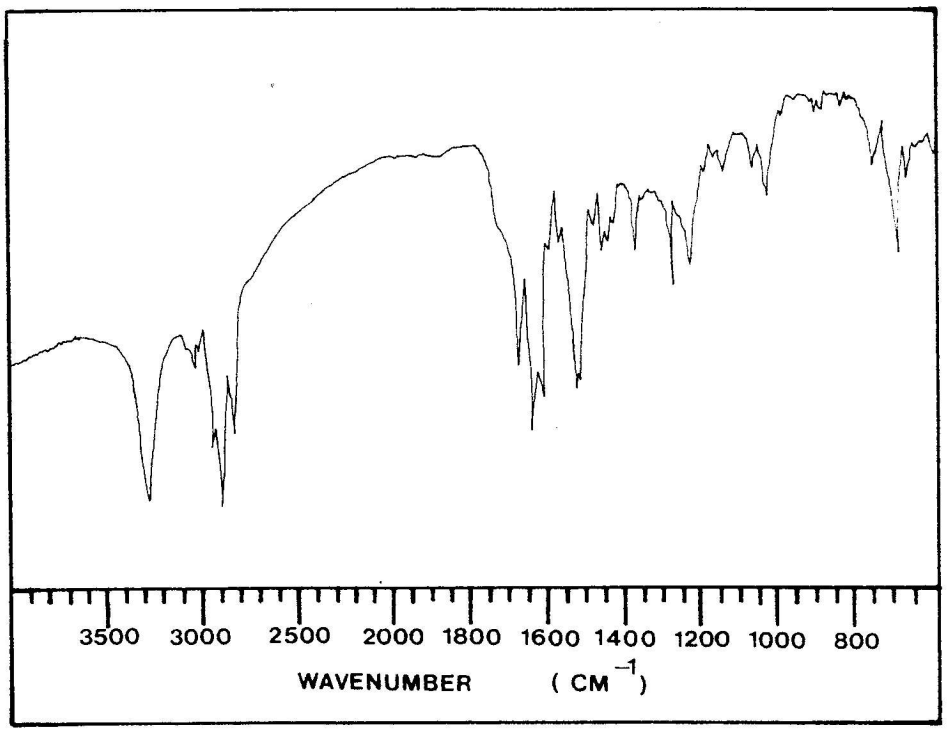


Fig. I.4 IR spectrum of compound IV in KBr disc.

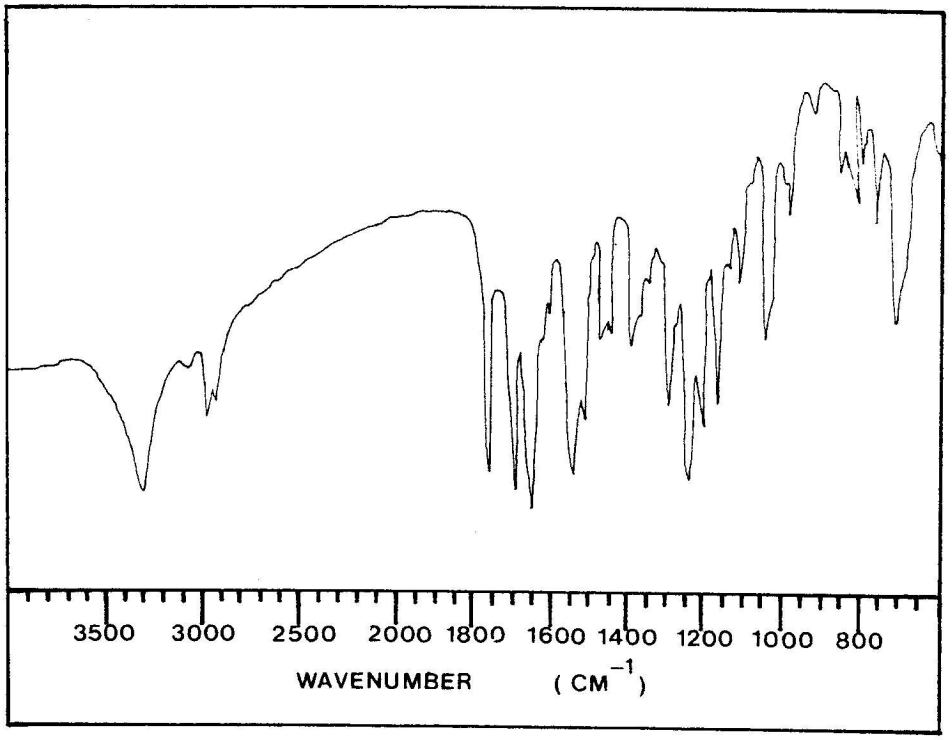


Fig. I.5 IR spectrum of compound V in KBr disc.

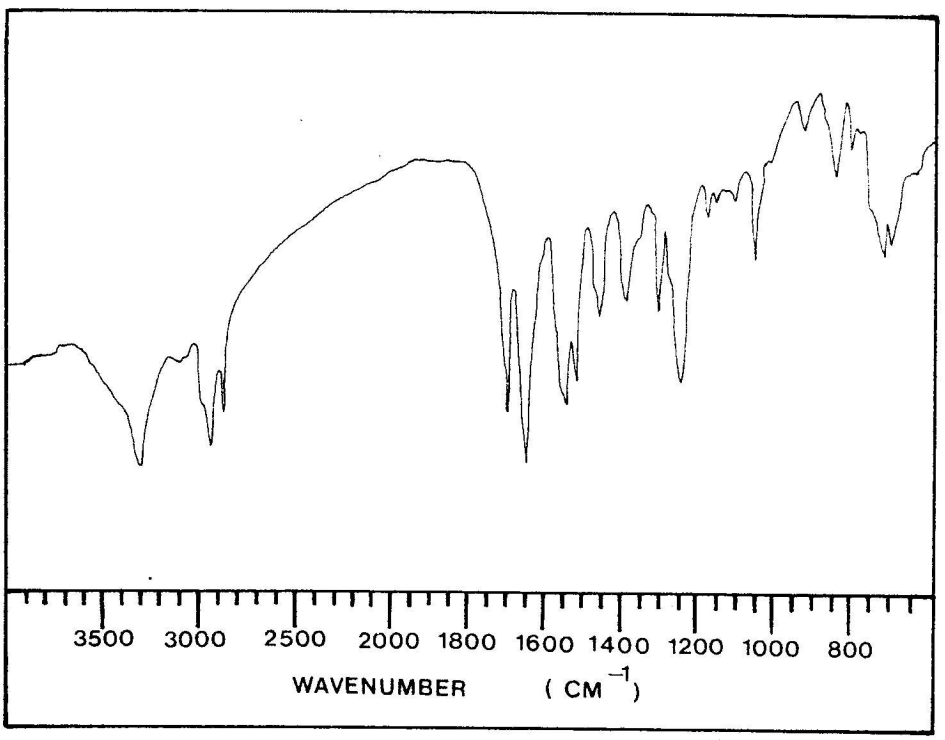


Fig. I.6 IR spectrum of compound VI in KBr disc.

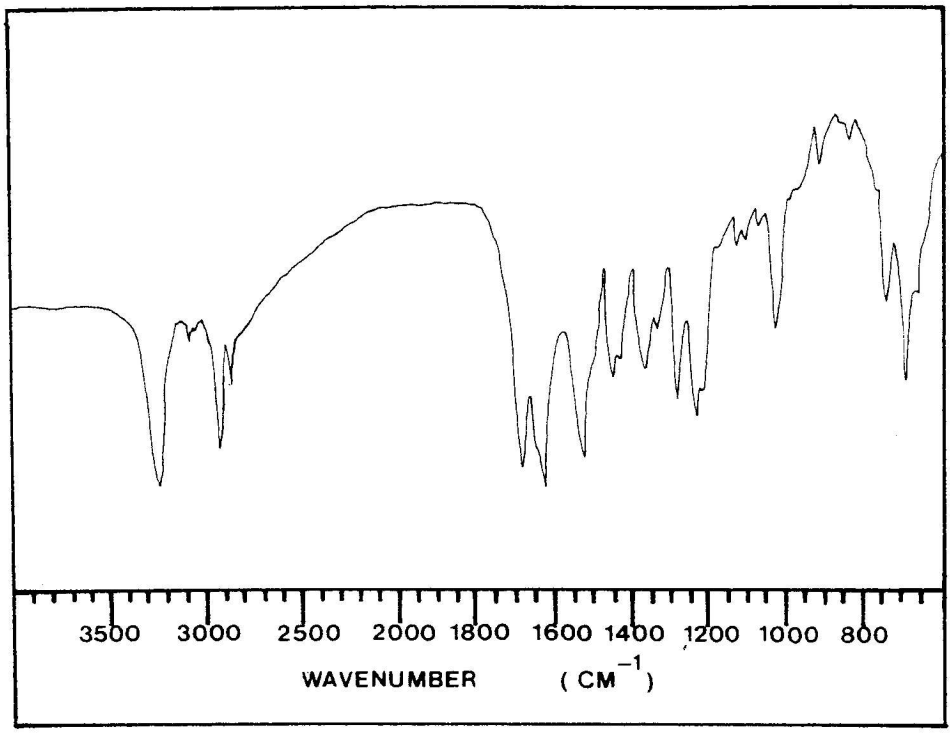


Fig. I.7 IR spectrum of compound VII in KBr disc.

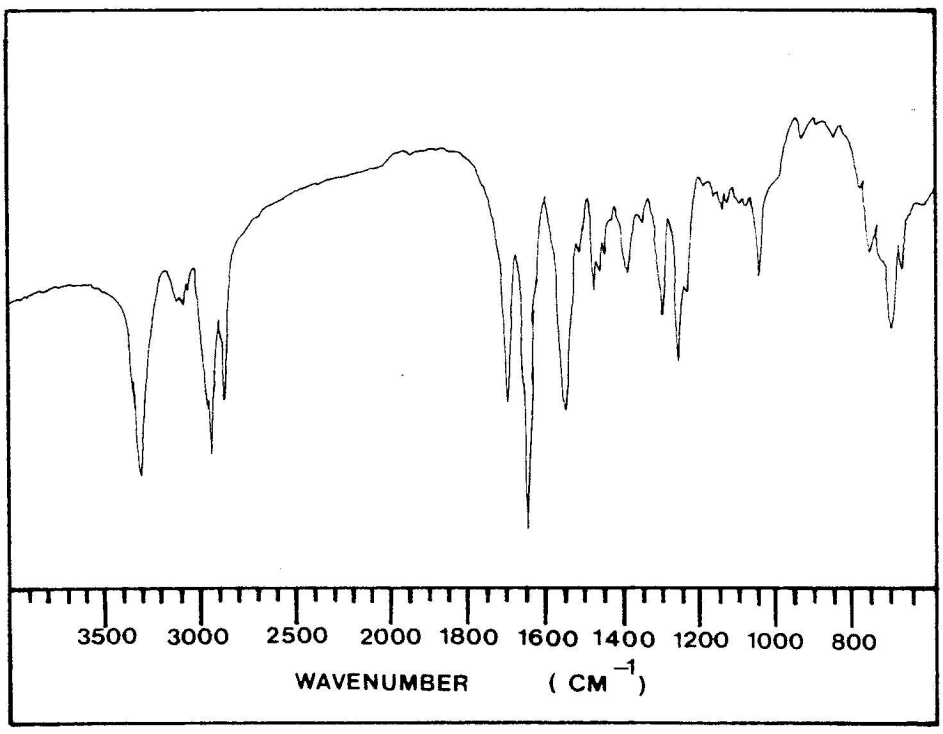


Fig. I.8 IR spectrum of compound VIII in KBr disc.

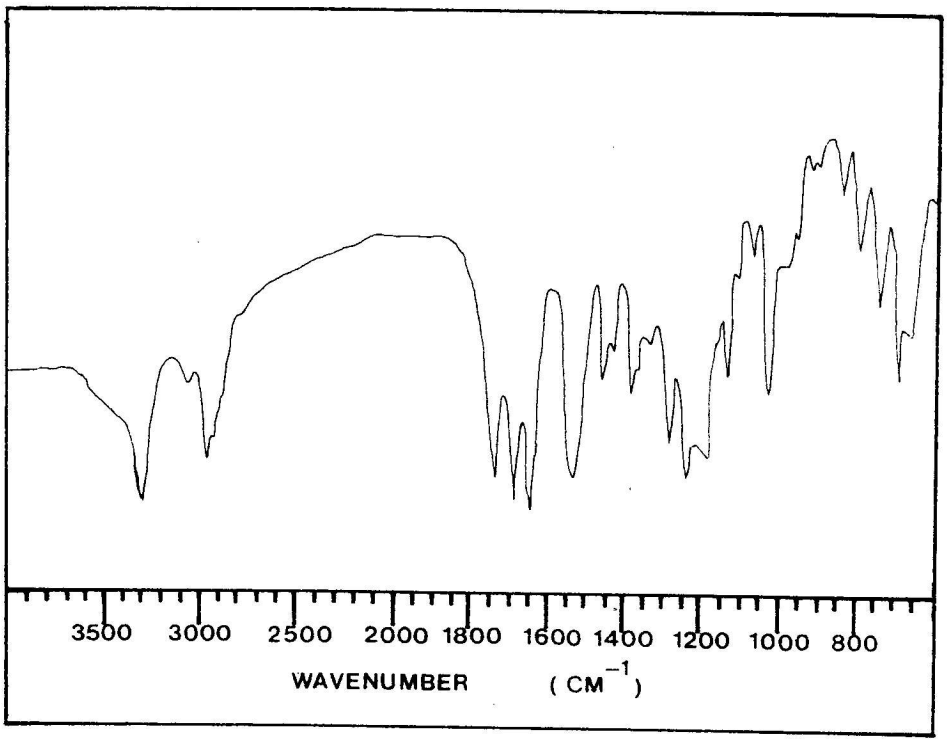


Fig. I.9 IR spectrum of compound IX in KBr disc.

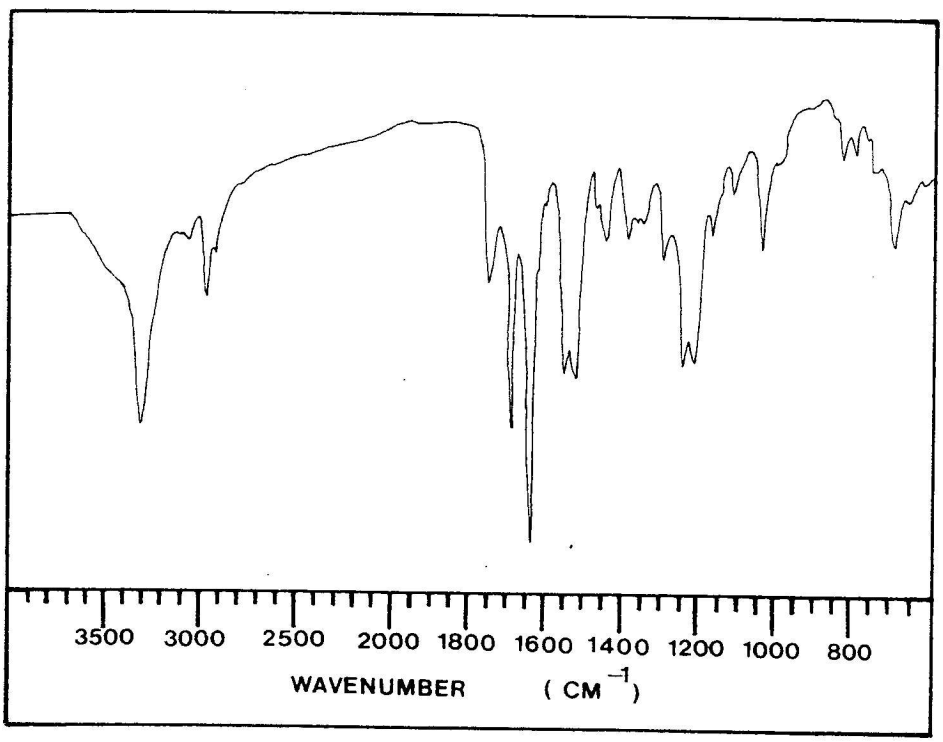


Fig. I.10 IR spectrum of compound X in KBr disc.

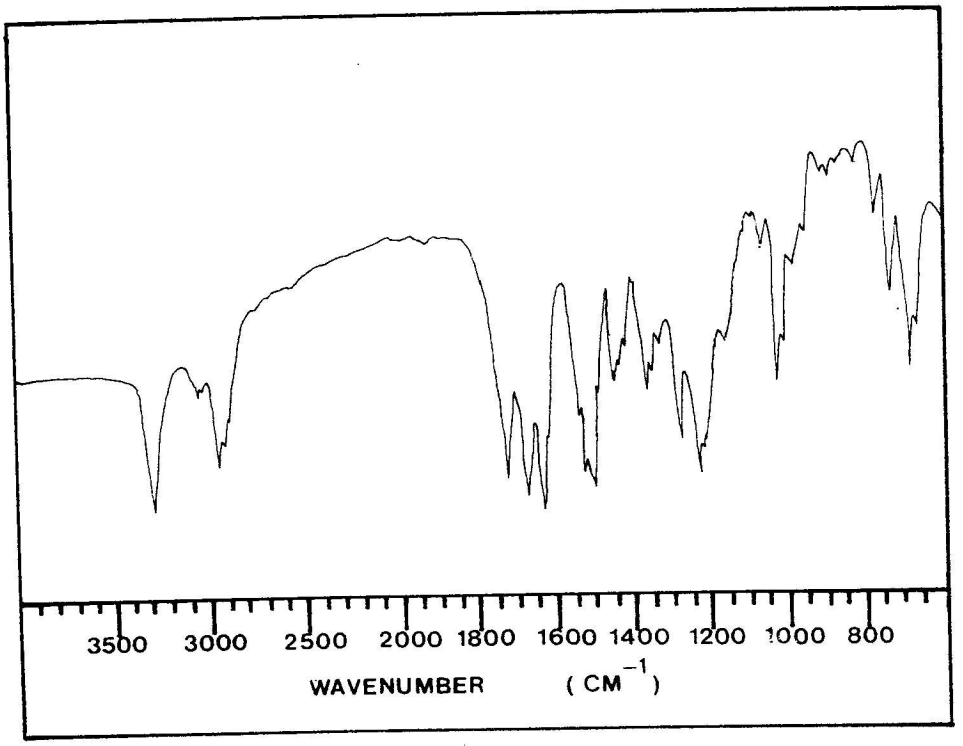


Fig. I.11 IR spectrum of compound XI in KBr disc.

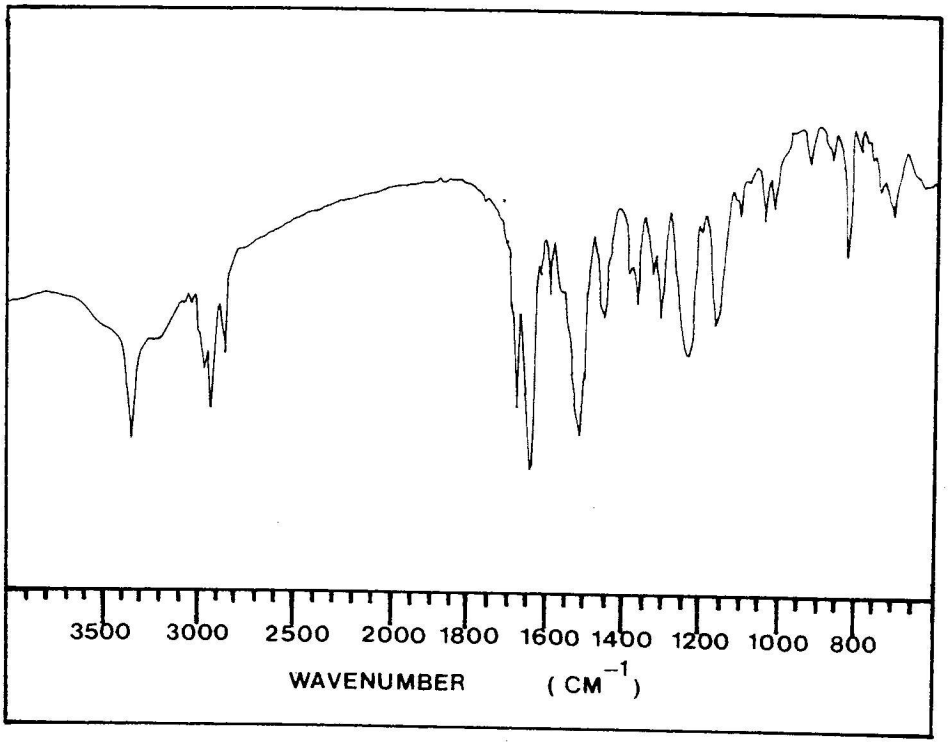


Fig. I.12 IR spectrum of compound XII in KBr disc.

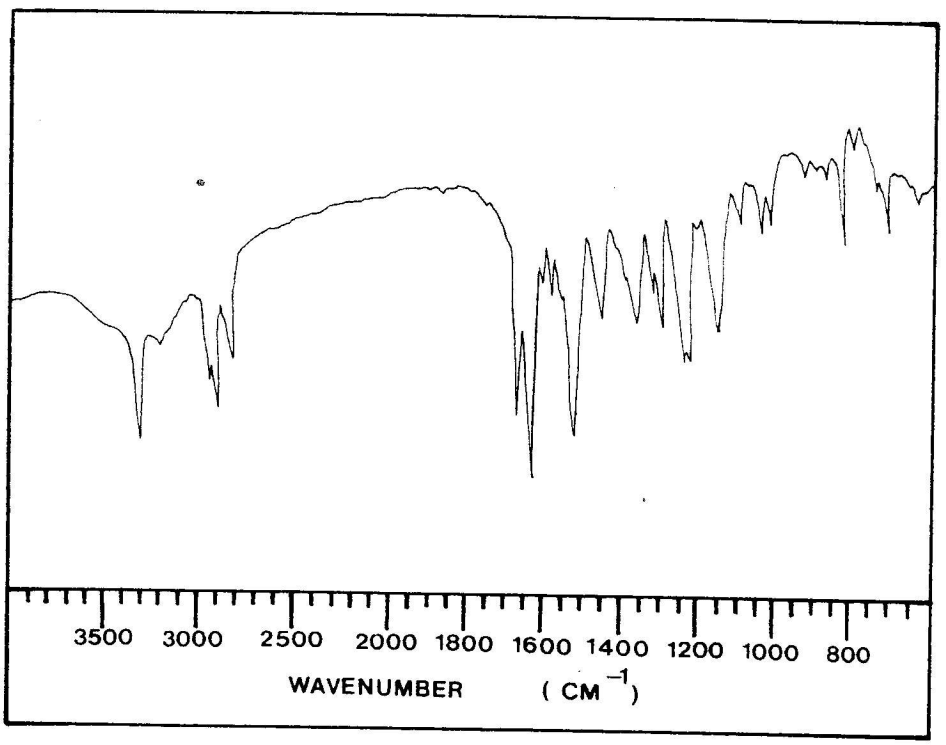


Fig. I.13 IR spectrum of compound XIII in KBr disc.

