

Fig. (1): ¹H NMR Spectrum of Compound (2)..... Solvent DMSO-d₆

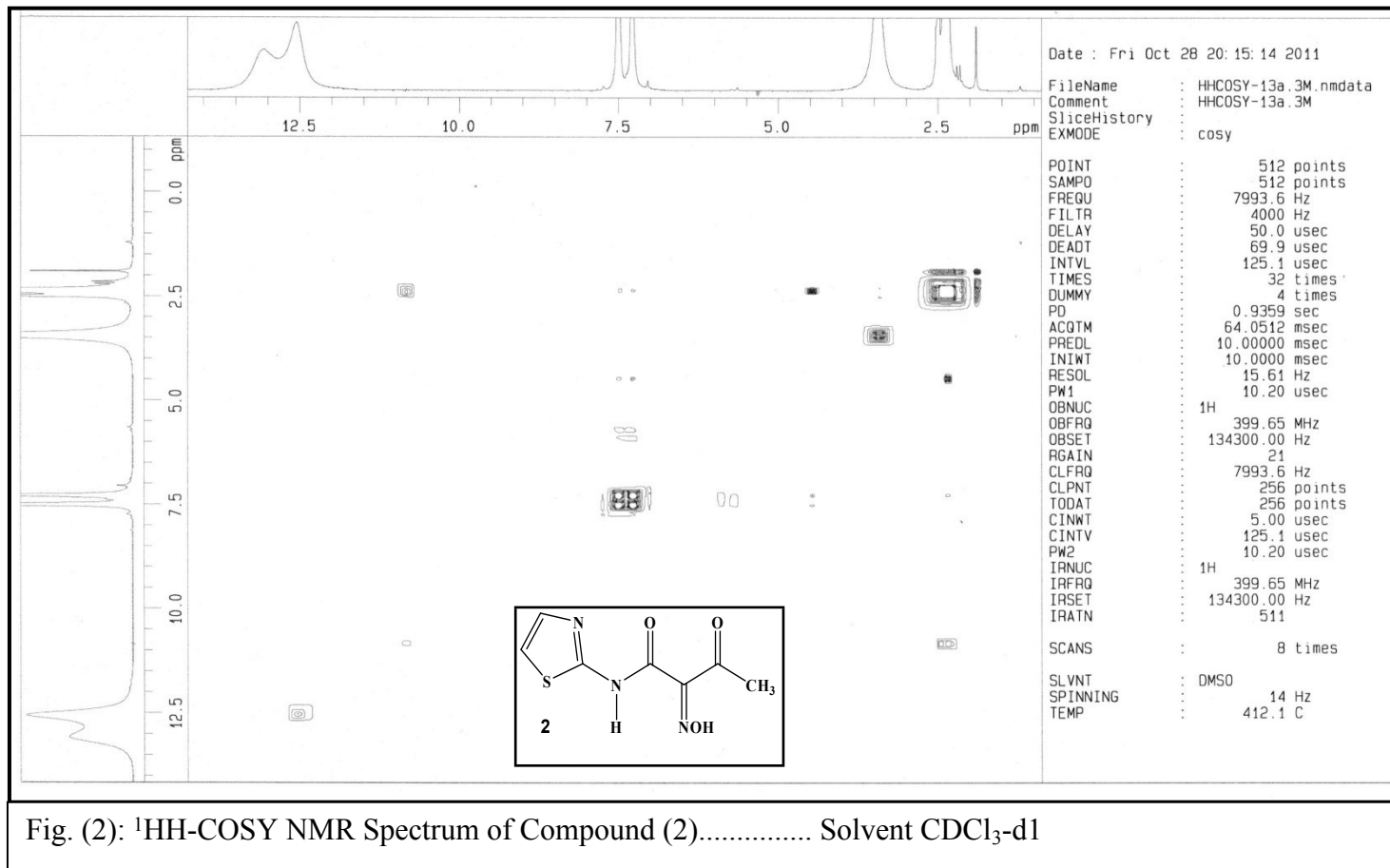


Fig. (2): ¹H-HH-COSY NMR Spectrum of Compound (2)..... Solvent CDCl₃-d₁

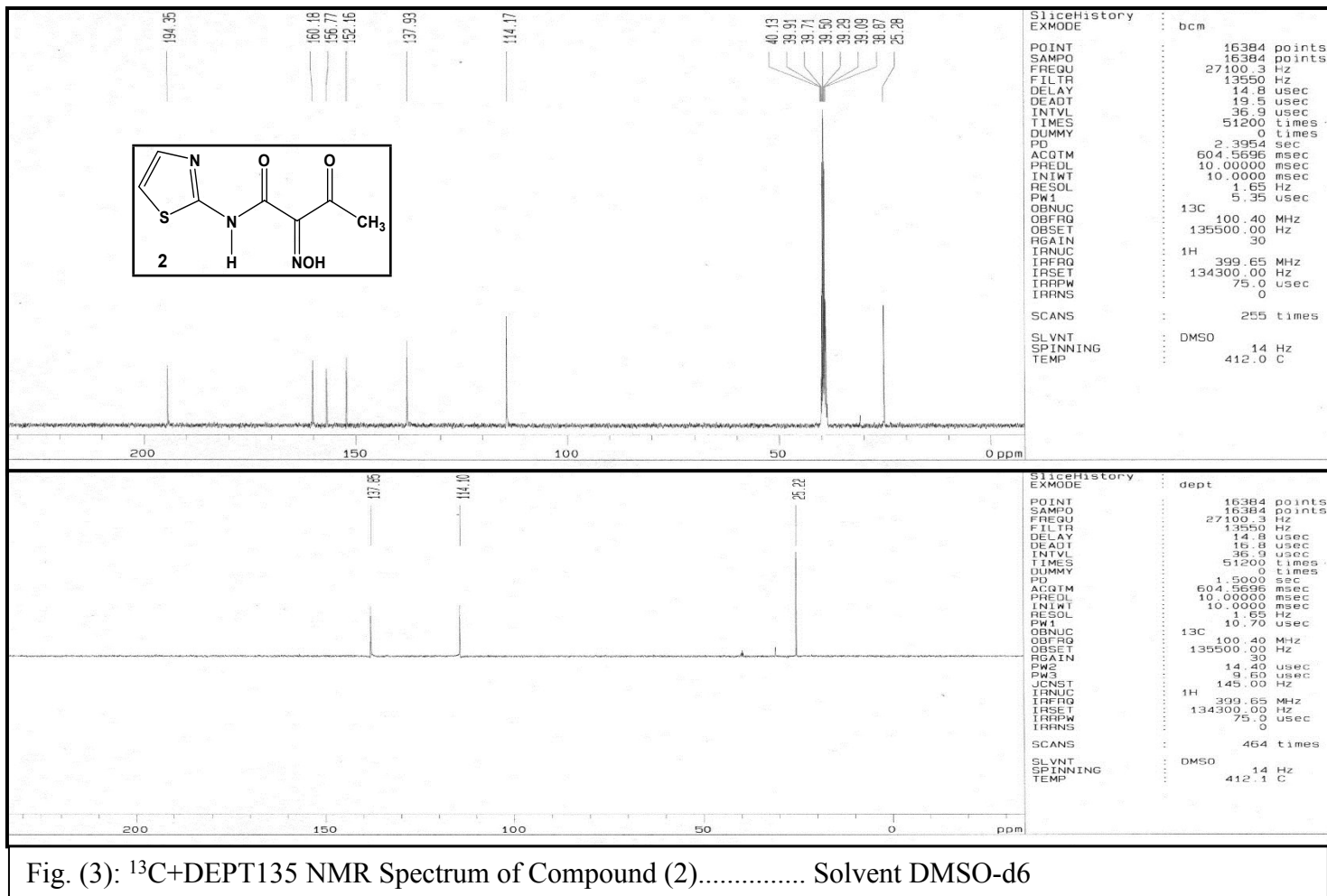


Fig. (3): ¹³C+DEPT135 NMR Spectrum of Compound (2)..... Solvent DMSO-d6

Scan: 6-595

R.T.: 6:02.264

#Ions: 234

Base: m/z 73; .8%FS TIC: 54668

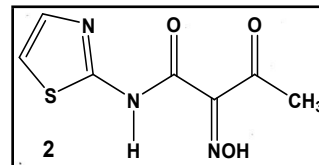
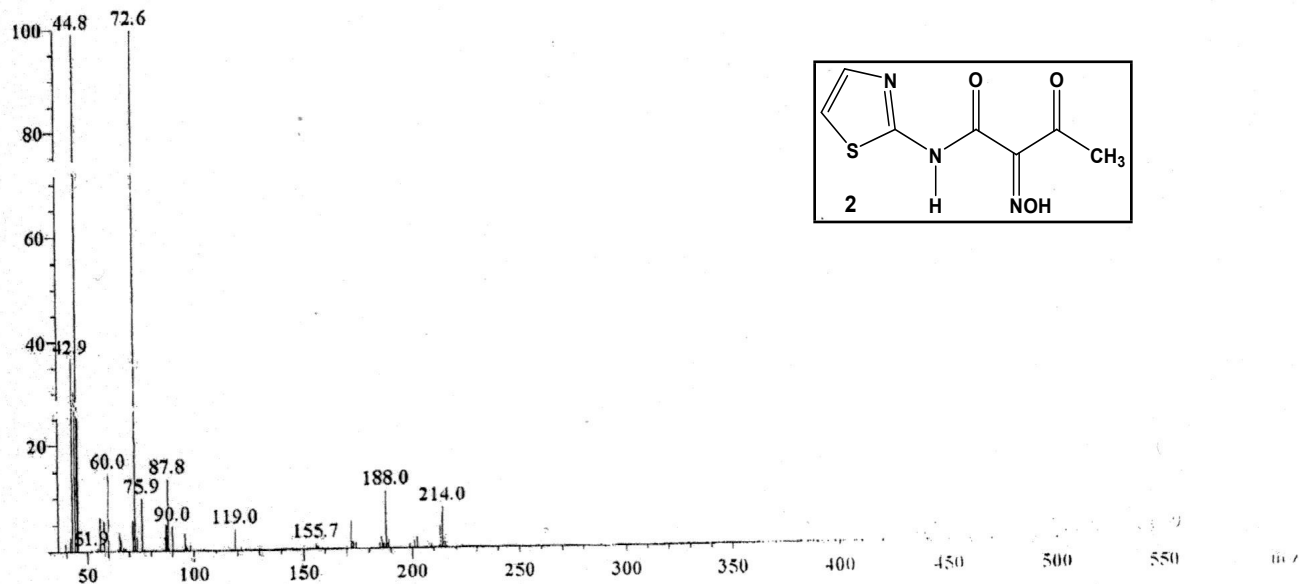


