

REFERENCES

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สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย



APPENDIX

สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

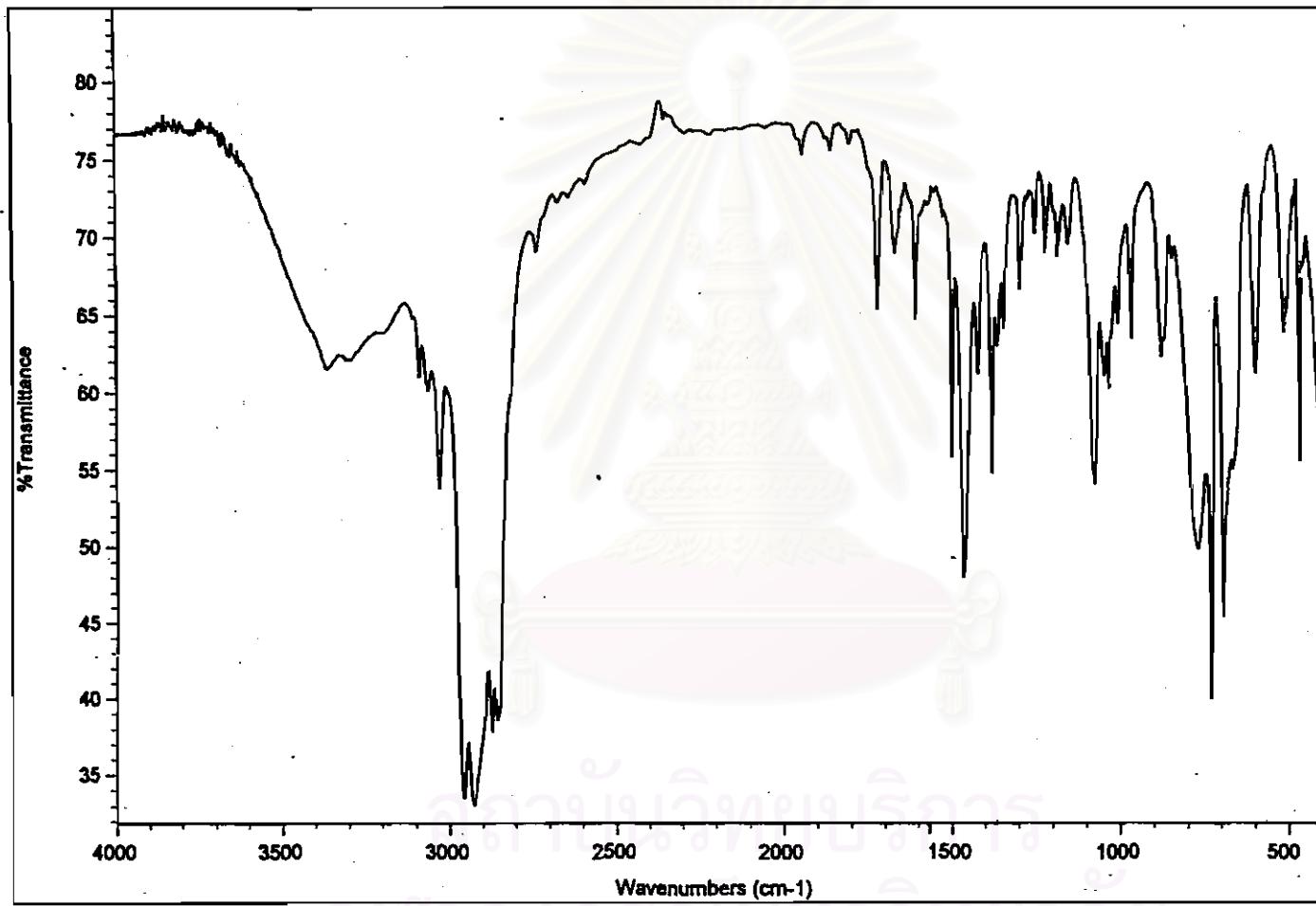


Figure 4 The IR spectrum of compound 1

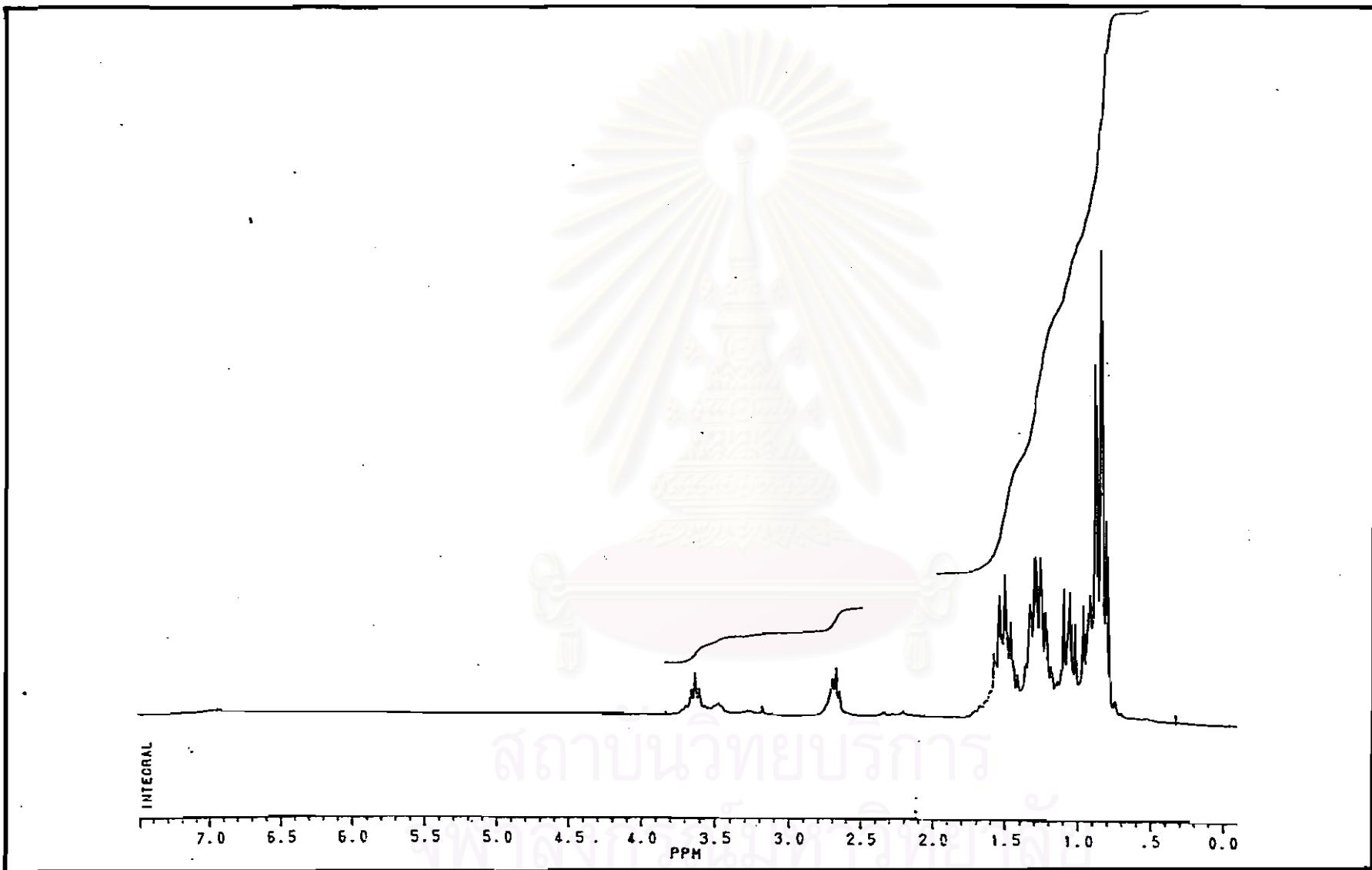