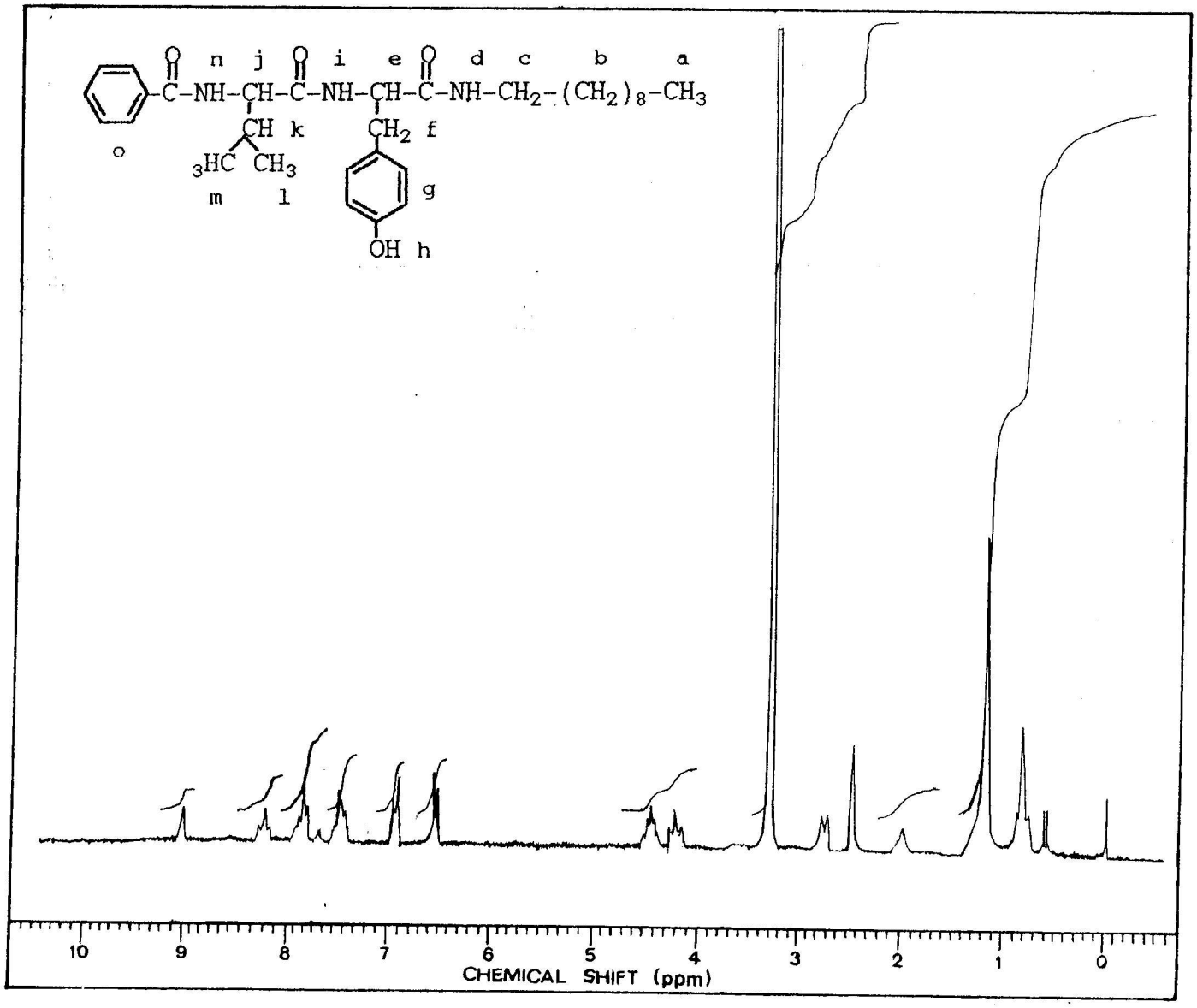


Fig. I.14 ^{1}H spectrum of compound I in $CDCl_3$+DMSO

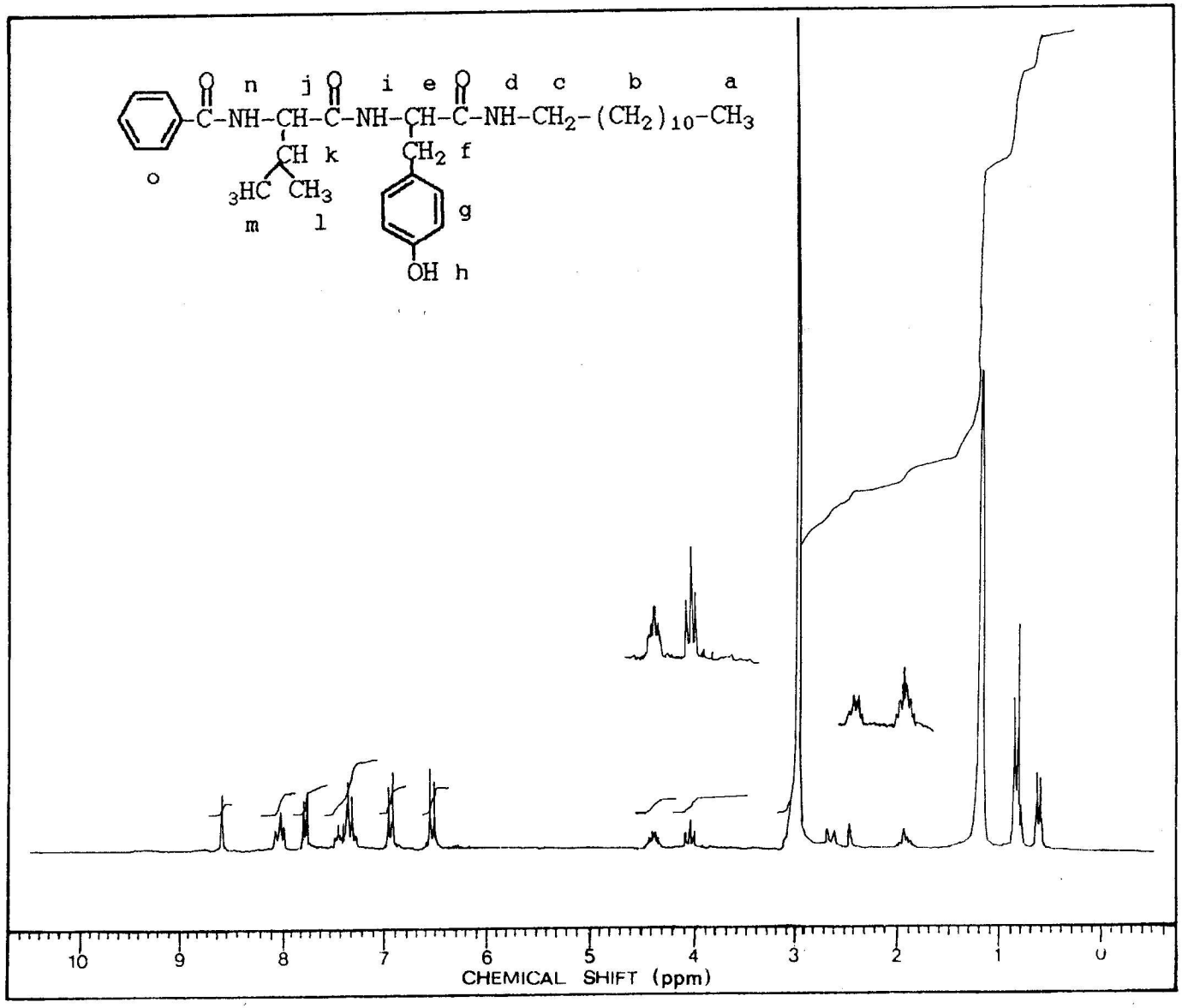


Fig. I.15 ^{1}H spectrum of compound II in $CDCl_3$+DMSO .

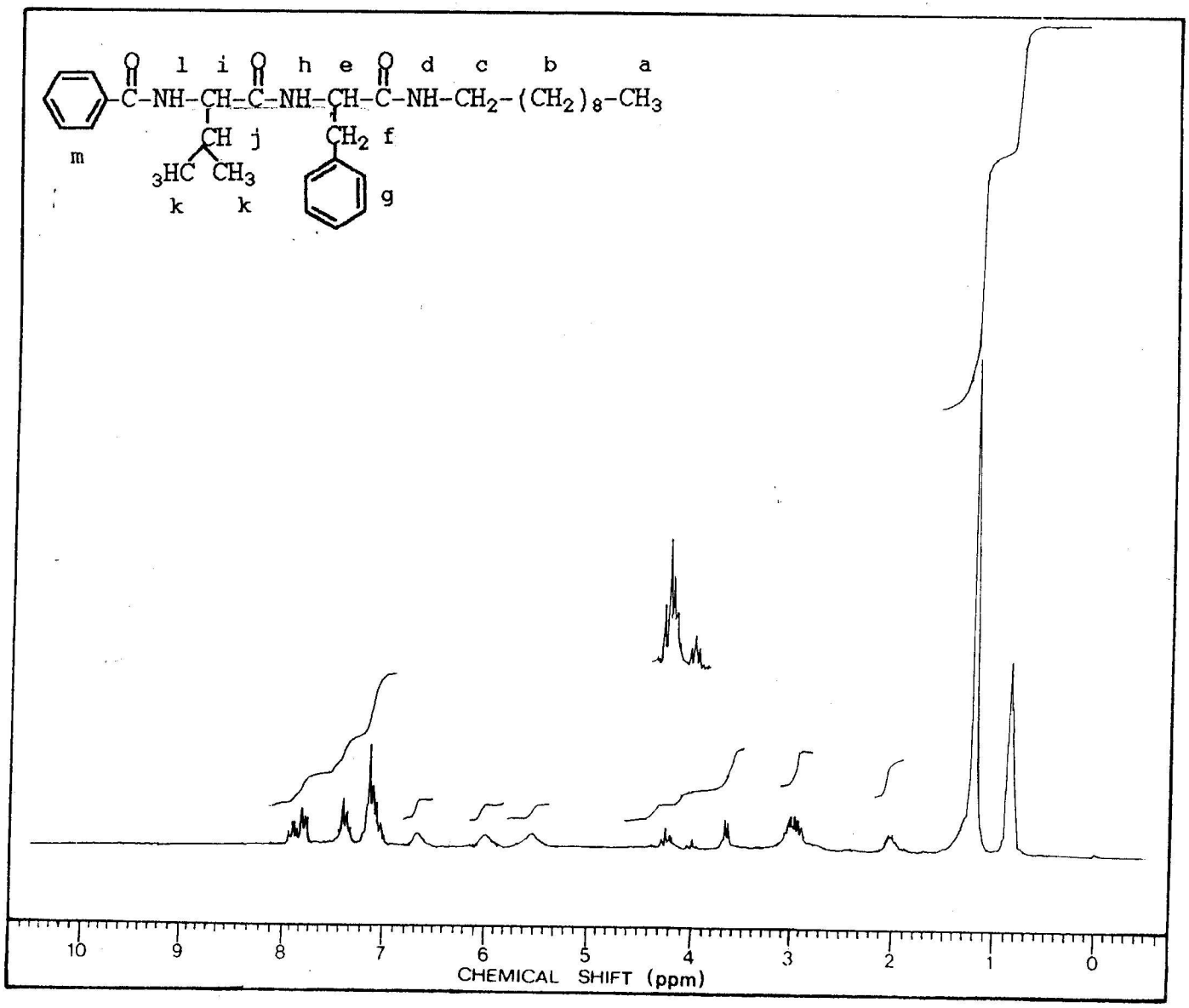


Fig. I.16 ^{1}H spectrum of compound III in $CDCl_3$

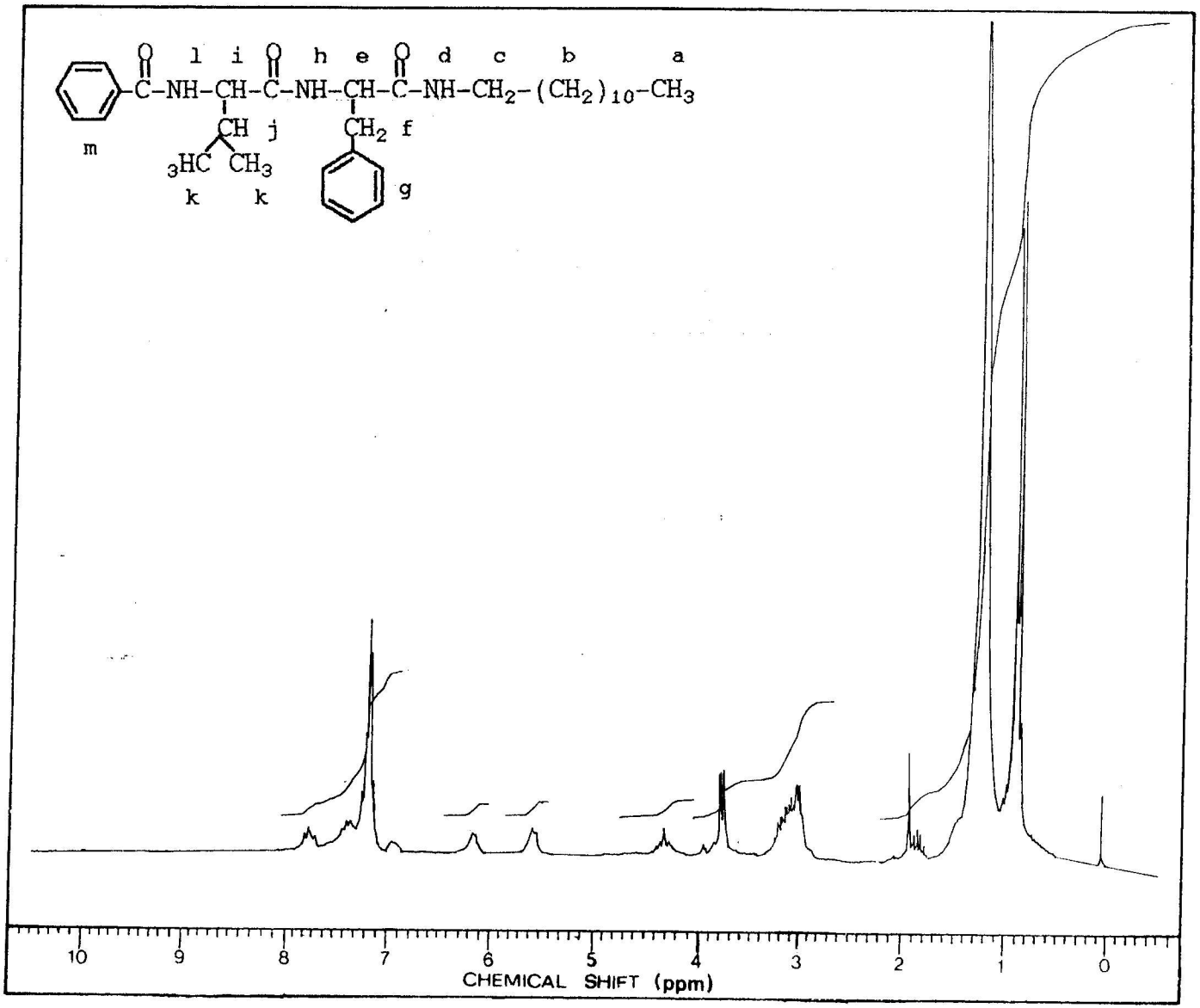


Fig. I.17 ^{1}H spectrum of compound IV in $CDCl_3$.

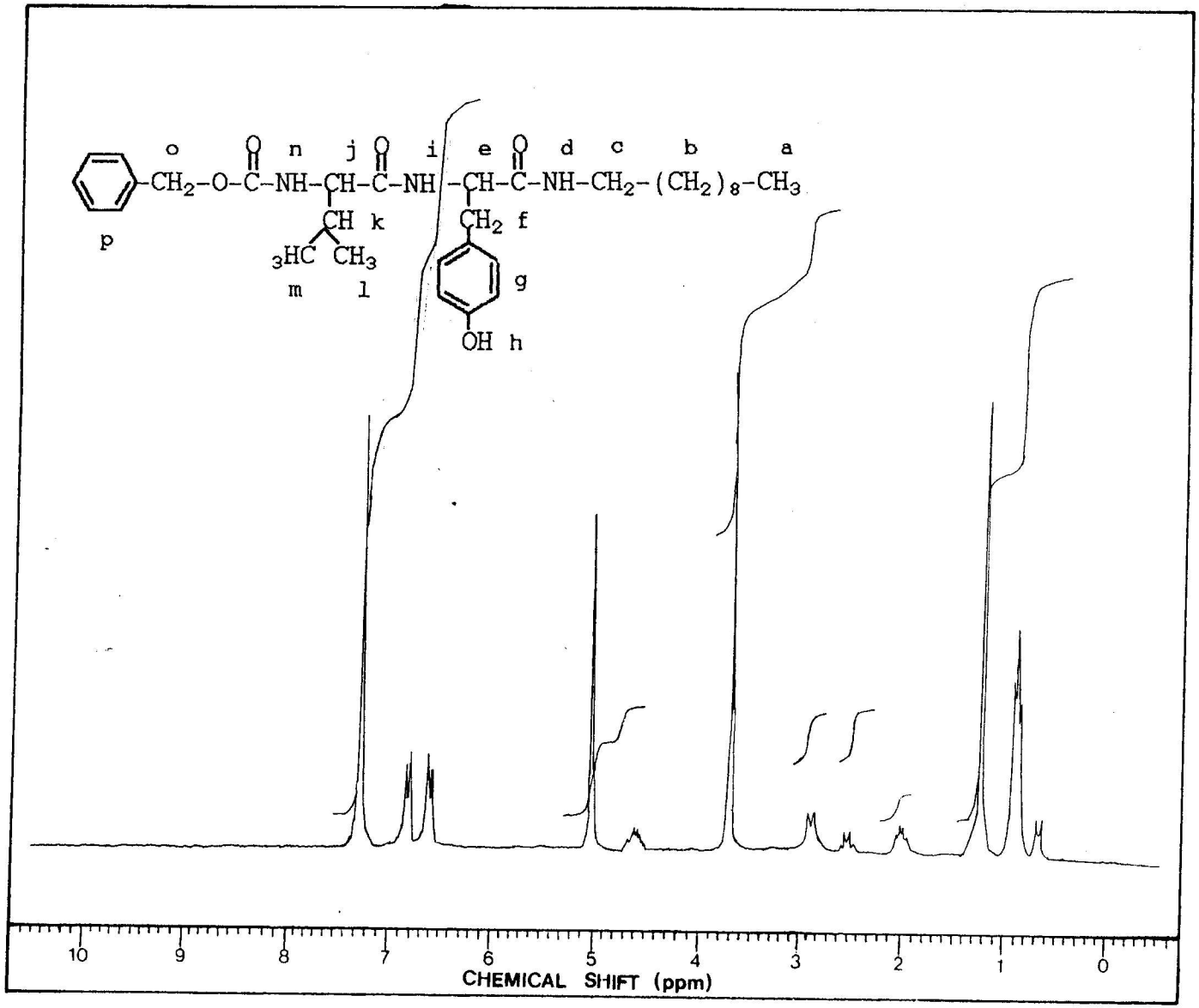


Fig. I.18 ^{1}H spectrum of compound V in $CDCl_3$+DMSO .

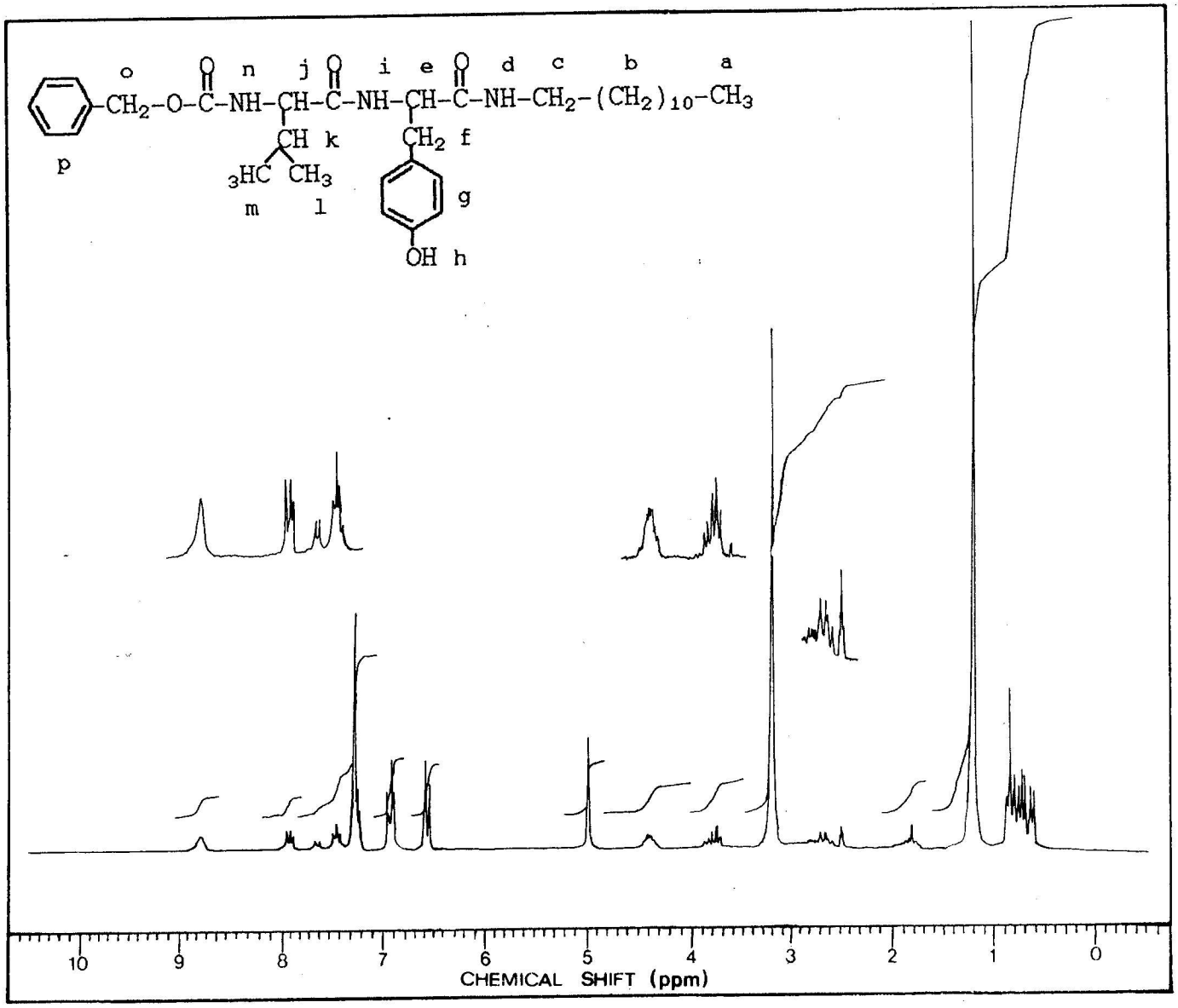


Fig. I.19 ^{1}H spectrum of compound VI in $CDCl_3$+DMSO .

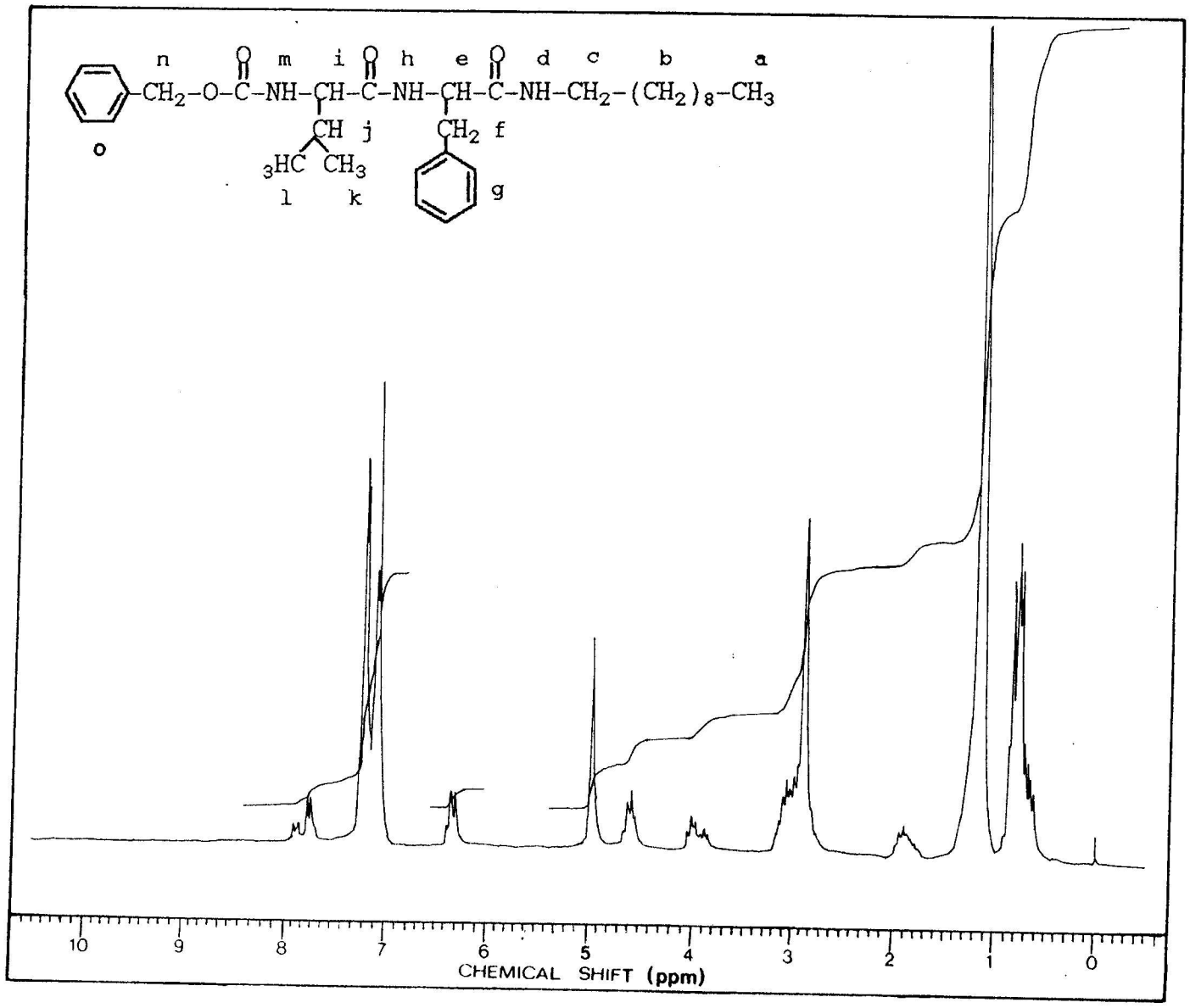


Fig. I.20 ^{1}H spectrum of compound VII in $CDCl_3$+DMSO .

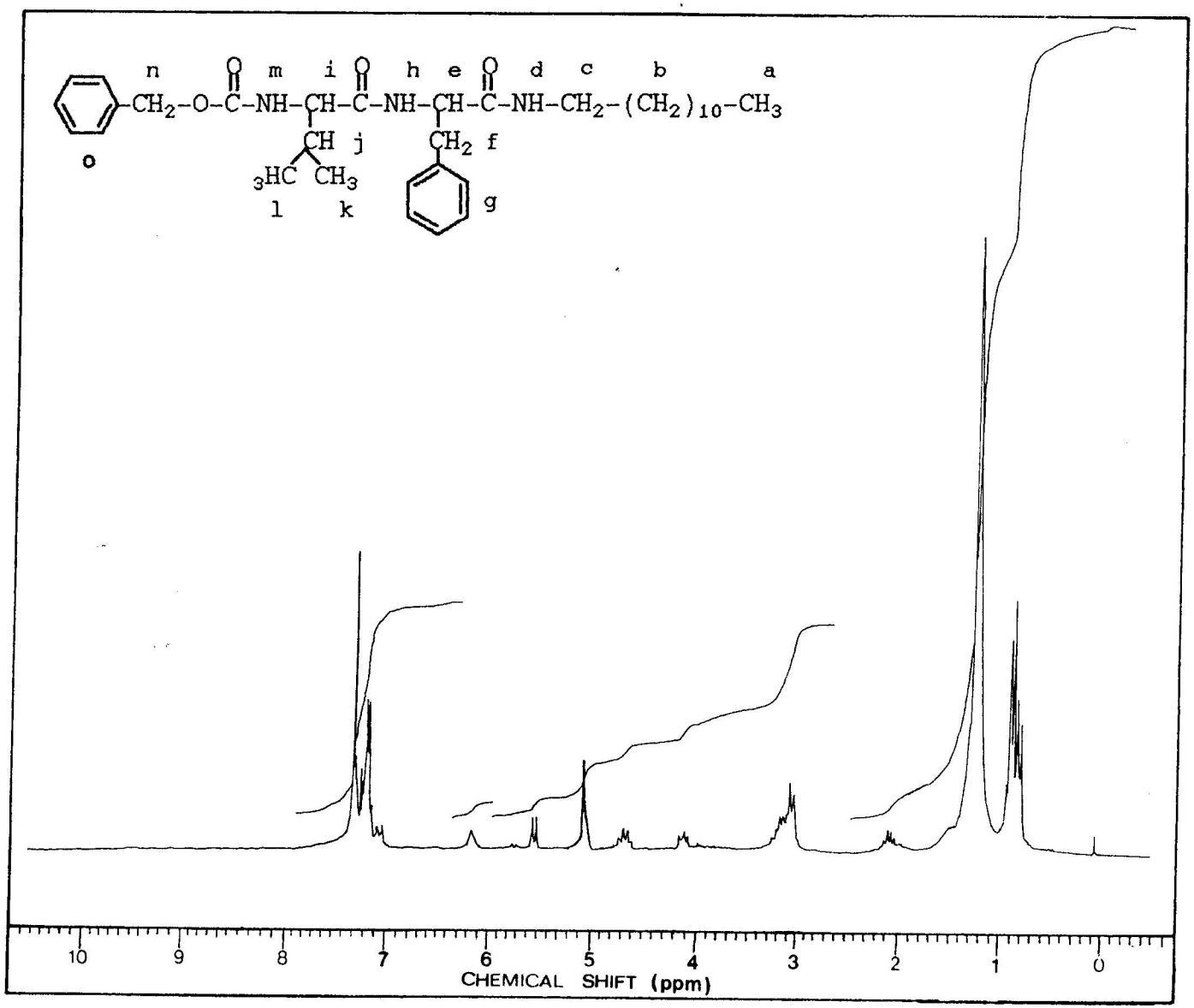


Fig. I.21 ^{1}H spectrum of compound VIII in $CDCl_3$.

