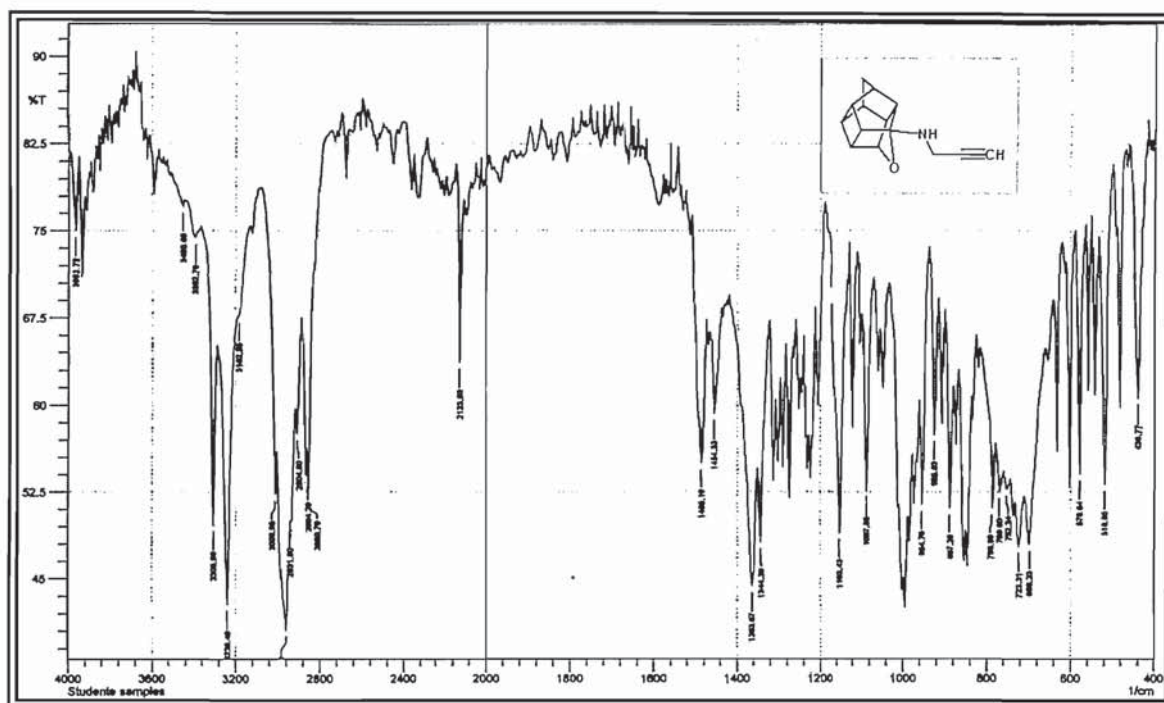


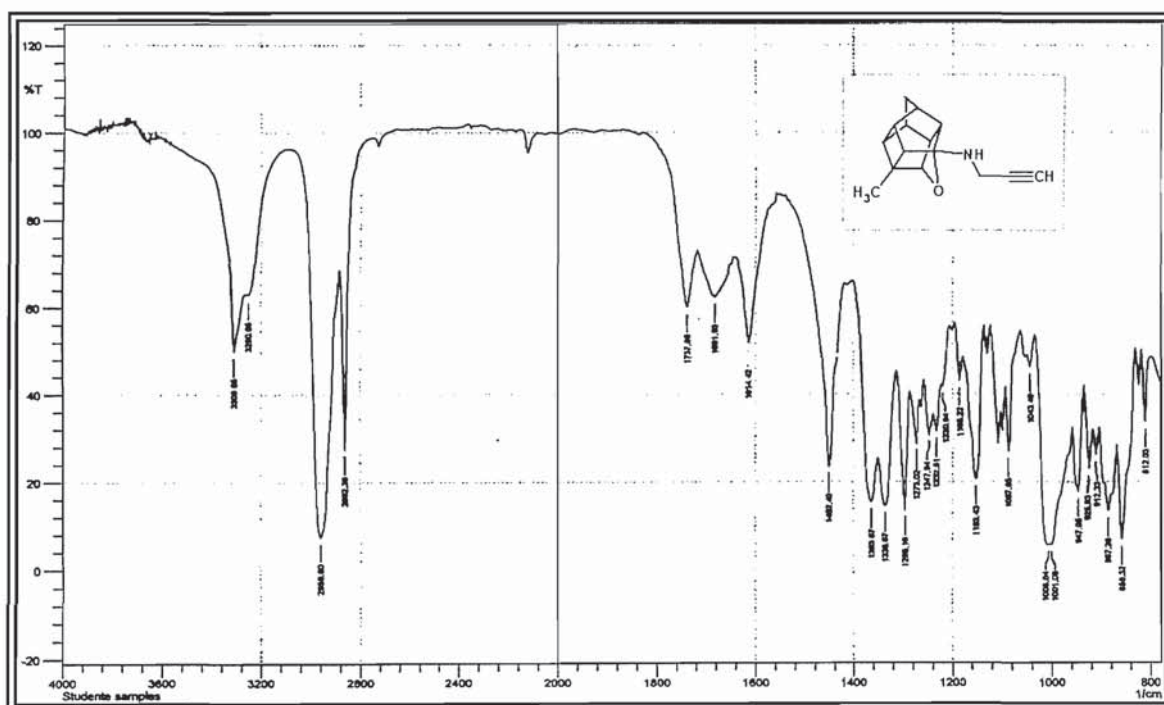
APPENDIX I

**SPECTRAL DATA:
INFRARED, MASS SPECTROMETRY,
AND
NUCLEAR MAGNETIC RESONANCE**

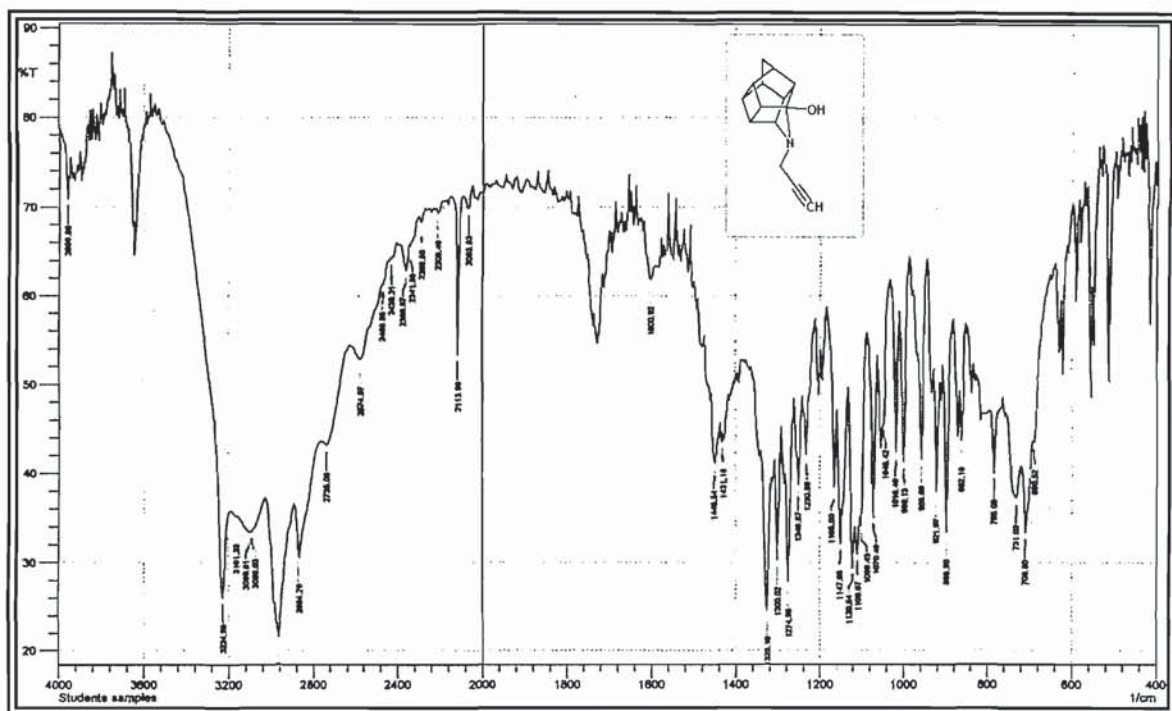
INFRARED



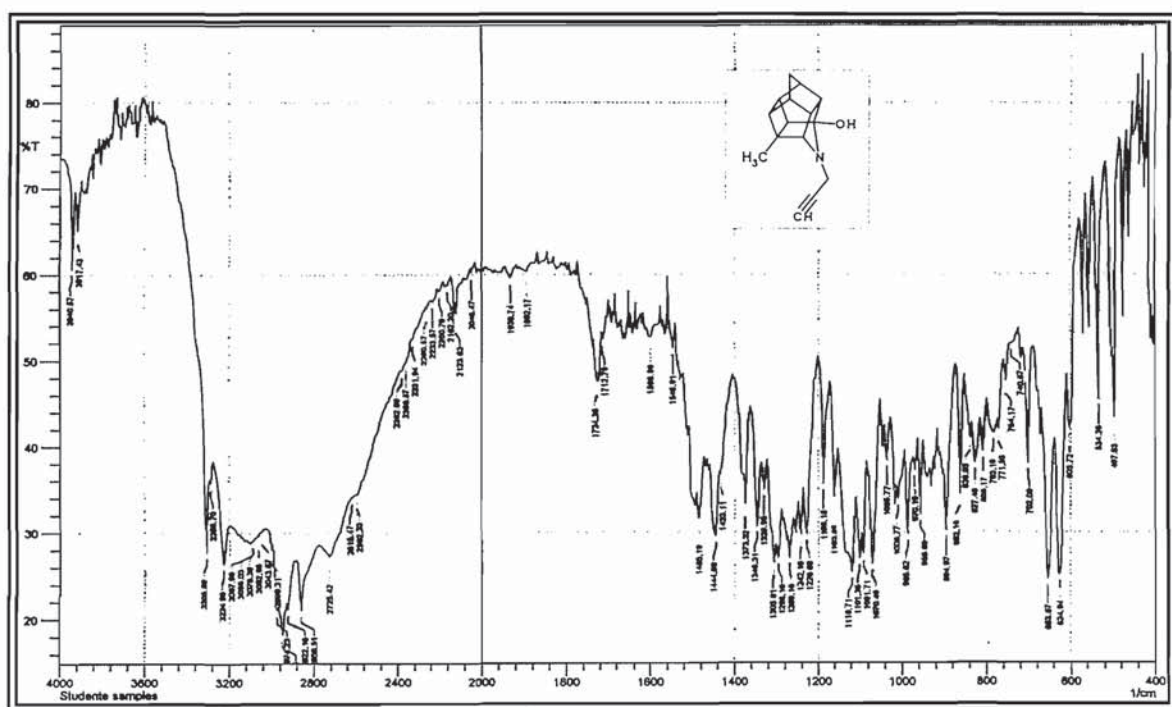
Spectrum 3