Figure 5 The ^1H NMR spectrum of compound 1

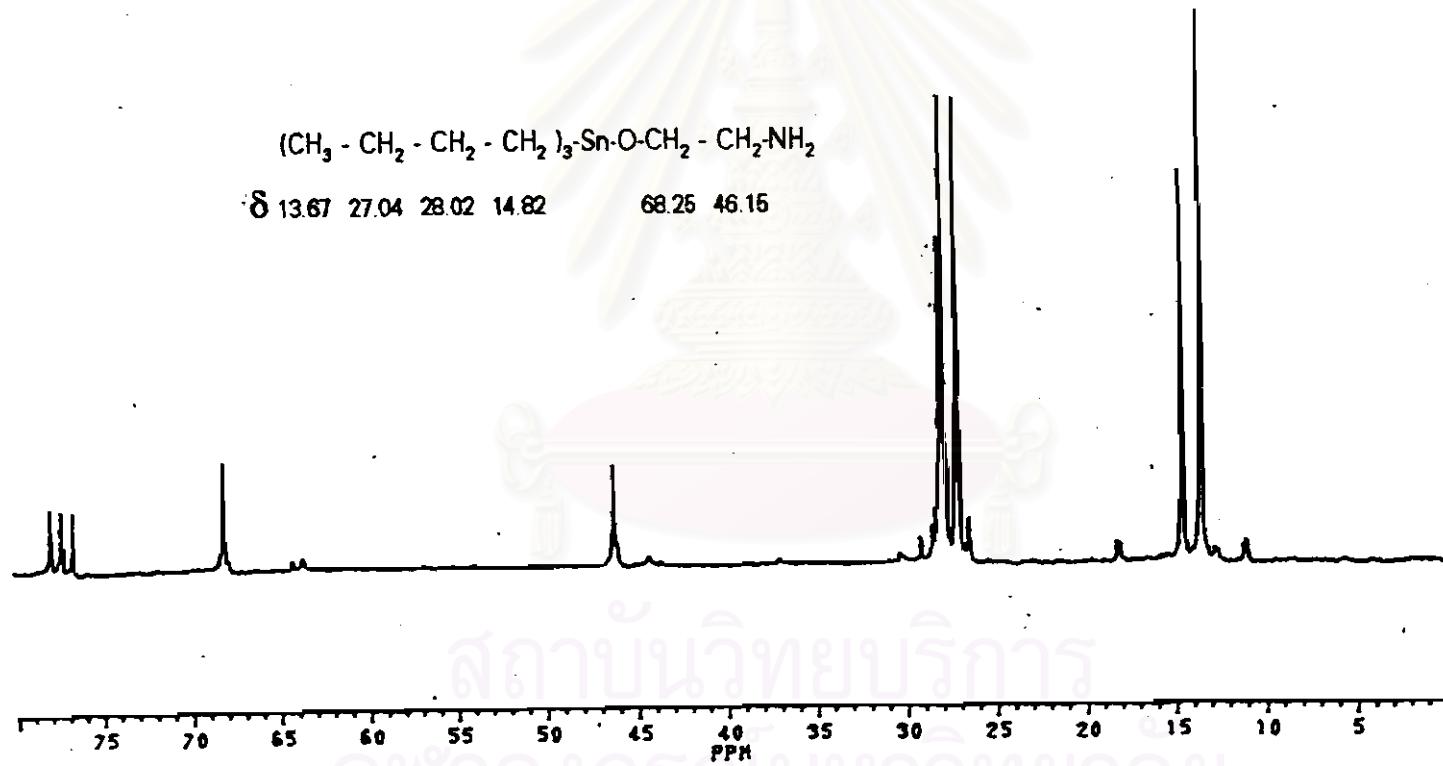


Figure 6 The ^{13}C NMR spectrum of compound 1

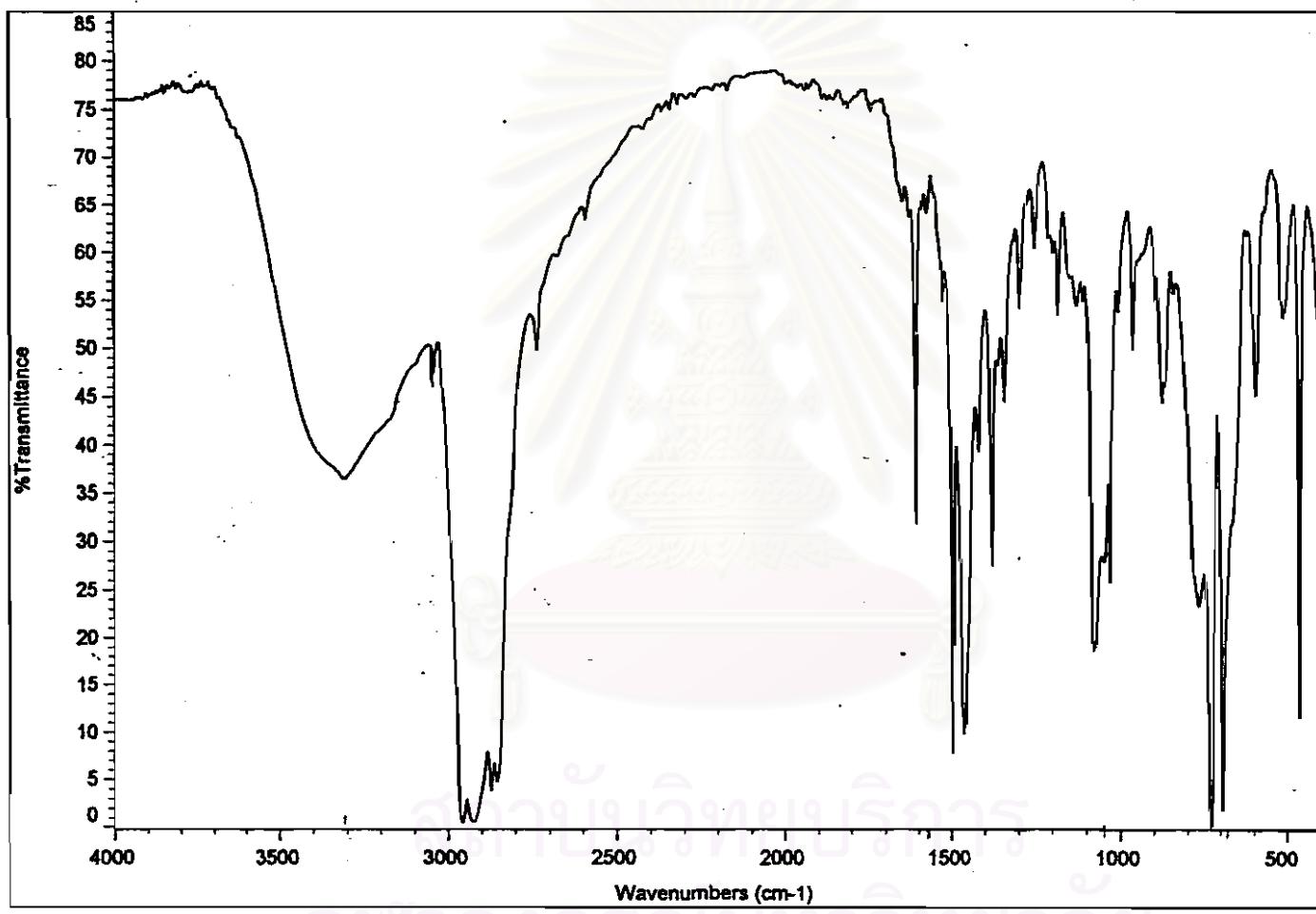


Figure 7 The IR spectrum of compound 2

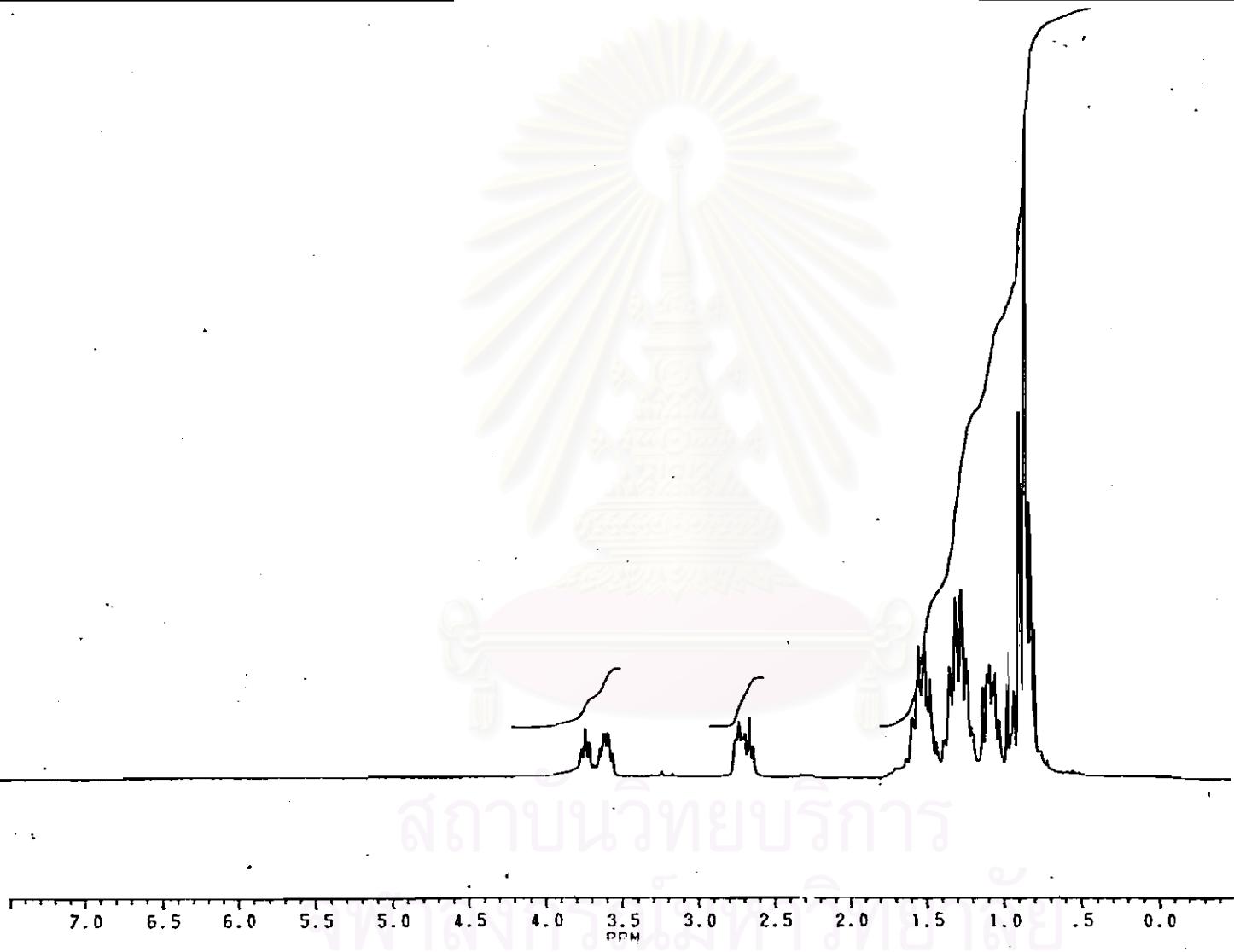
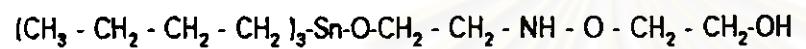