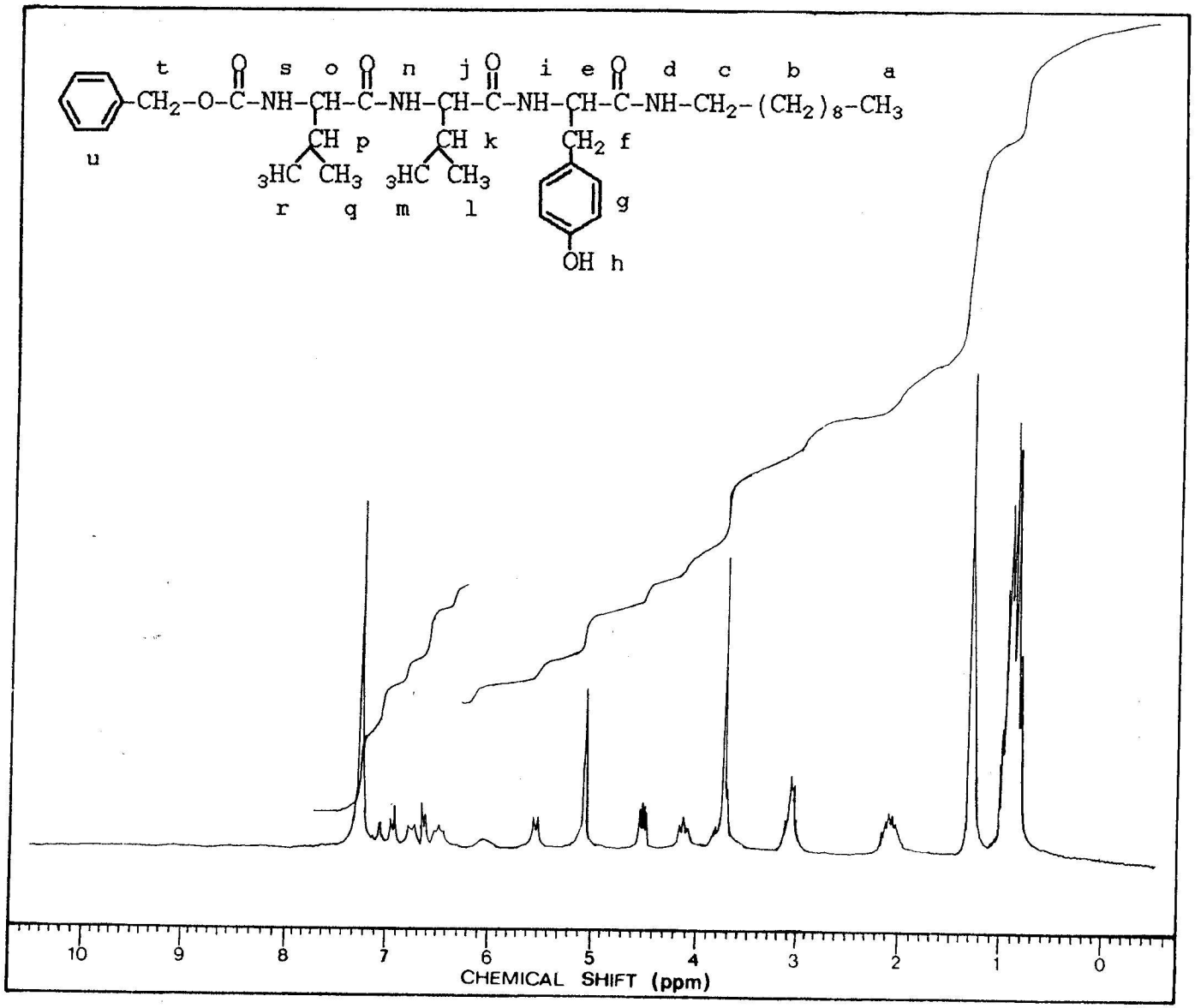


Fig. I.22 ^{1}H spectrum of compound IX in $CDCl_3$+DMSO .

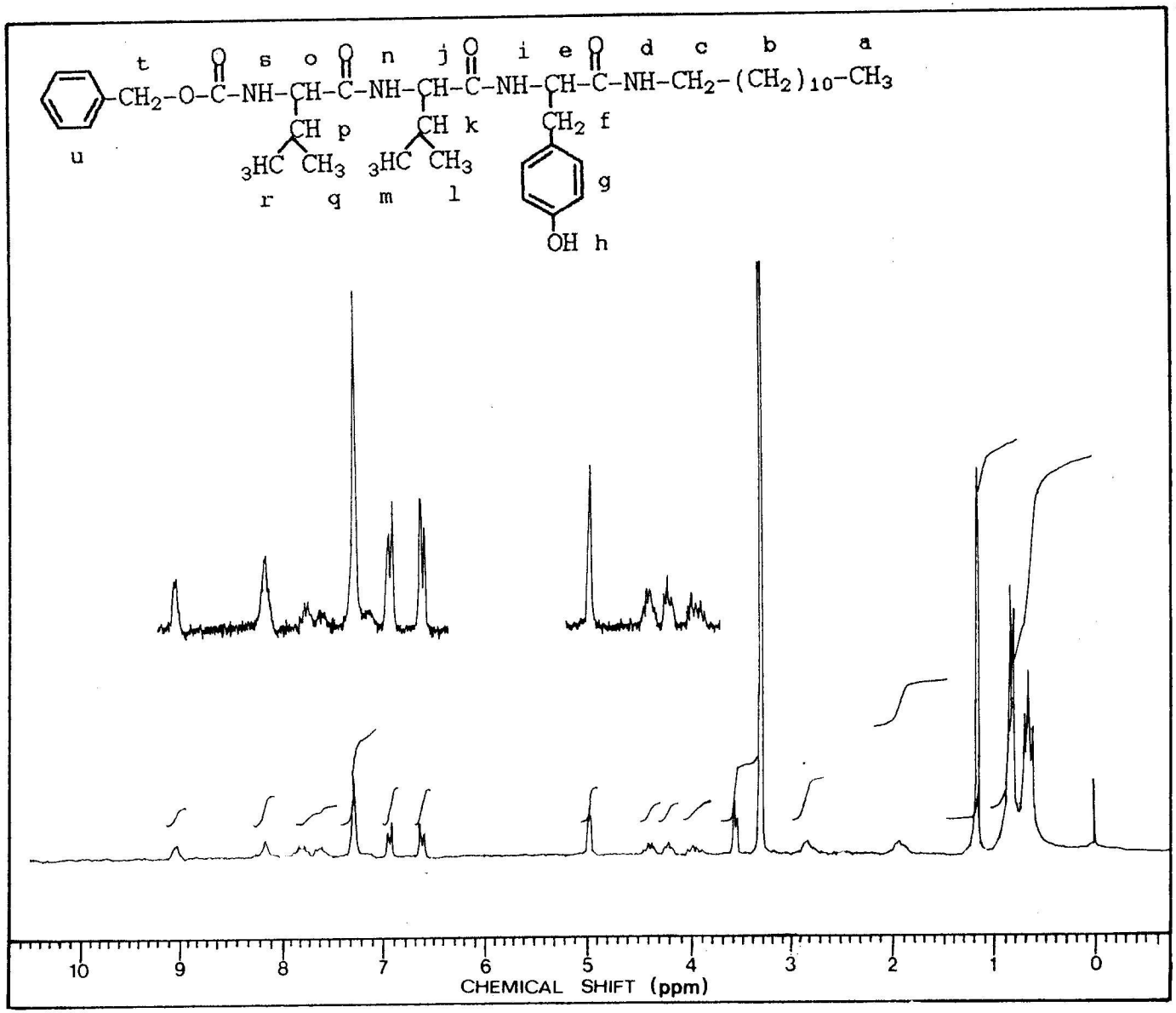


Fig. I.23 ^{1}H spectrum of compound X in $CDCl_3$+DMSO .

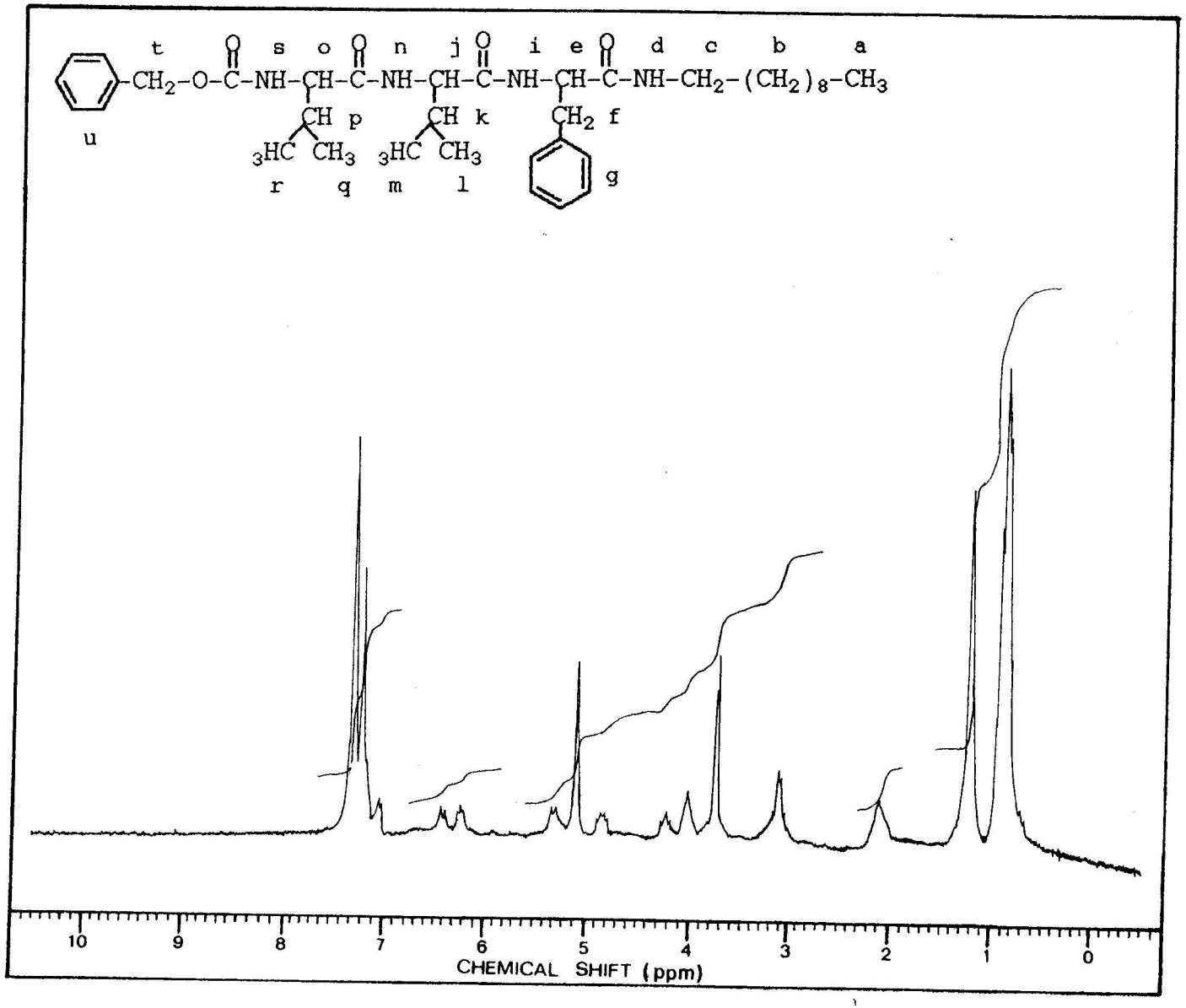


Fig. I.24 ^{1}H spectrum of compound XI in $CDCl_3$.

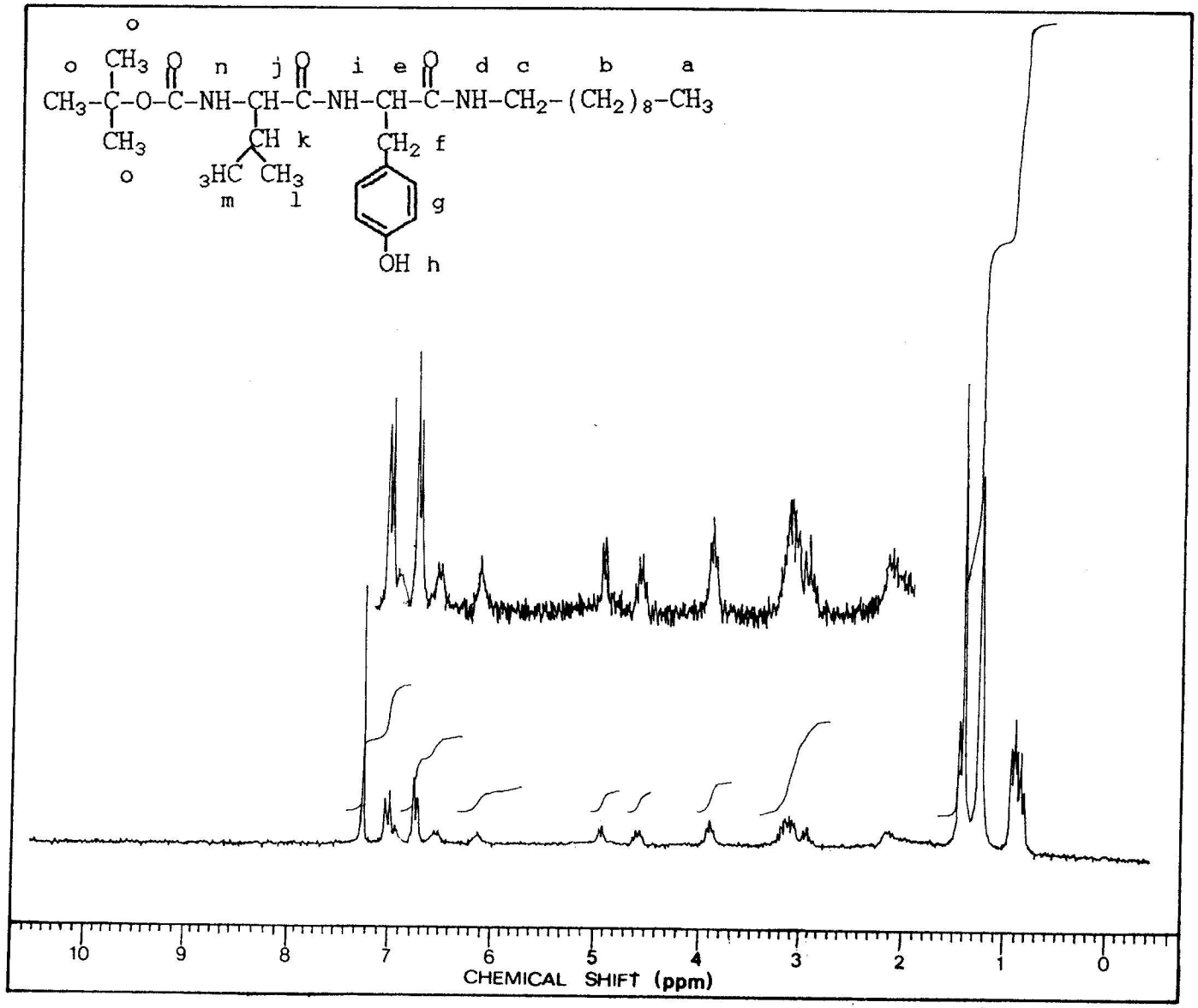


Fig. I.25 ^{1}H spectrum of compound XII in $CDCl_3$.

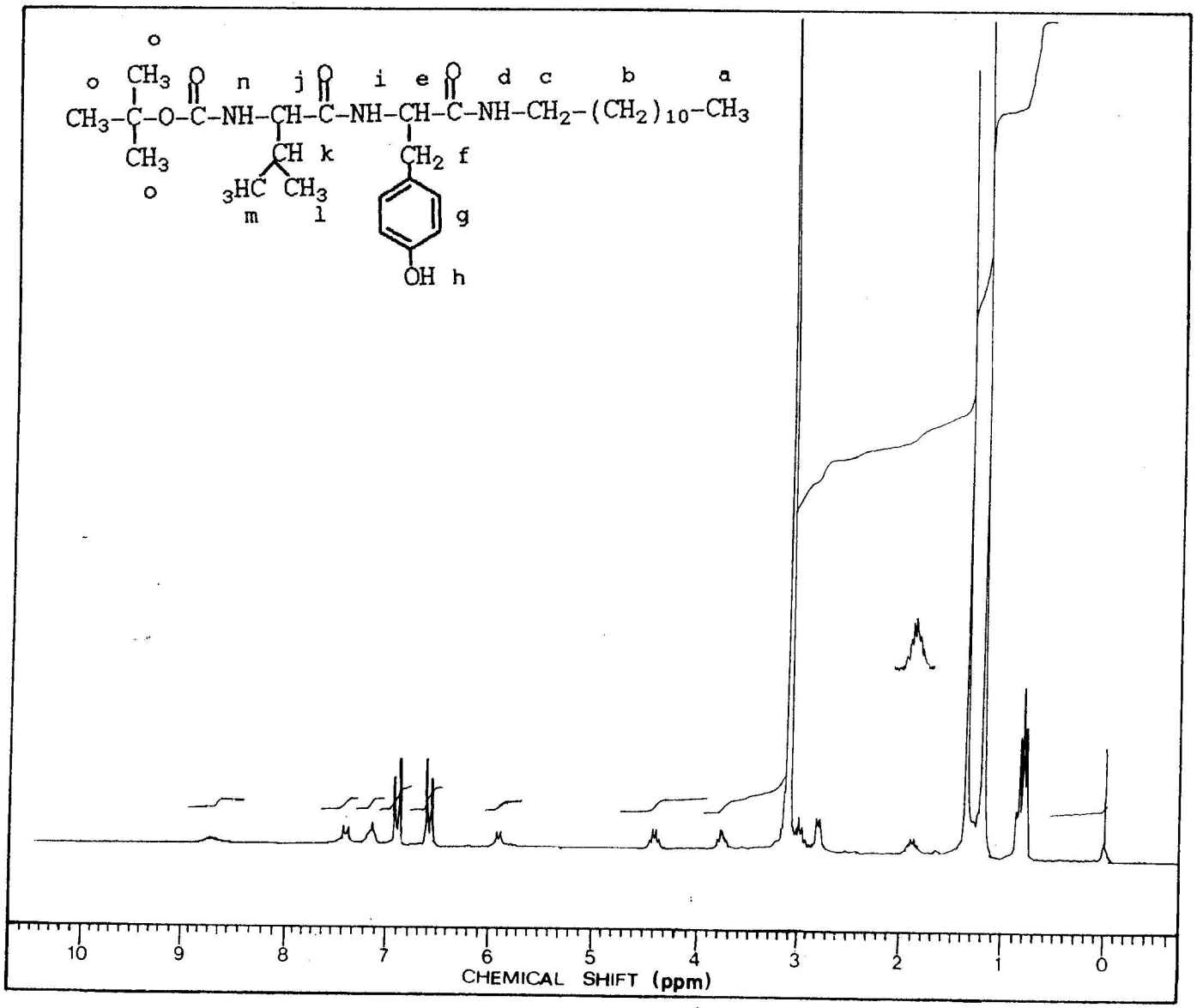


Fig. I.26 ^{1}H spectrum of compound XIII in $CDCl_3$+DMSO

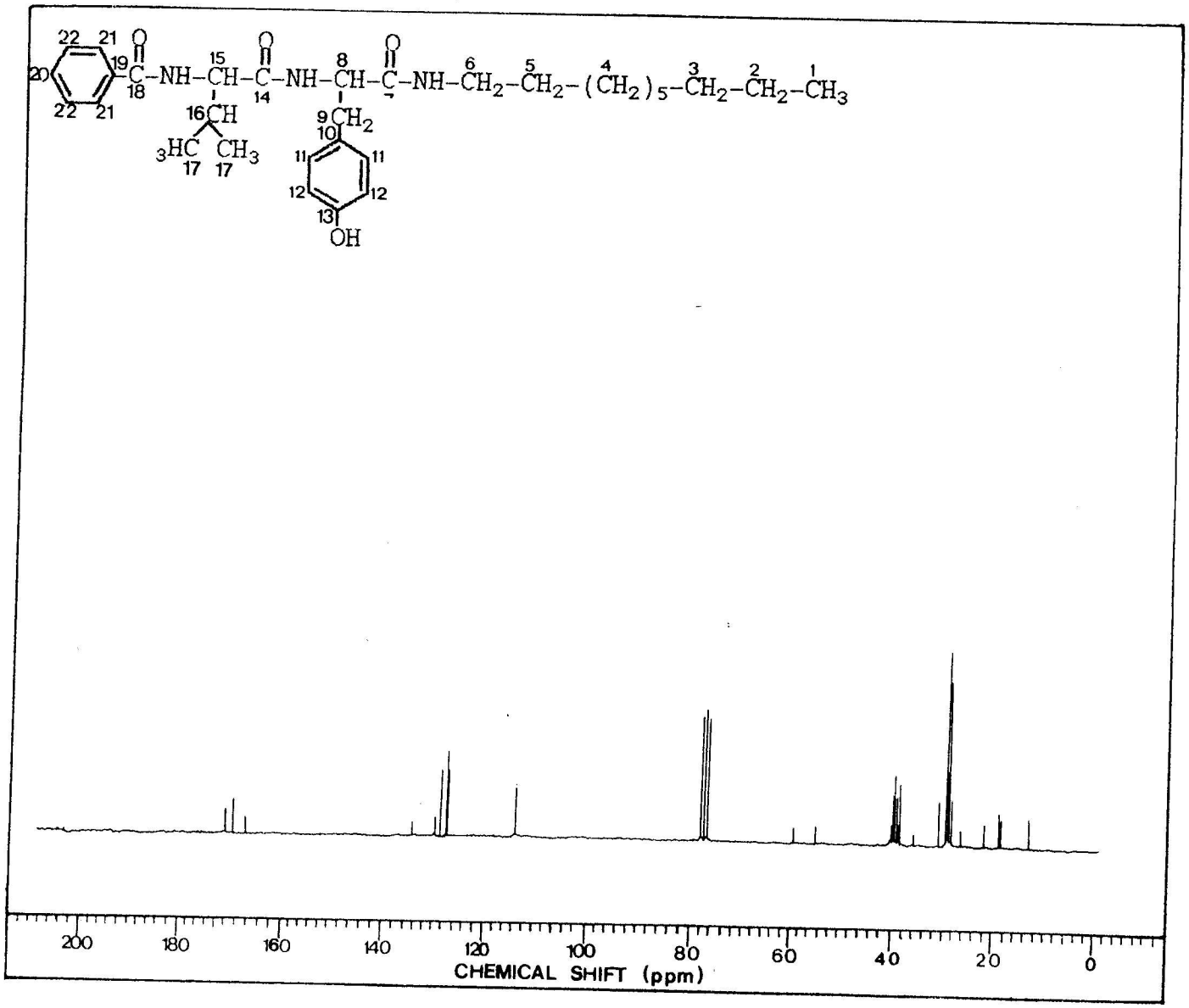
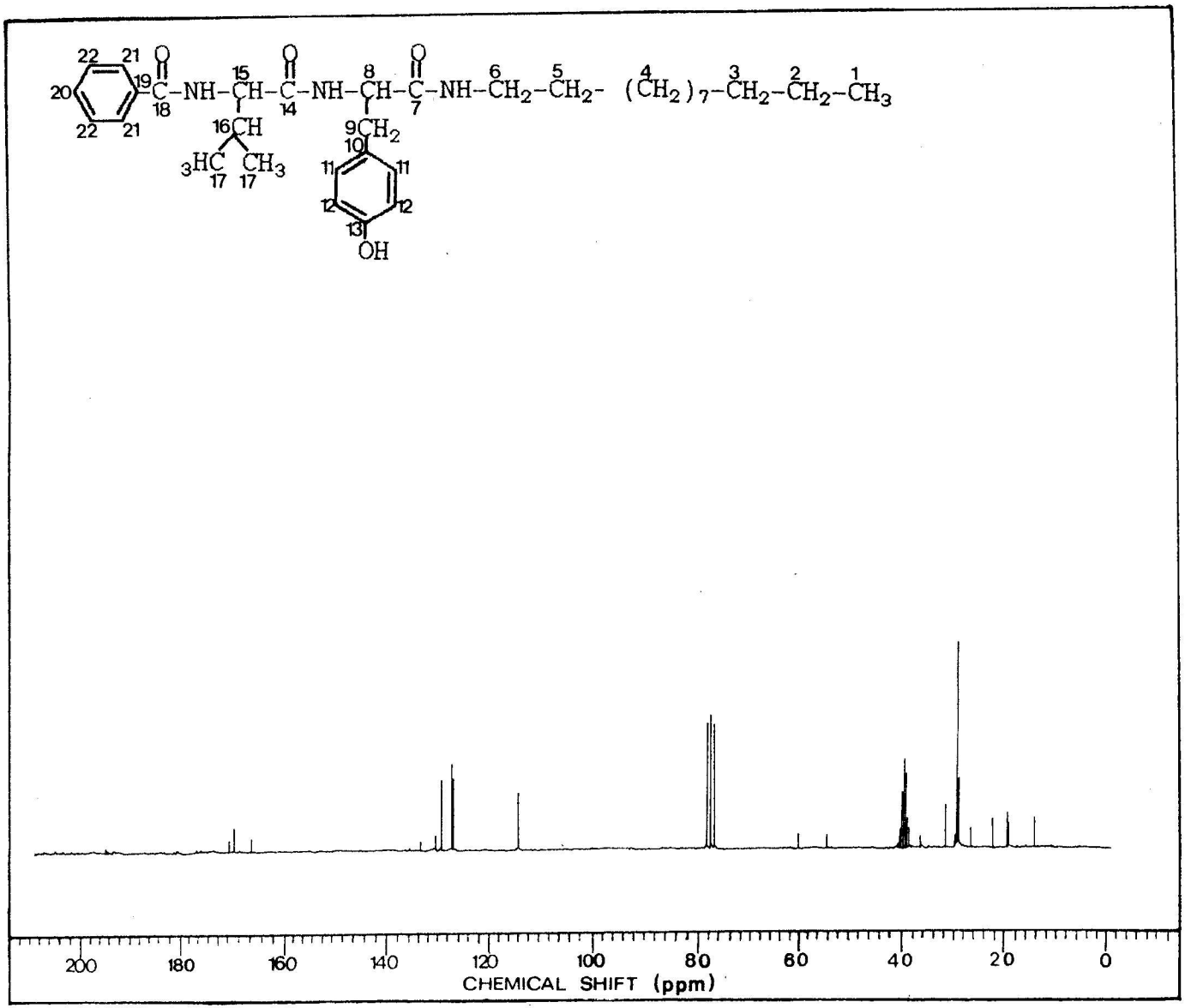


Fig. I.27 ^{13}C spectrum of compound I in $CDCl_3$+DMSO .