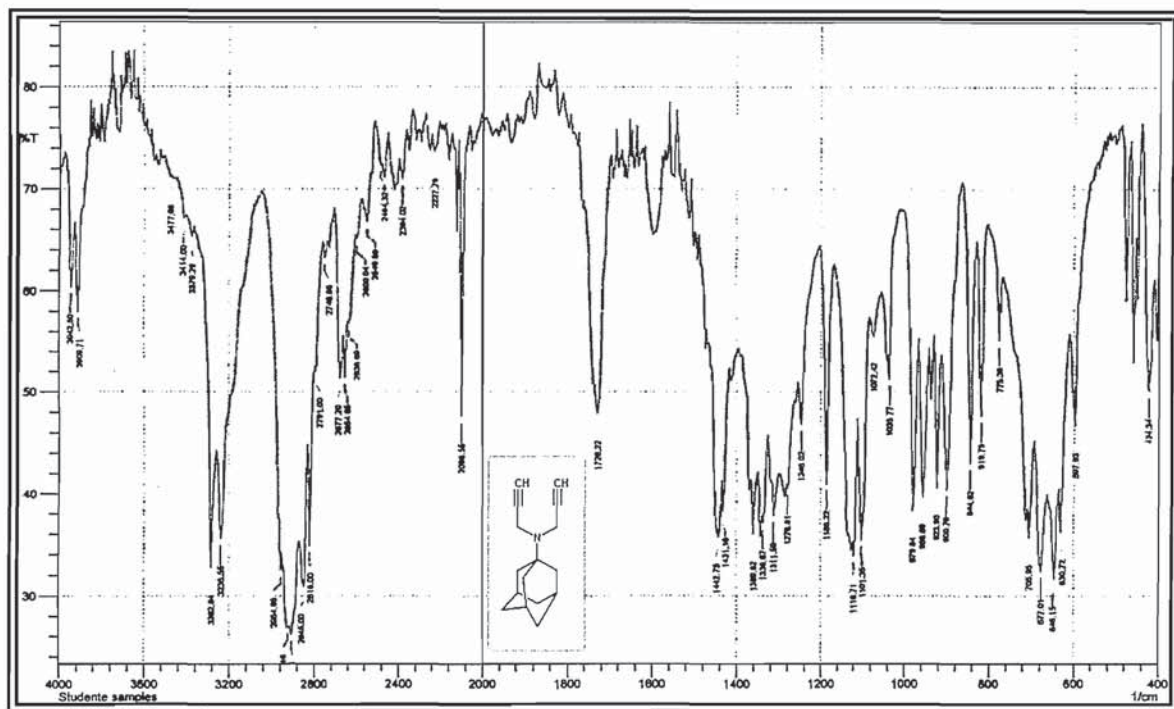
Spectrum 4



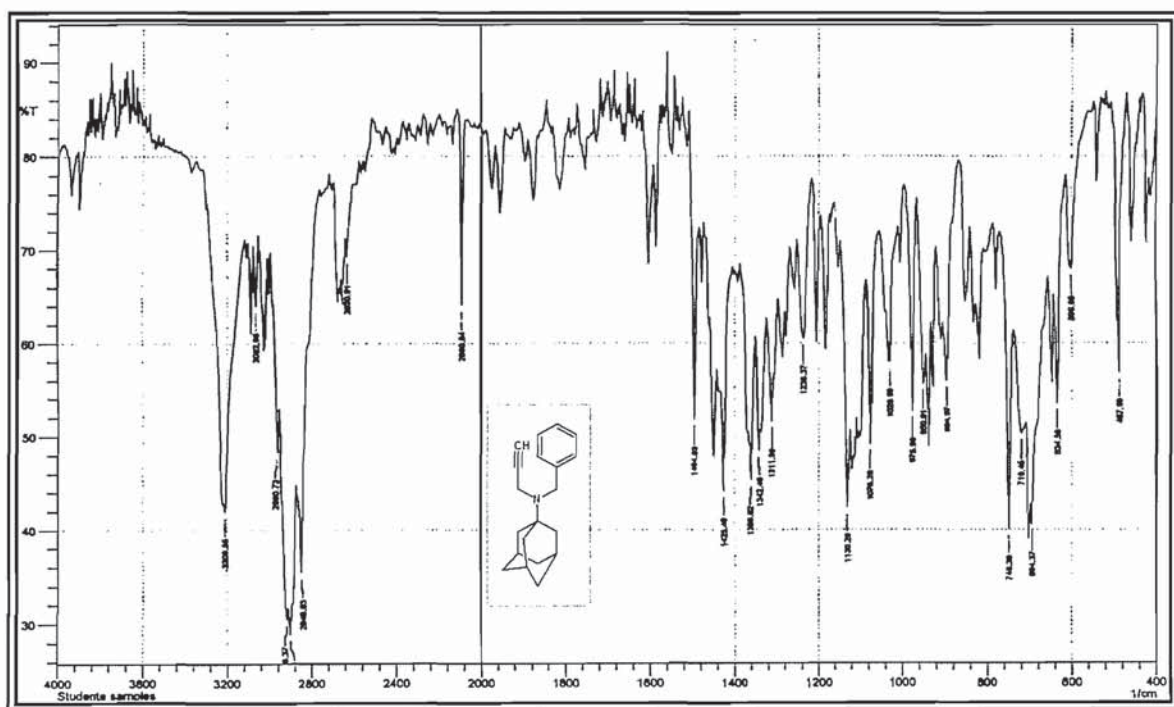
Spectrum 5



Spectrum 6

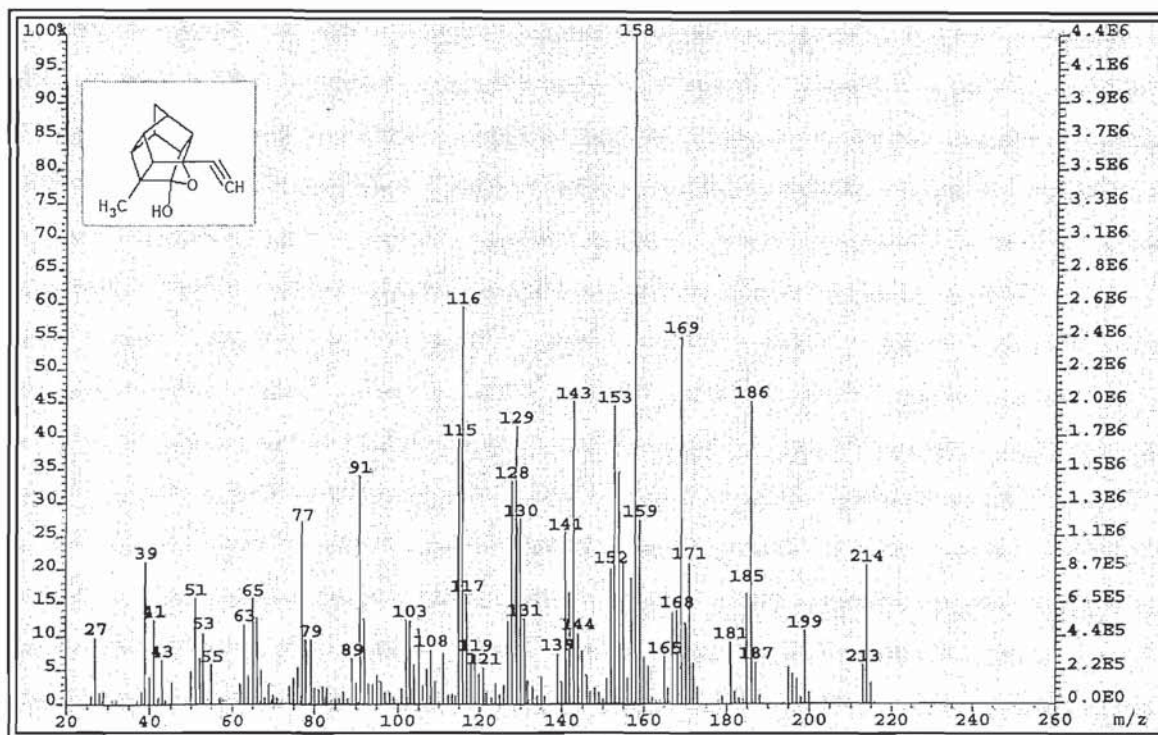


Spectrum 7

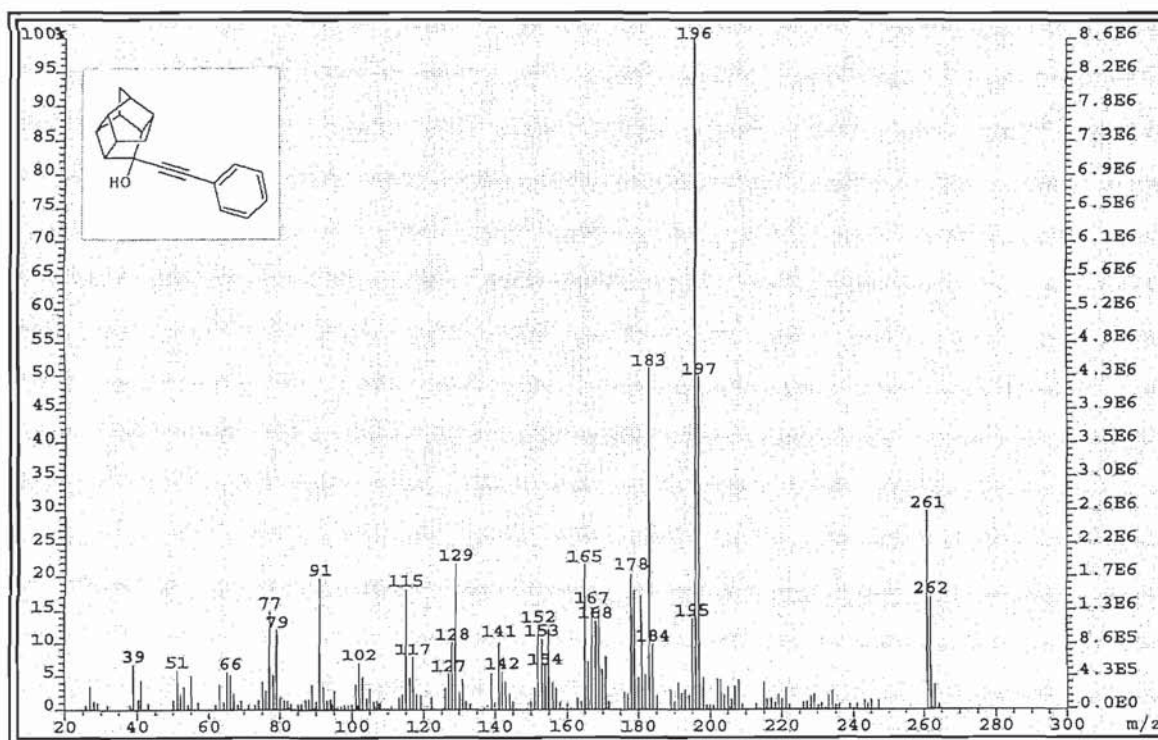


Spectrum 8

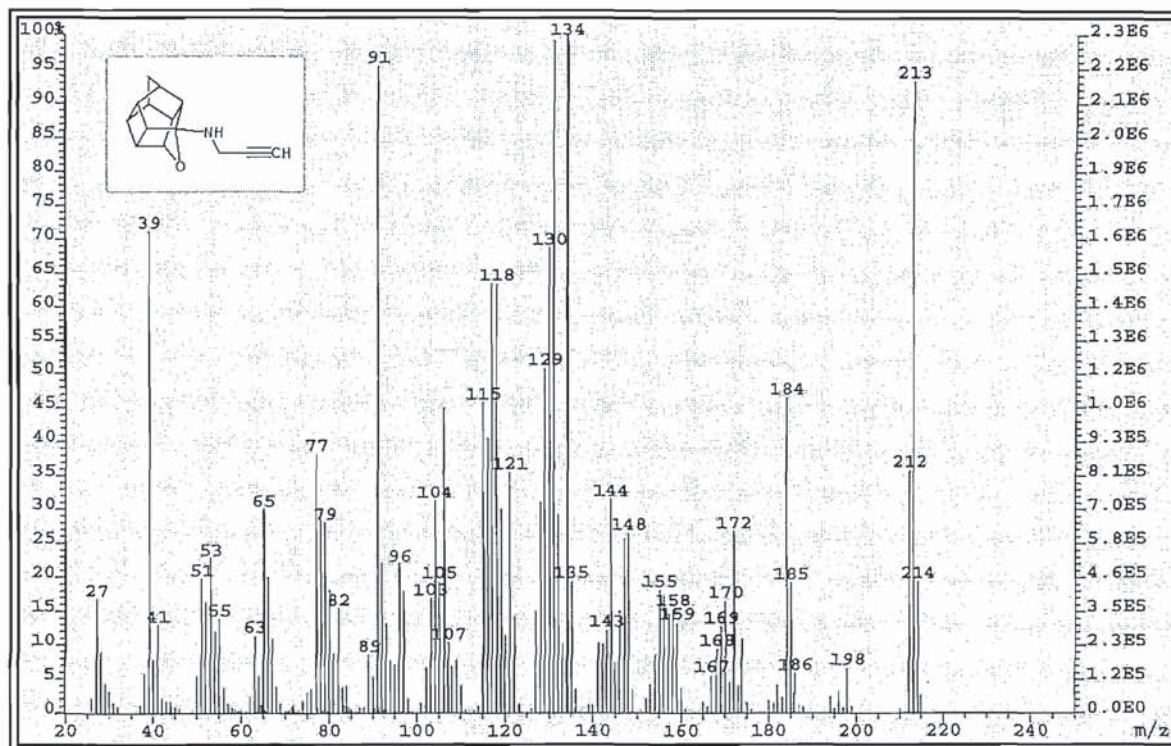
MASS SPECTROMETRY