Figure 8 The ^1H NMR spectrum of compound 2



δ 13.63 27.18 27.98 16.46 65.22 54.19 52.97 60.91

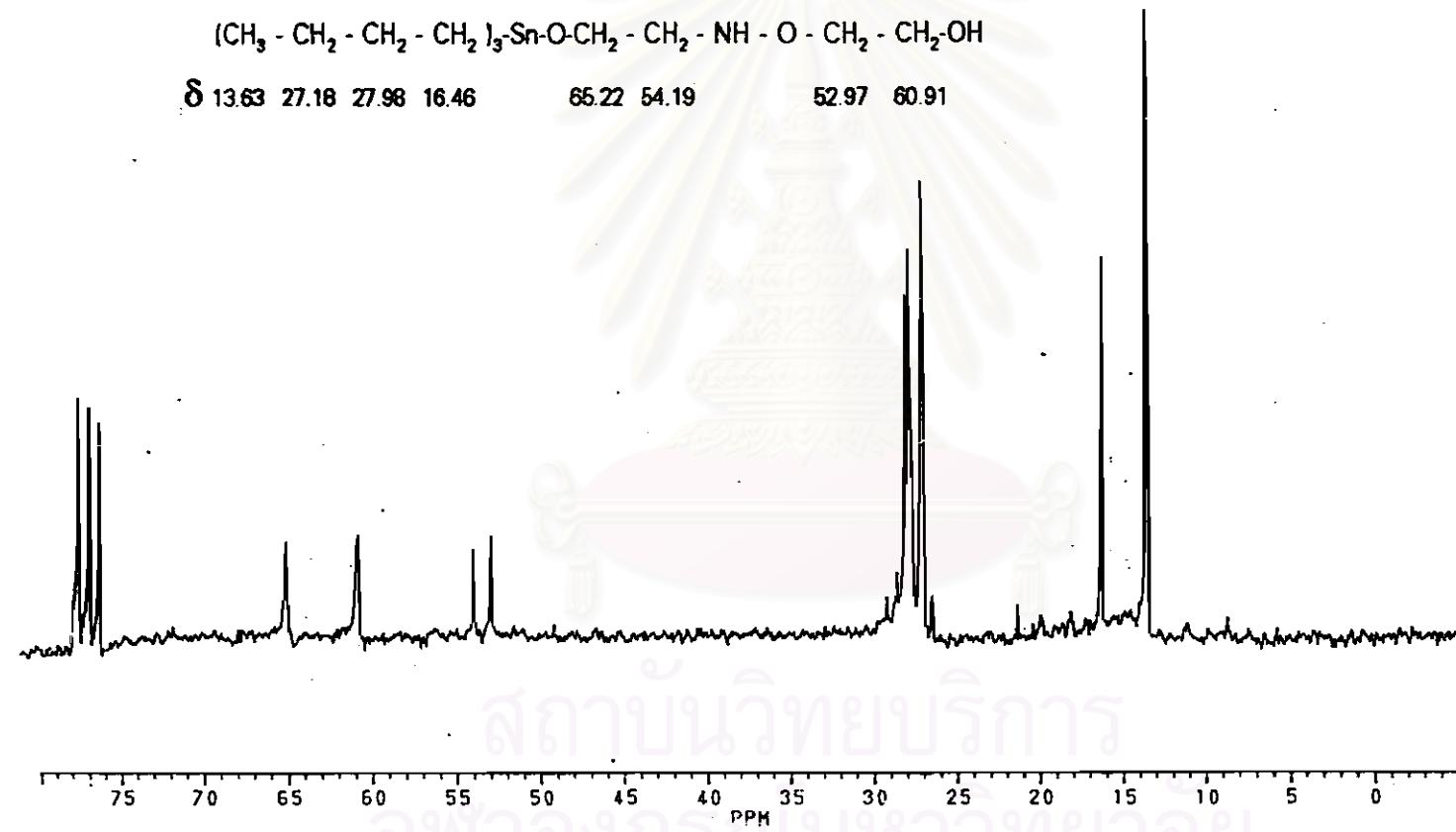


Figure 9 The ^{13}C NMR spectrum of compound 2

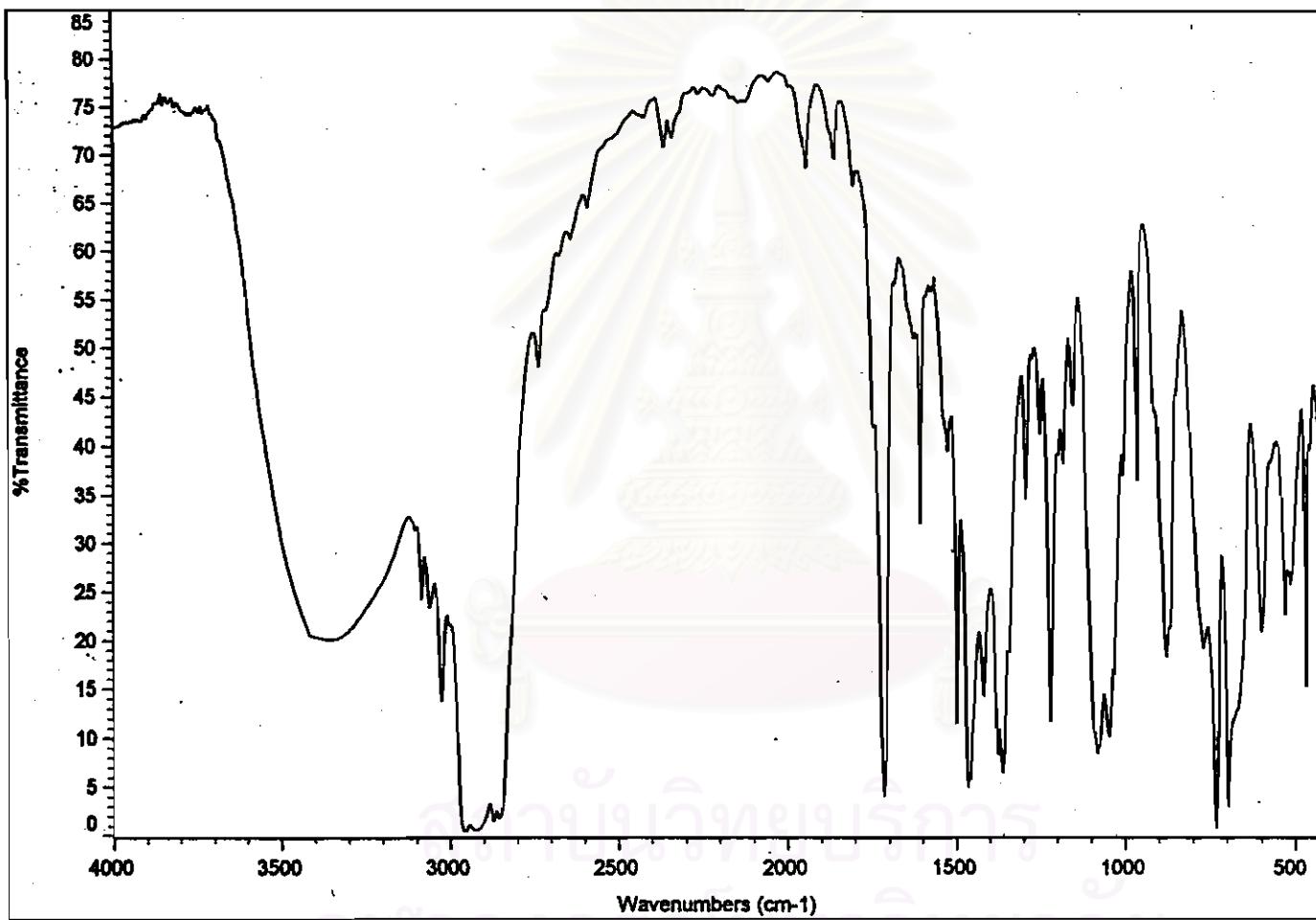


Figure 10 The IR spectrum of compound 3

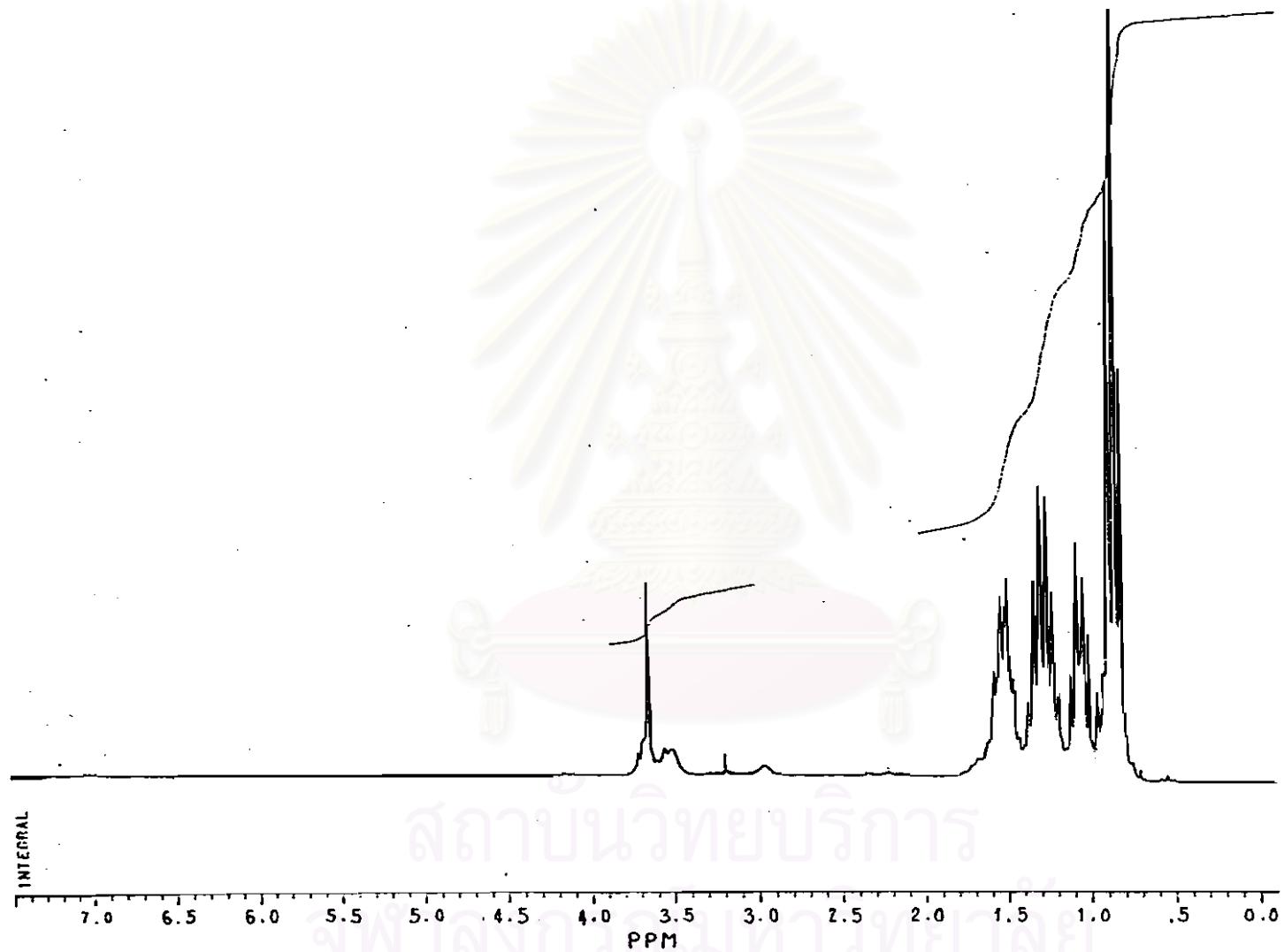