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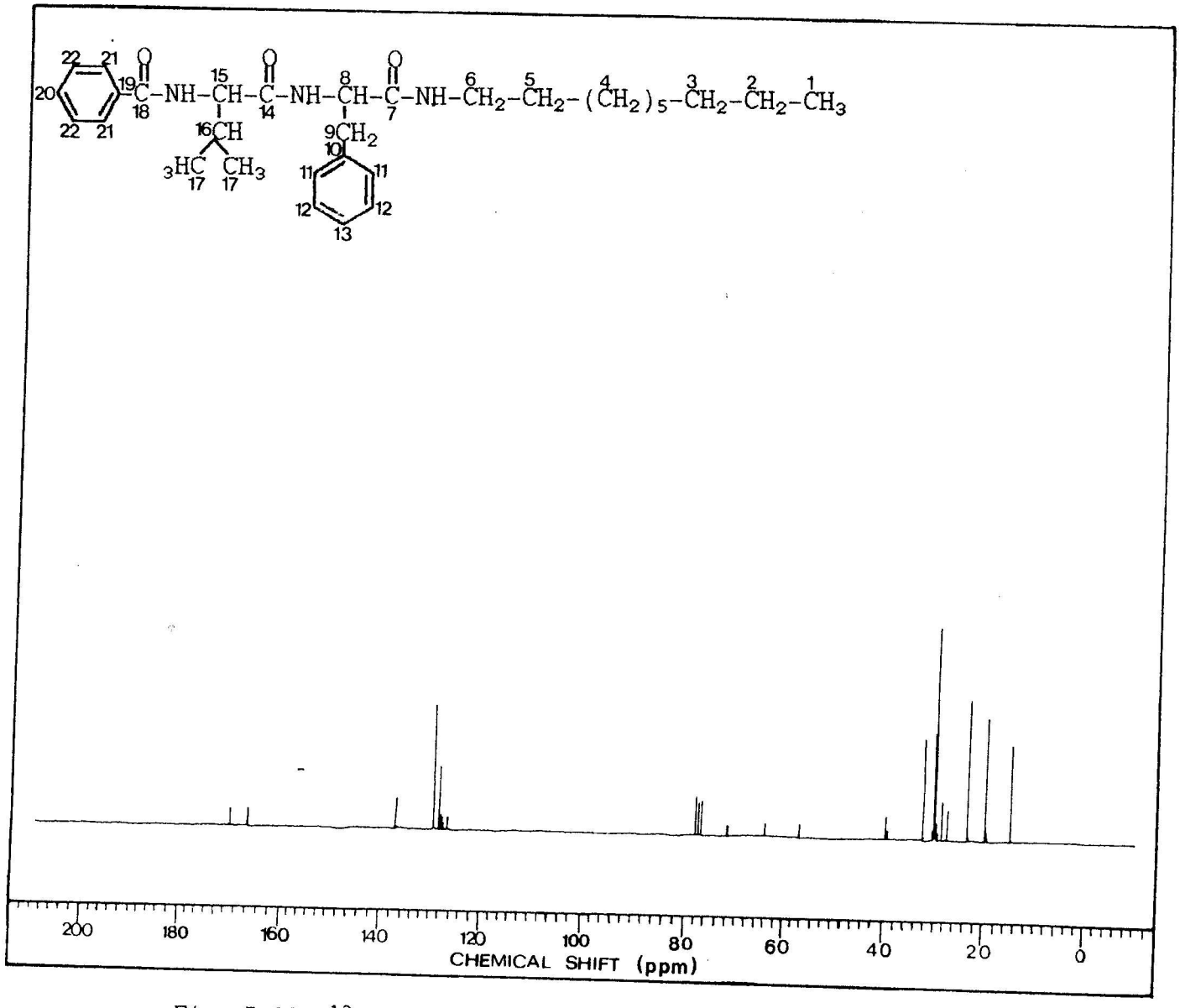

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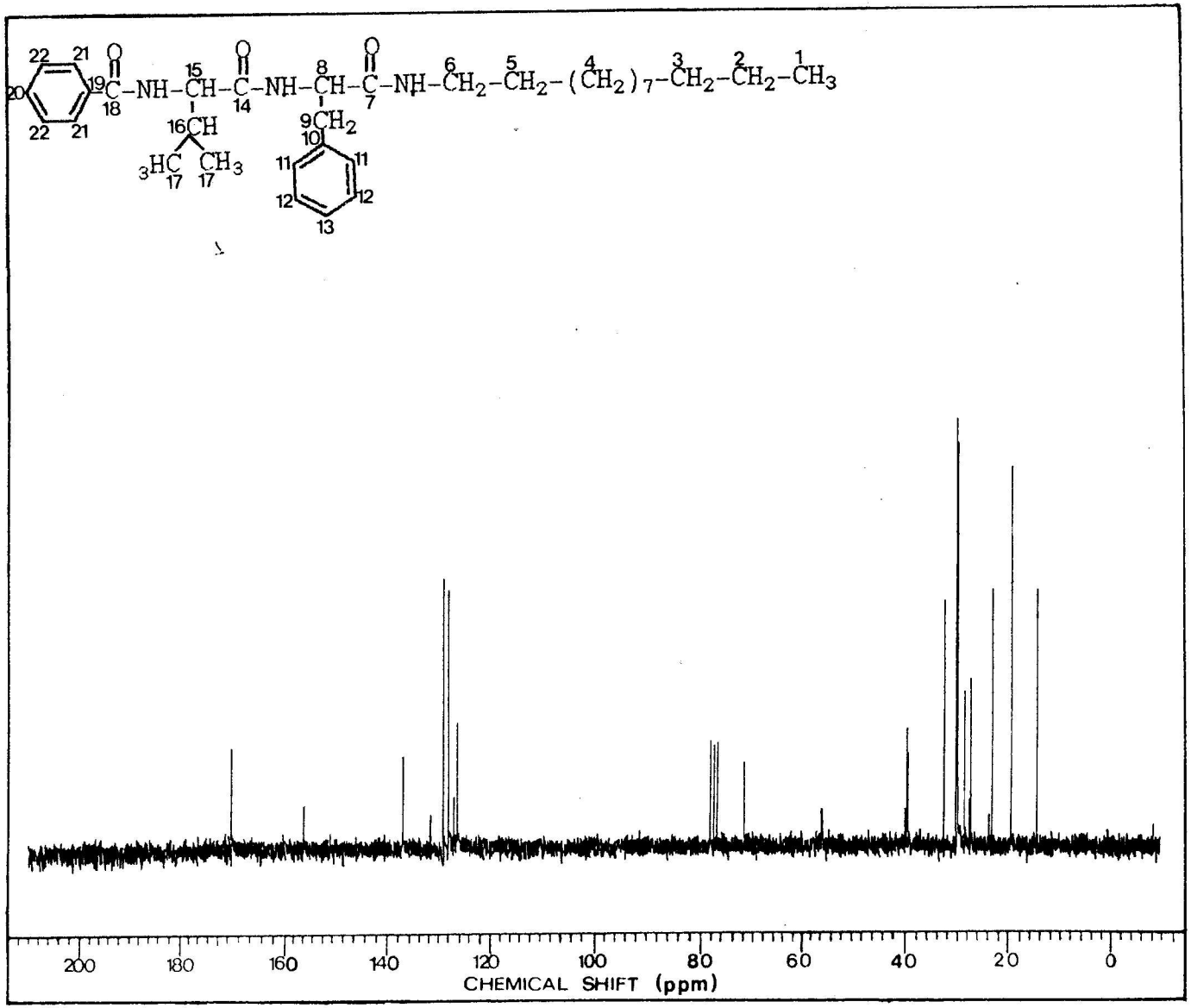

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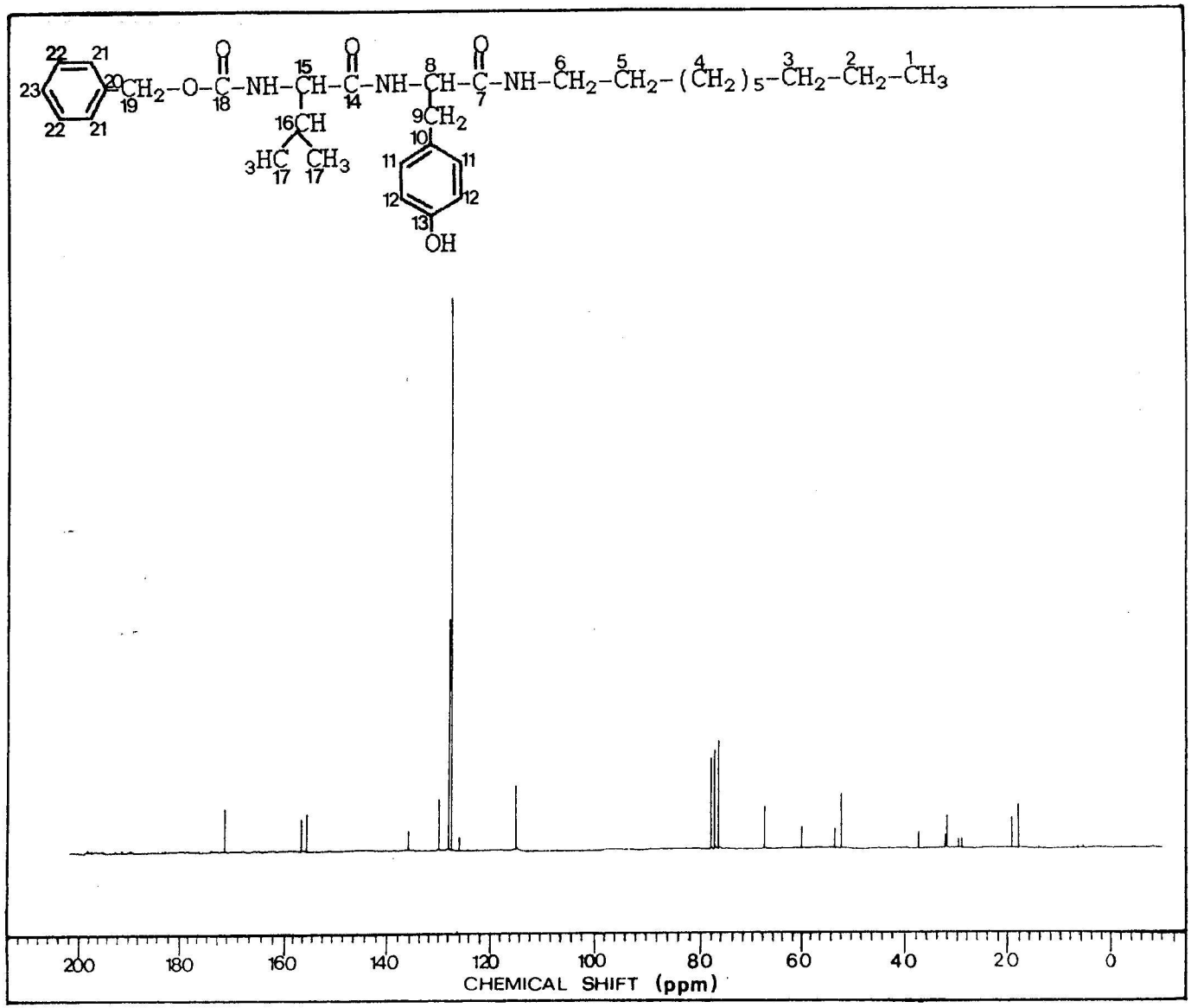

Fig. I.31 ^{13}C spectrum of compound V in $CDCl_3$

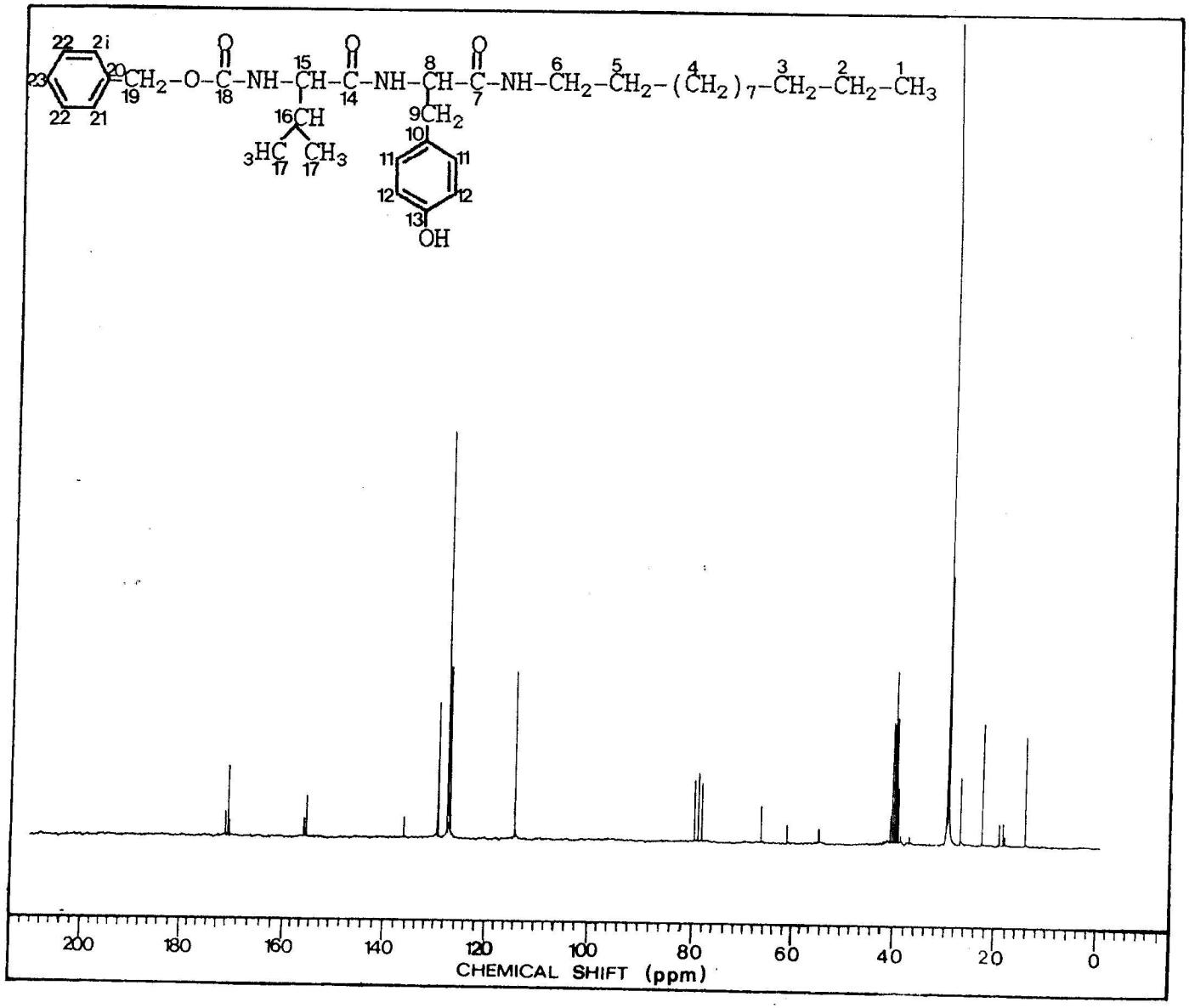

Fig. I.32 ^{13}C spectrum of compound VI in $CDCl_3$+DMSO .

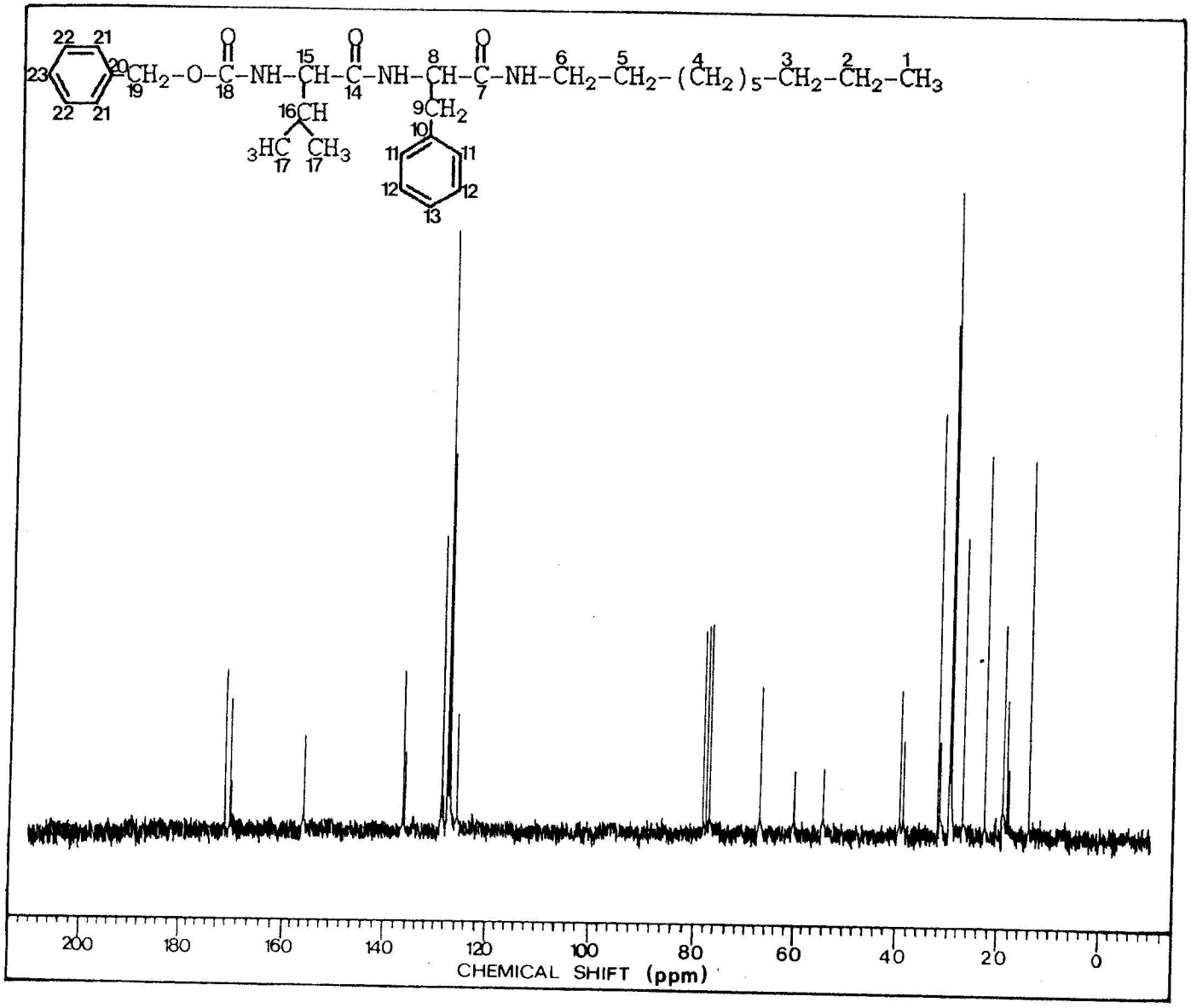

Fig. I.33 ^{13}C spectrum of compound VII in $CDCl_3$.

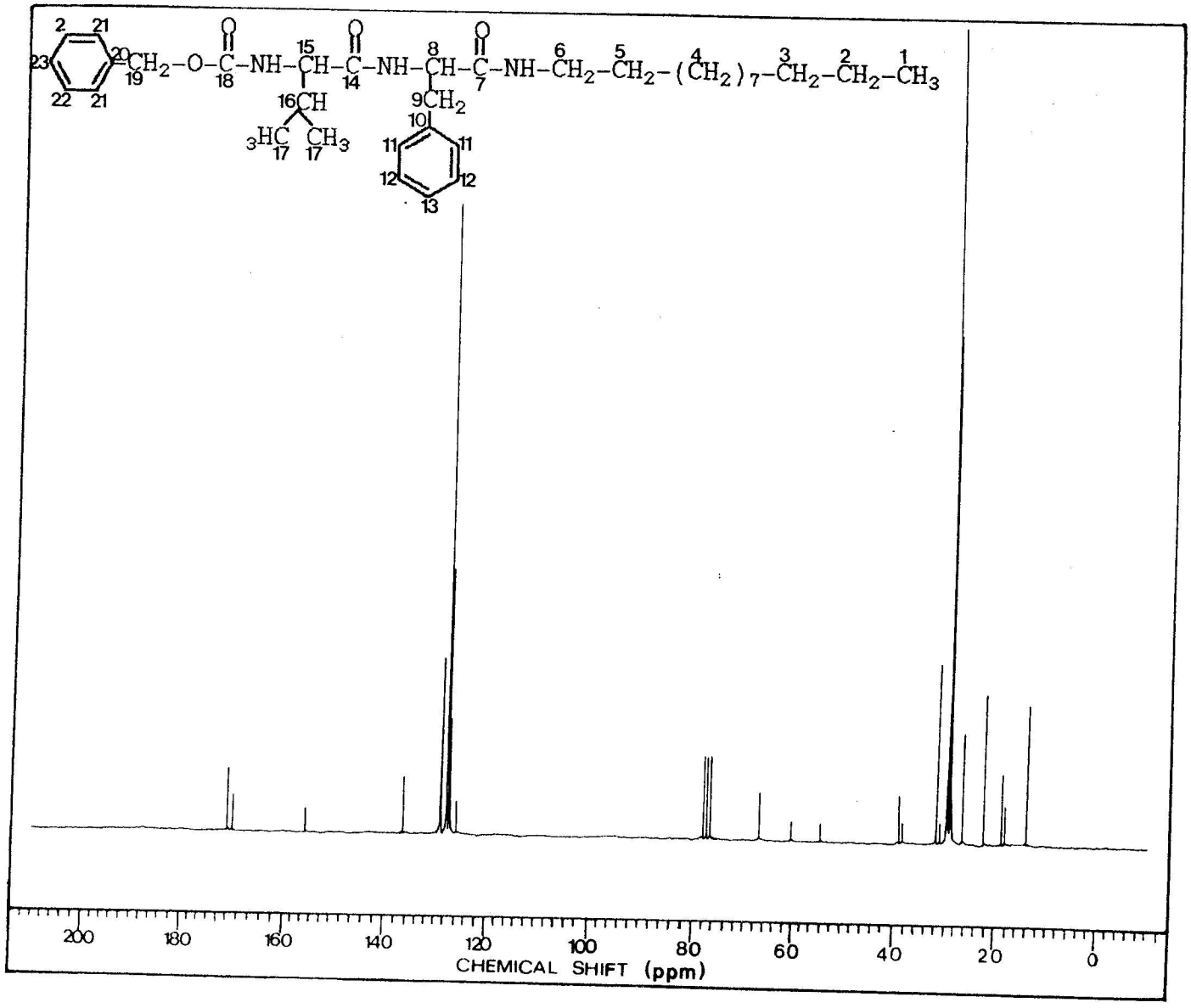

Fig. I.34 ^{13}C spectrum of compound VIII in $CDCl_3$.