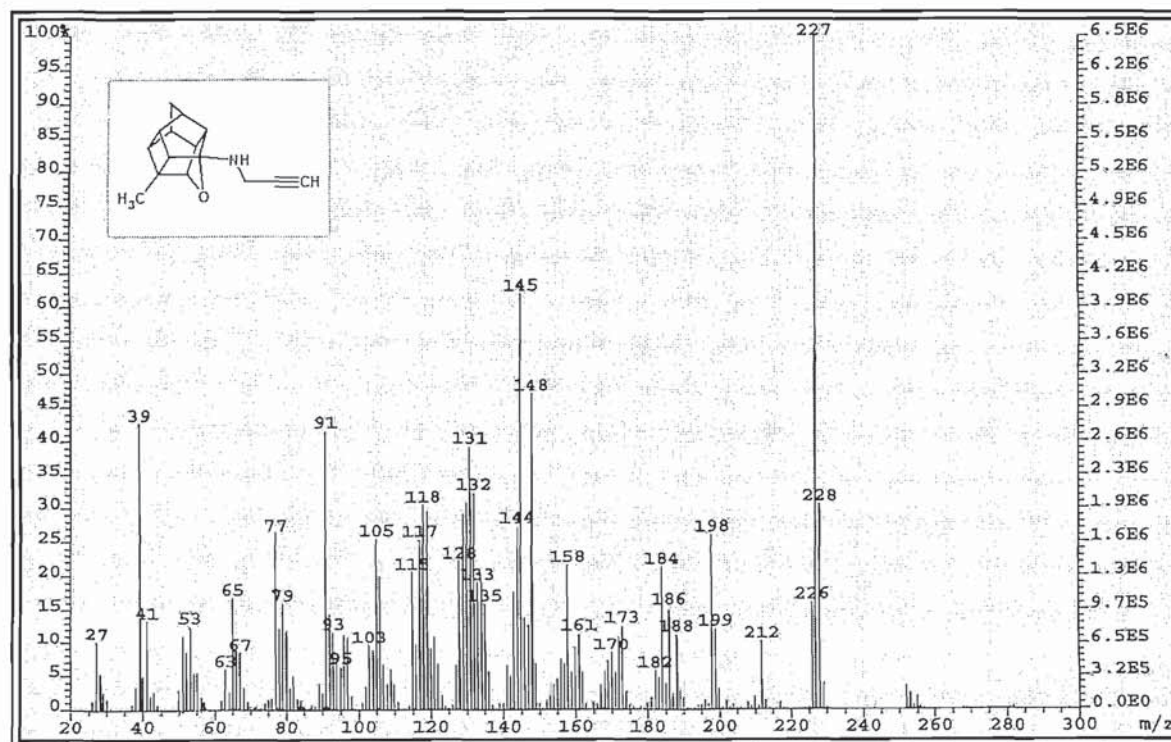
Spectrum 9



Spectrum 10

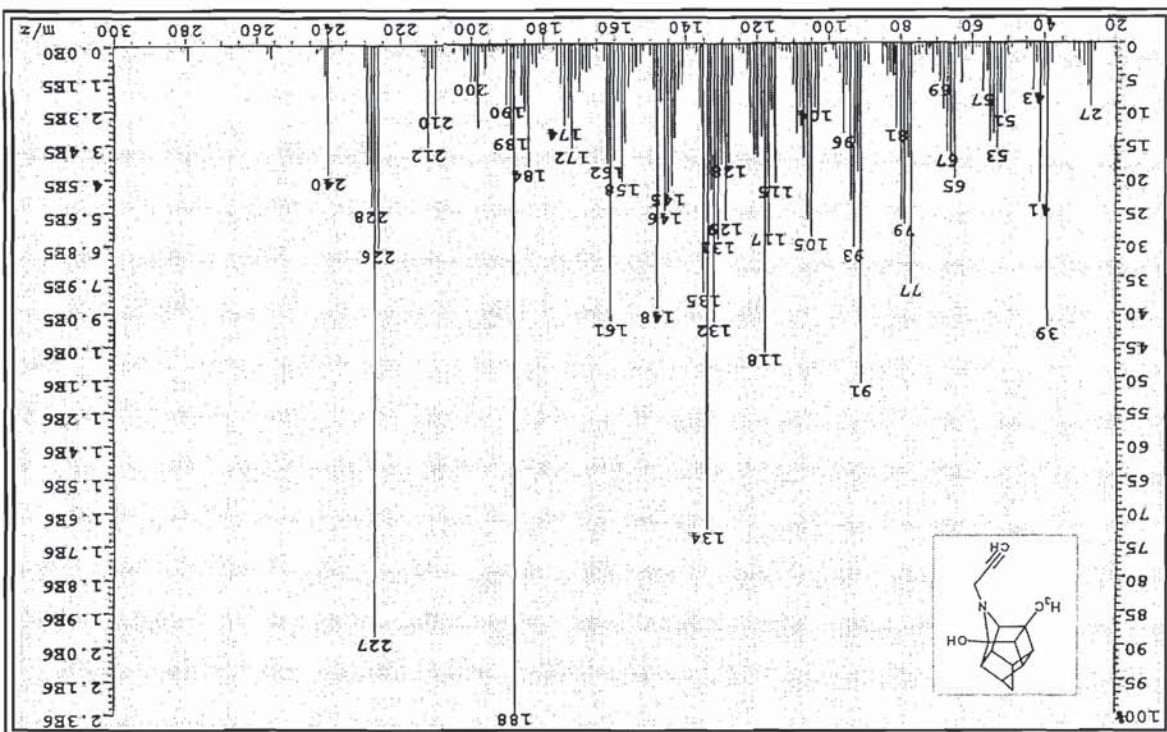


Spectrum 11

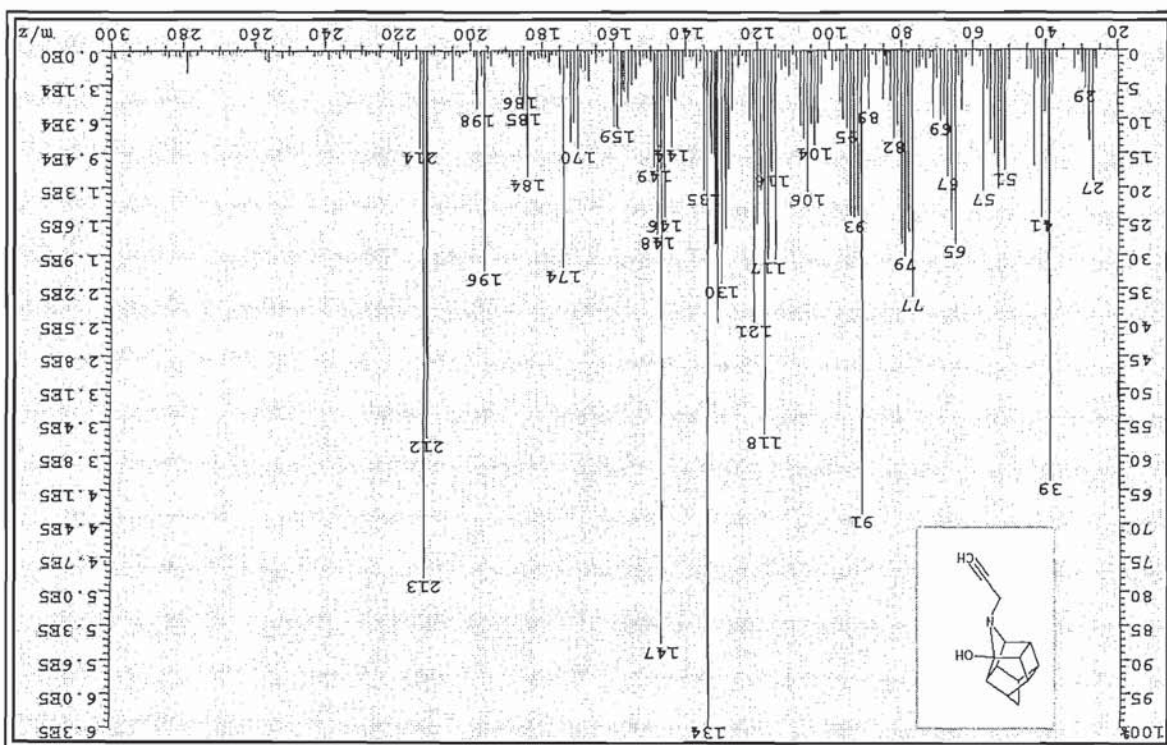


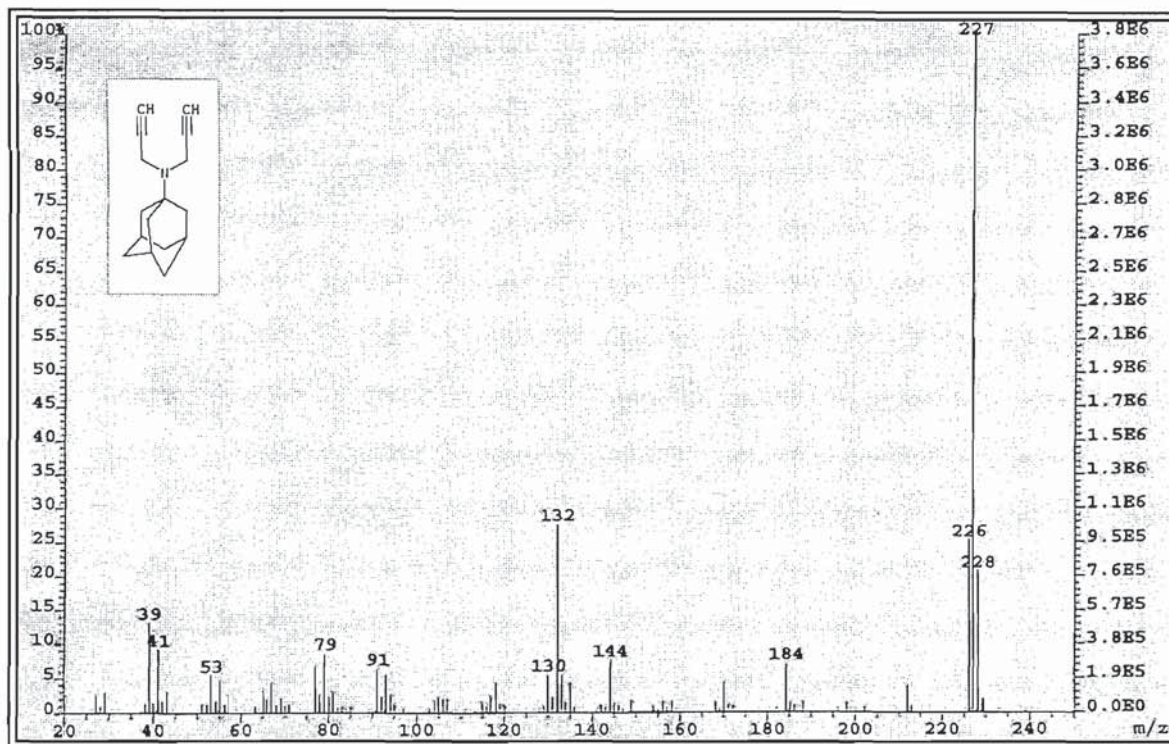
Spectrum 12

Spectrum 14

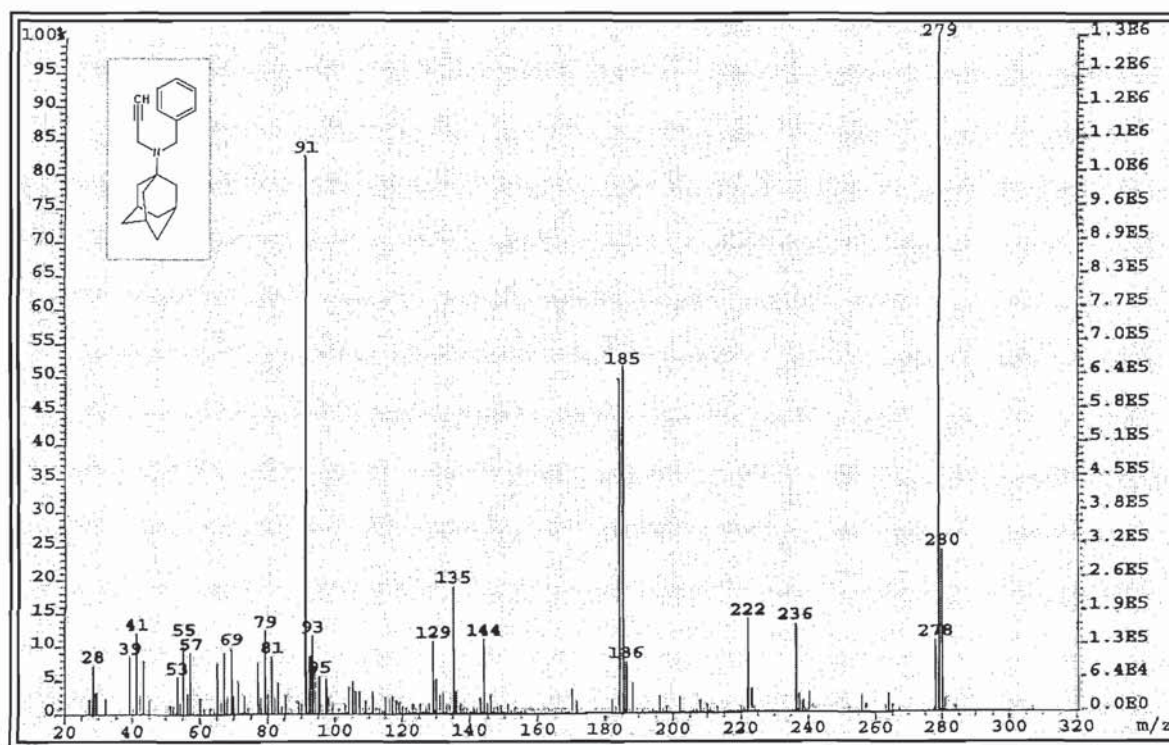


Spectrum 13