Figure 11 The ^1H NMR spectrum of compound 3

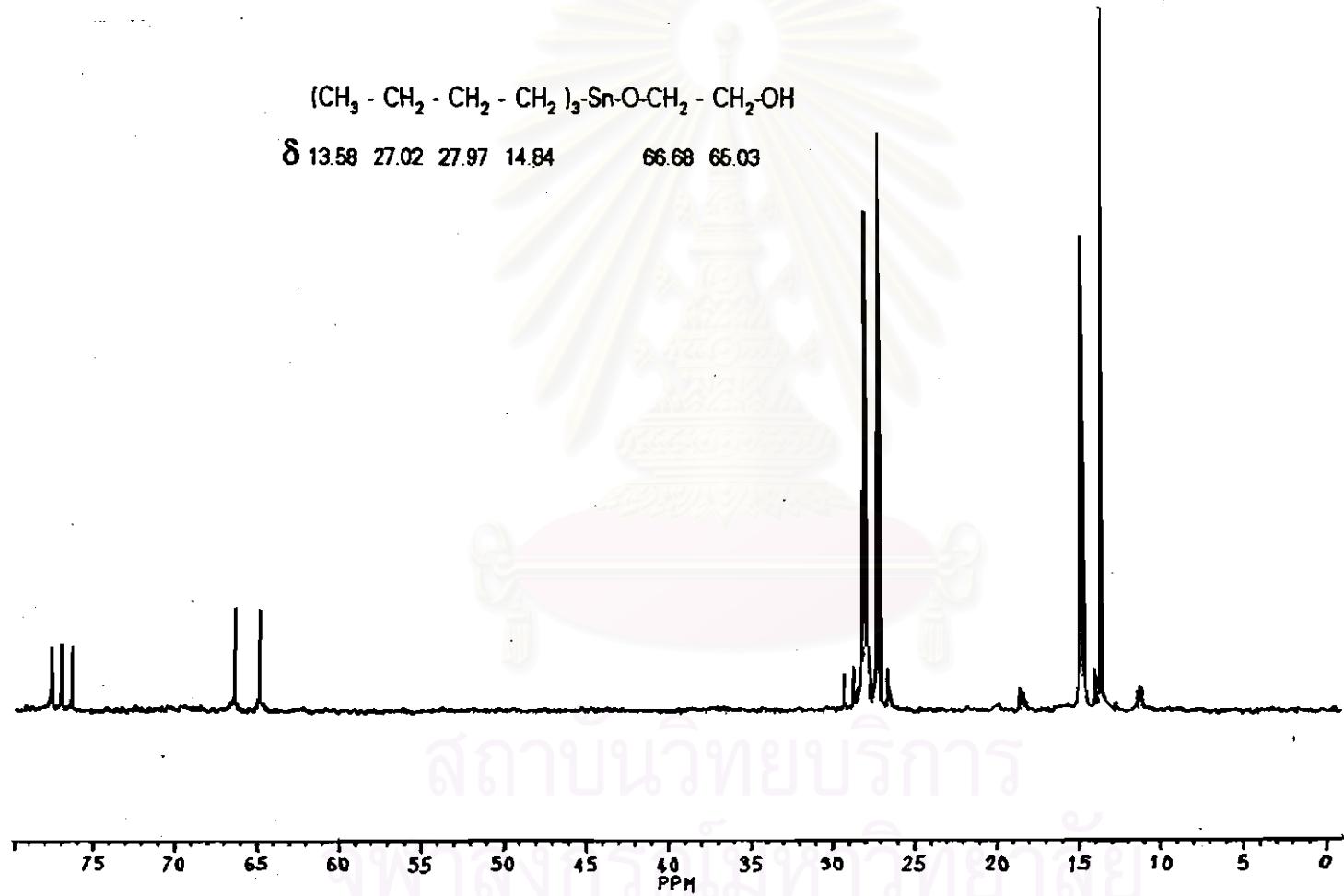


Figure 12 The ^{13}C NMR spectrum of compound 3

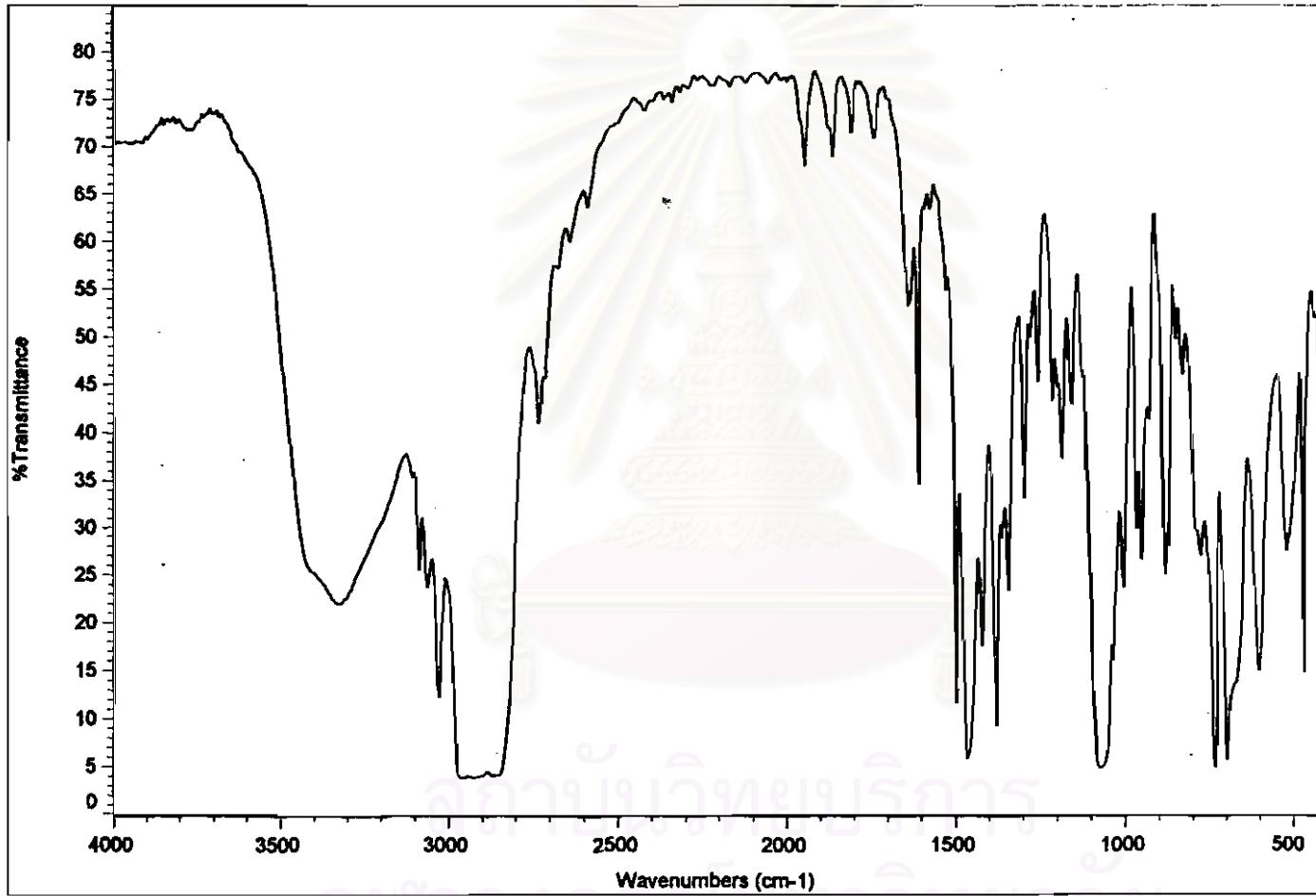


Figure 13 The IR spectrum of compound 4

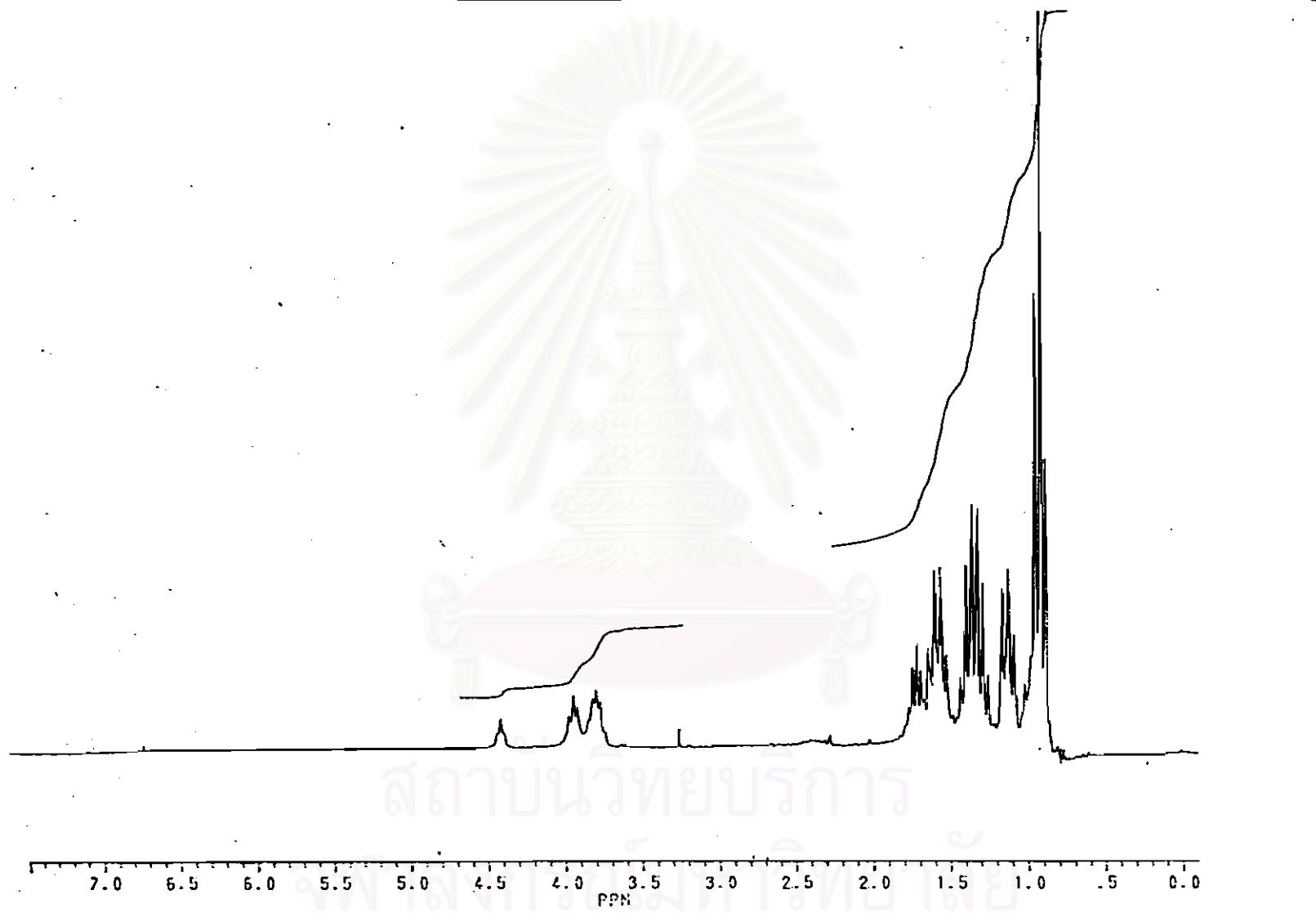