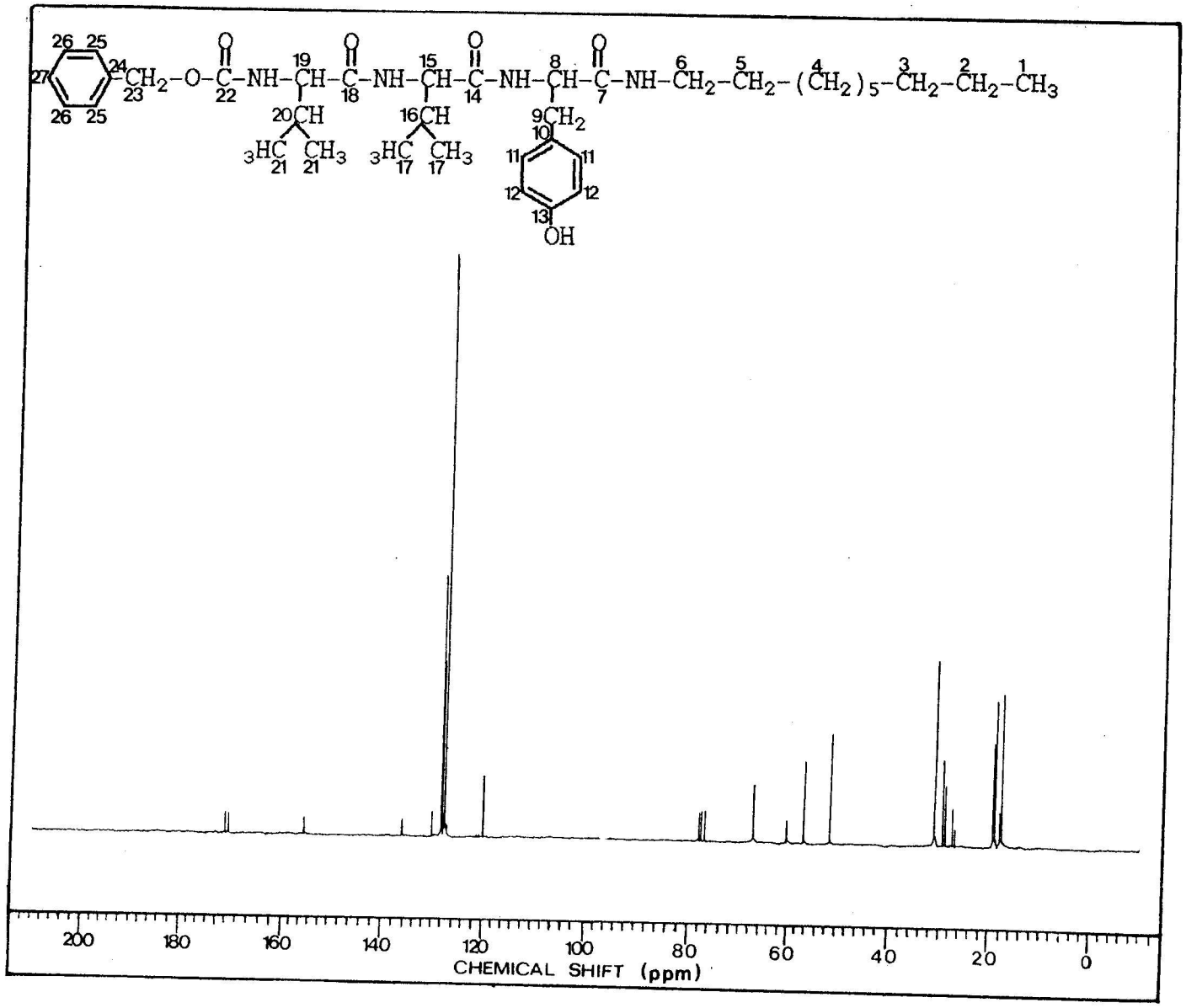

Fig. I.35 ^{13}C spectrum of compound IX in $CDCl_3$..

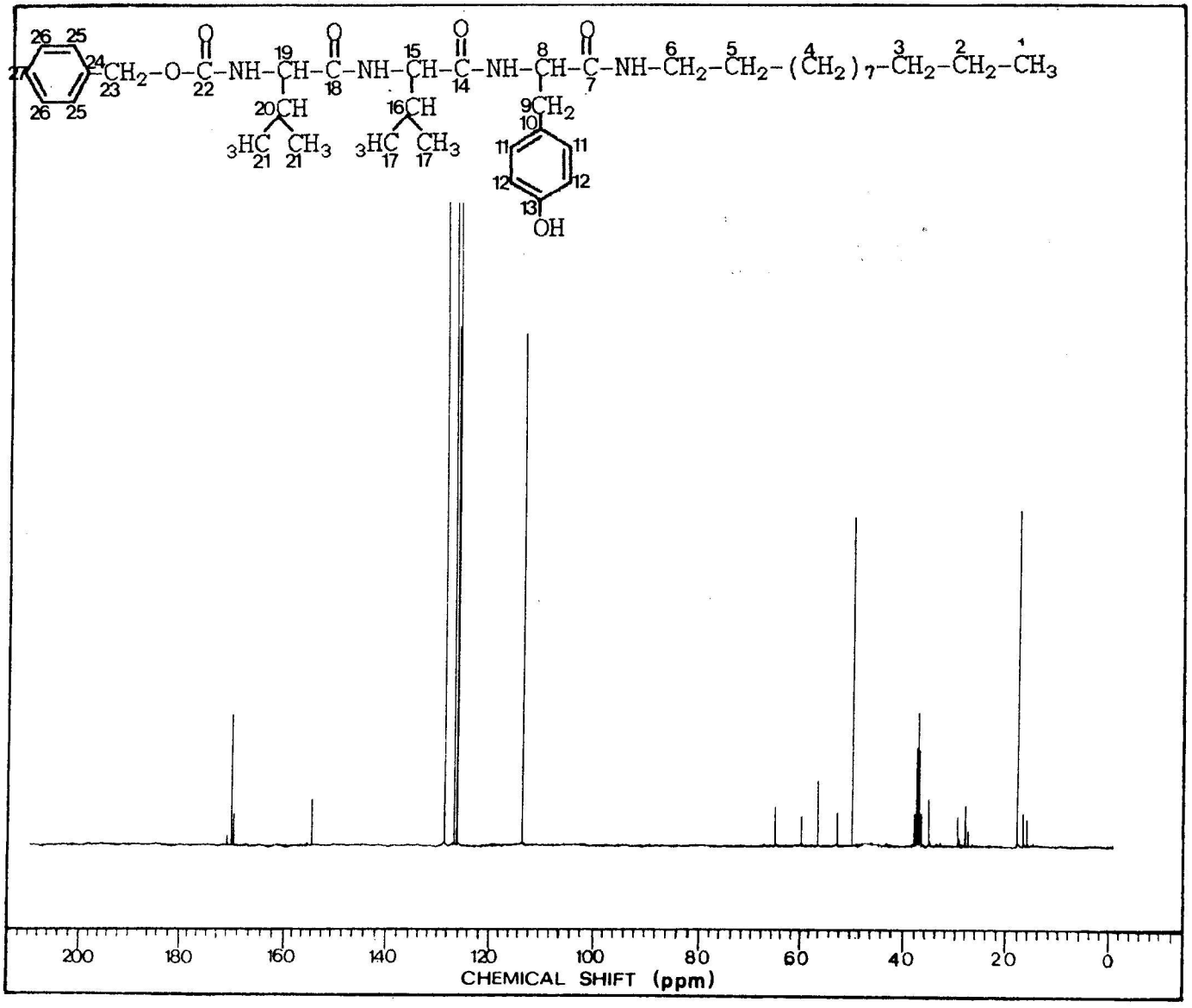

Fig. I.36 ^{13}C spectrum of compound X in DMSO

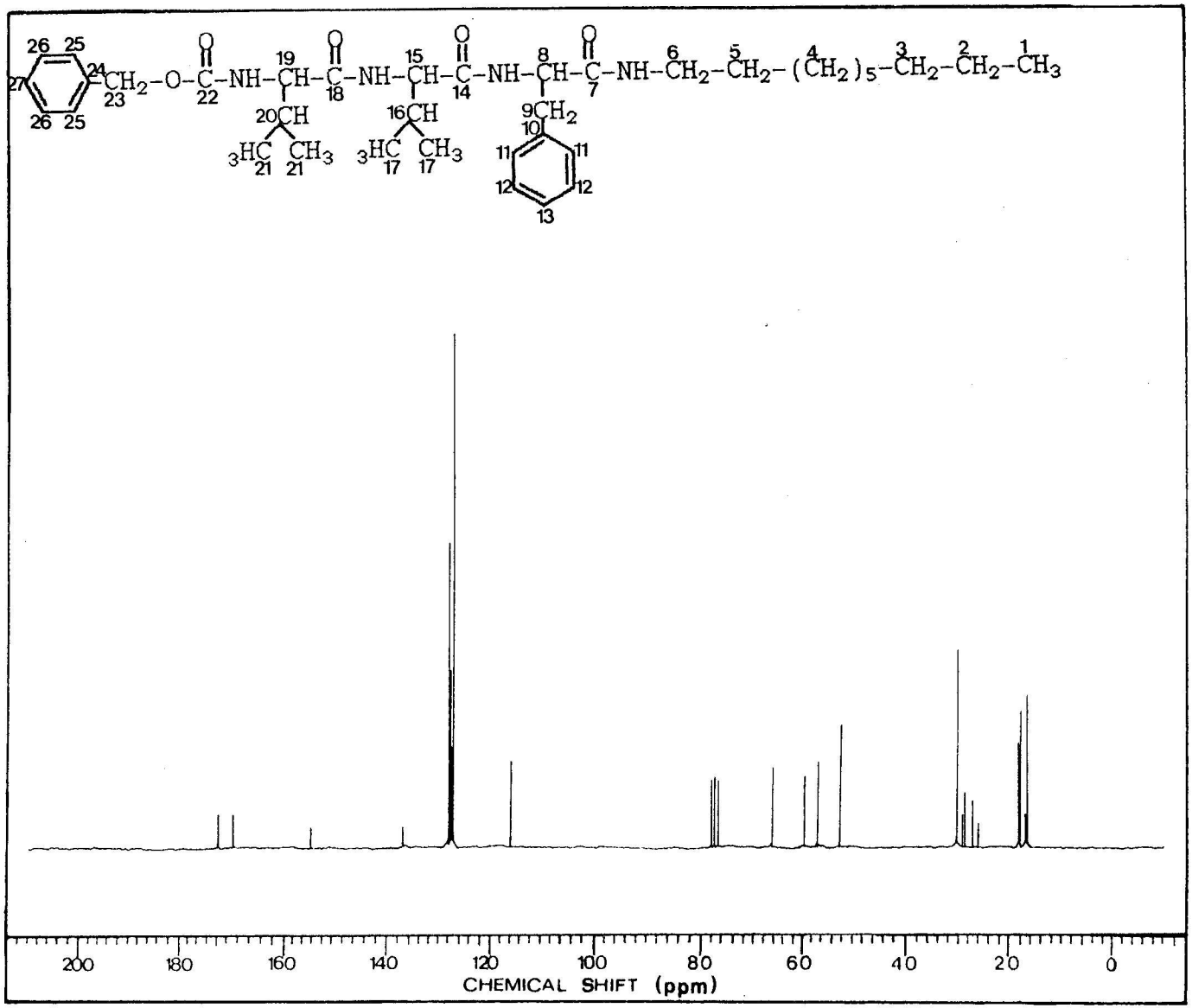

Fig. I.37 ^{13}C spectrum of compound XI in $CDCl_3$+DMSO .

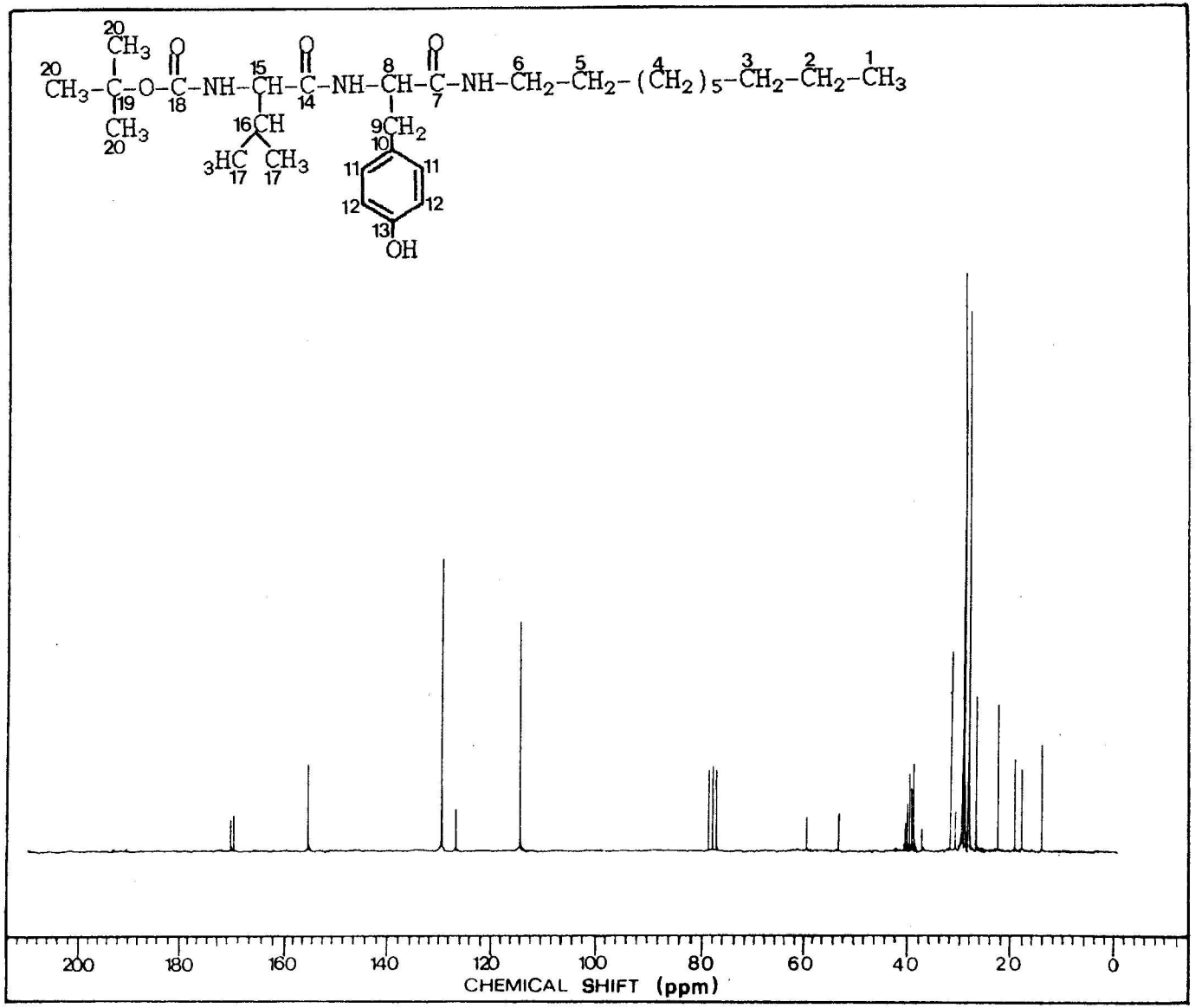

Fig. I.38 ^{13}C spectrum of compound XII in $CDCl_3$+DMSO .

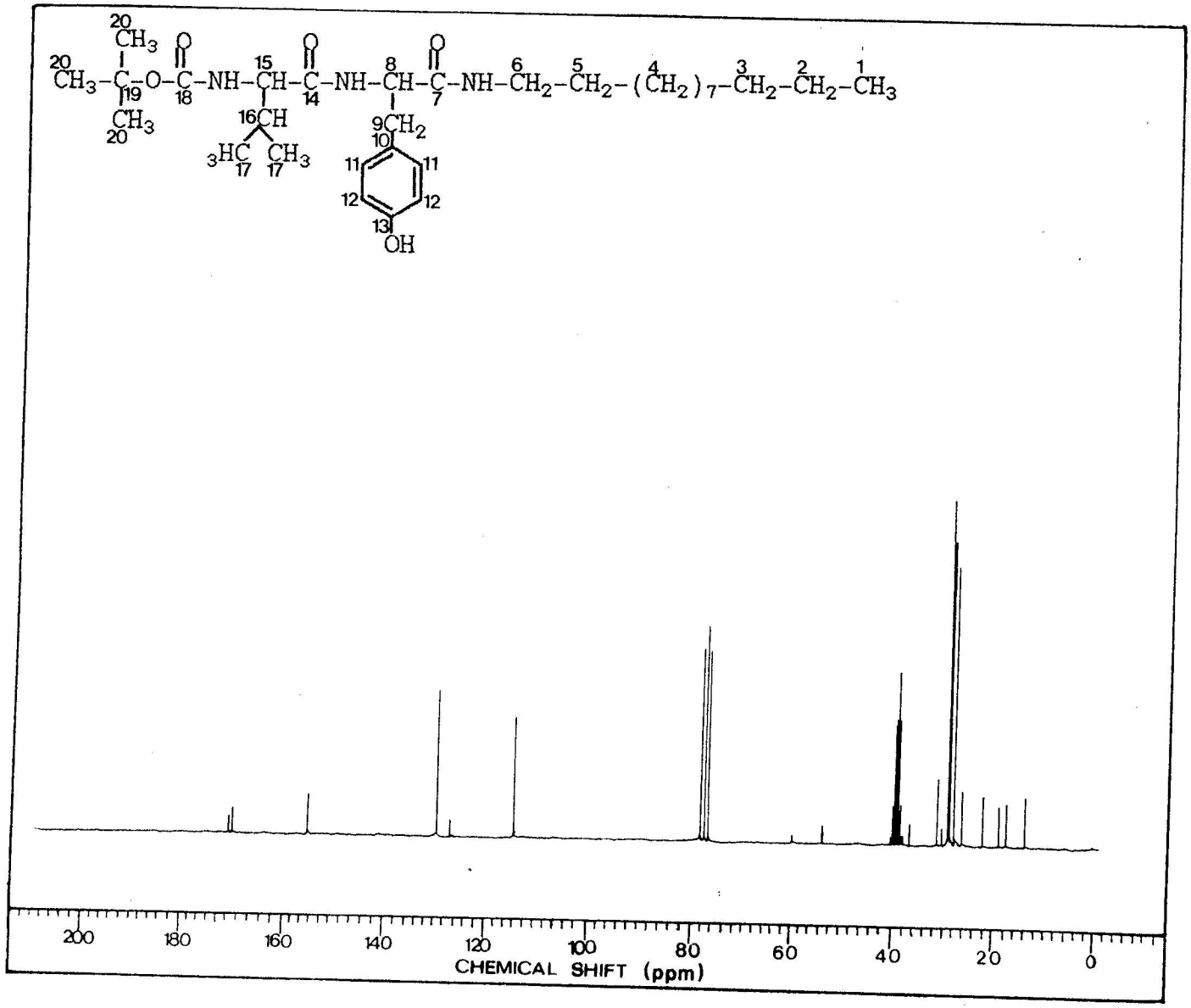

Fig. I.39 ^{13}C spectrum of compound XIII in $CDCl_3$+DMSO .