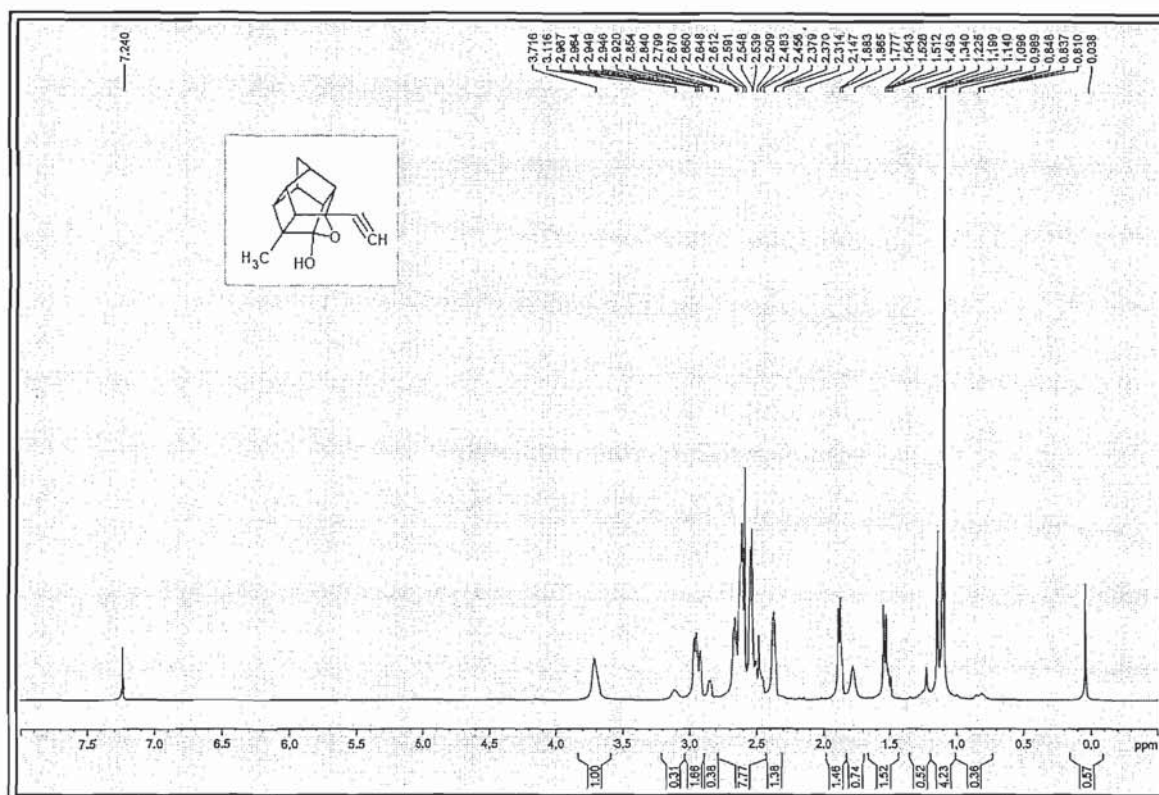


Spectrum 15

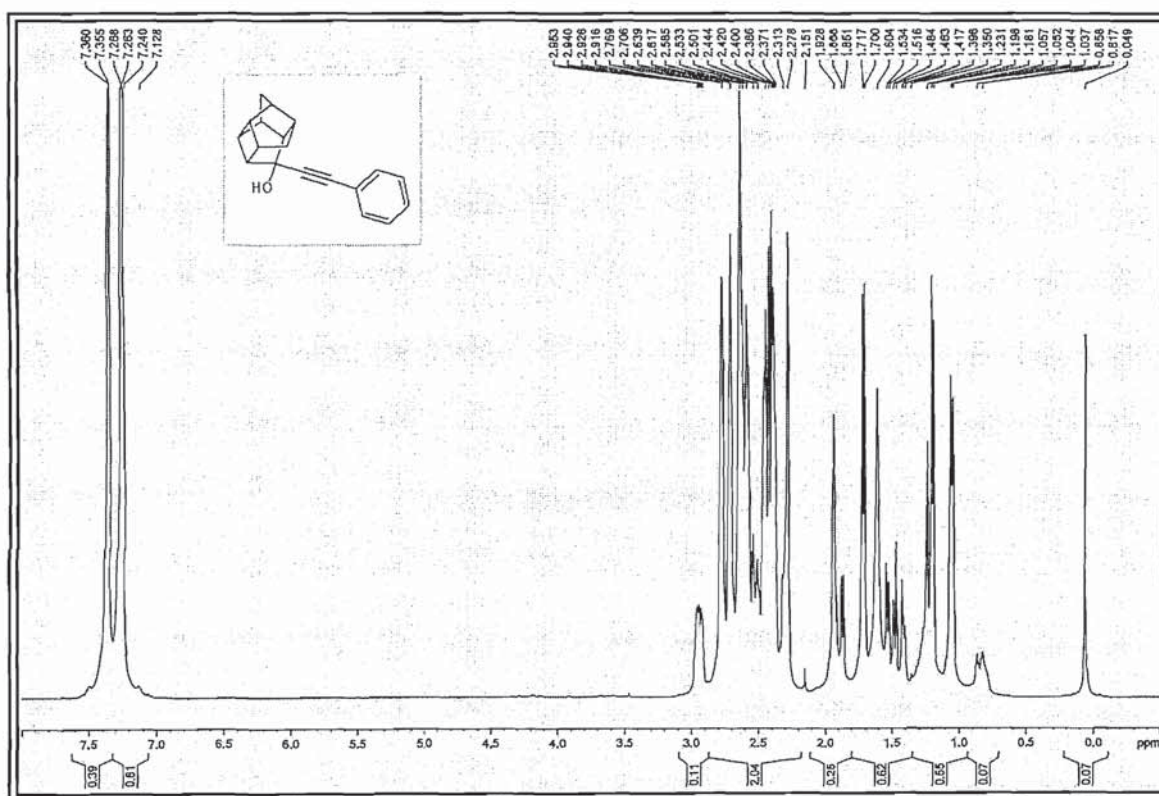


Spectrum 16

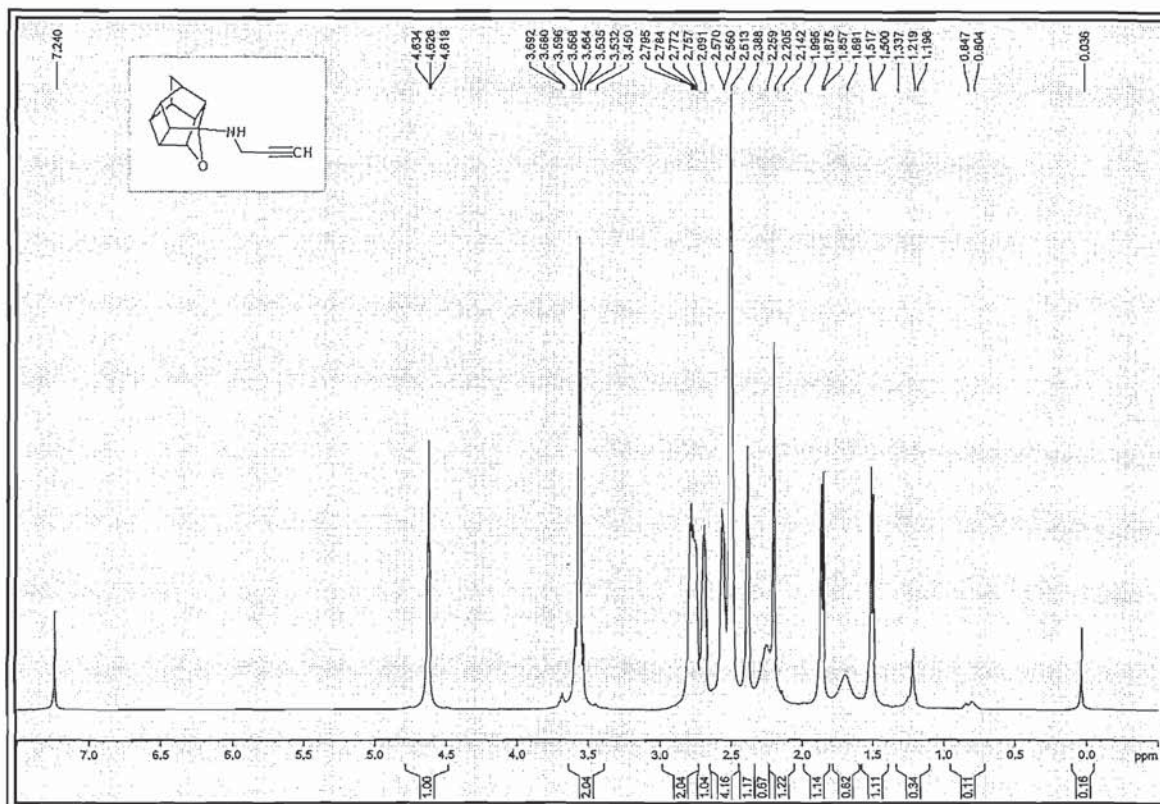
^1H
NUCLEAR MAGNETIC RESONANCE



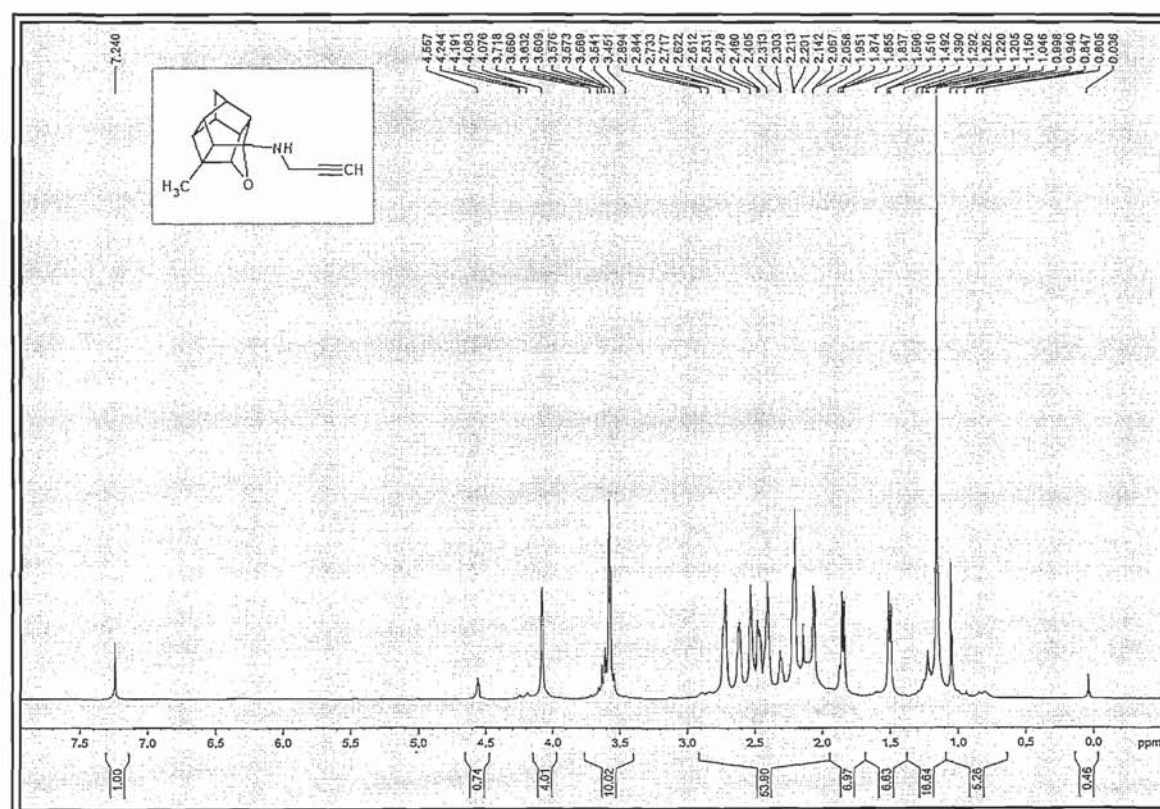
Spectrum 17



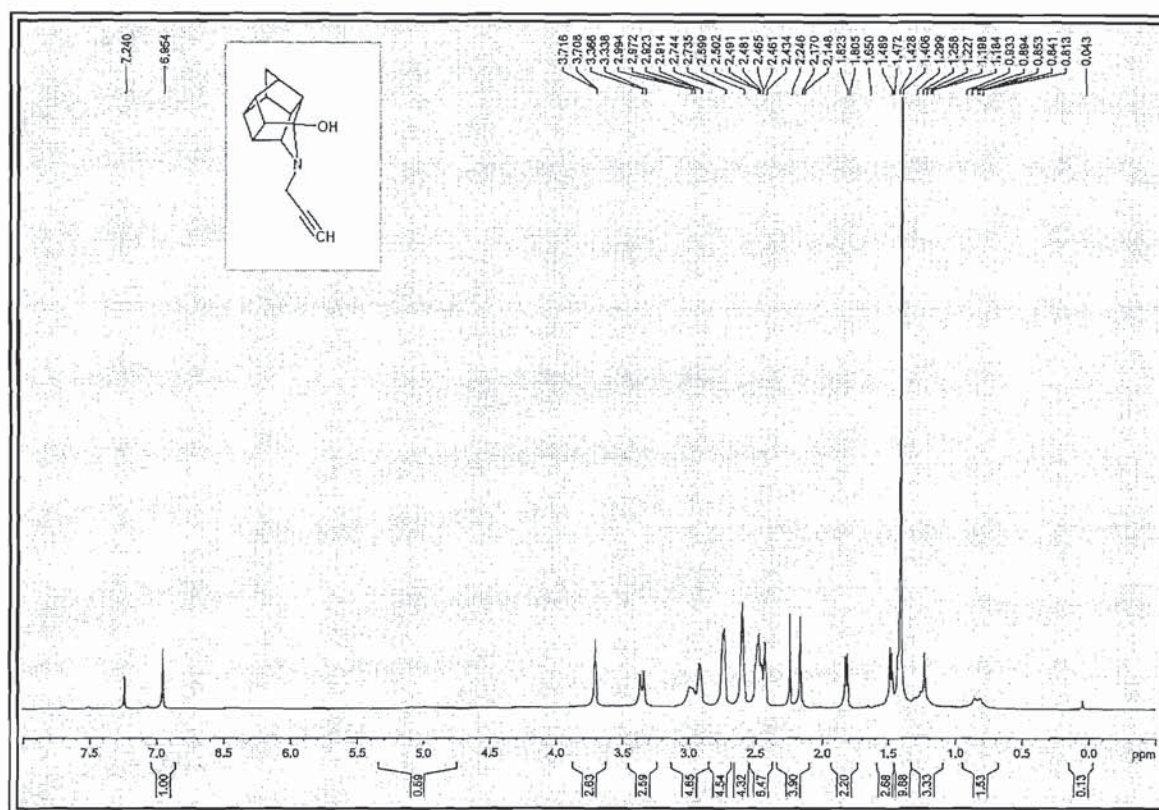
Spectrum 18