Figure 14 The ^1H NMR spectrum of compound 4

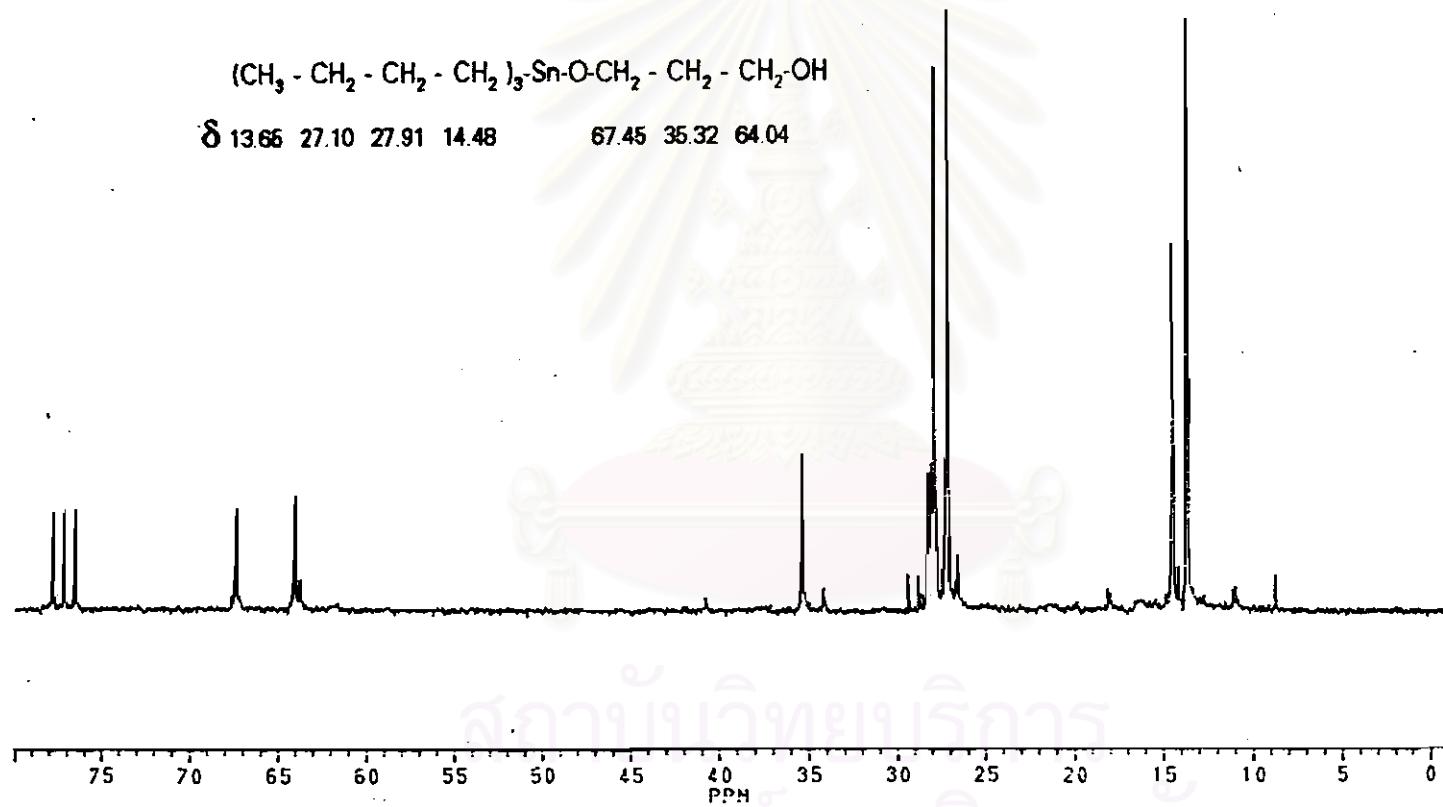


Figure 15 The ^{13}C NMR spectrum of compound 4

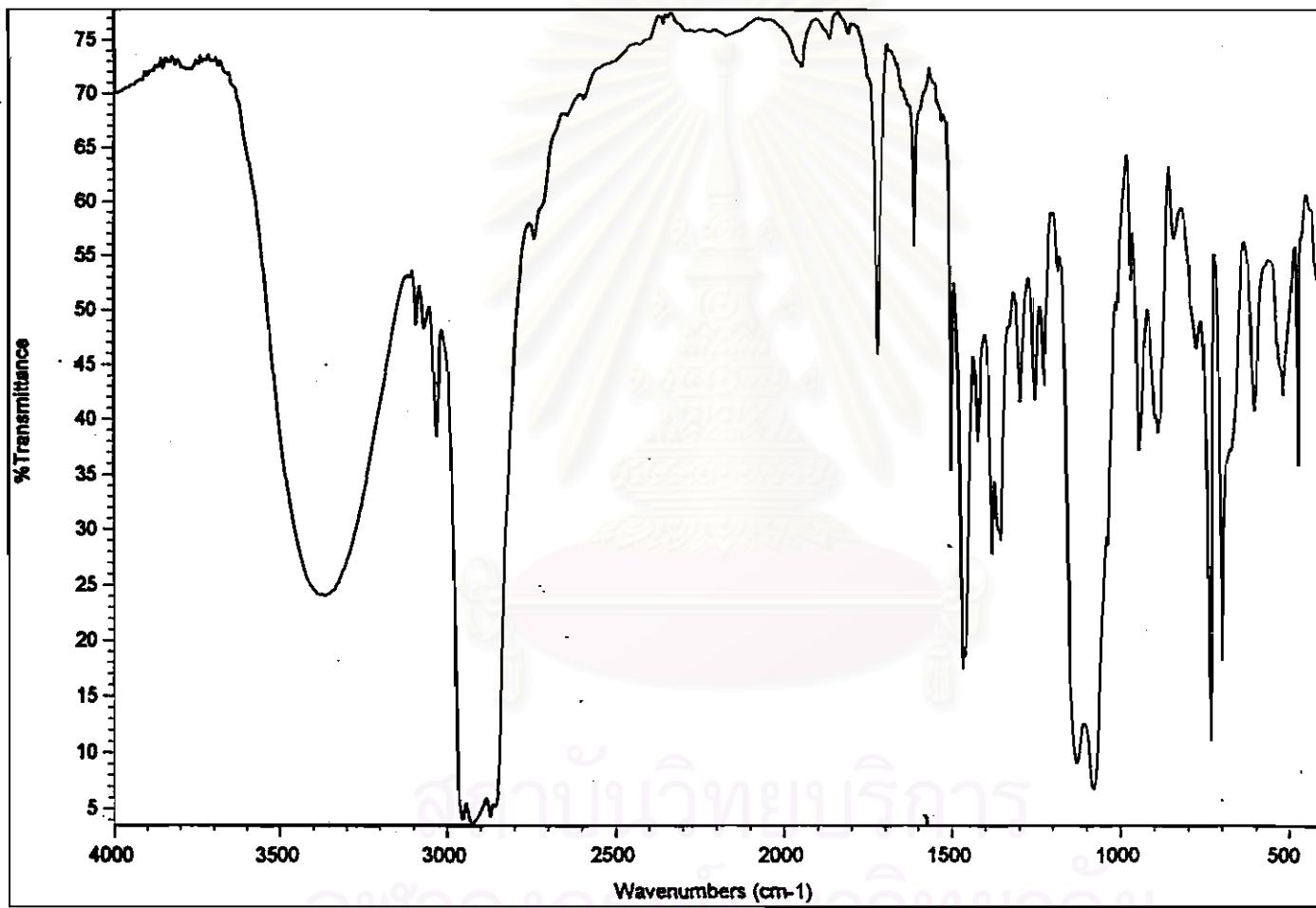


Figure 16 The IR spectrum of compound 5

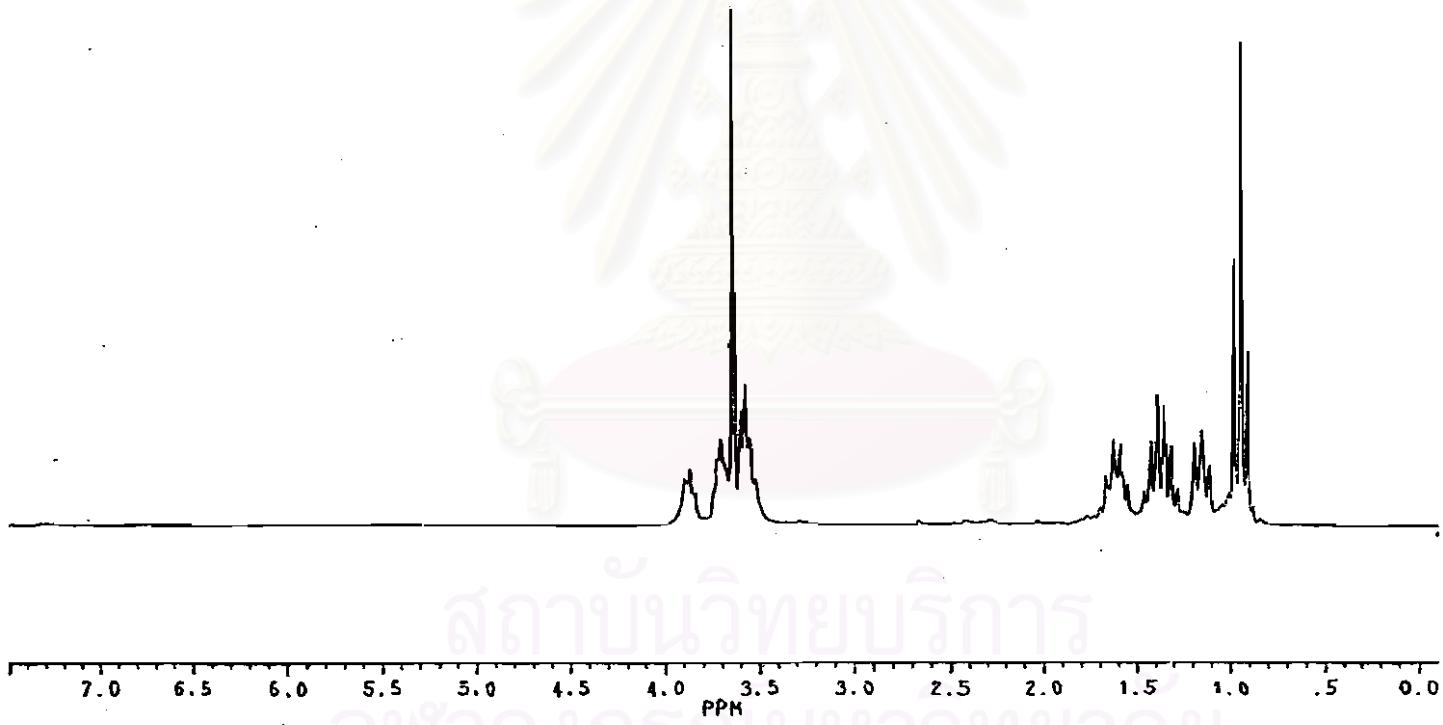
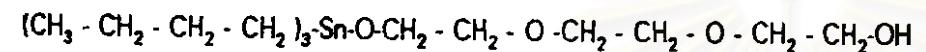