Fig. (4): MS Spectrum of Compound (2)..... Solvent DMSO-d6

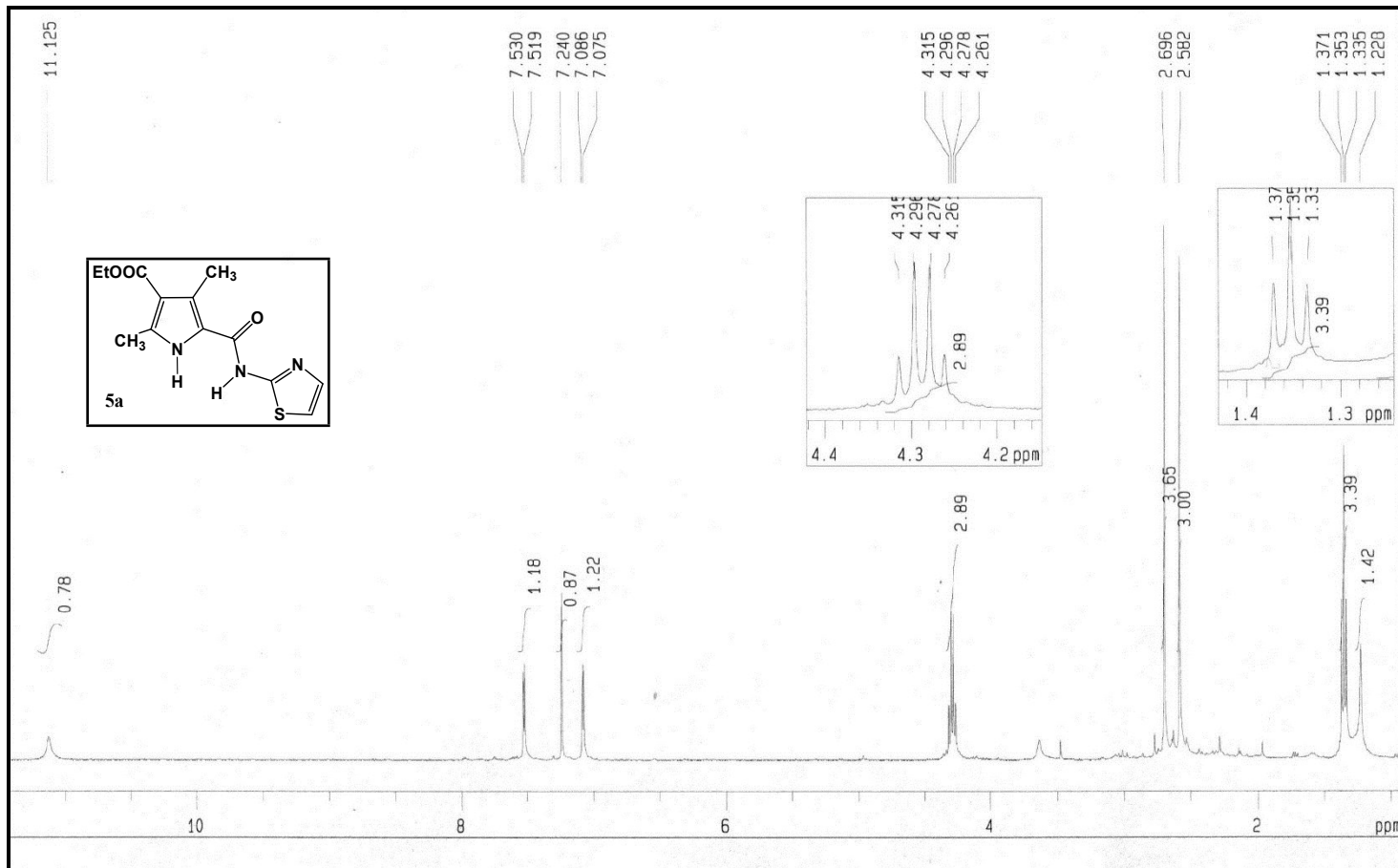


Fig. (5): ¹H NMR Spectrum of Compound (5a)..... Solvent CDCl₃-d₁

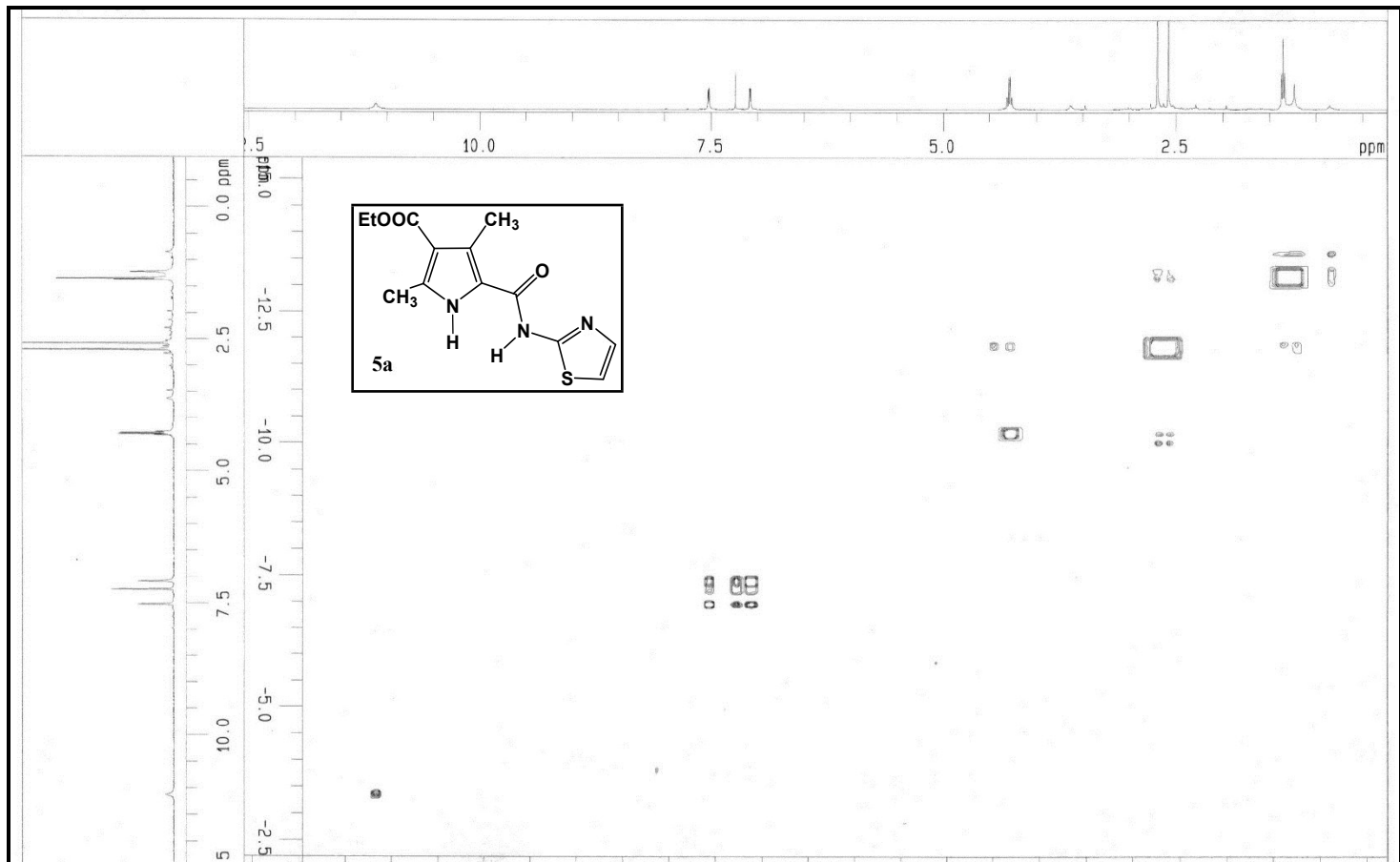


Fig. (6): ¹H-NOESY NMR Spectrum of Compound (5a)..... Solvent CDCl₃-d₁

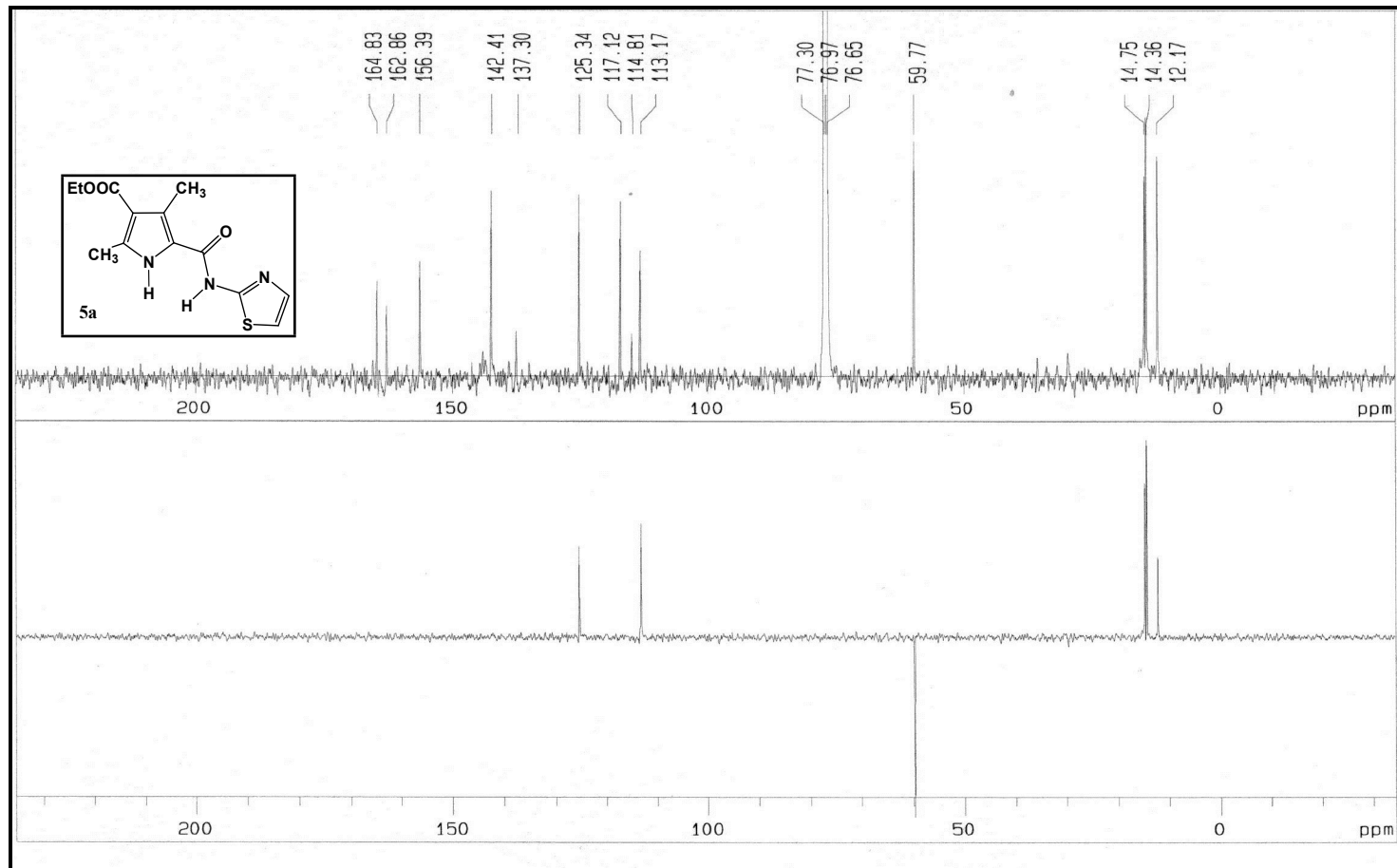


Fig. (7): ¹³C+DEPT135 NMR Spectrum of Compound (5a)