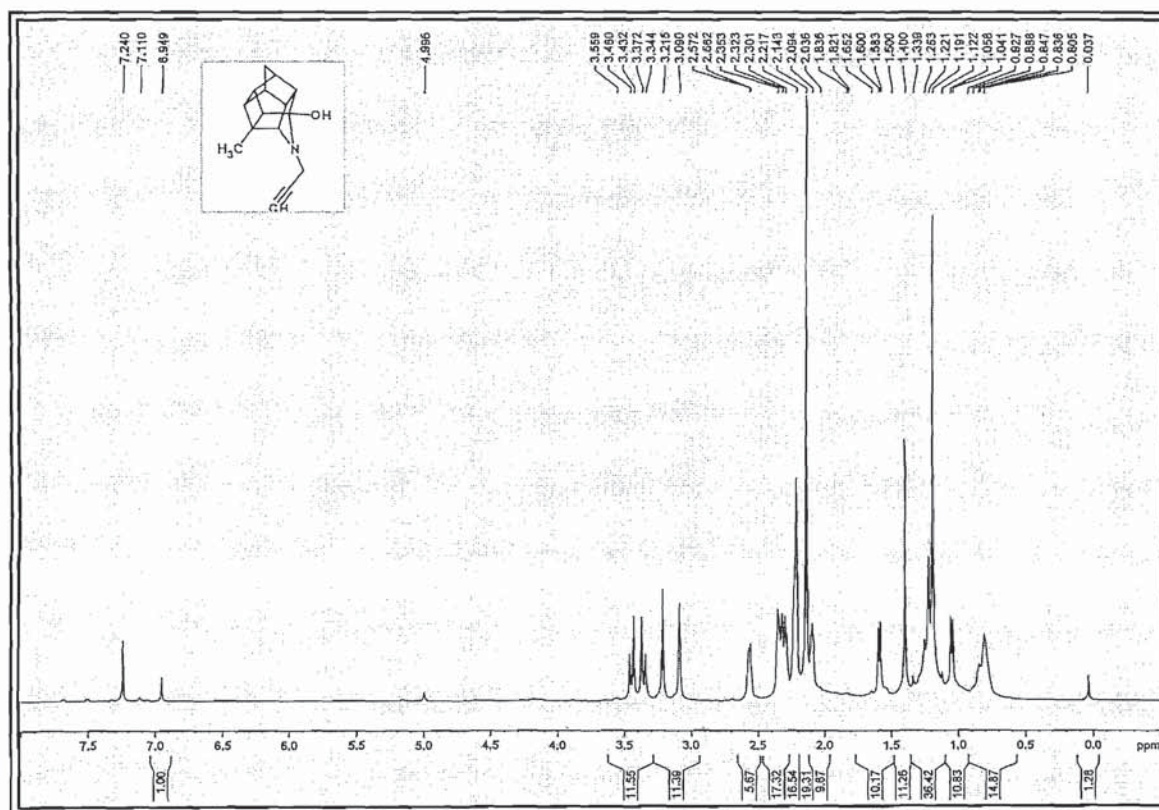
Spectrum 19



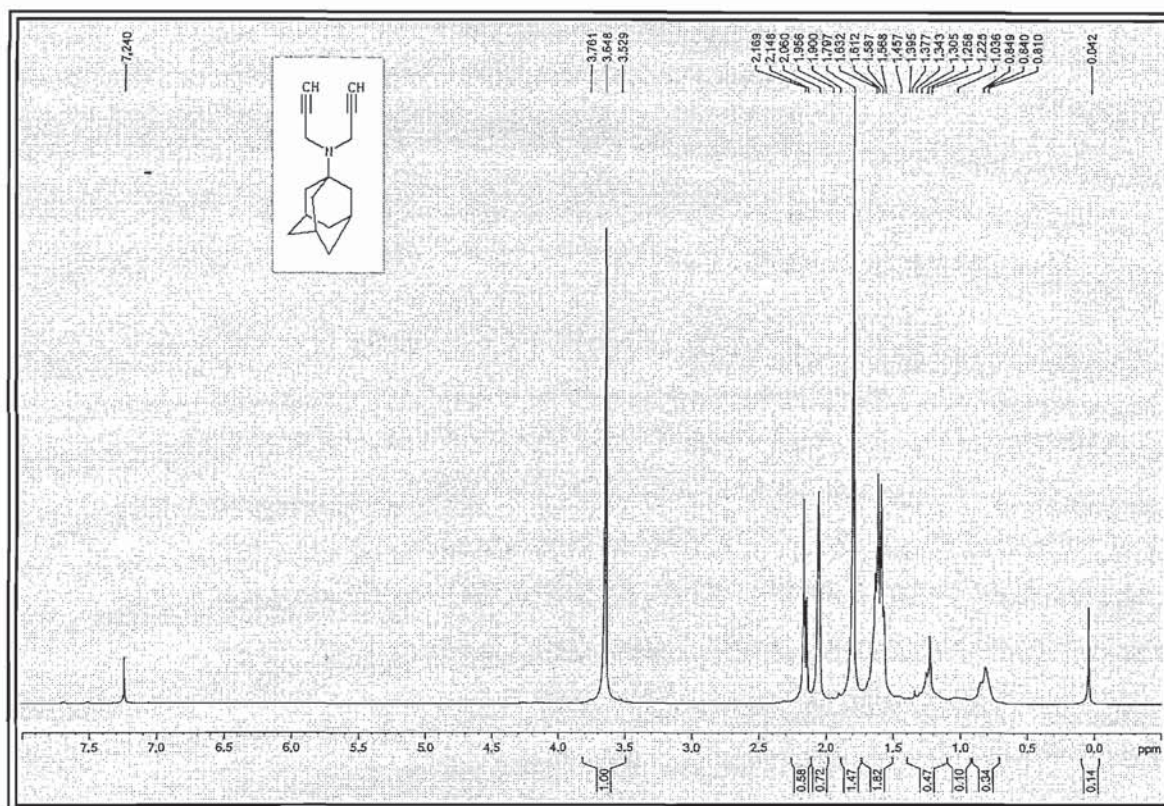
Spectrum 20



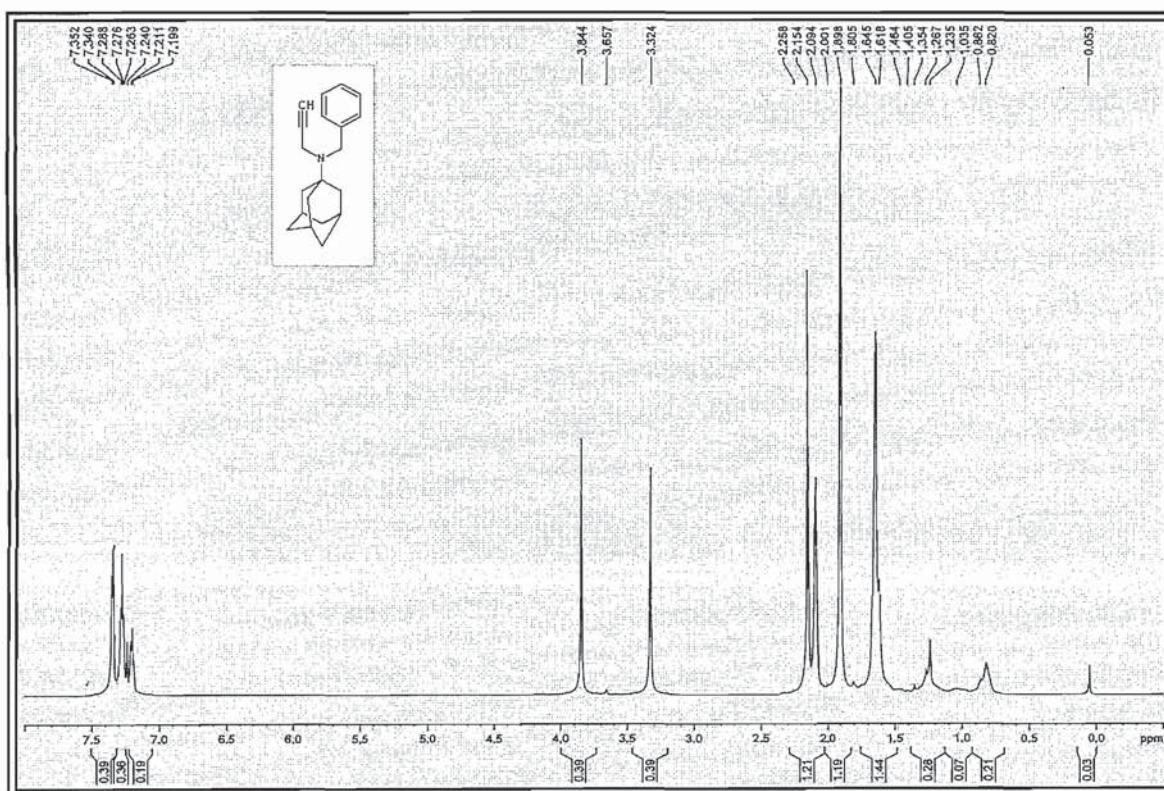
Spectrum 21



Spectrum 22



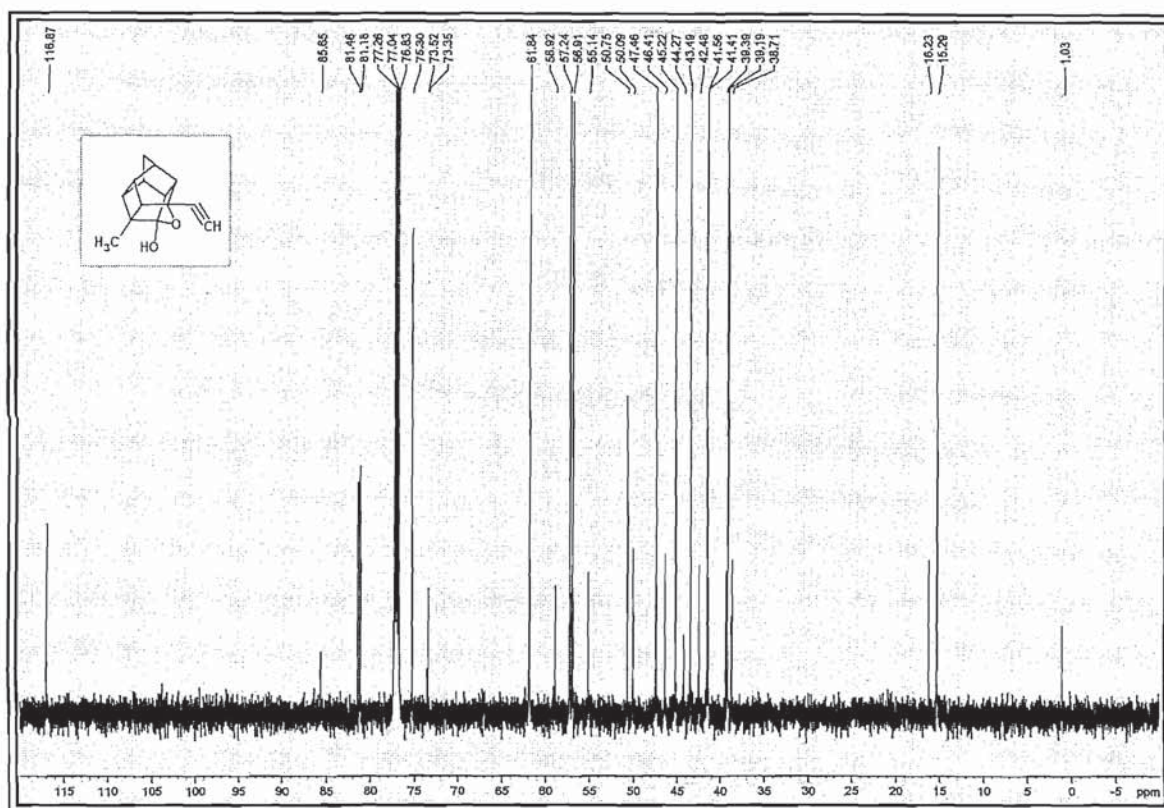
Spectrum 23



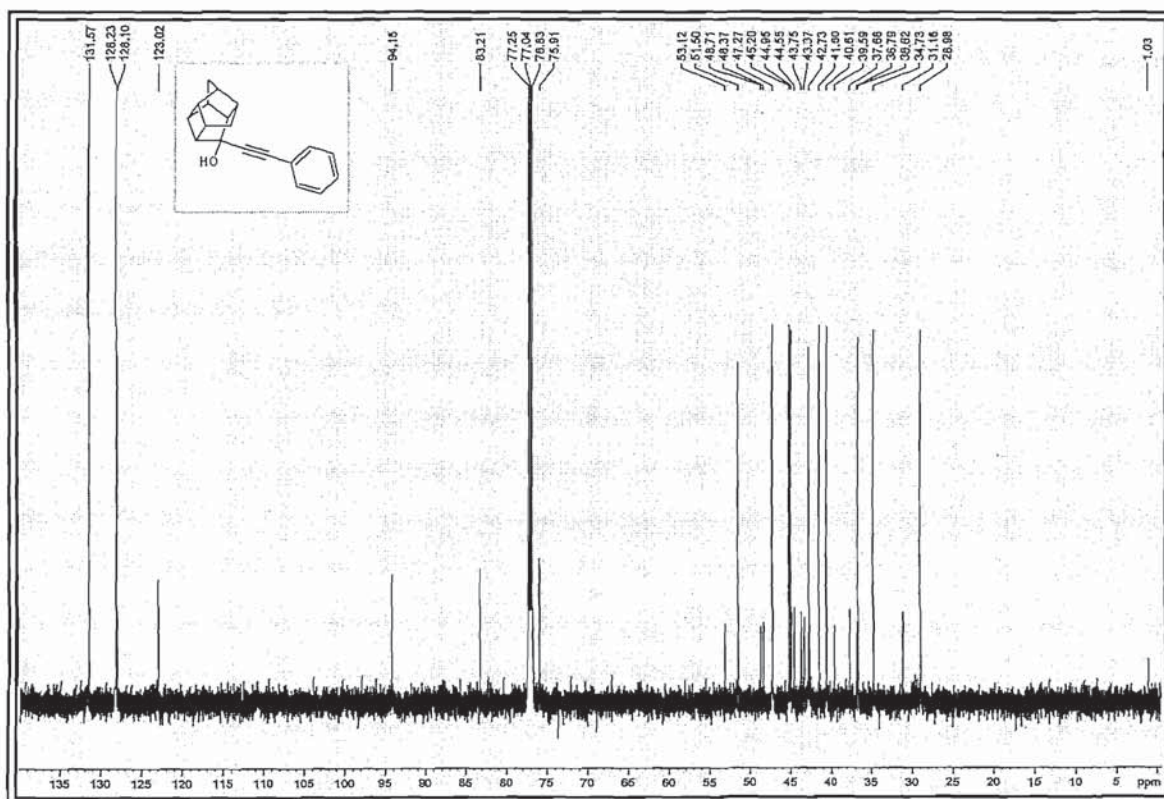
Spectrum 24

^{13}C