Figure 17 The ^1H NMR spectrum of compound 5



δ 13.91 27.21 28.01 15.04 65.49 74.95 70.78 70.78 72.91 61.57

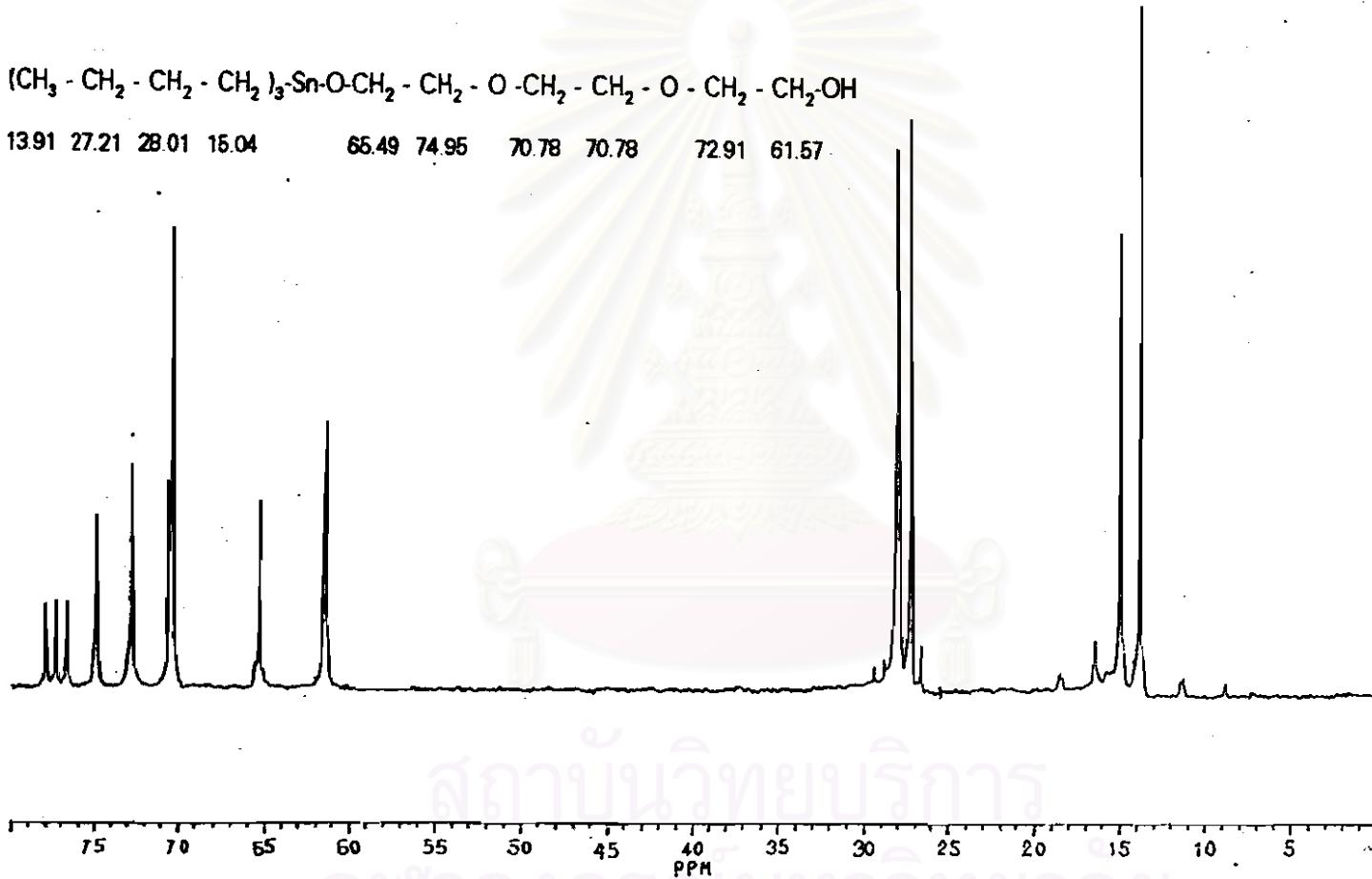


Figure 18 The ^{13}C NMR spectrum of compound 5

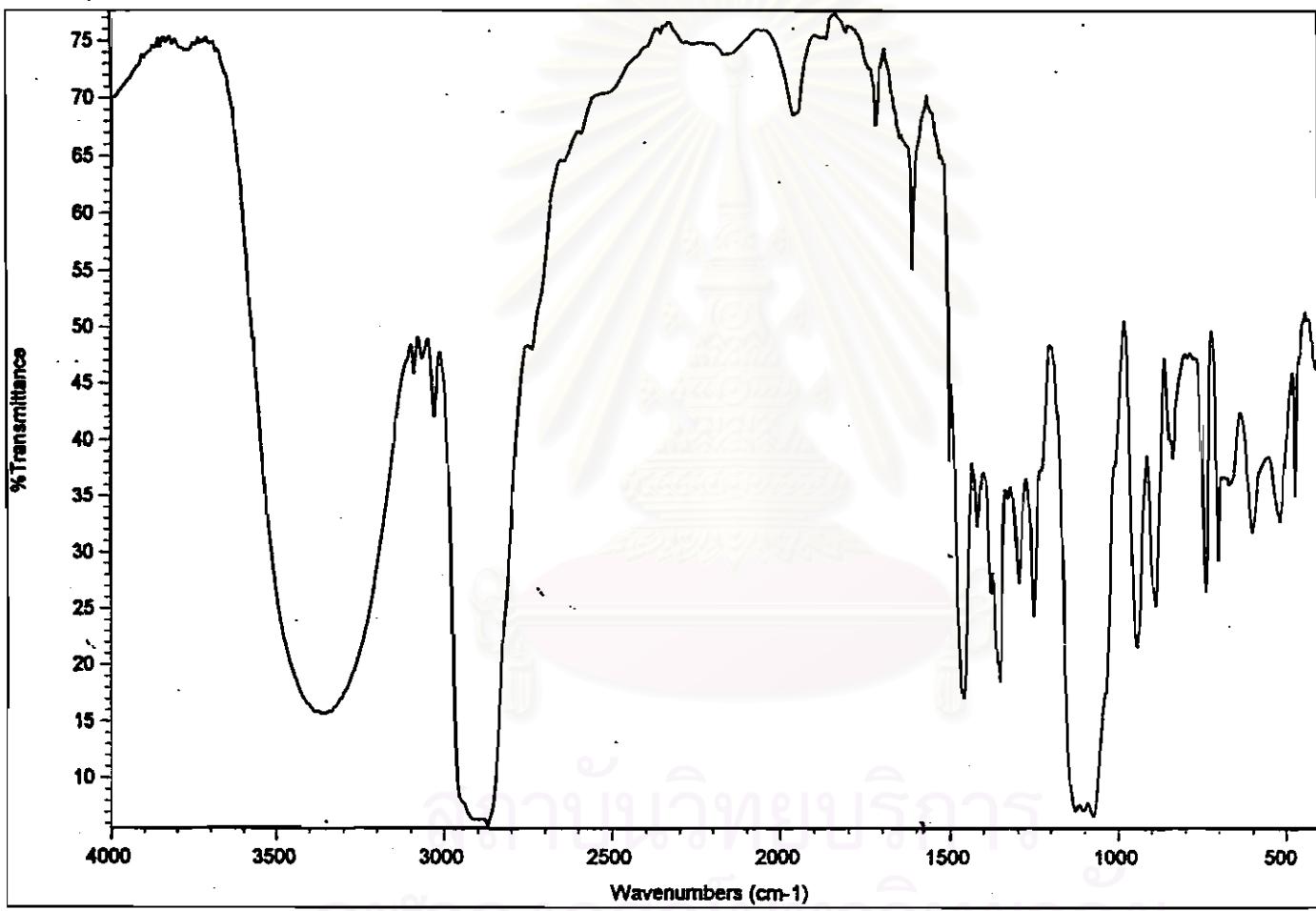


Figure 19 The IR spectrum of compound 6

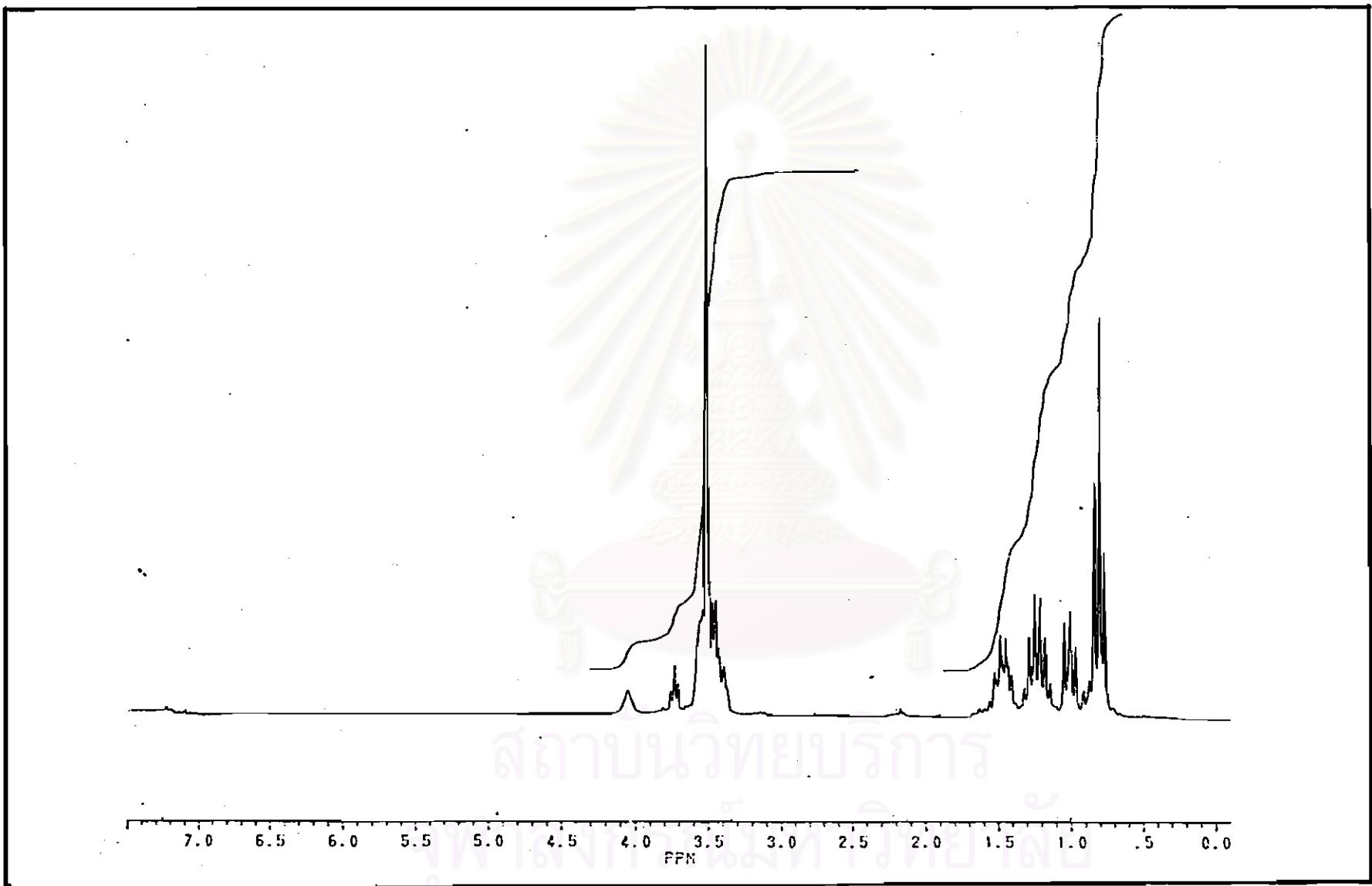


Figure 20 The ^1H NMR spectrum of compound 6