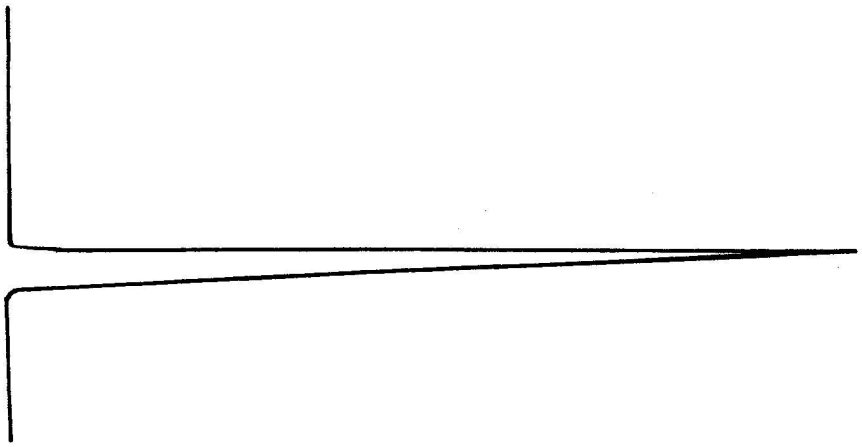

Fig. I.40 HPLC chromatogram of compound I in $CH_3OH:CH_3Cl$ = 1:19

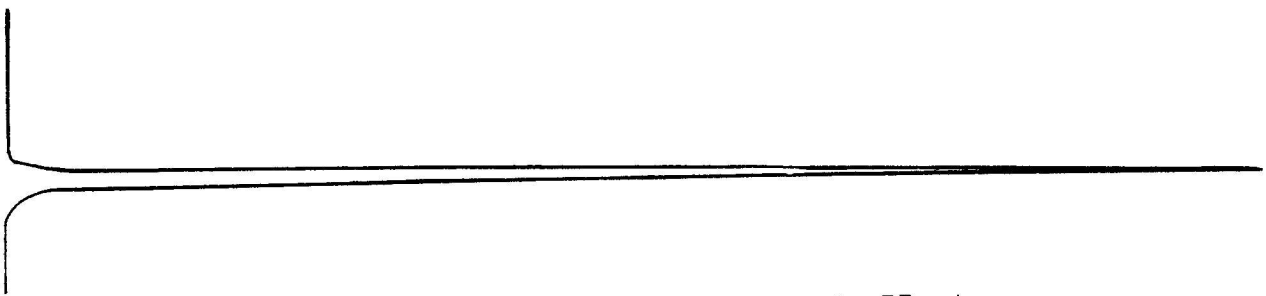

Fig. I.41 HPLC chromatogram of compound II in $CH_3OH:CH_3Cl$ = 1:19

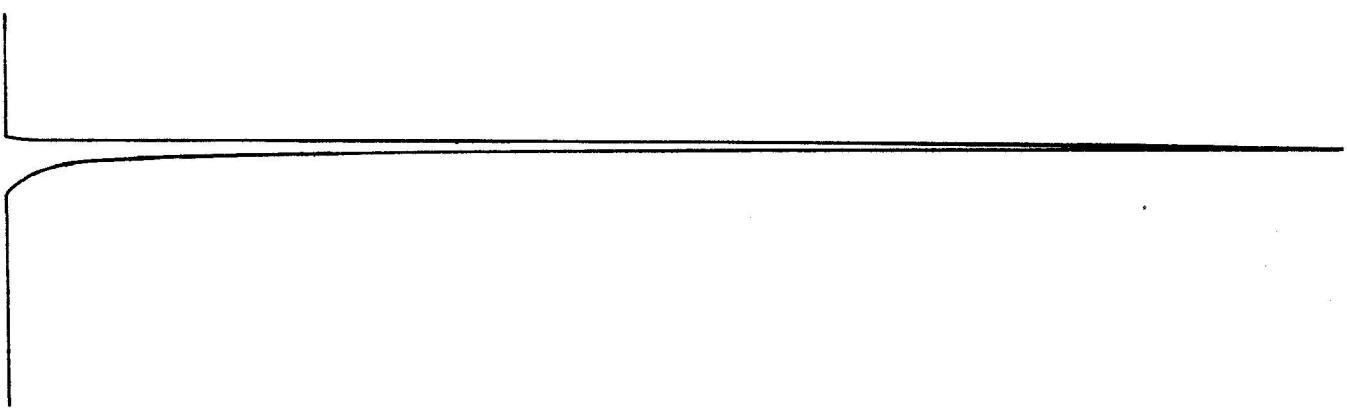

Fig. I.42 HPLC chromatogram of compound III in $CH_3OH:CH_3Cl$ = 1:19

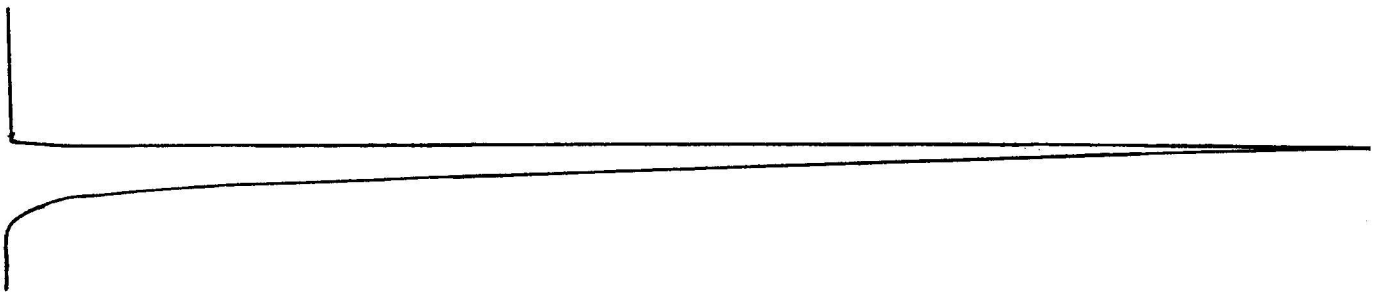

Fig. I.43 HPLC chromatogram of compound IV in $CH_3OH:CH_3Cl$ = 1:19

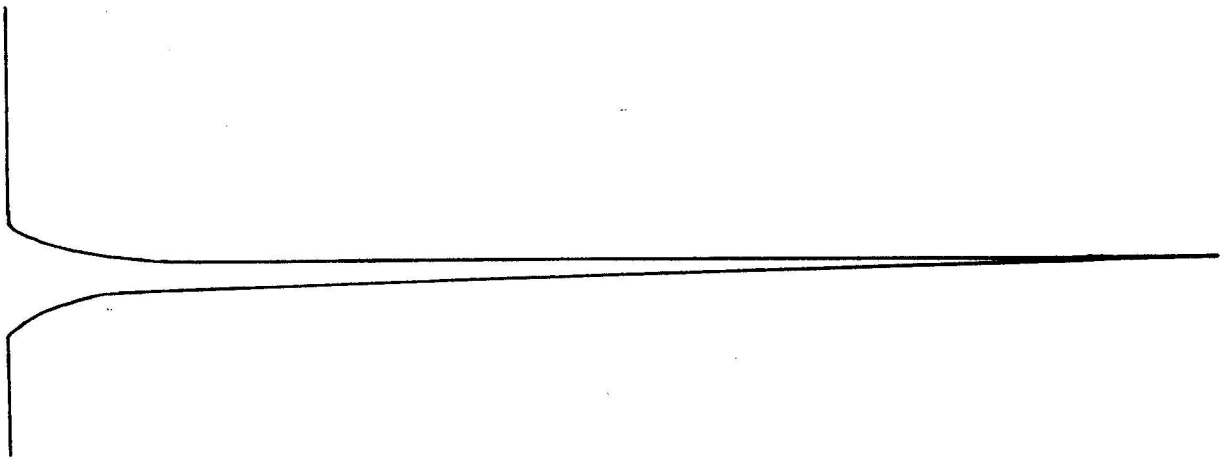

Fig. I.44 HPLC chromatogram of compound V in $CH_3OH:CH_3Cl$ = 1:19

Fig. I.45 HPLC chromatogram of compound VI in $CH_3OH:CH_3Cl$ = 1:19

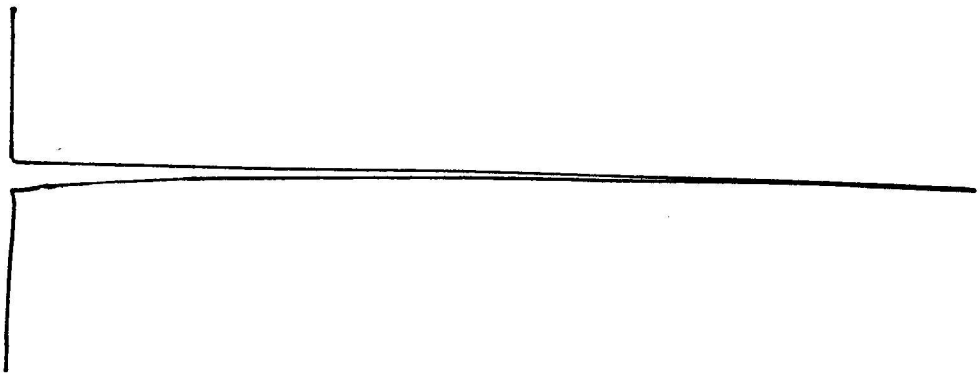

Fig. I.46 HPLC chromatogram of compound VII in $CH_3OH:CH_3Cl$ = 1:19

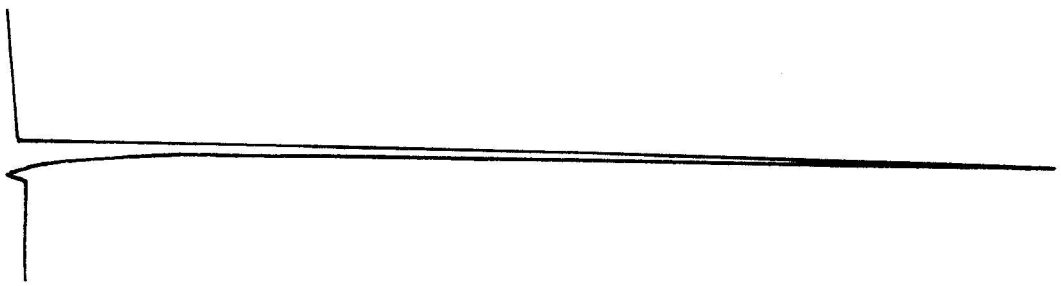

Fig. I.47 HPLC chromatogram of compound VIII in $CH_3OH:CH_3Cl$ = 1:19

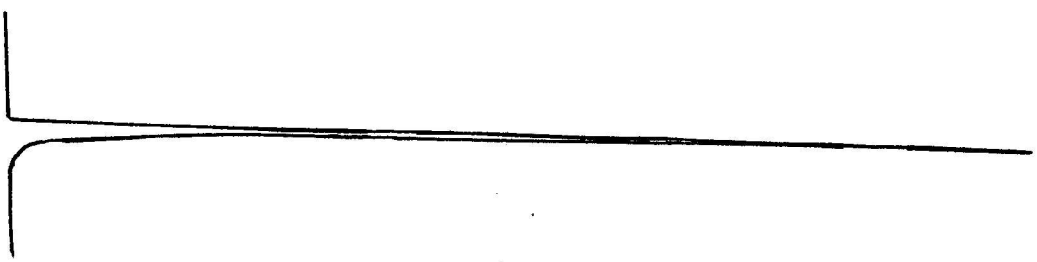

Fig. I.48 HPLC chromatogram of compound IX in $CH_3OH:CH_3Cl$ = 1:19

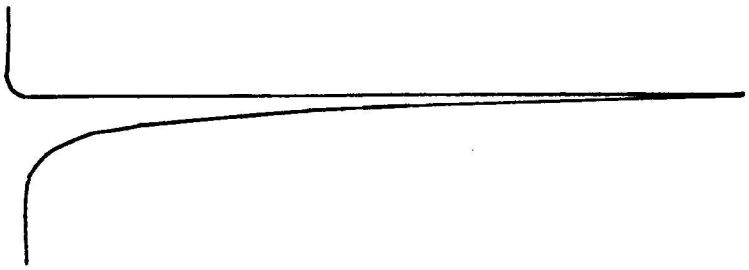

Fig. I.49 HPLC chromatogram of compound X in $CH_3OH:CH_3Cl$ = 1:19

Fig. I.50 HPLC chromatogram of compound XI in $CH_3OH:CH_3Cl$ = 1:19

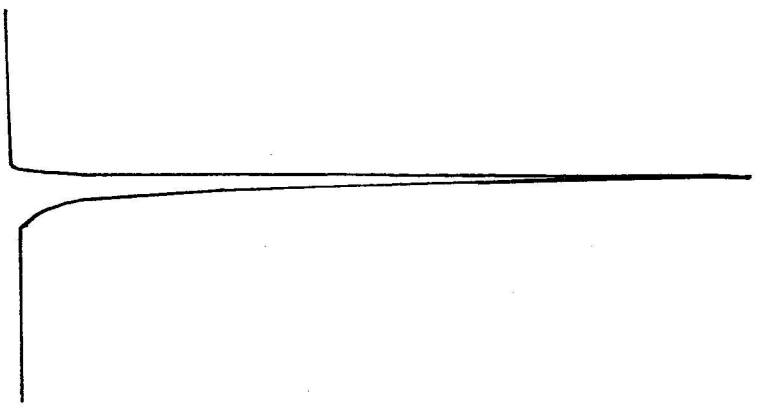

Fig. I.51 HPLC chromatogram of compound XII in $CH_3OH:CH_3Cl$ = 1:19

Fig. I.52 HPLC chromatogram of compound XIII in $CH_3OH:CH_3Cl$ = 1:19

HPLC	:	GILSON MODEL 802 C MANOMETRIC MODULE
DETECTOR	:	UV DETECTOR at wavelength 254 nm
COLUMN	:	SILICA GEL
PRESSURE	:	51 bar
TEMPERATURE	:	ambient temperature
RANGE	:	0.5 V
SENSITIVITY	:	0.1
CHART SPEED	:	5 mm/min
FLOW RATE	:	0.8 mL/min
INJETION VOLUMN	:	20 µL
MOBILE PHASE	:	$CH_3OH:CH_3Cl$ = 1:19

APPENDIX II

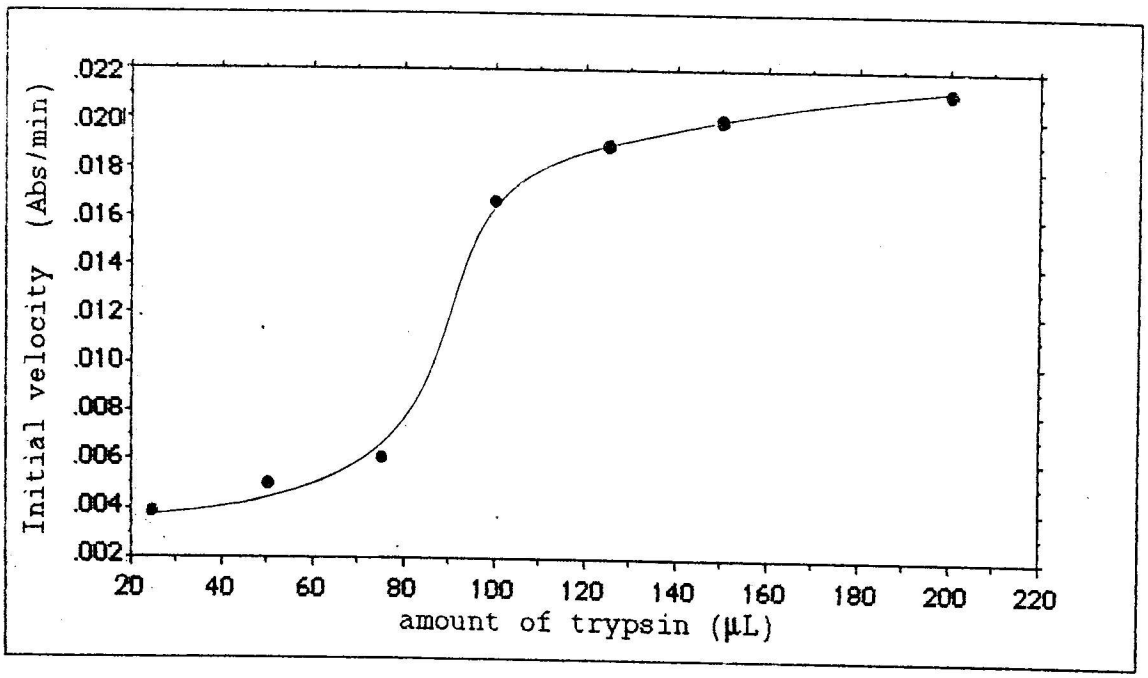

Fig. II.1 The effect of trypsin concentration on the initial velocities at fixed concentration of BAPNA (2 mM 25 µL)

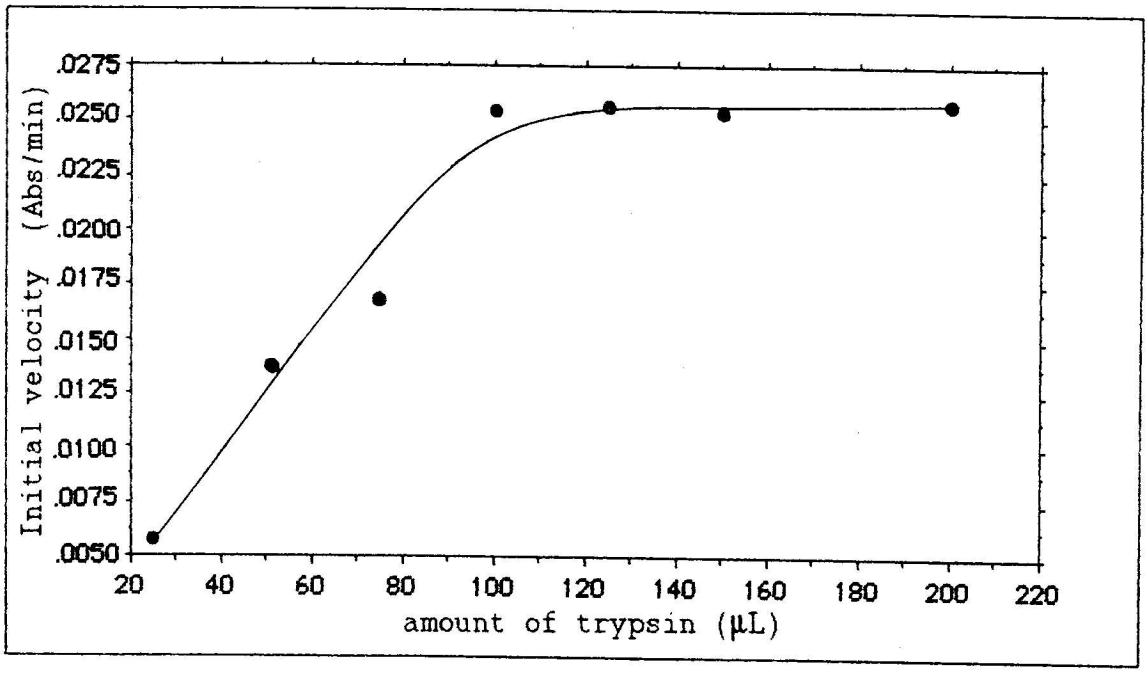

Fig. II.2 The effect of trypsin concentration on the initial velocities at fixed concentration of BAPNA (2 mM 50 µL)

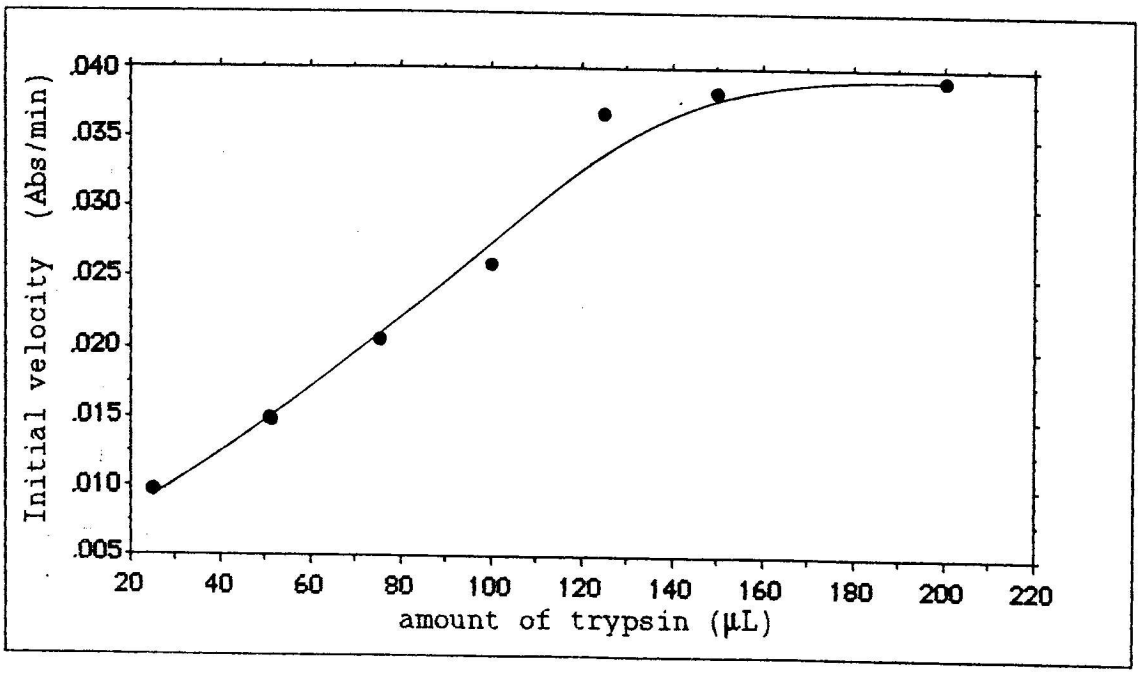

Fig. II.3 The effect of trypsin concentration on the initial velocities at fixed concentration of BAPNA (2 mM 75 µL)

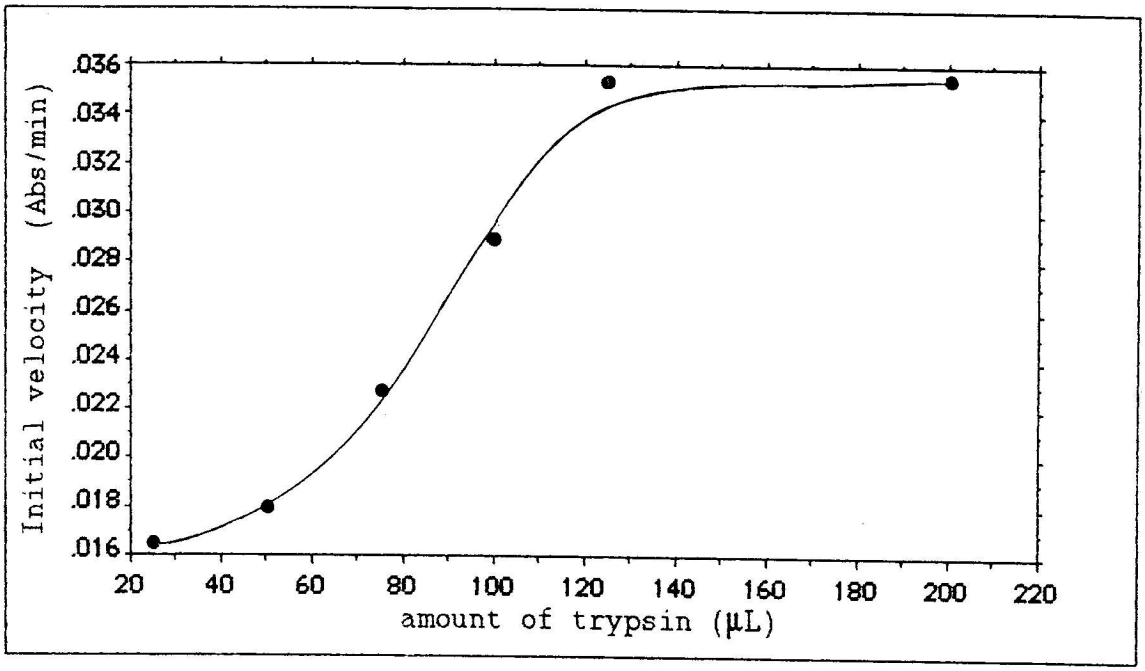

Fig. II.4 The effect of trypsin concentration on the initial velocities at fixed concentration of BAPNA (2 mM 100 μL)

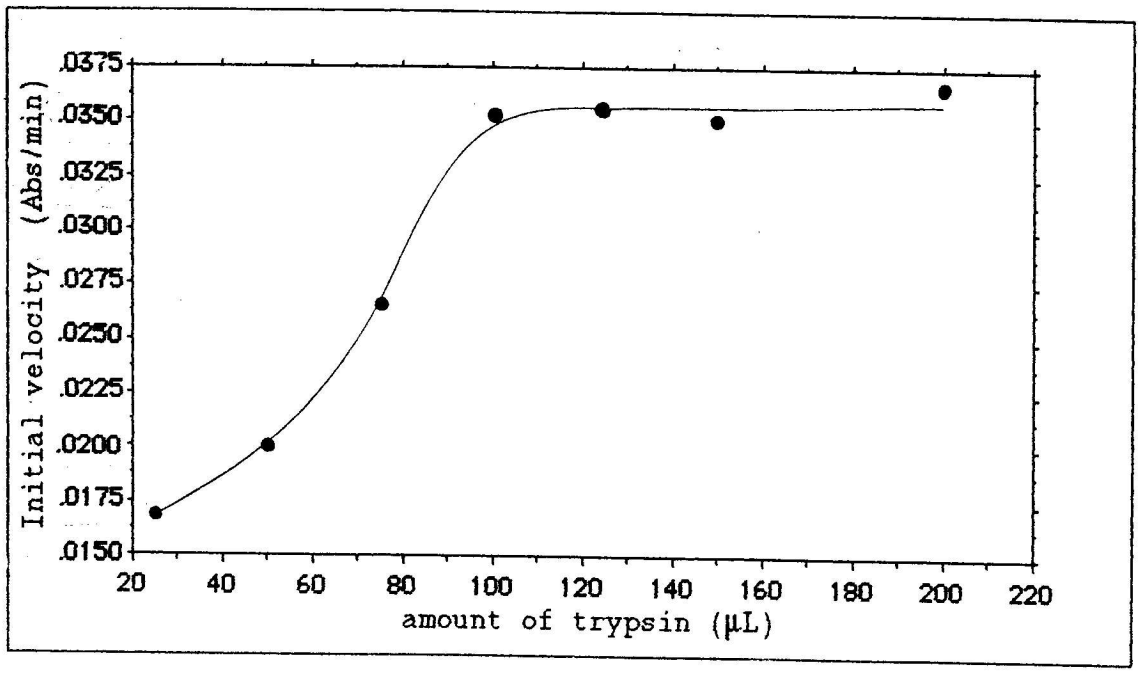

Fig. II.5 The effect of trypsin concentration on the initial velocities at fixed concentration of BAPNA (2 mM 125 μL)

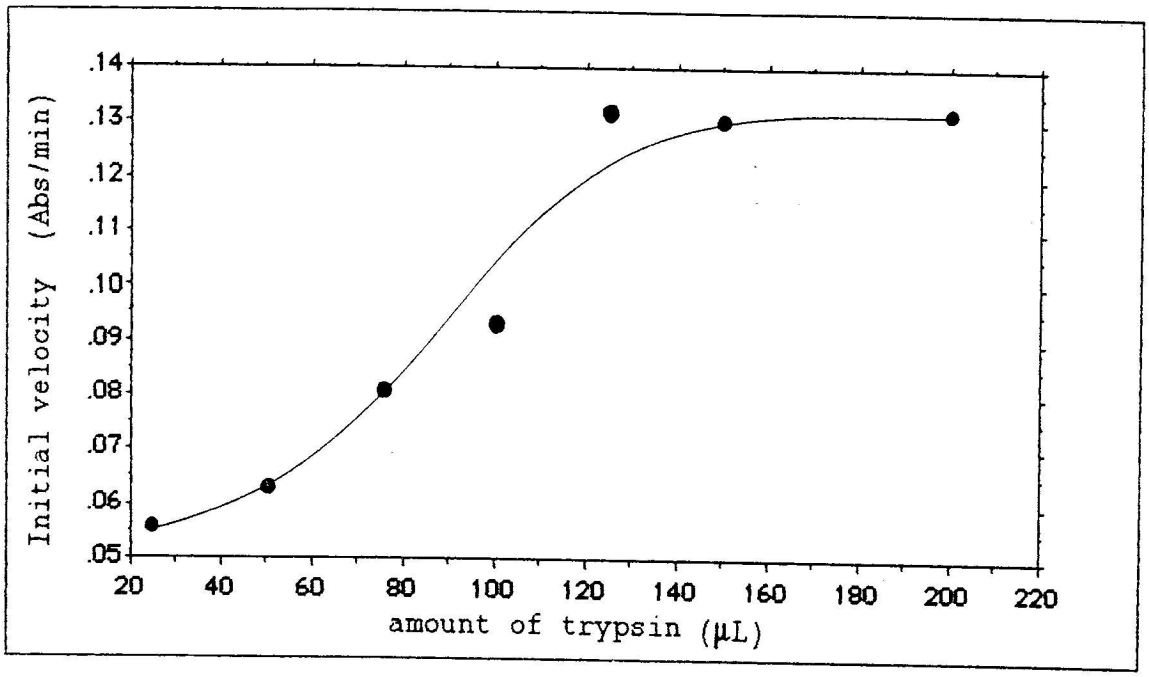

Fig. II.6 The effect of trypsin concentration on the initial velocities at fixed concentration of BAPNA (2 mM 150 µL)

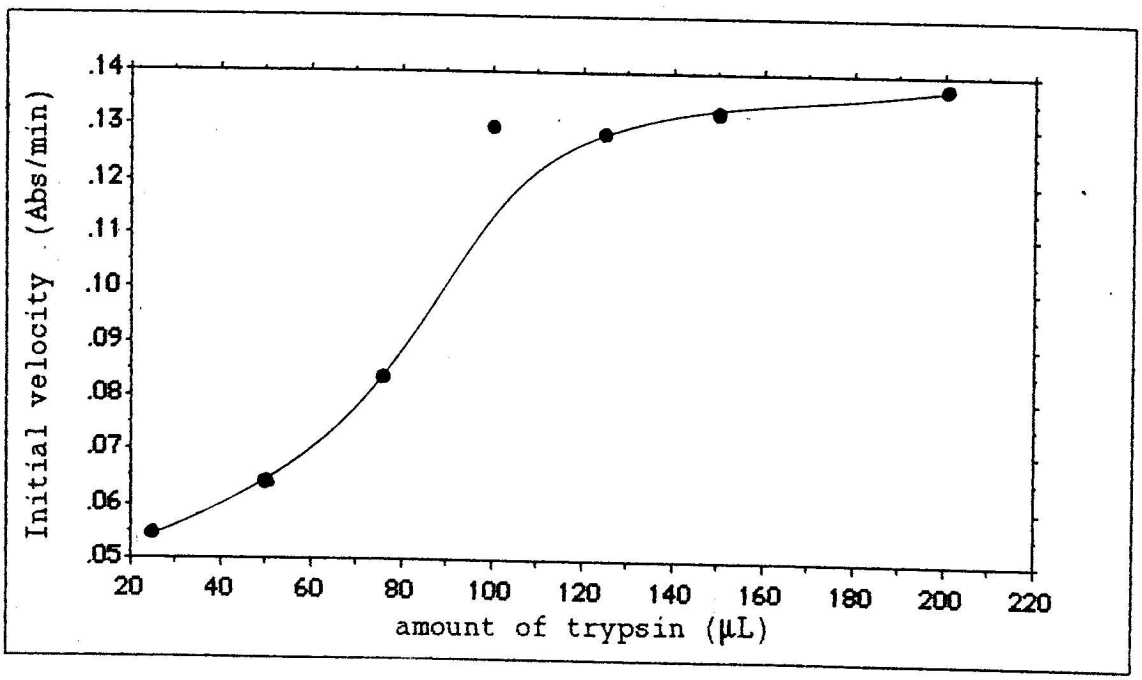

Fig. II.7 The effect of trypsin concentration on the initial velocities at fixed concentration of BAPNA (2 mM 200 µL)