Solvent CDCl₃-d₁

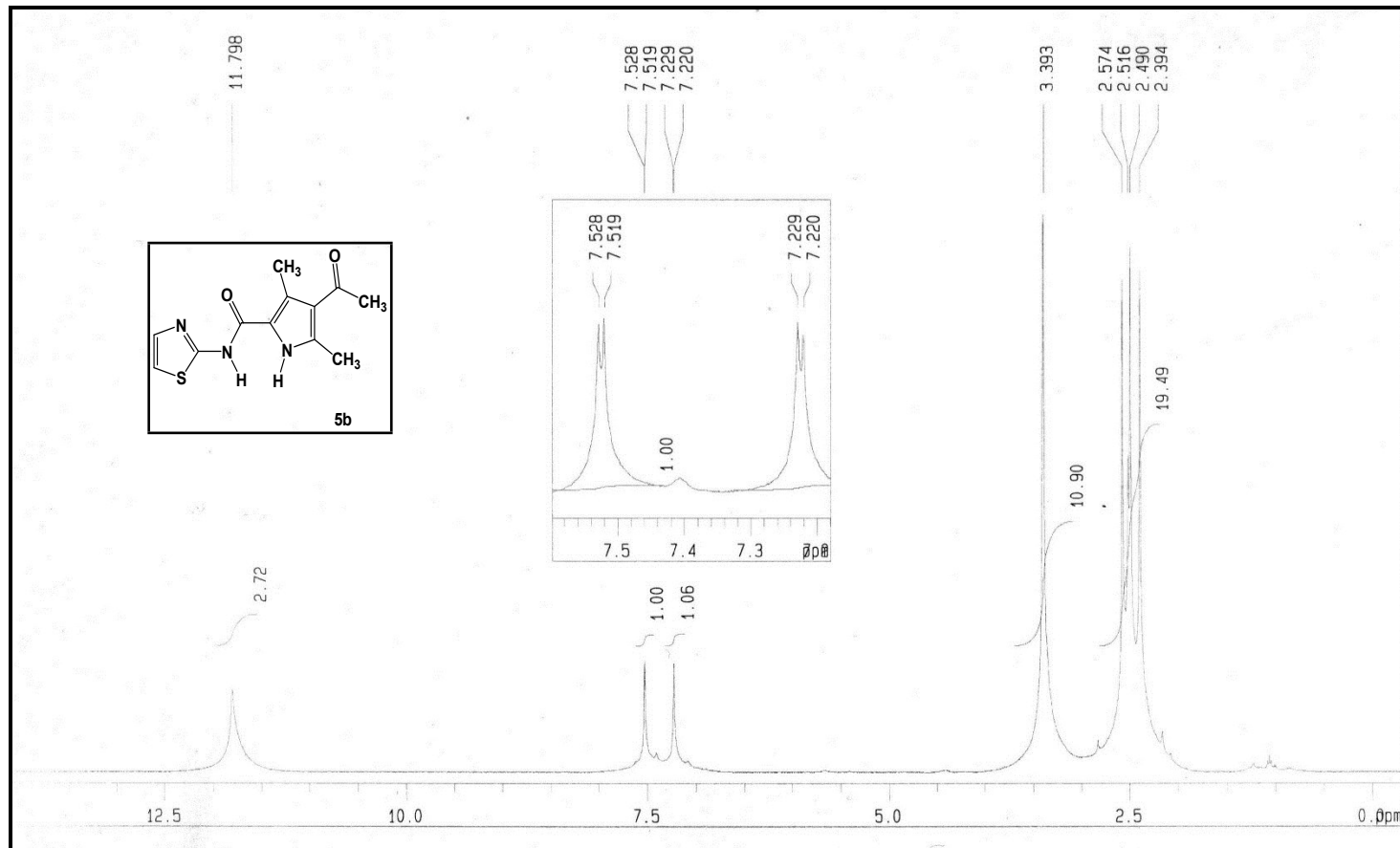


Fig. (8): ¹H NMR Spectrum of Compound (5b)..... Solvent DMSO-d₆

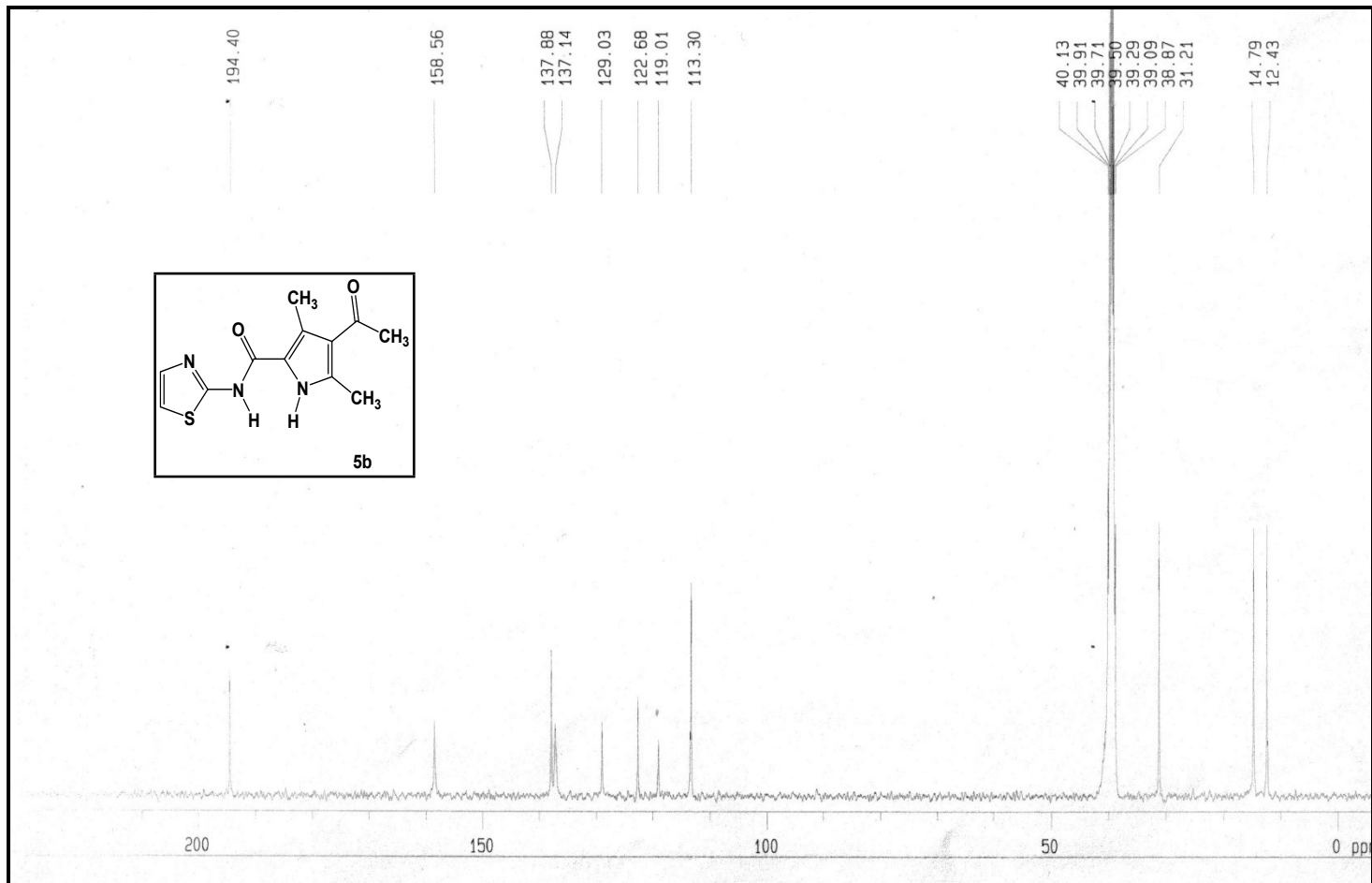


Fig. (9): ¹³C NMR Spectrum of Compound (5b)..... Solvent DMSO-d₆

Scan: 1-726 (106-108)