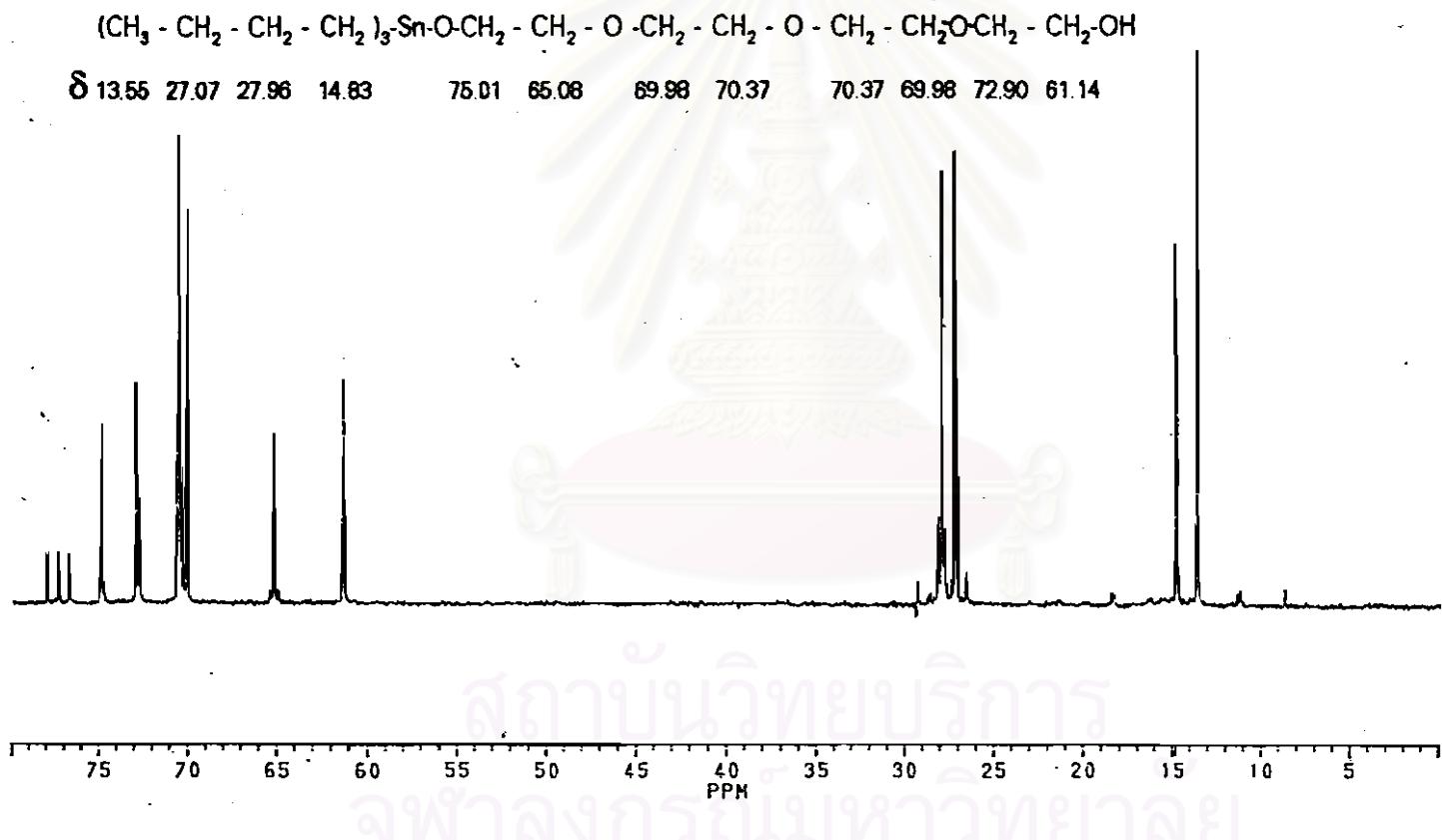


Figure 21 The ^{13}C NMR spectrum of compound 6

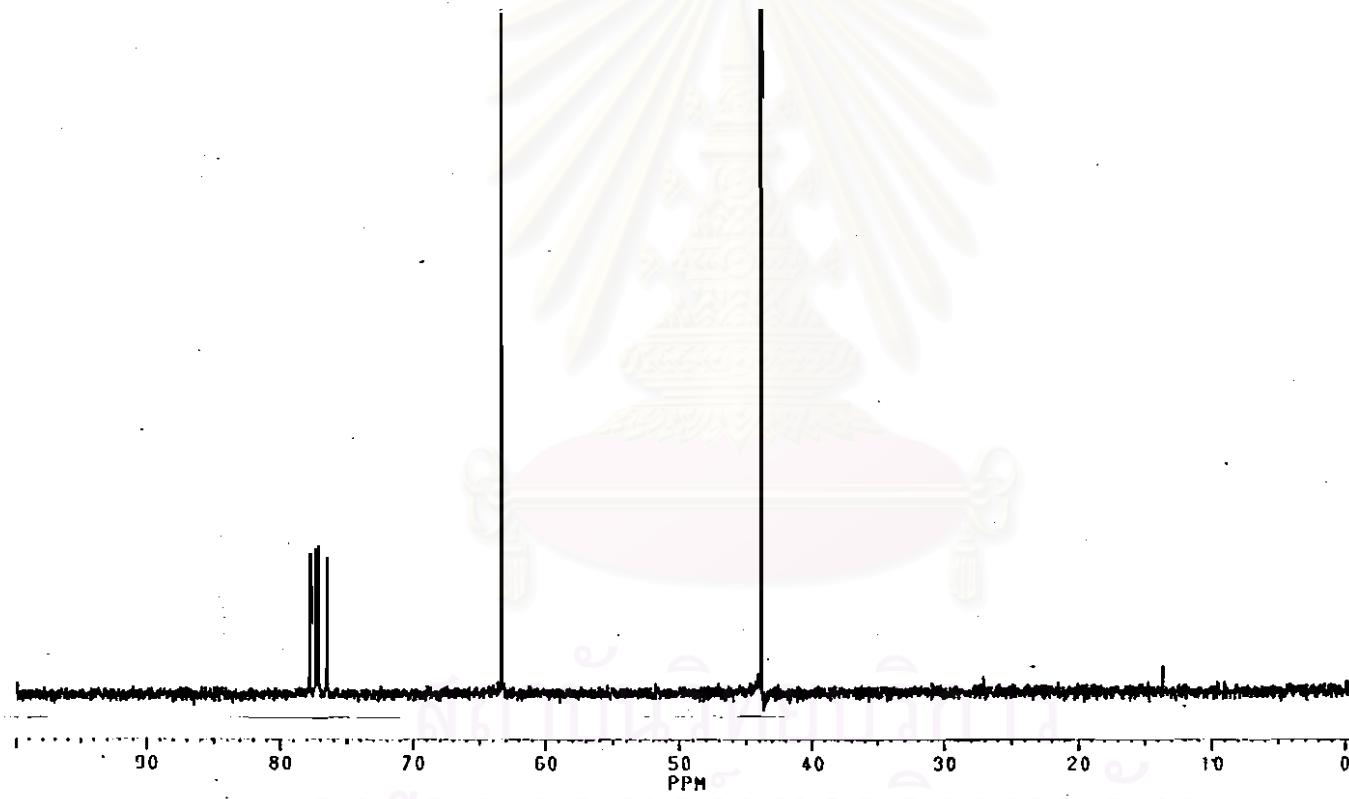


Figure 22 The ^{13}C NMR spectrum of Monoethanolamine

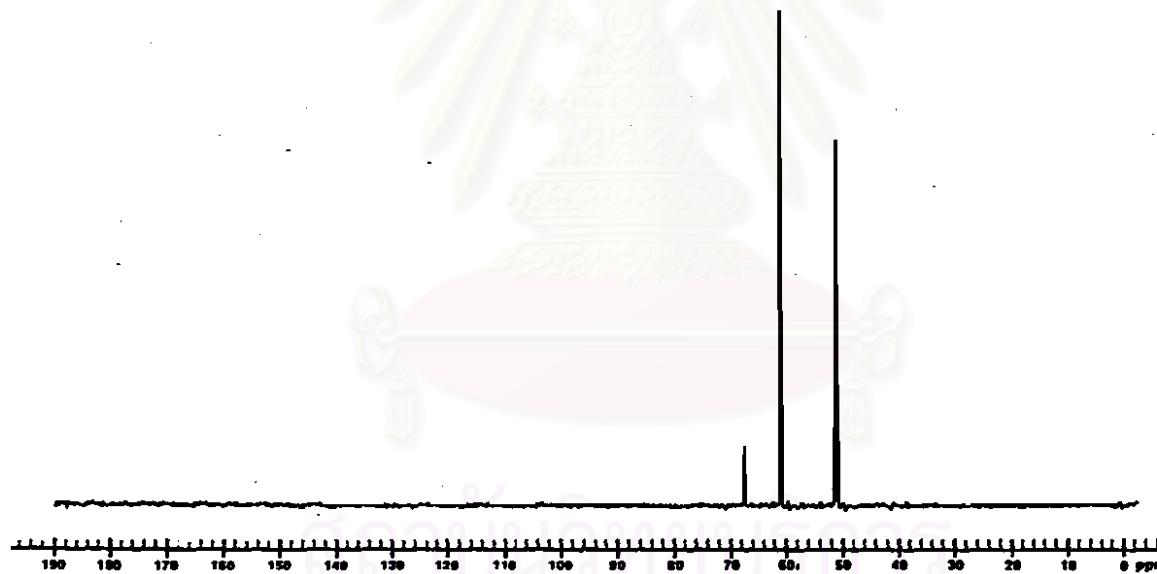


Figure 23 The ^{13}C NMR spectrum of Diethanolamine

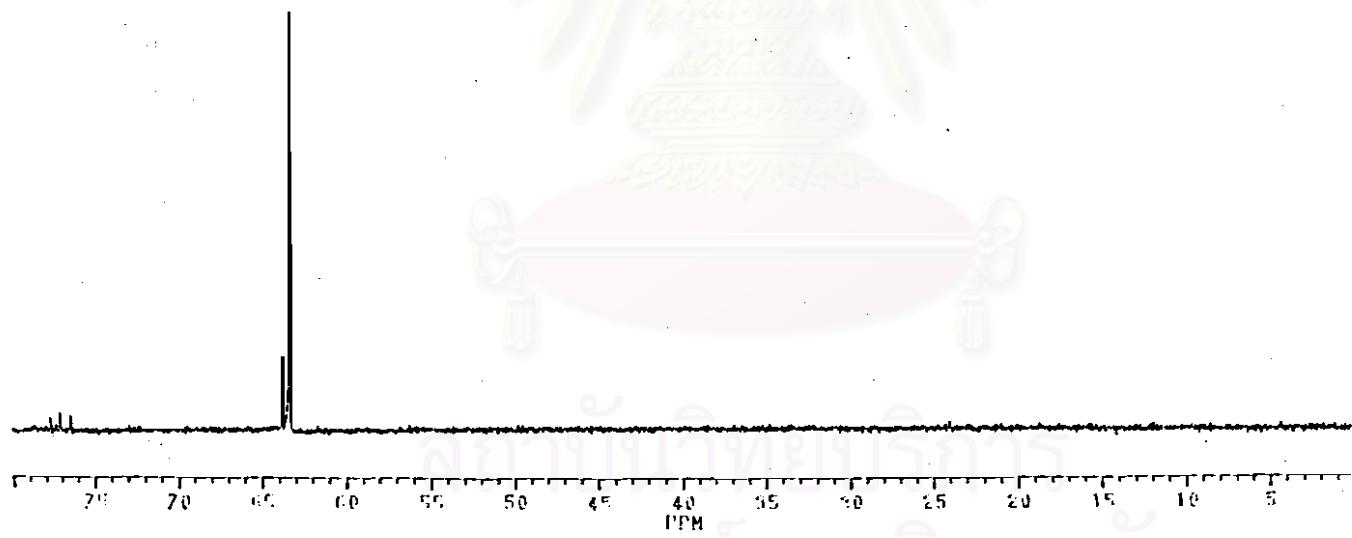


Figure 24 The ^{13}C NMR spectrum of Ethylene glycol