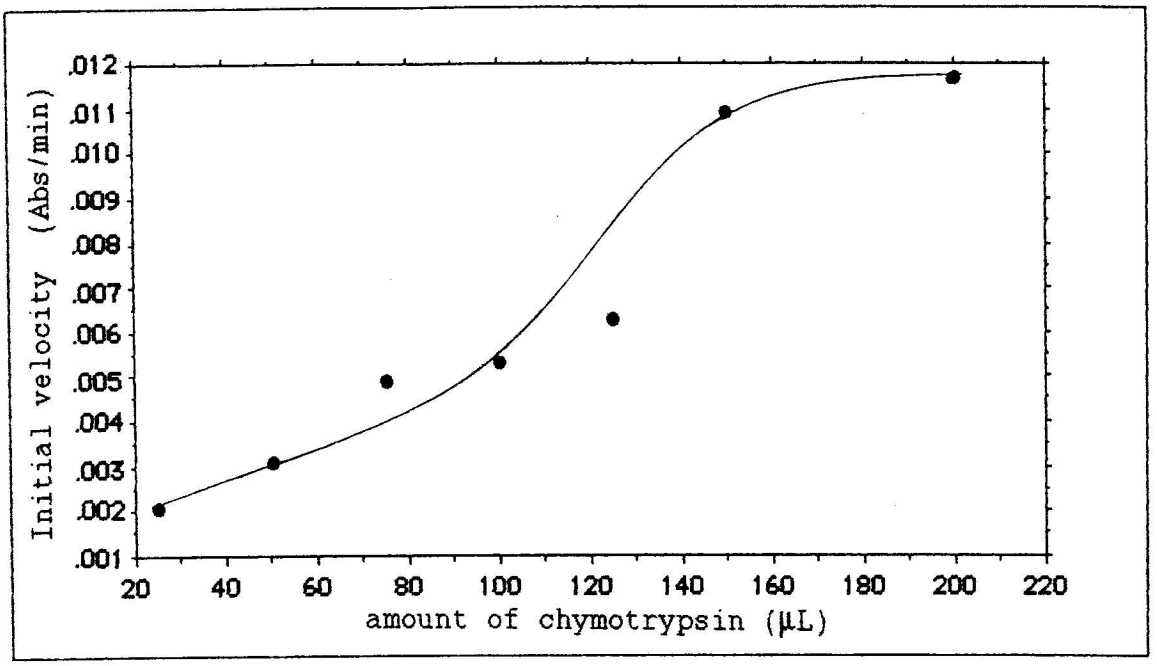

Fig. II.8 The effect of chymotrypsin concentration on the initial velocities at fixed concentration of Suc-Ala-Ala-Pro-Phe-*p*NA (2 mM 25 µL)

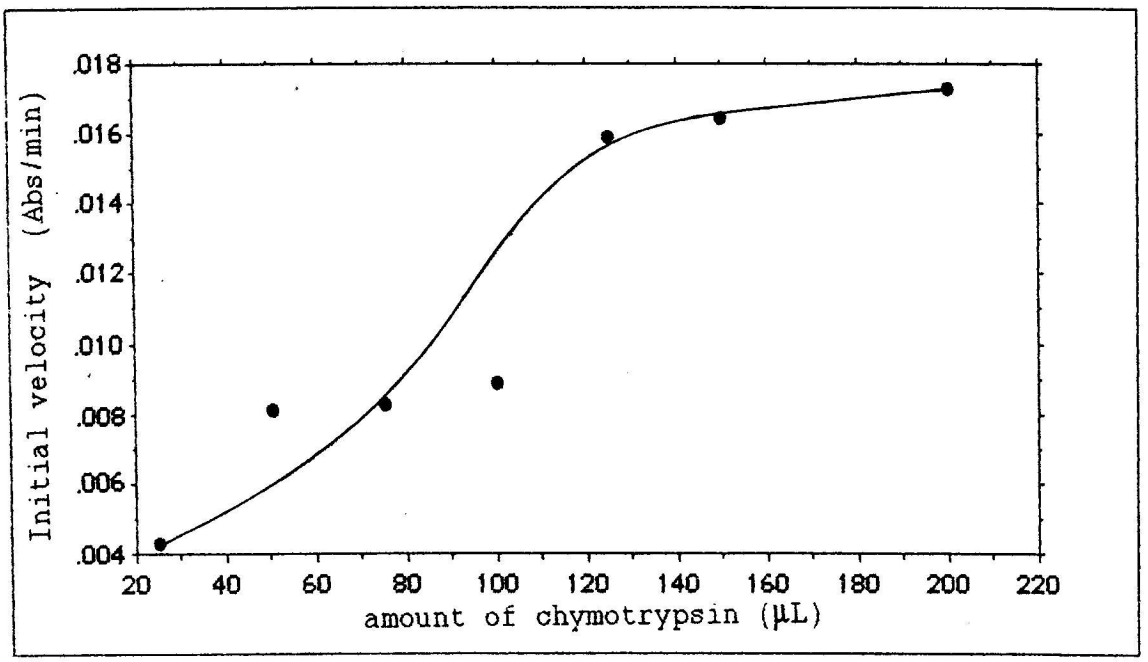

Fig. II.9 The effect of chymotrypsin concentration on the initial velocities at fixed concentration of Suc-Ala-Ala-Pro-Phe-*p*NA (2 mM 50 µL)

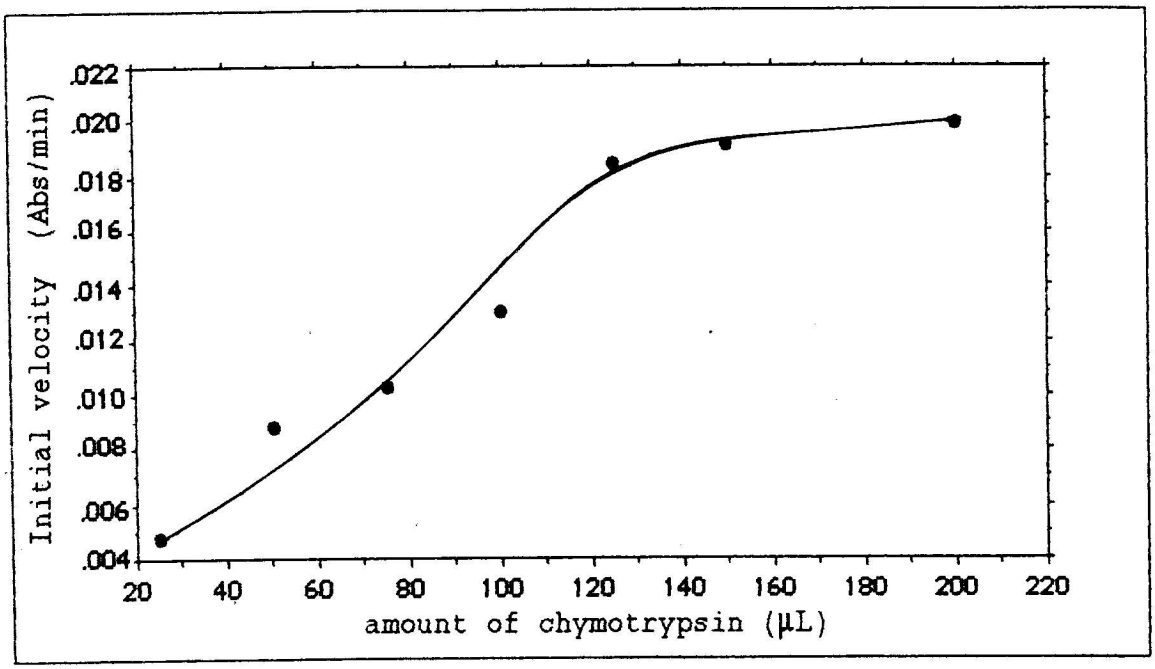

Fig. II.10 The effect of chymotrypsin concentration on the initial velocities at fixed concentration of Suc-Ala-Ala-Pro-Phe-*p*NA (2 mM 75 µL)

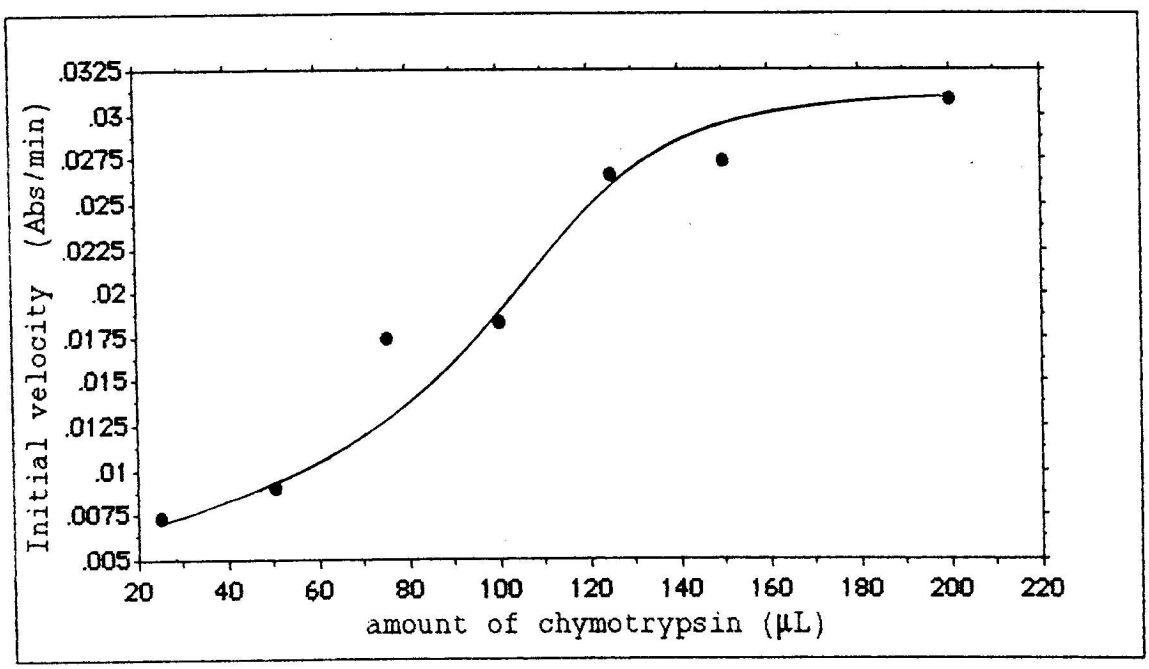

Fig. II.11 The effect of chymotrypsin concentration on the initial velocities at fixed concentration of Suc-Ala-Ala-Pro-Phe-*p*NA (2 mM 100 µL)

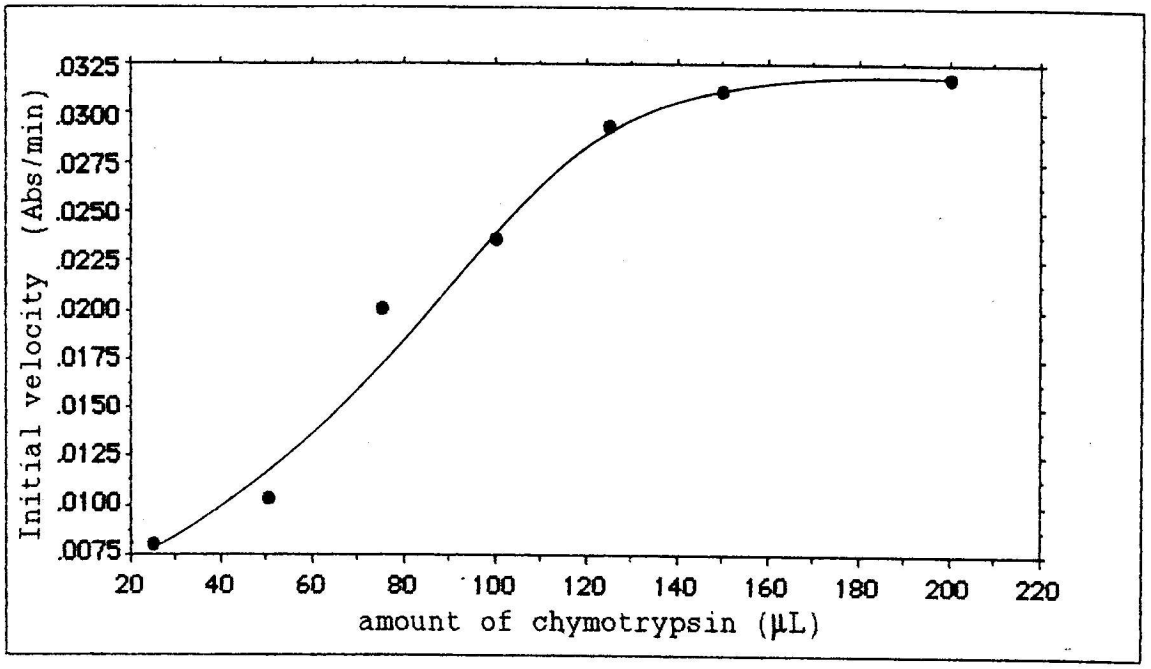

Fig. II.12 The effect of chymotrypsin concentration on the initial velocities at fixed concentration of Suc-Ala-Ala-Pro-Phe-ρNA (2 mM 150 µL)

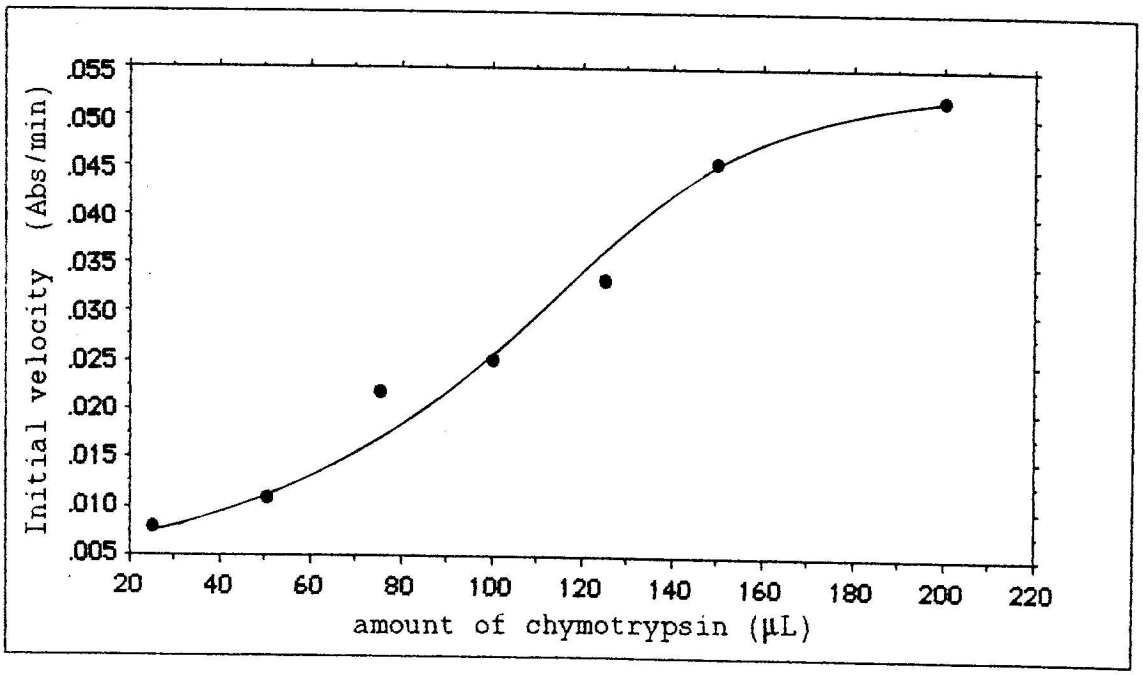

Fig. II.13 The effect of chymotrypsin concentration on the initial velocities at fixed concentration of Suc-Ala-Ala-Pro-Phe-ρNA (2 mM 200 µL)

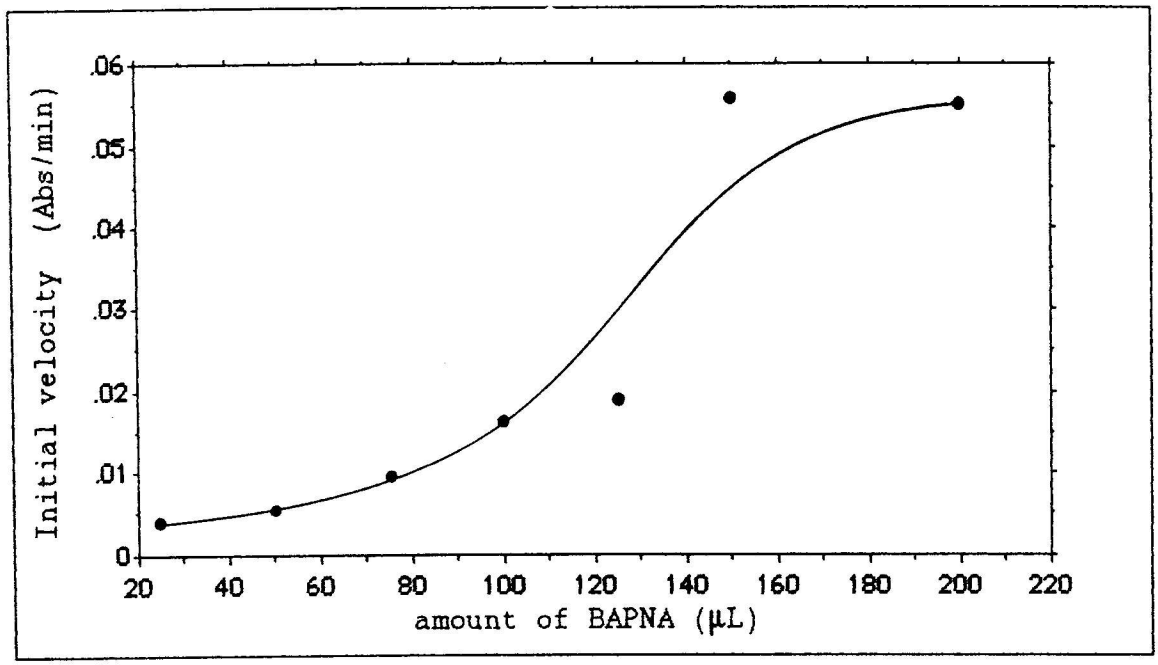

Fig. II.14 The effect of BAPNA concentration on the initial velocities at fixed concentration of trypsin (2 mM 25 µL)

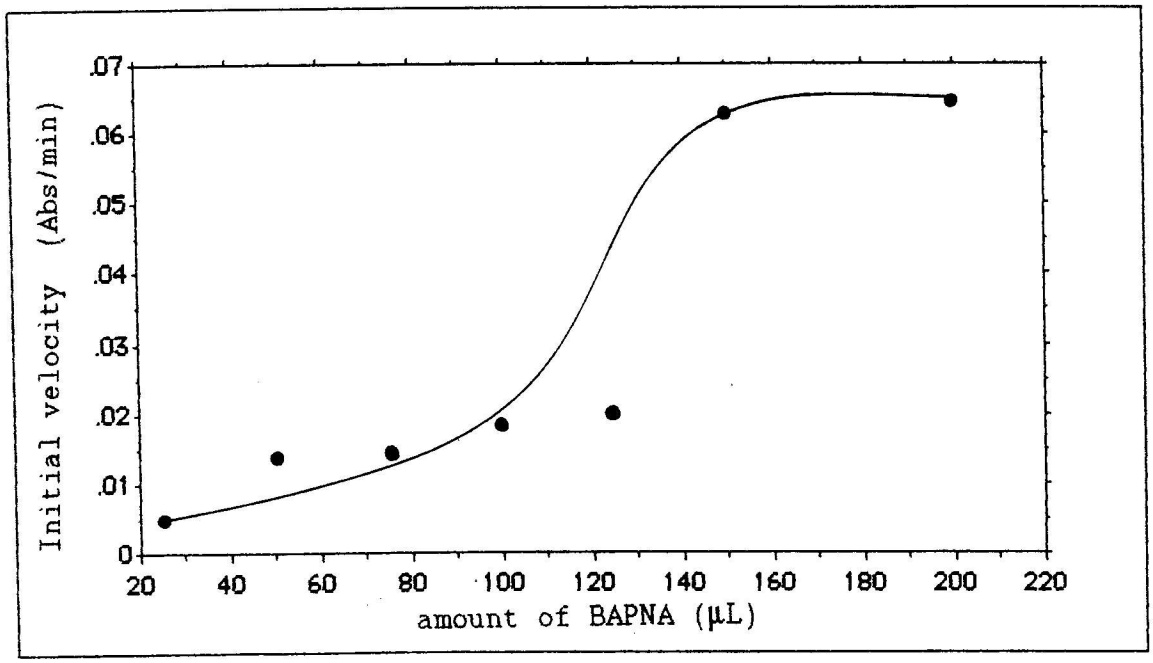

Fig. II.15 The effect of BAPNA concentration on the initial velocities at fixed concentration of trypsin (2 mM 50 µL)

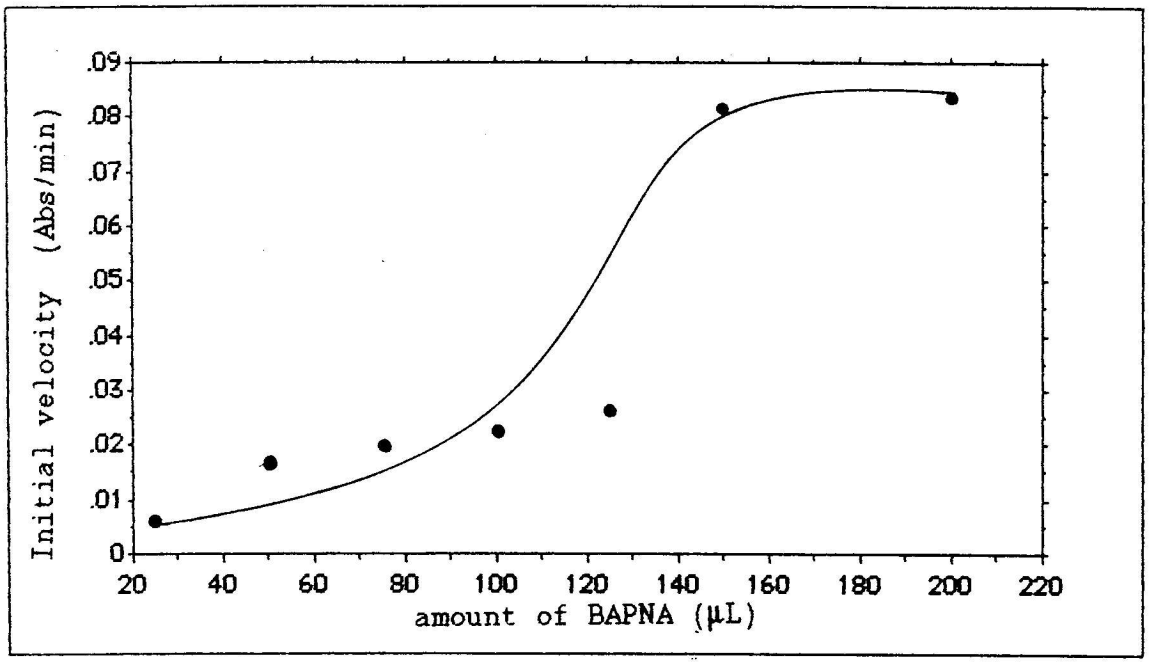

Fig. II.16 . The effect of BAPNA concentration on the initial velocities at fixed concentration of trypsin (2 mM 75 µL)

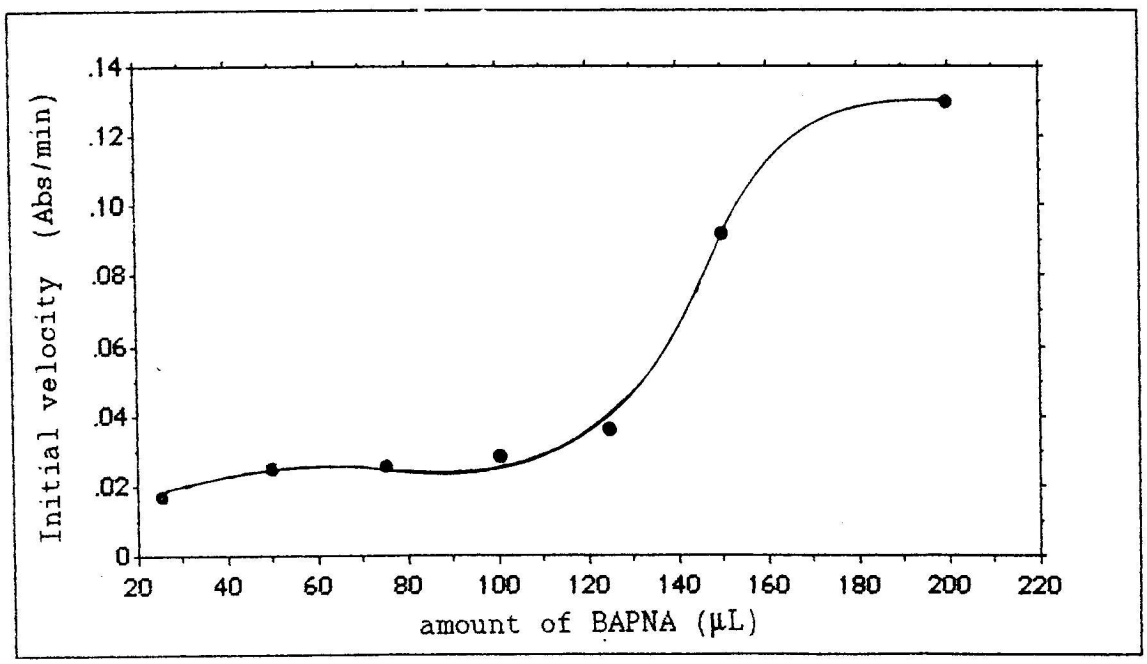

Fig. II.17 The effect of BAPNA concentration on the initial velocities at fixed concentration of trypsin (2 mM 100 µL)