R.T.: 7:18.468

Base: m/z 195; .1%FS TIC: 37984

#Ions: 379

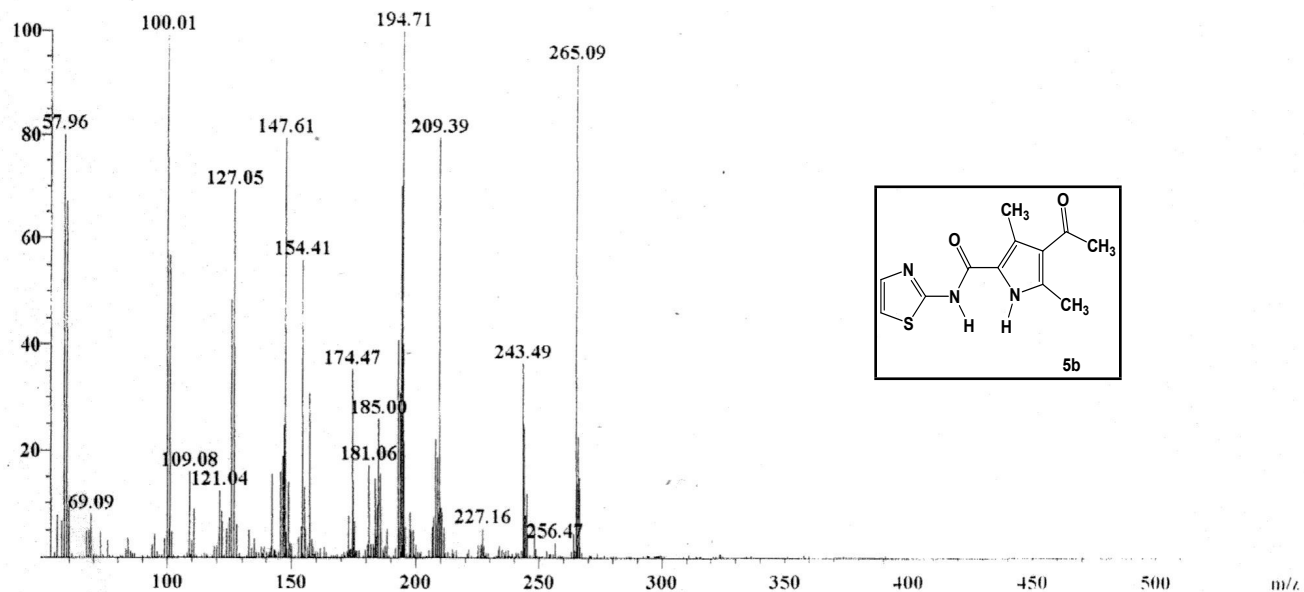


Fig. (10): MS Spectrum of Compound (5b)..... Solvent DMSO-d6

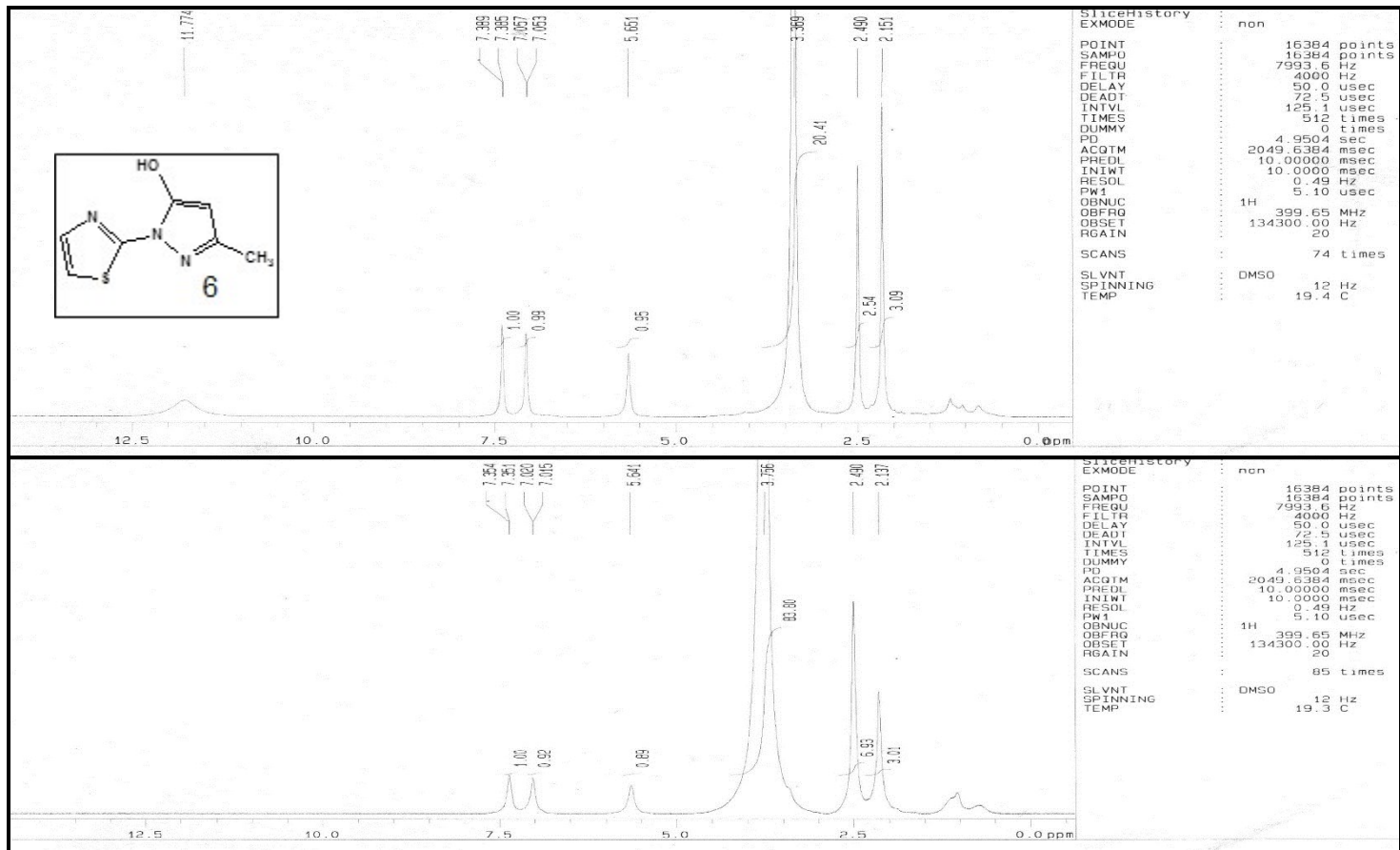


Fig. (11): $^1\text{H} + (\text{D}_2\text{O})$ NMR Spectrum of Compound (6)..... Solvent DMSO- d_6

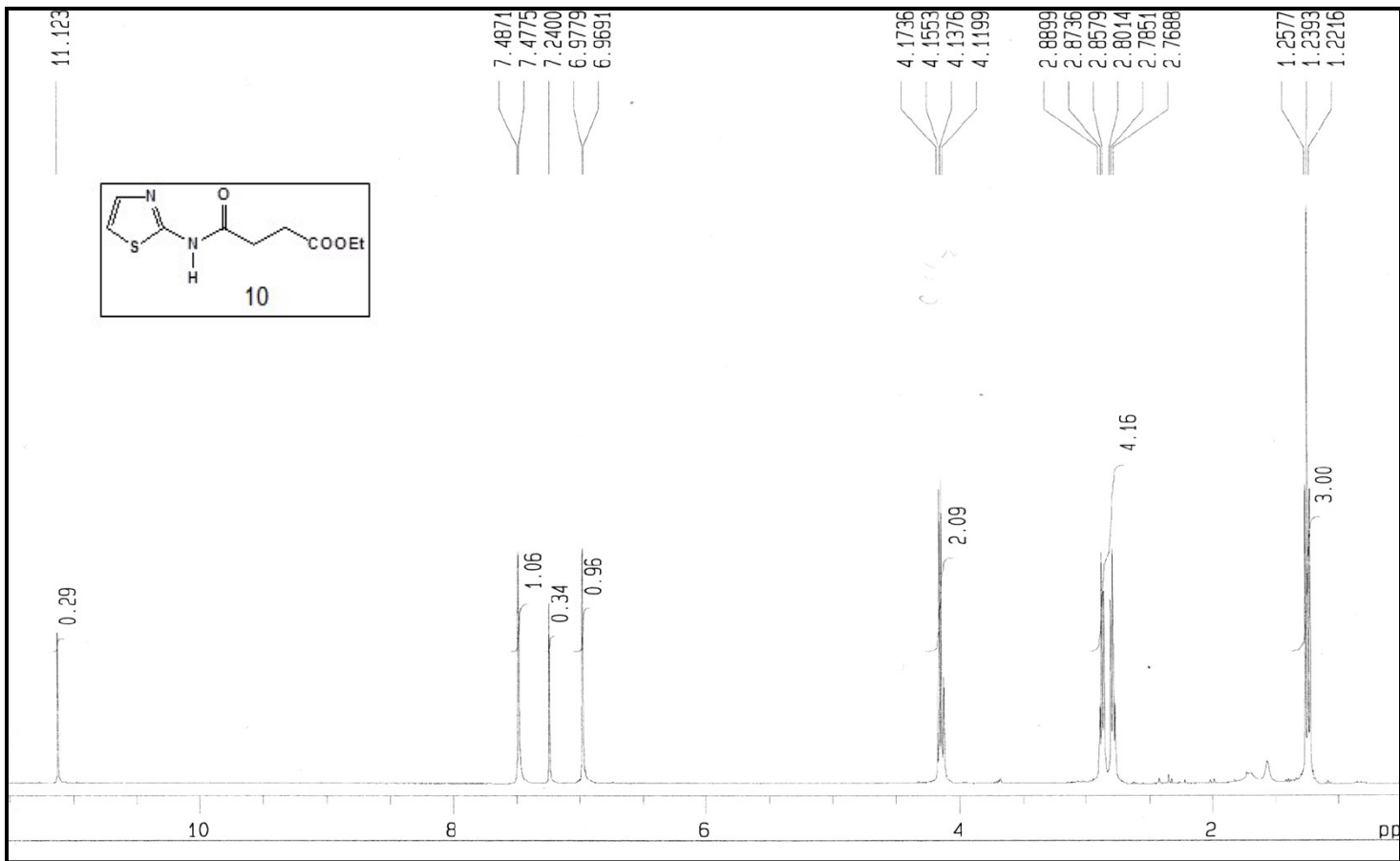


Fig. (12): ^1H NMR Spectrum of Compound (10)..... Solvent $\text{CDCl}_3\text{-d}_1$

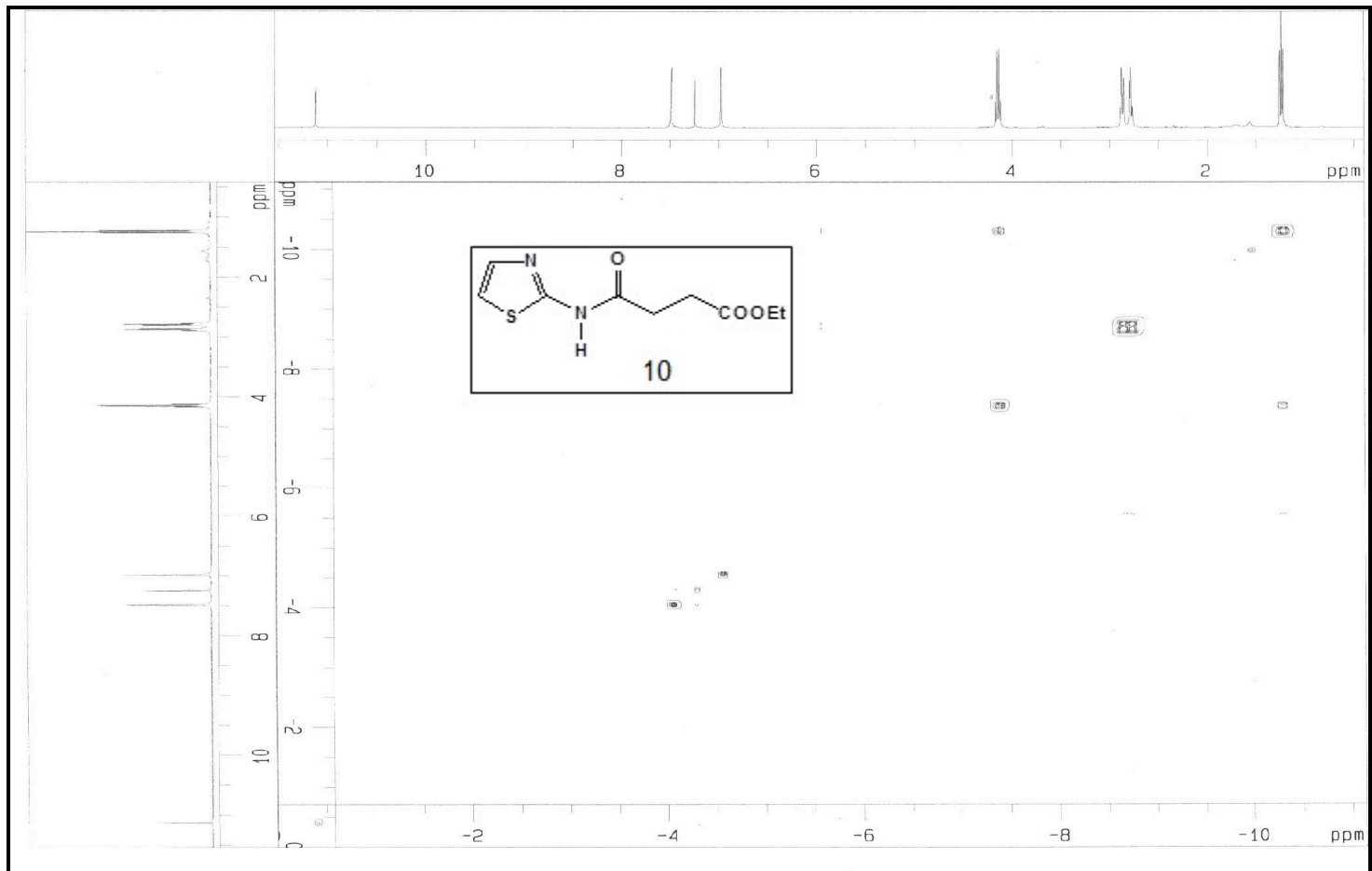


Fig. (13): ^1H - ^1H -COSY NMR Spectrum of Compound (10)..... Solvent $\text{CDCl}_3\text{-d}_1$