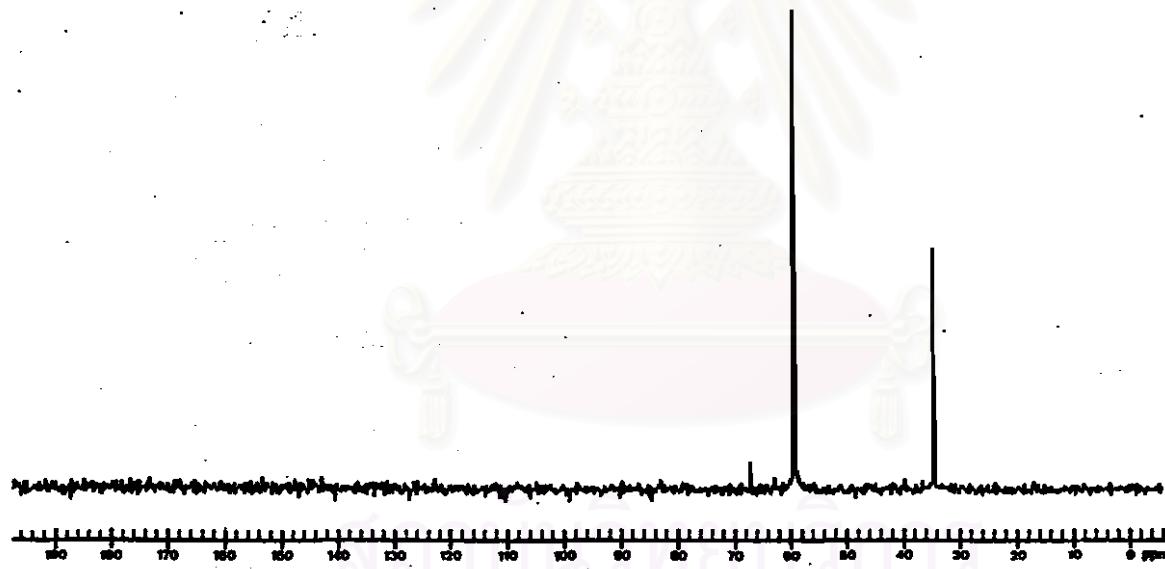


Figure 25 The ^{13}C NMR spectrum of Propylene glycol

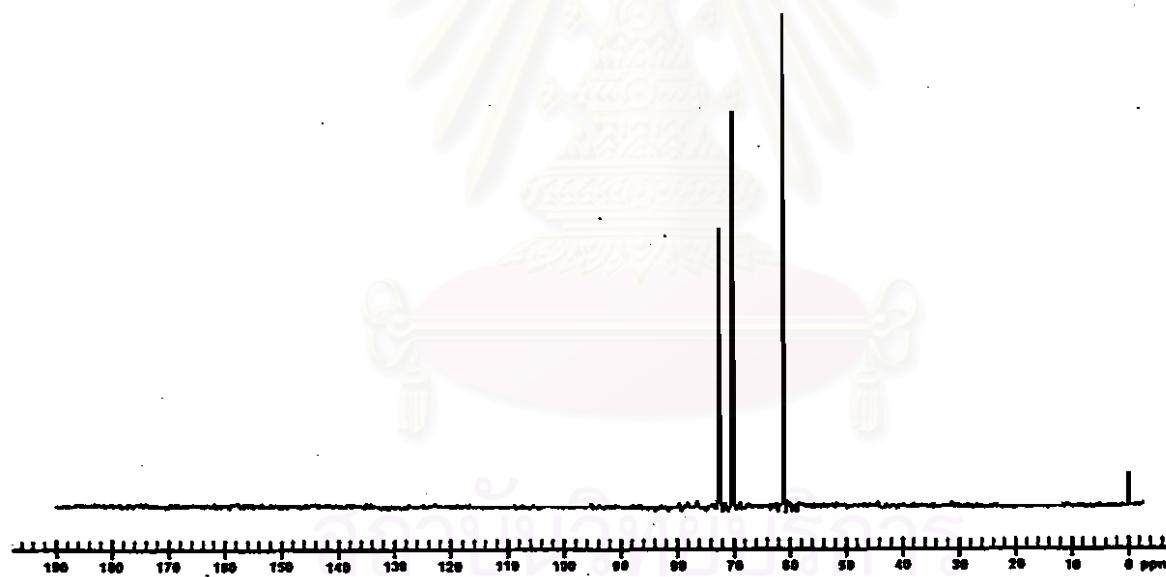


Figure 26 The ^{13}C NMR spectrum of Triethylene glycol

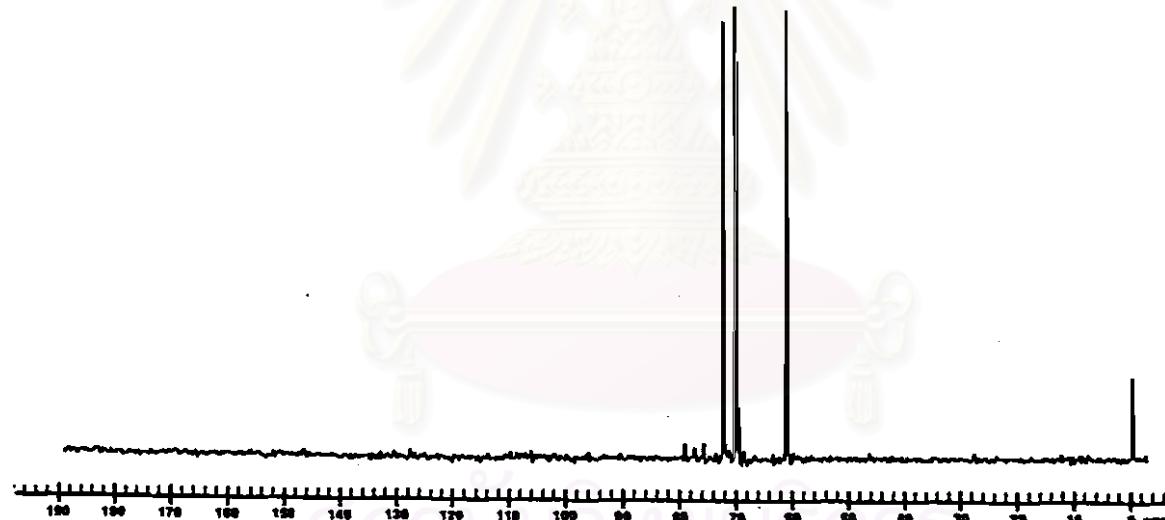


Figure 27 The ^{13}C NMR spectrum of Tetraethylene glycol

VITA

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