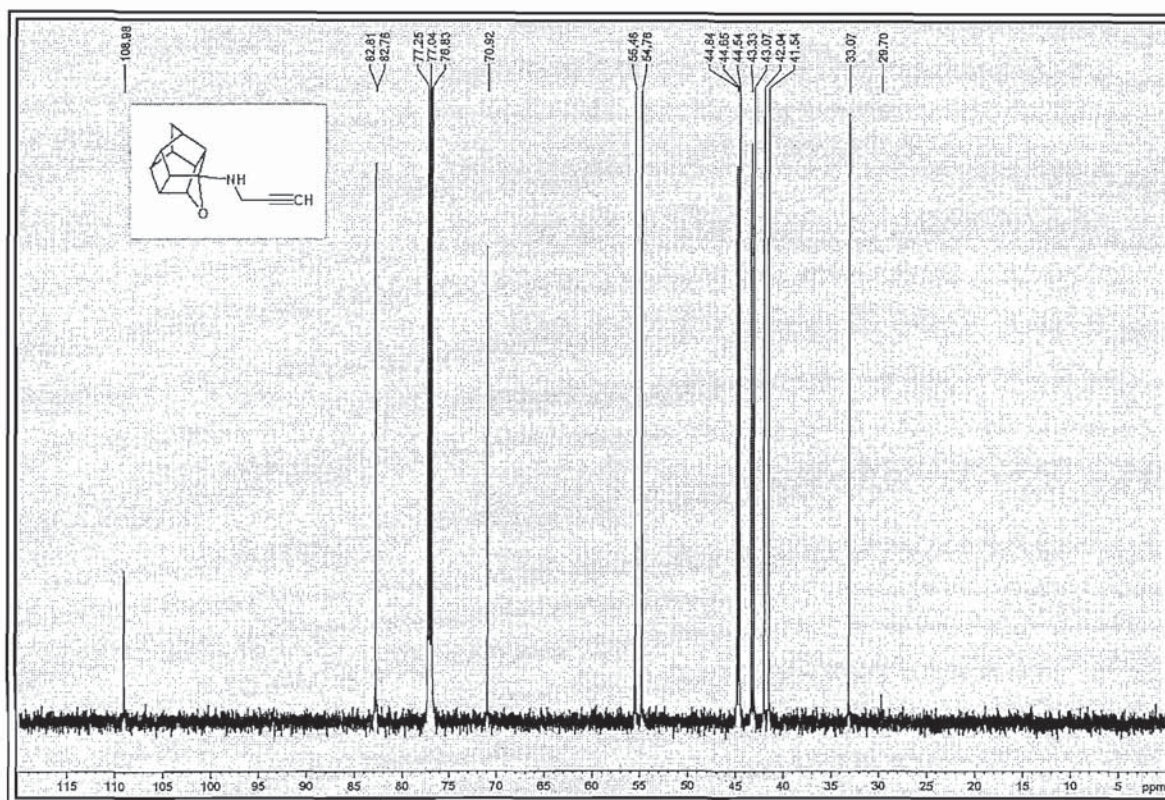
NUCLEAR MAGNETIC RESONANCE



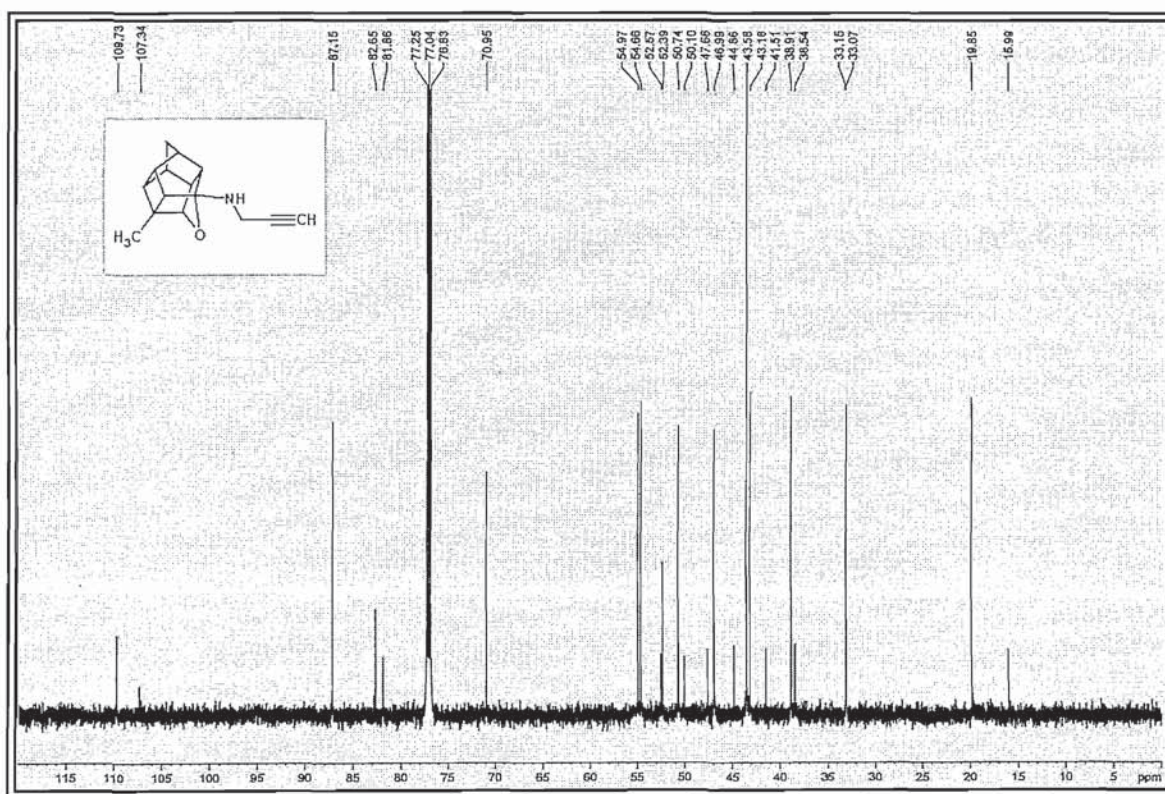
Spectrum 25



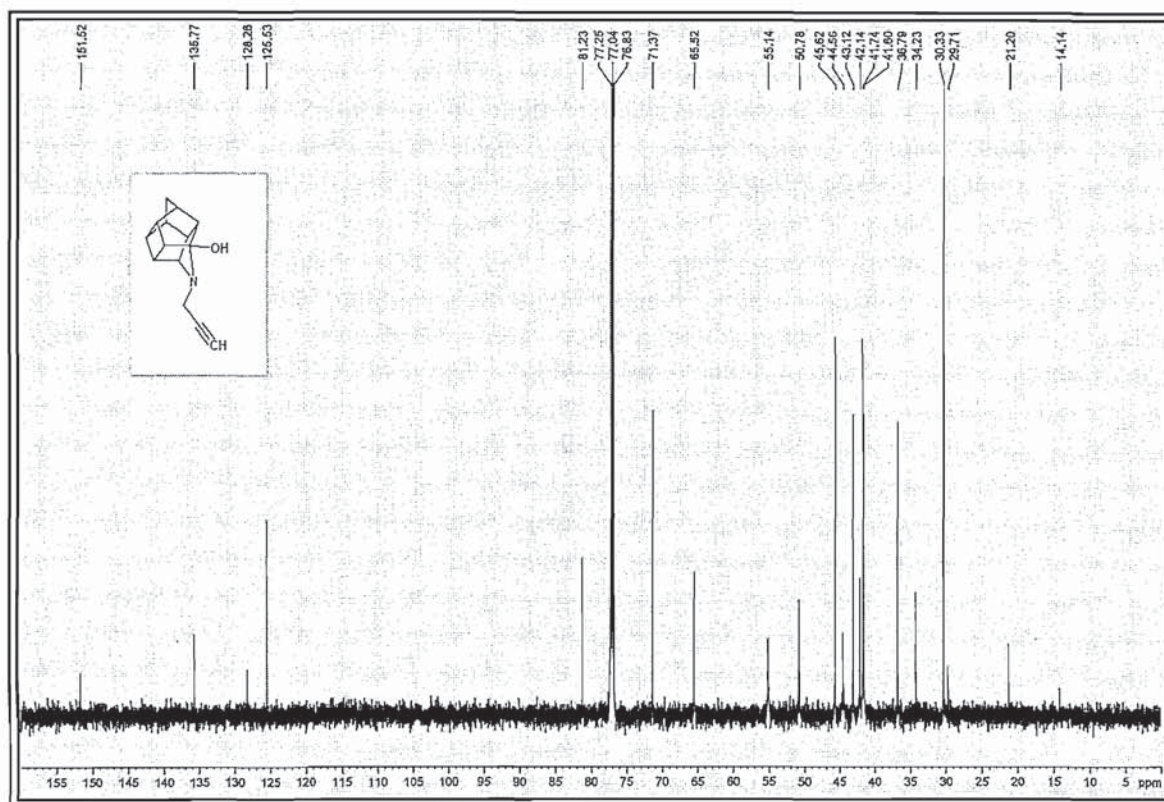
Spectrum 26



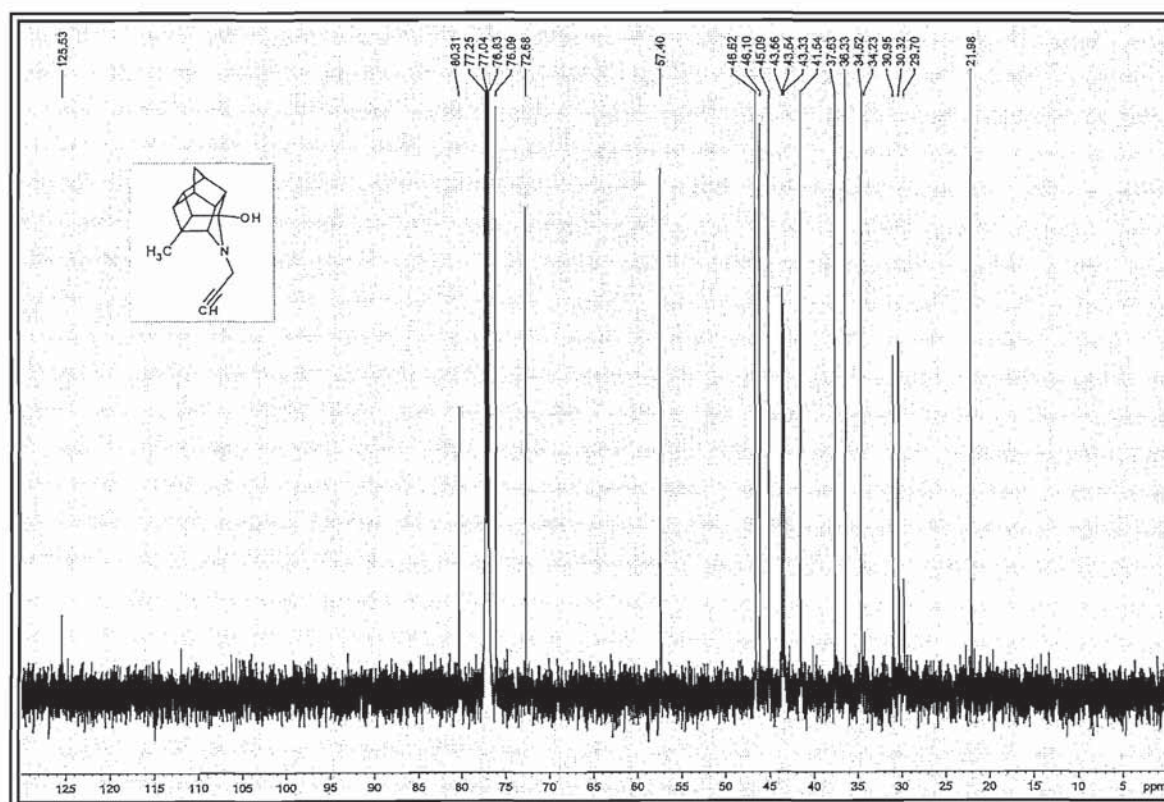
Spectrum 27



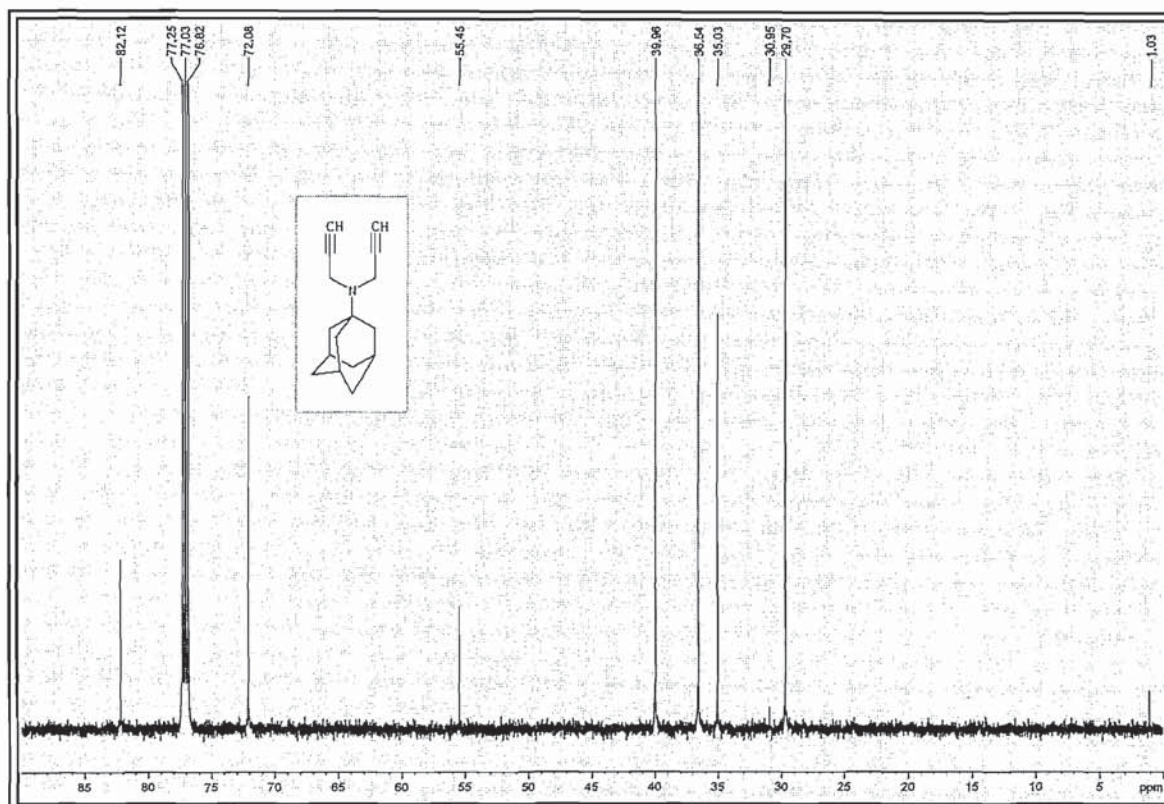
Spectrum 28