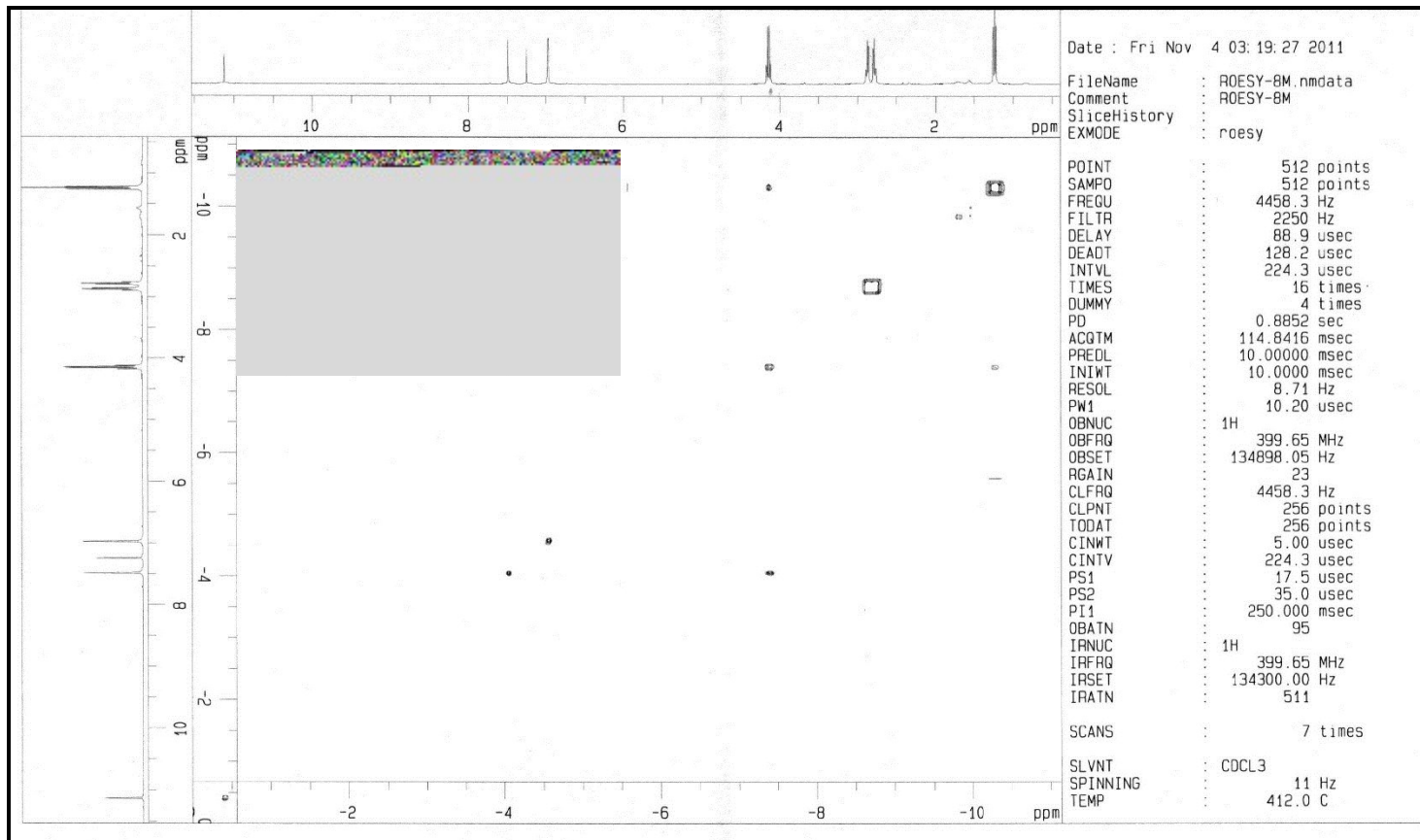


Fig. (14): ¹H-ROESY NMR Spectrum of Compound (10)..... Solvent CDCl₃-d₁

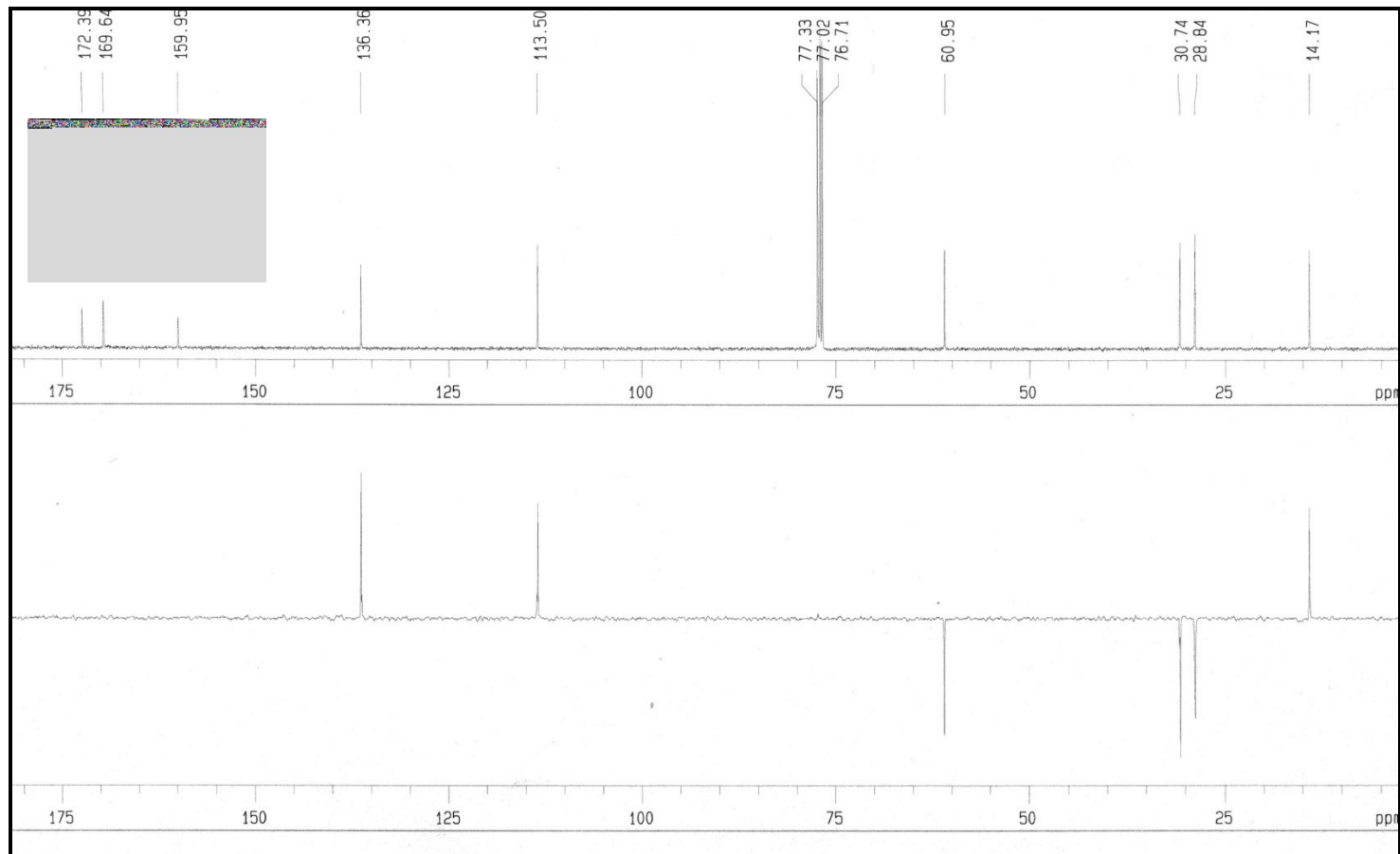


Fig. (15): ¹³C+DEPT135 NMR Spectrum of Compound (10)..... Solvent CDCl₃-d₁ Page[222]