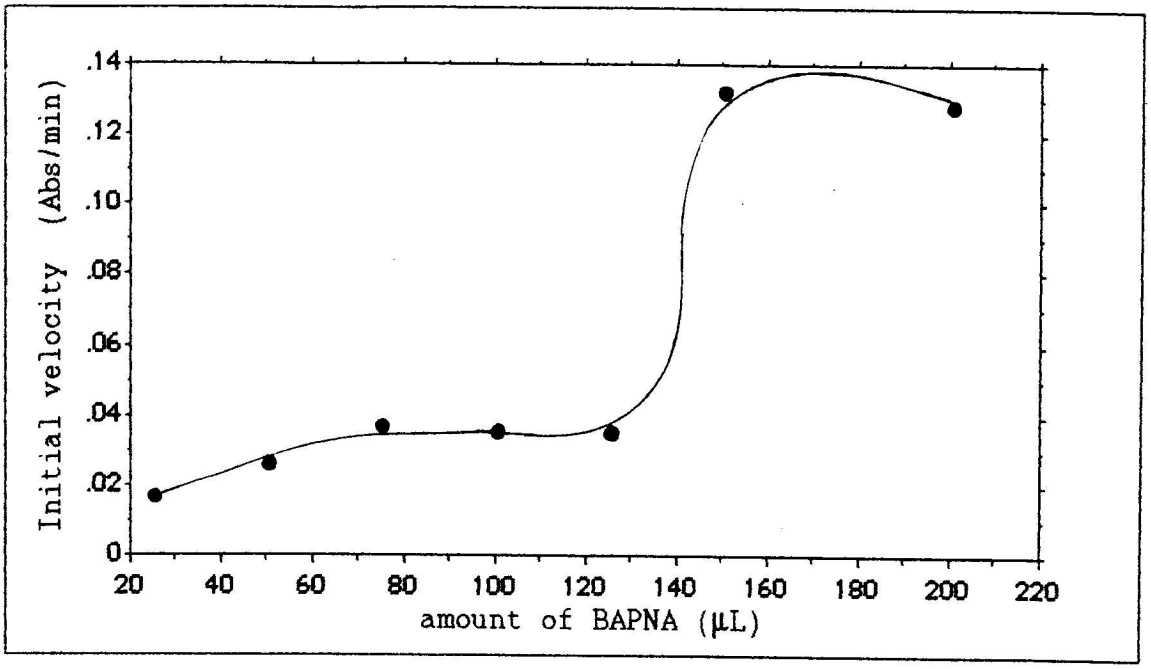

Fig. II.18 The effect of BAPNA concentration on the initial velocities at fixed concentration of trypsin (2 mM 125 µL)

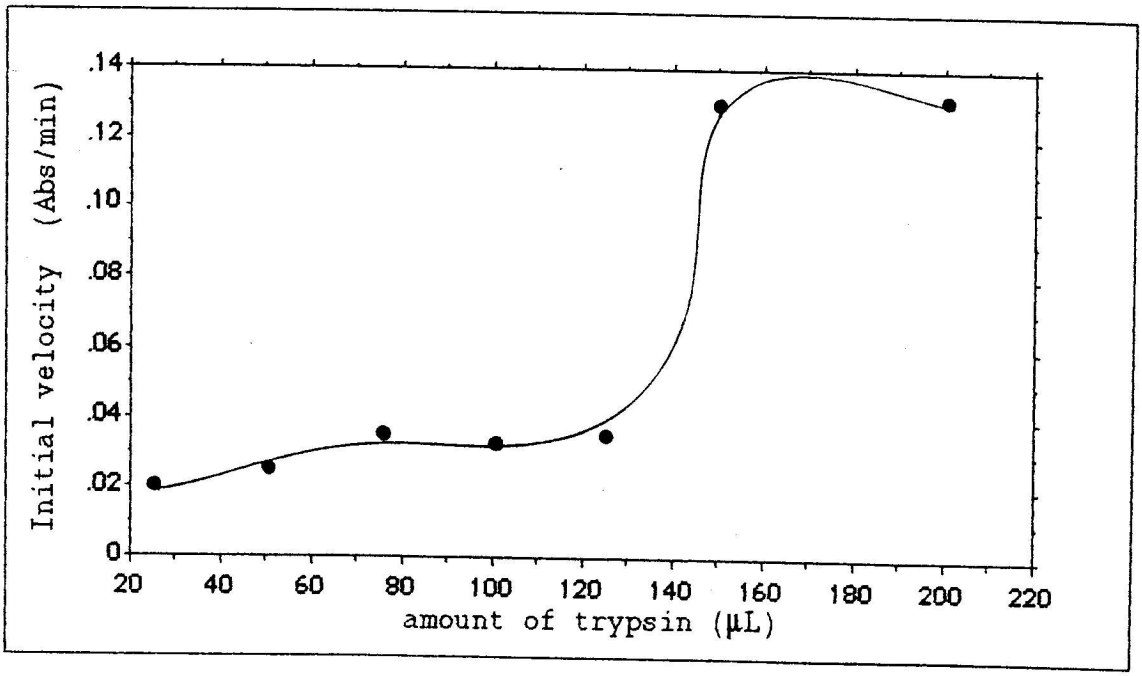

Fig. II.19 The effect of BAPNA concentration on the initial velocities at fixed concentration of trypsin (2 mM 150 µL)

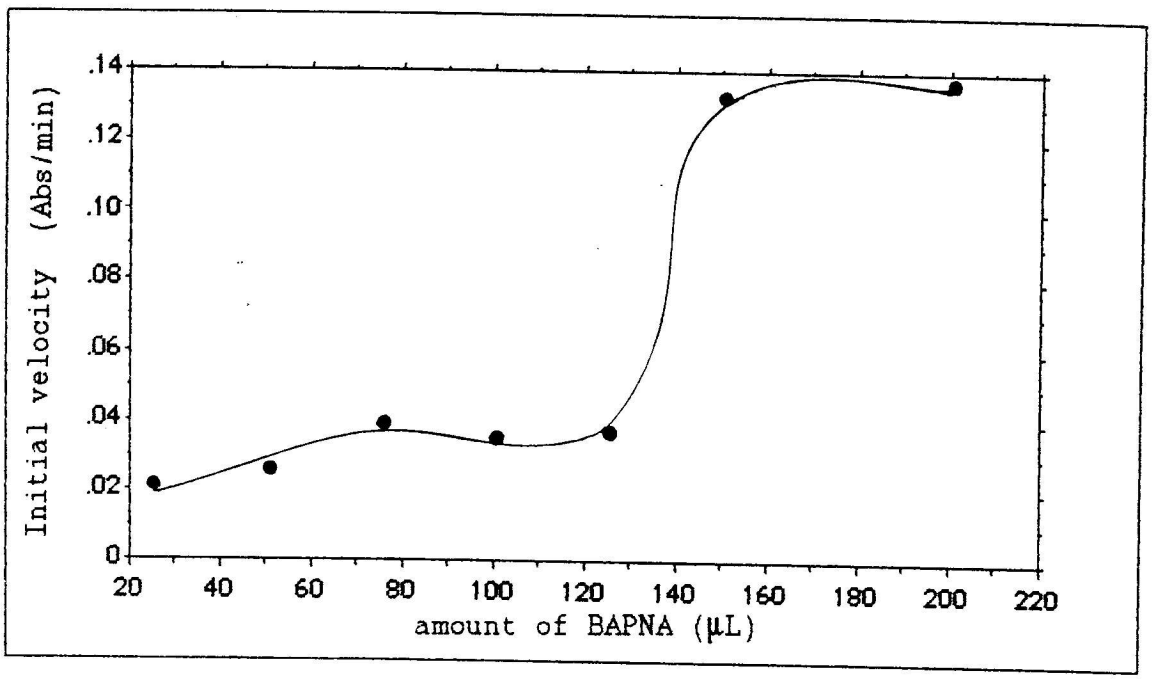

Fig. II.20 The effect of BAPNA concentration on the initial velocities at fixed concentration of trypsin (2 mM 200 µL)

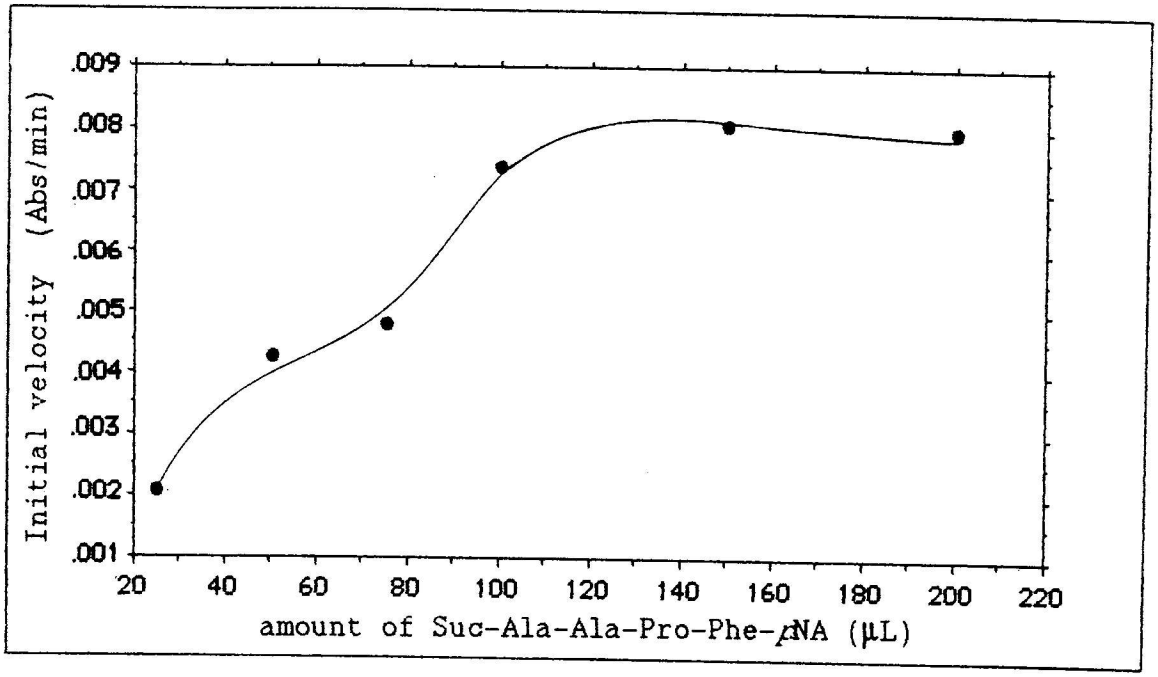

Fig.II.21 The effect of Suc-Ala-Ala-Pro-Phe-*p*NA concentration on the initial velocities at fixed concentration of chymotrypsin (2 mM 25 µL)

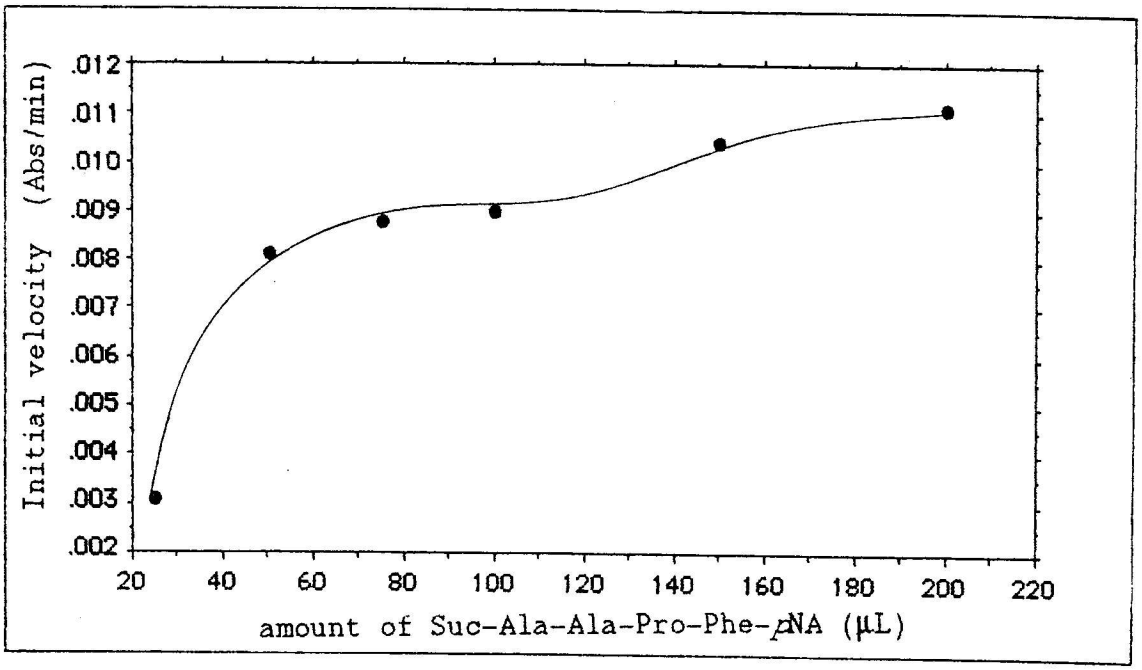

Fig.II.22 The effect of Suc-Ala-Ala-Pro-Phe-*p*NA concentration on the initial velocities at fixed concentration of chymotrypsin (2 mM 50 µL)

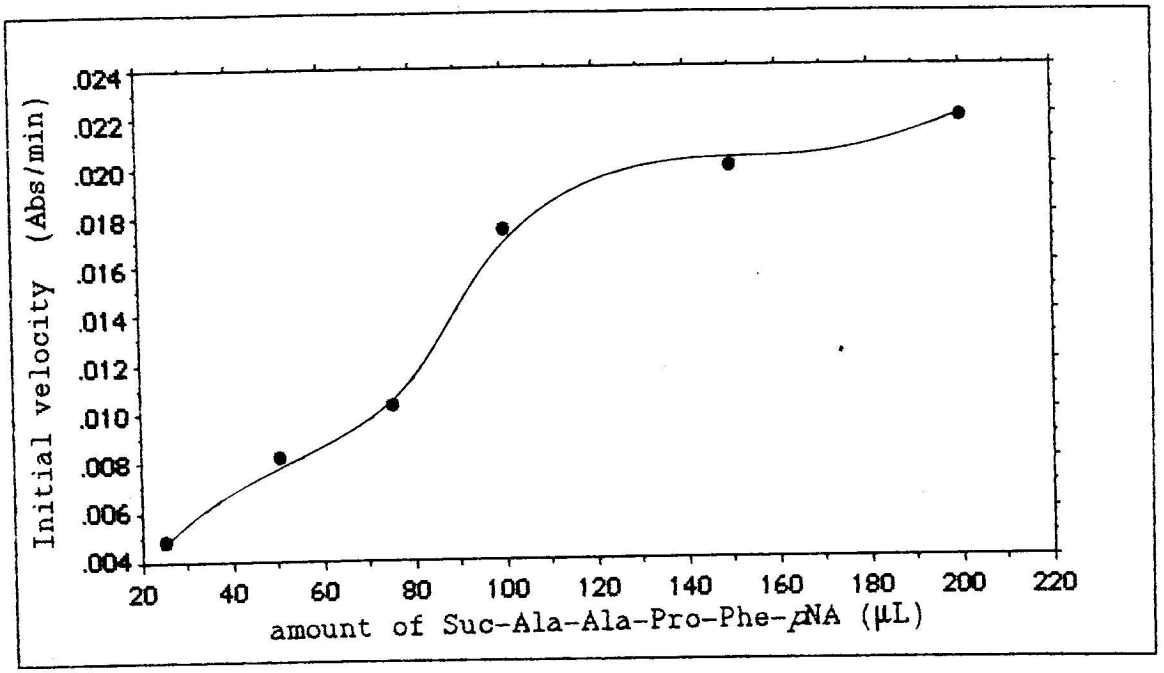

Fig.II.23 The effect of Suc-Ala-Ala-Pro-Phe-*p*NA concentration on the initial velocities at fixed concentration of chymotrypsin (2 mM 75 µL)

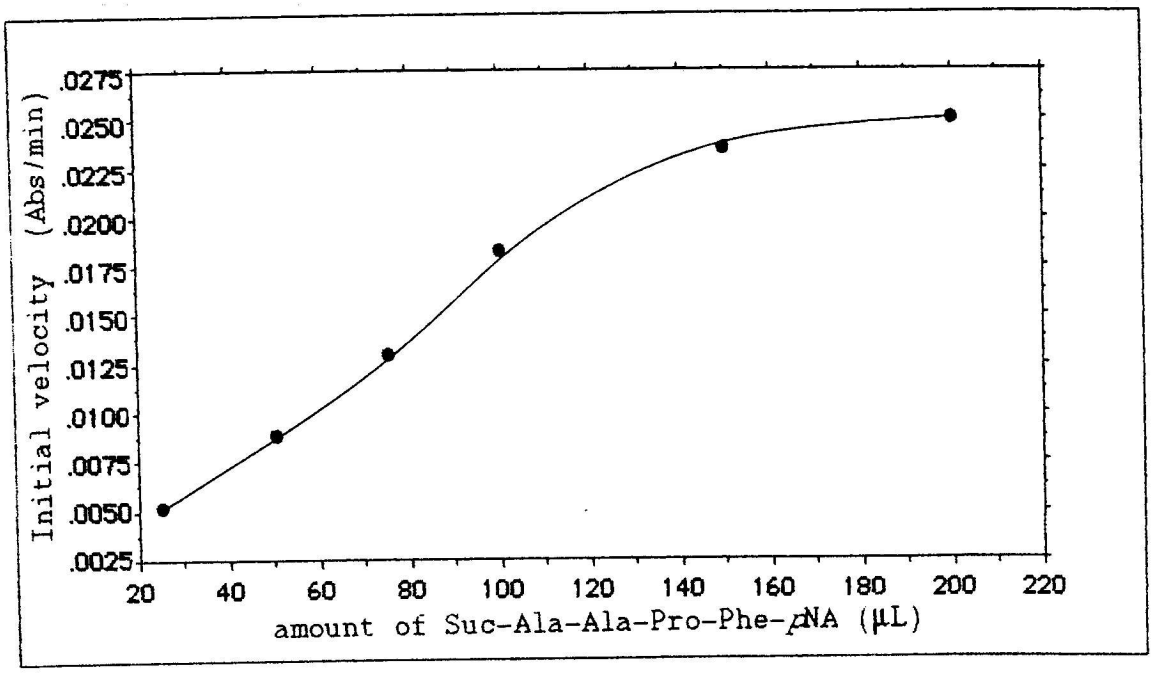

Fig.II.24 The effect of Suc-Ala-Ala-Pro-Phe-*p*NA concentration on the initial velocities at fixed concentration of chymotrypsin (2 mM 100 µL)

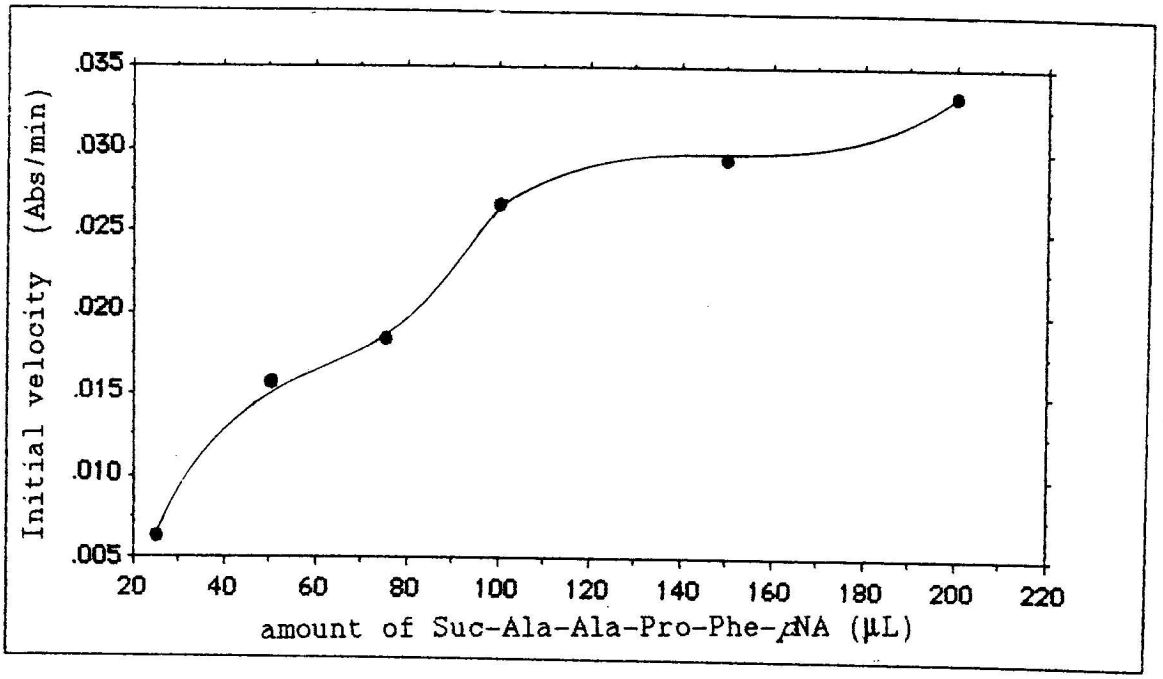

Fig.II.25 The effect of Suc-Ala-Ala-Pro-Phe-*p*NA concentration on the initial velocities at fixed concentration of chymotrypsin (2 mM 125 µL)

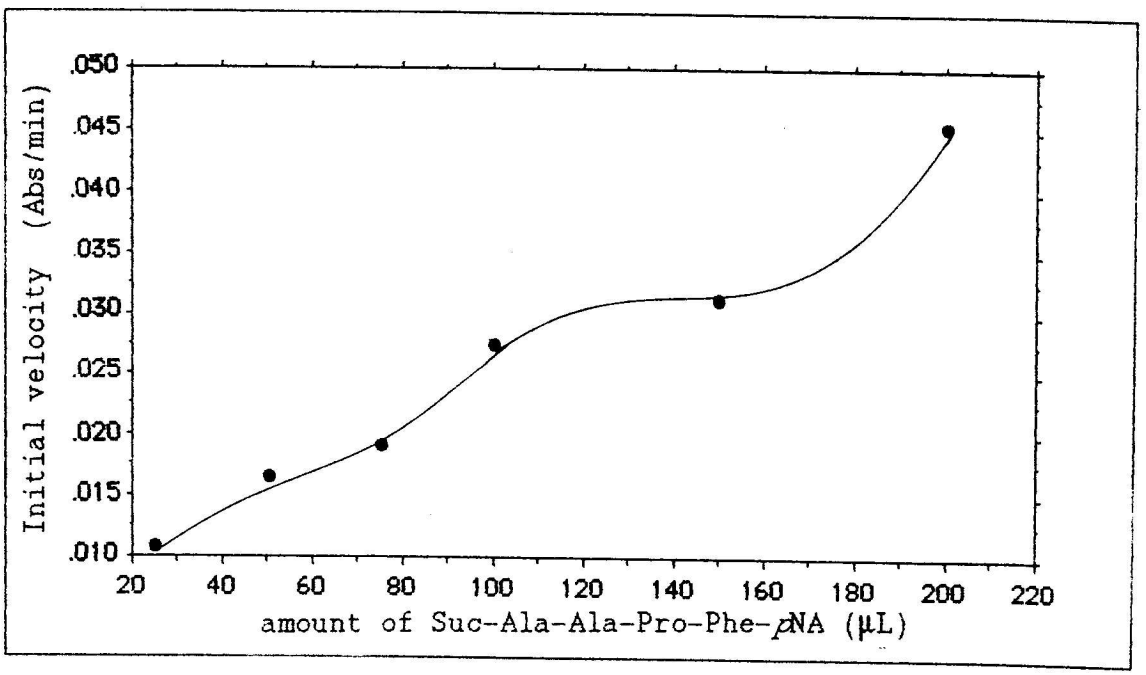

Fig.II.26 The effect of Suc-Ala-Ala-Pro-Phe-*p*NA concentration on the initial velocities at fixed concentration of chymotrypsin (2 mM 150 µL)

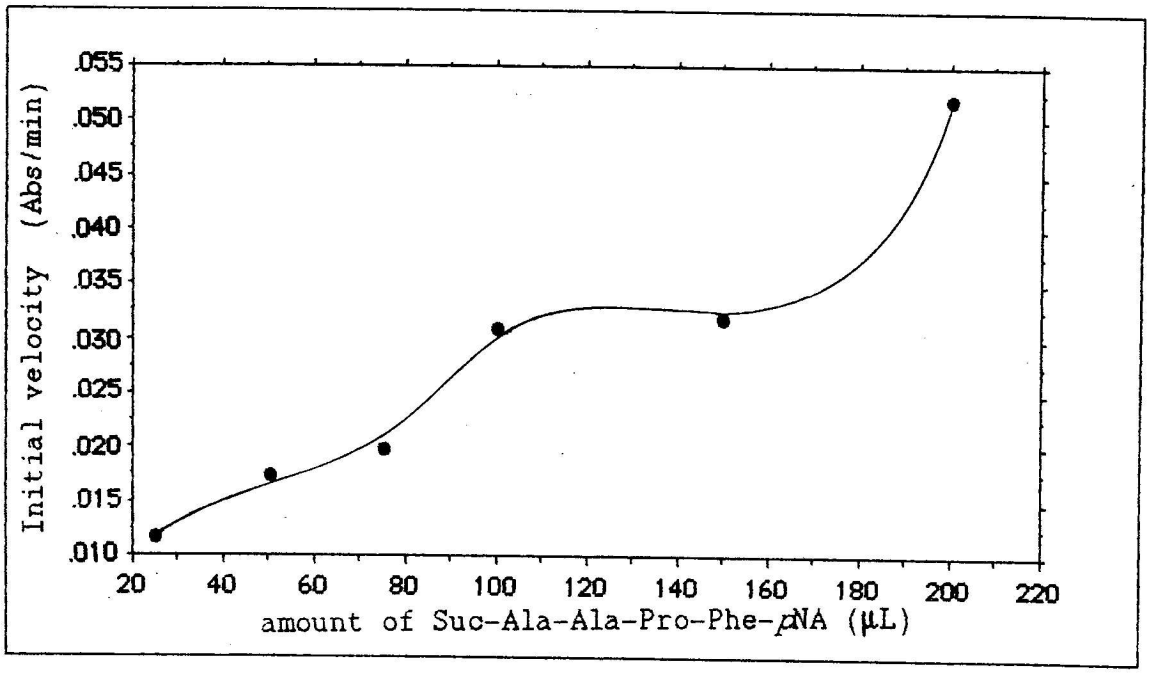

Fig.II.27 The effect of Suc-Ala-Ala-Pro-Phe-*p*NA concentration on the initial velocities at fixed concentration of chymotrypsin (2 mM 200 µL)

VITA

Miss Jongkolnee Jongaramruong is the youngest and the only daughter of her family. She was born, after her three elder brothers, on October 24,1965 in Chonburi, Thailand. In 1988, she received her Bachelor degree of Science in the field of chemistry from Chulalongkorn University. Since then she has been a graduate student, taking organic chemistry as her major course, in the Department of Chemistry, Faculty of Science, Chulalongkorn University. Her present address is 98/3 Sukumvit Road Soi 7, Sriracha, Chonburi, 20110.