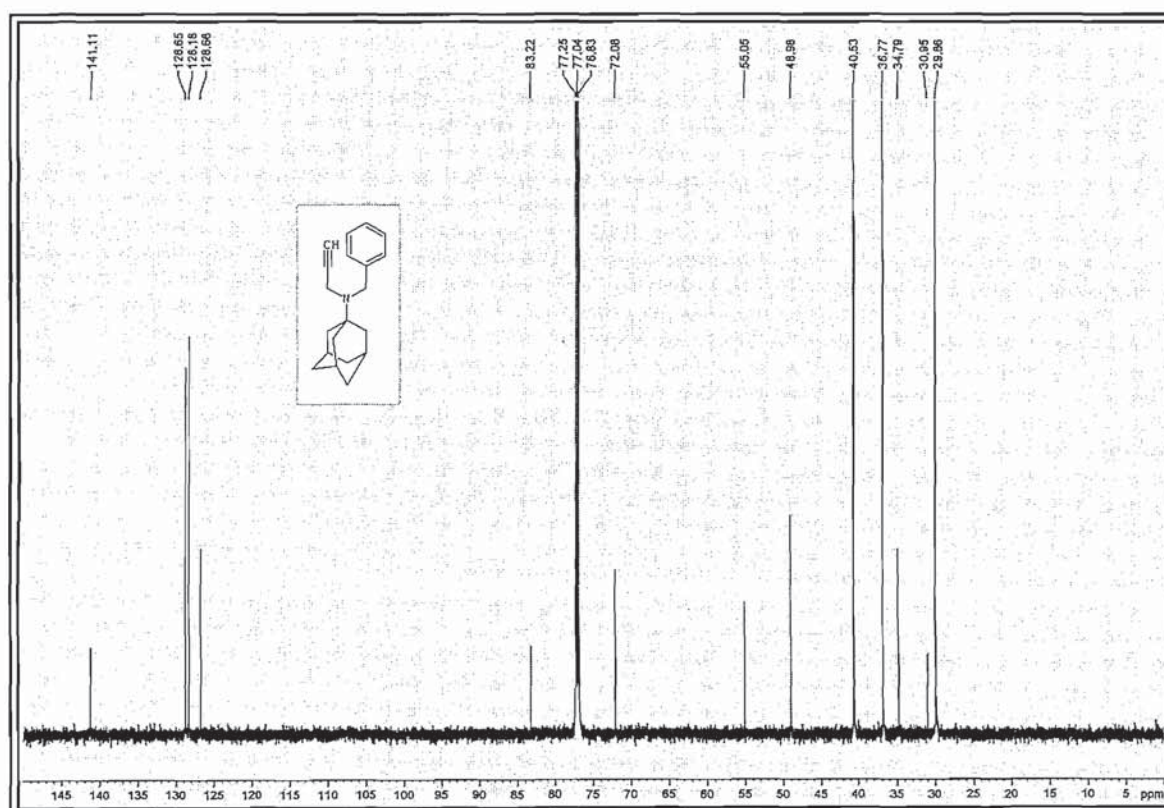
Spectrum 29



Spectrum 30



Spectrum 31



Spectrum 32

ACKNOWLEDGEMENTS

I dedicate this dissertation to Almighty God and to my parents, Lennon Paul Barber and Marilyn Rose Barber. They have made it possible for me to have had this wonderful opportunity!!

- ✚ May God's name be glorified by the work I have done. All glory and honour is His!!!
- ✚ I just want to thank my parents for always being there for me when I needed them most!! I want to thank them for their unconditional love, support and comfort!!
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