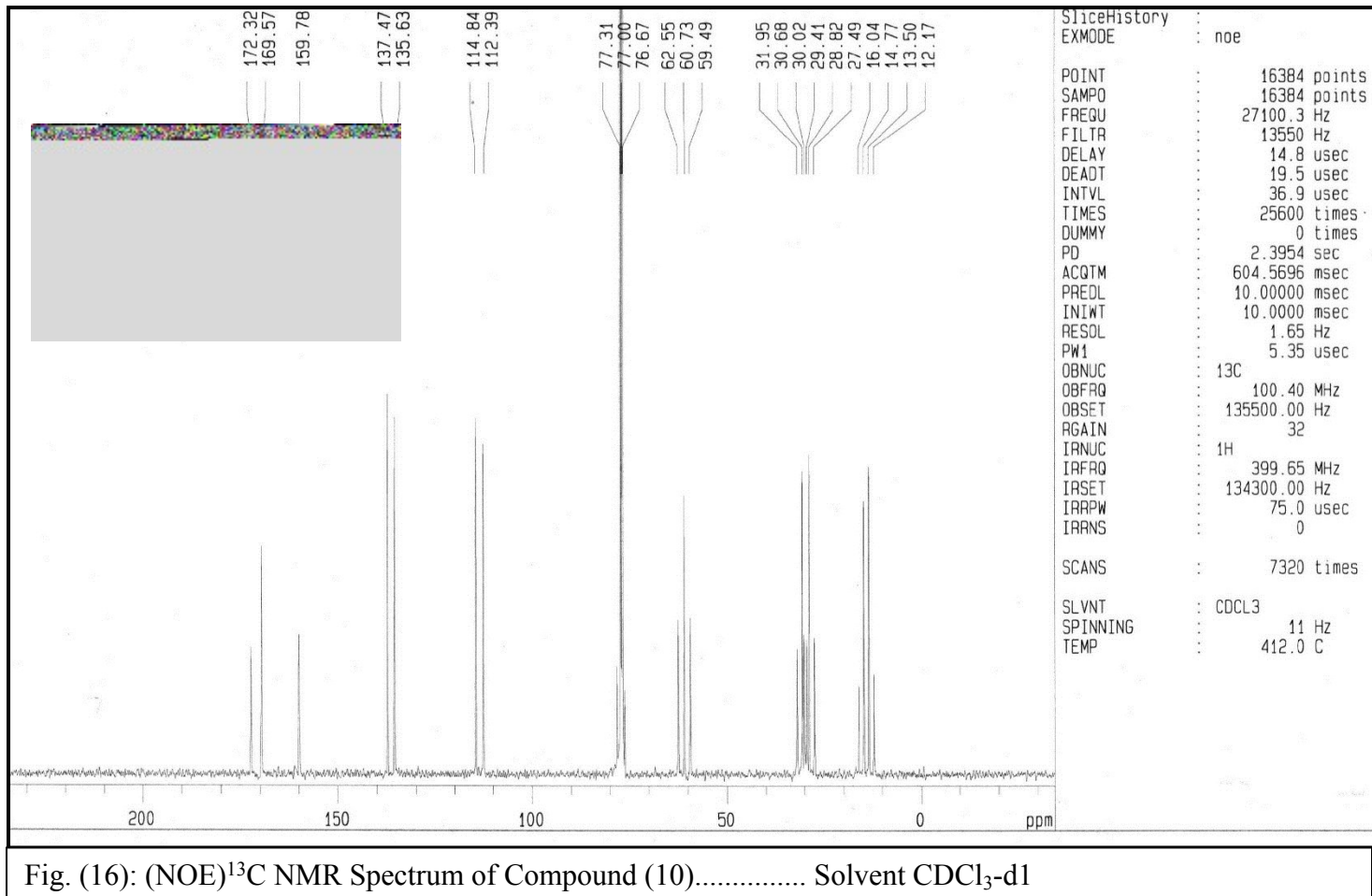


Fig. (16): (NOE)¹³C NMR Spectrum of Compound (10)..... Solvent CDCl₃-d₁

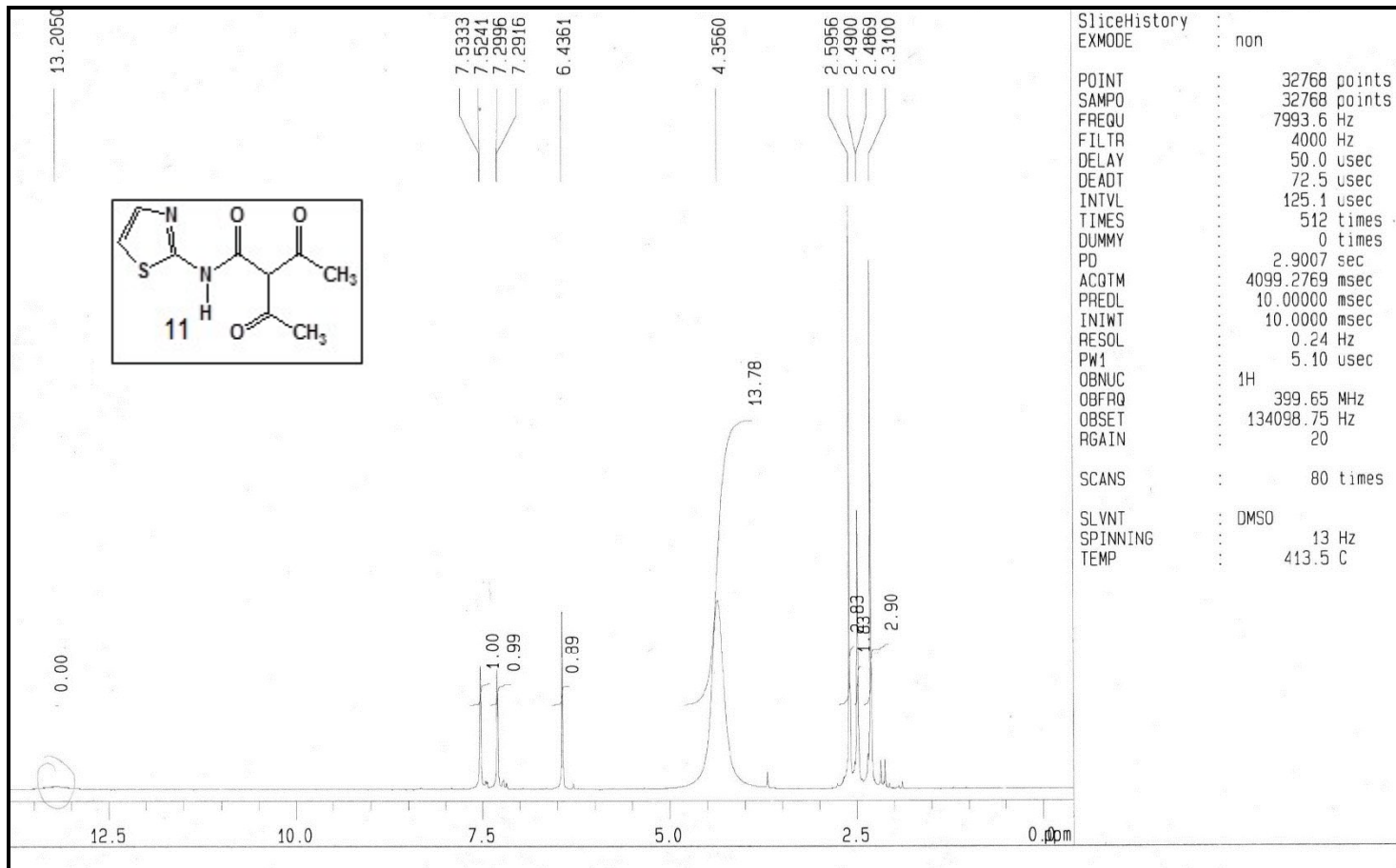


Fig. (17): ¹H NMR Spectrum of Compound (11)..... Solvent DMSO-d₆

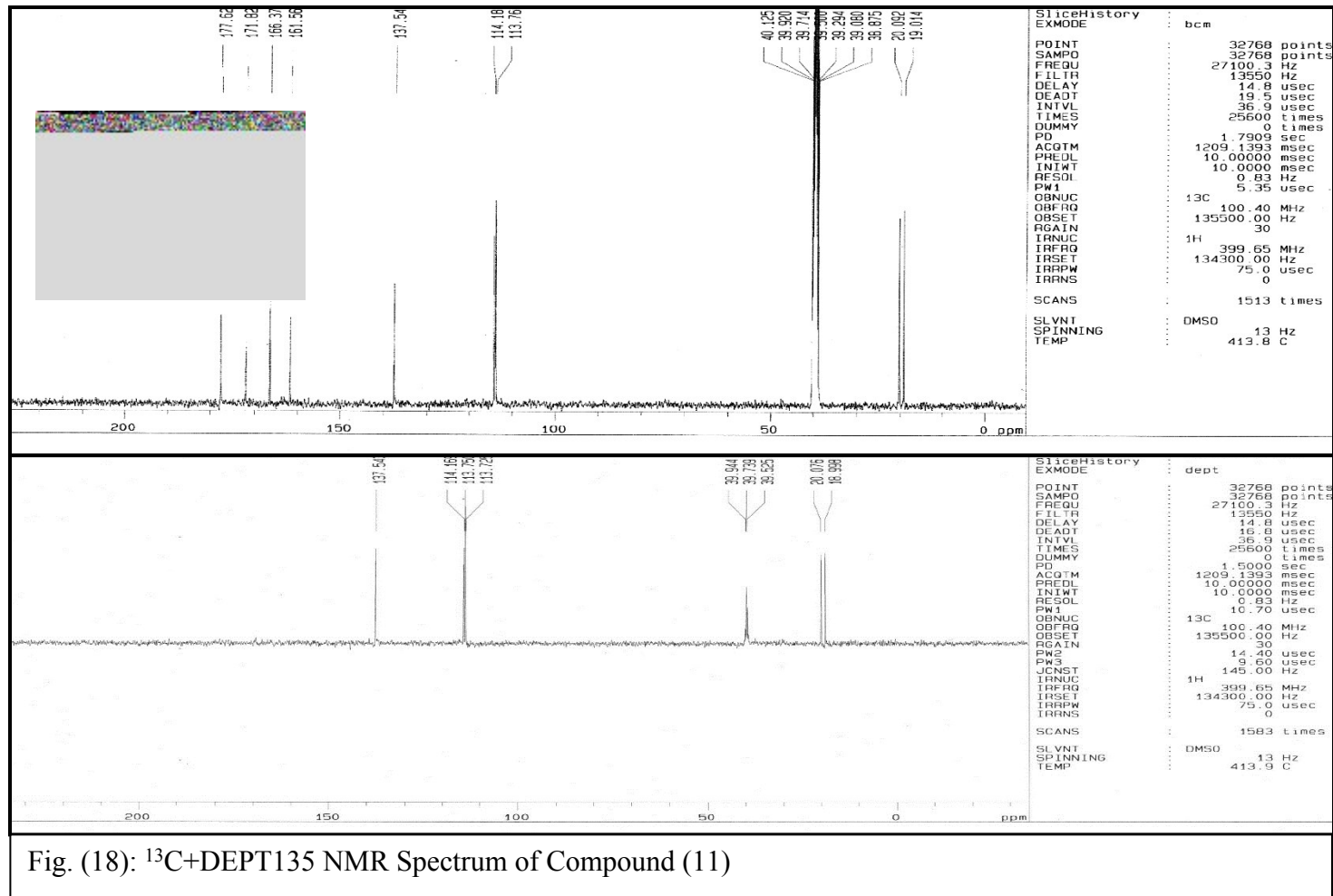
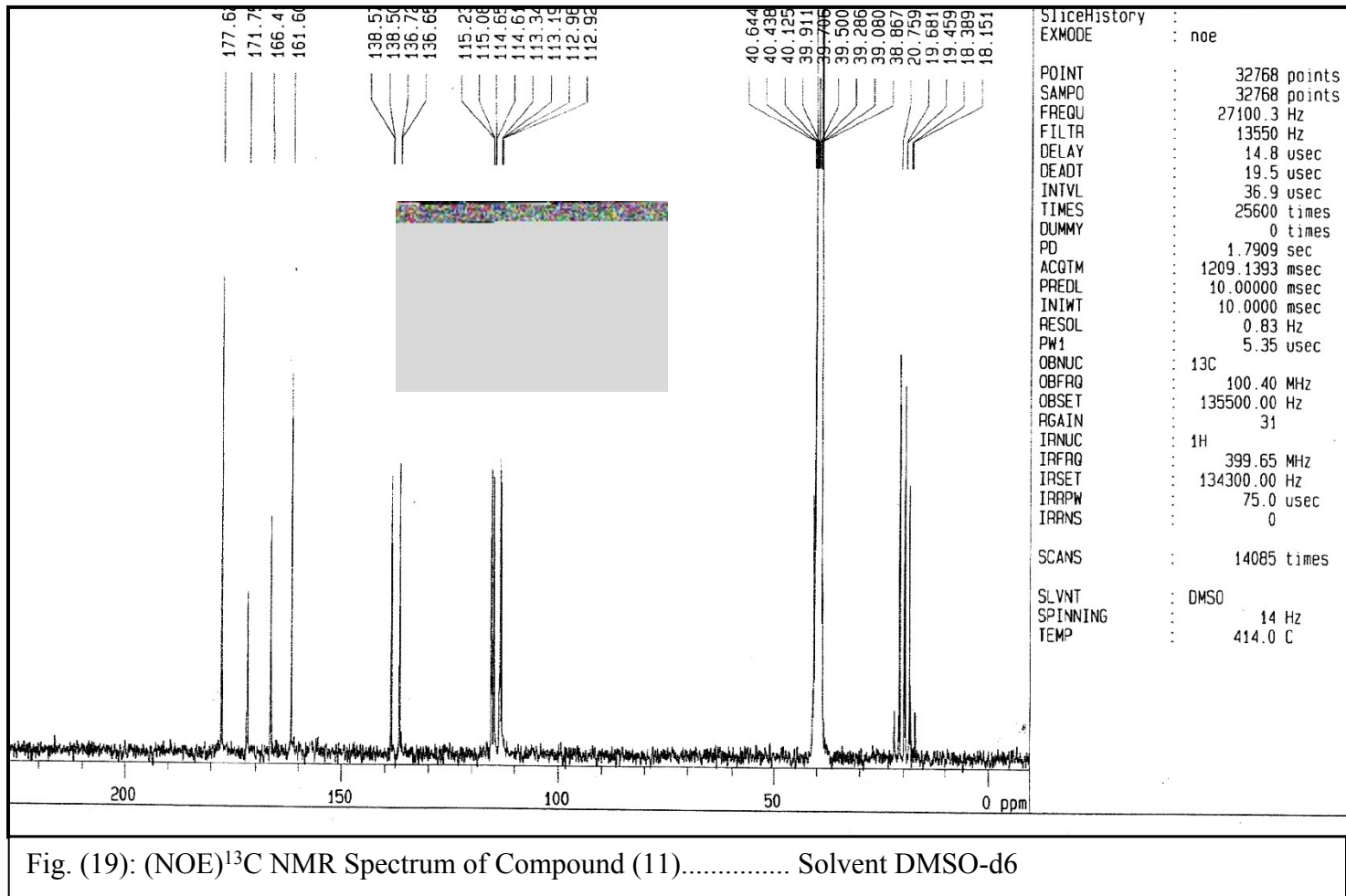


Fig. (18): ¹³C+DEPT135 NMR Spectrum of Compound (11)



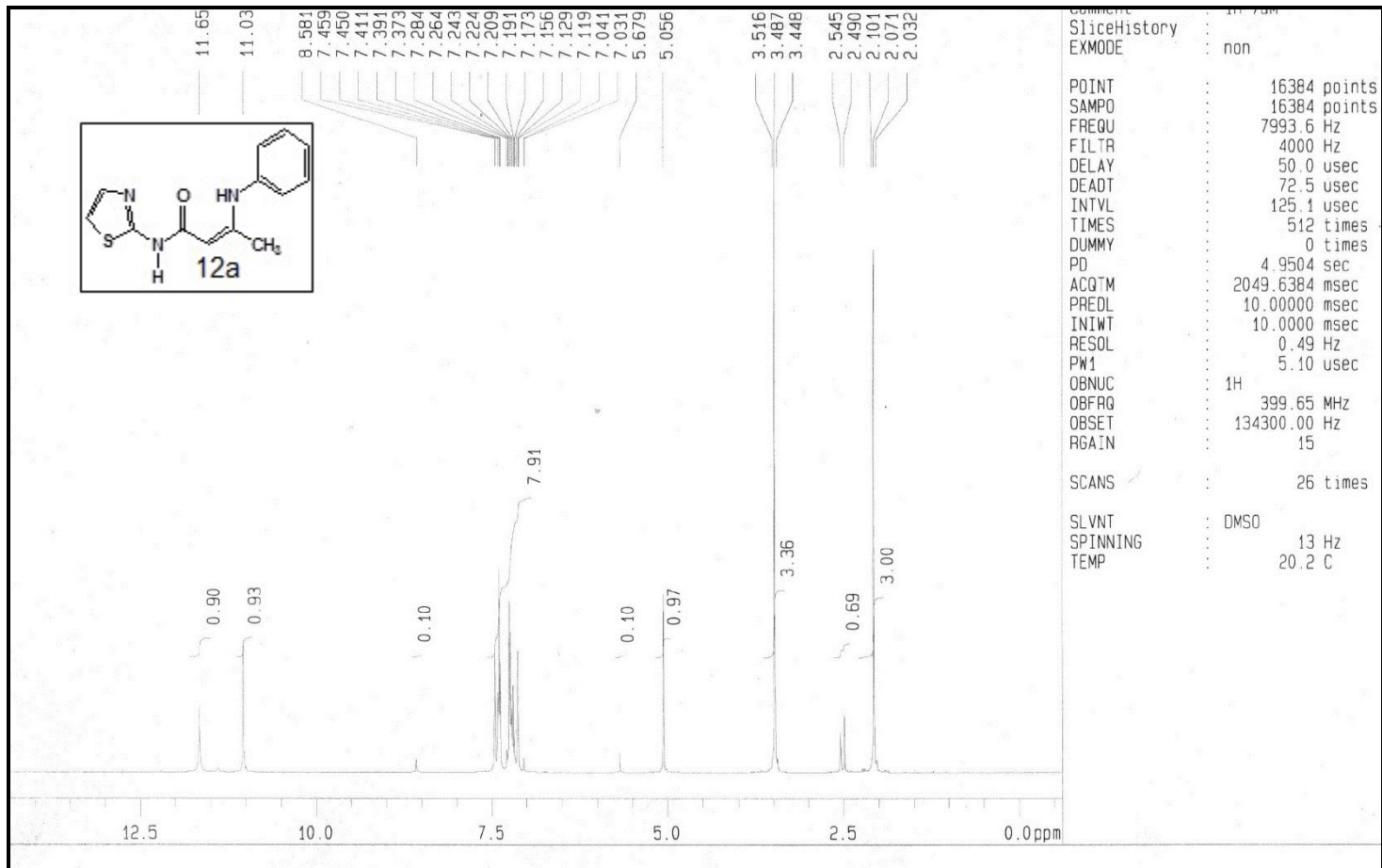


Fig. (20): ¹H NMR Spectrum of Compound (12a)..... Solvent DMSO-d₆

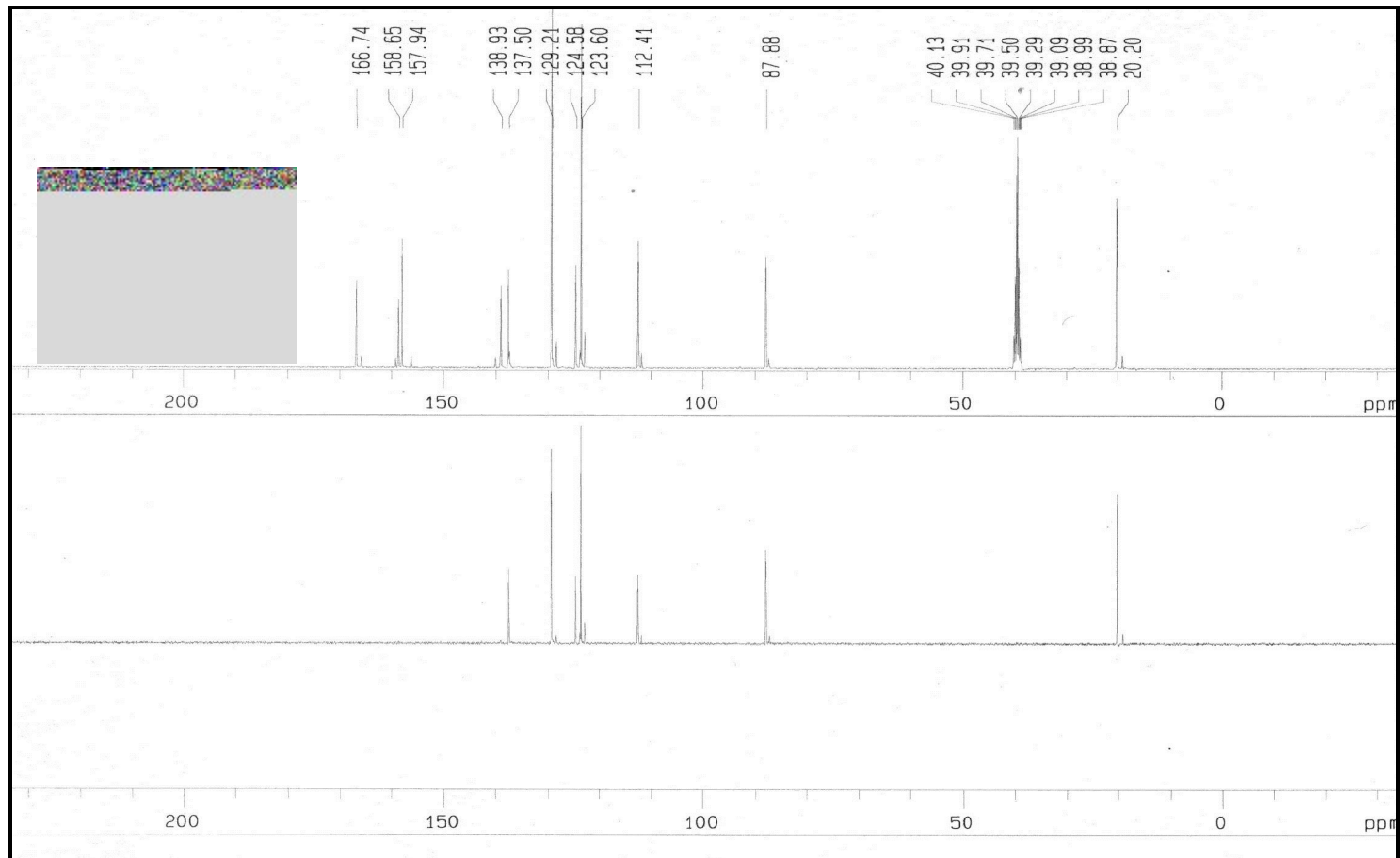


Fig. (21): ^{13}C +DEPT135 NMR Spectrum of Compound (12a)

Scan: 520-802

R.T.: 13:12.66

Base: m/z 221; 1.5%FS TIC: 147546

#Ions: 308

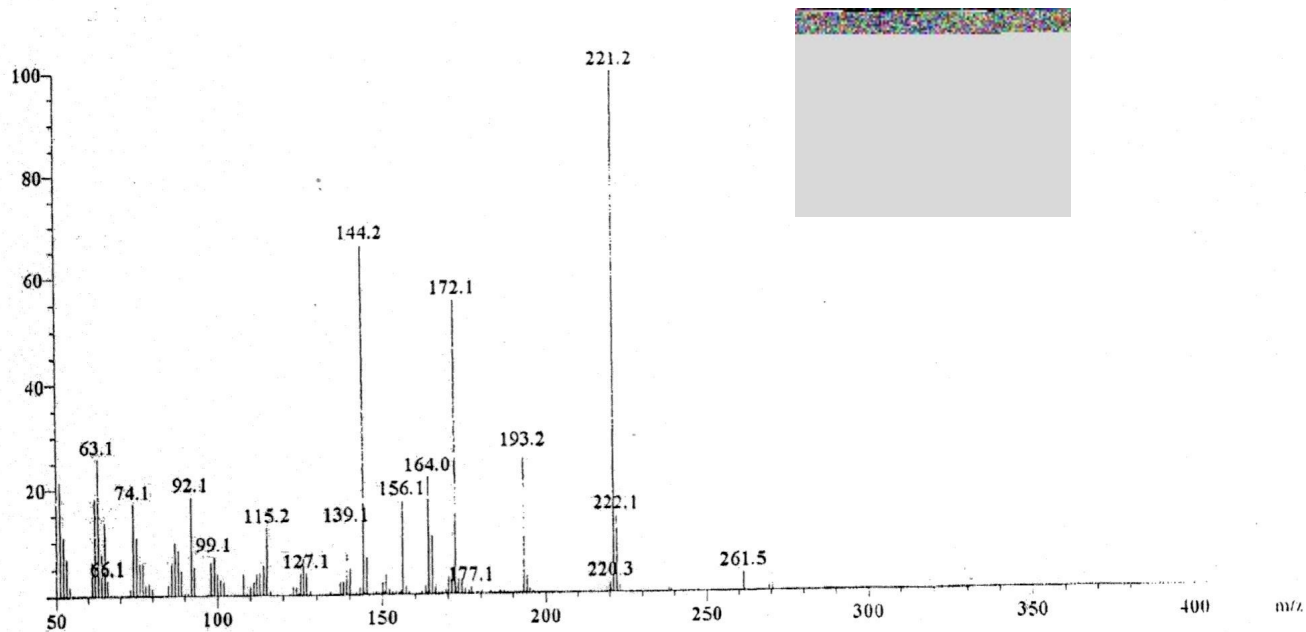


Fig. (22): MS. Spectrum of Compound (12a)

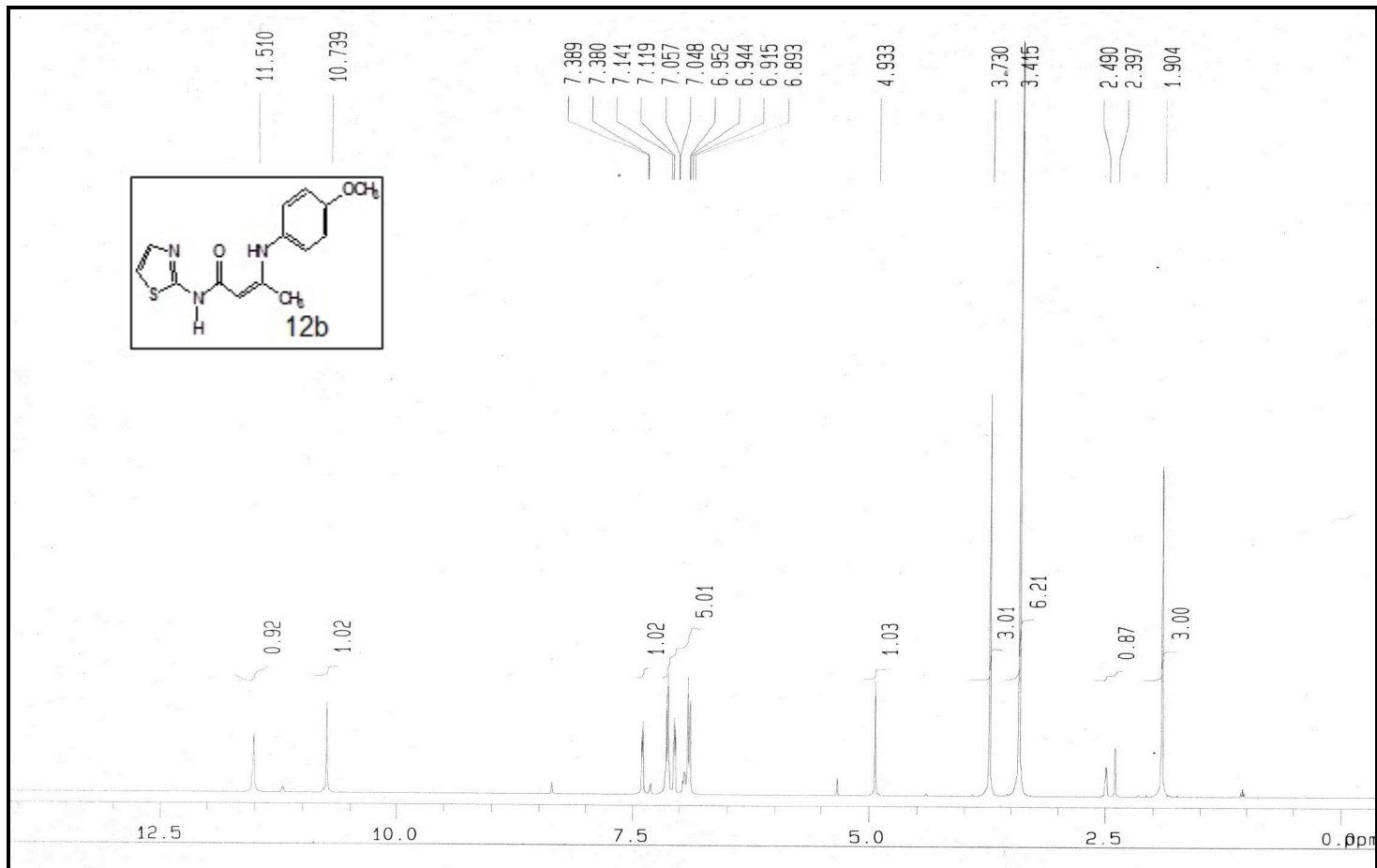


Fig. (23): ¹H NMR Spectrum of Compound (12b) Solvent DMSO-d₆

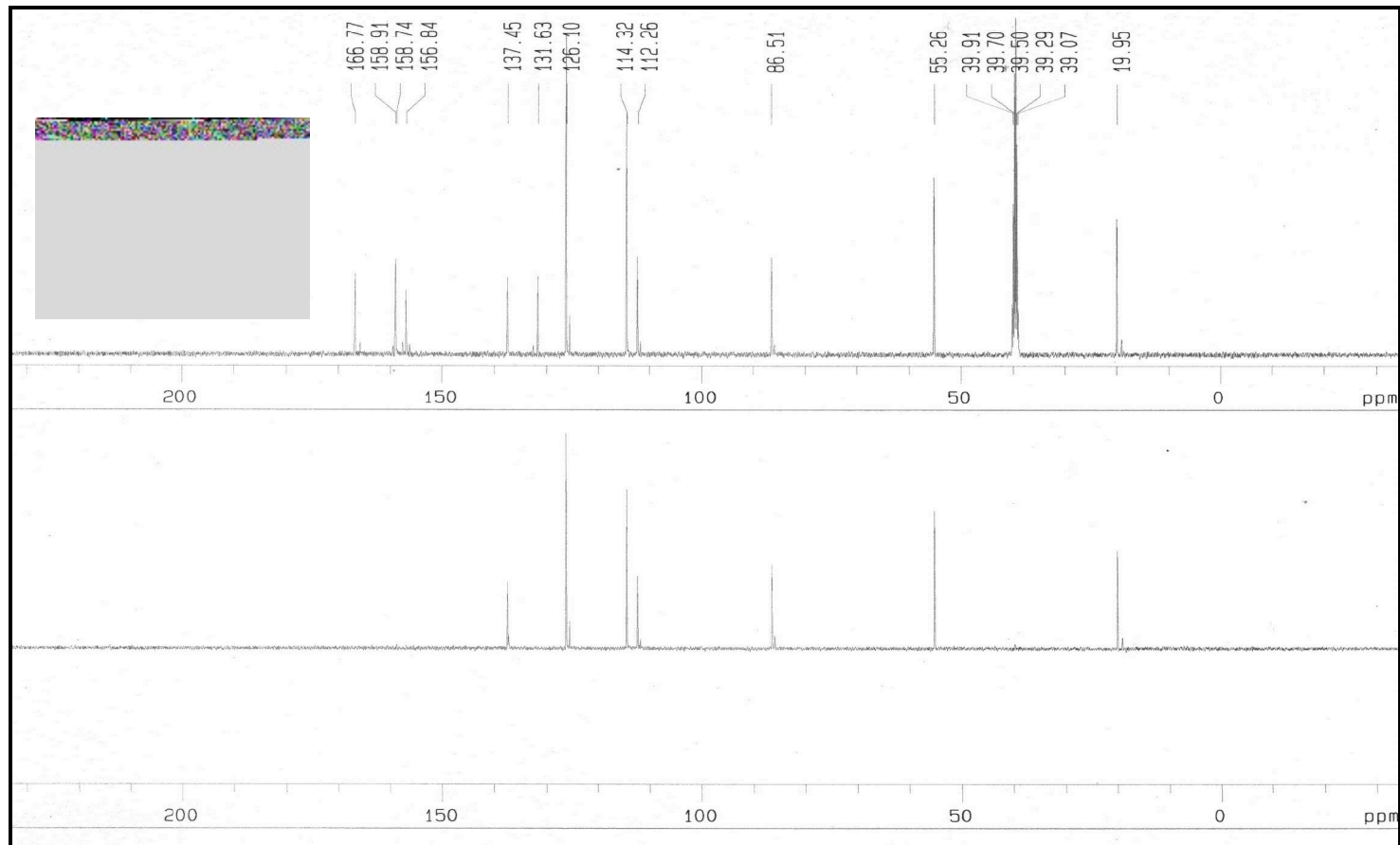


Fig. (24): ^{13}C +DEPT135 NMR Spectrum of Compound (12b)..... Solvent DMSO-d₆

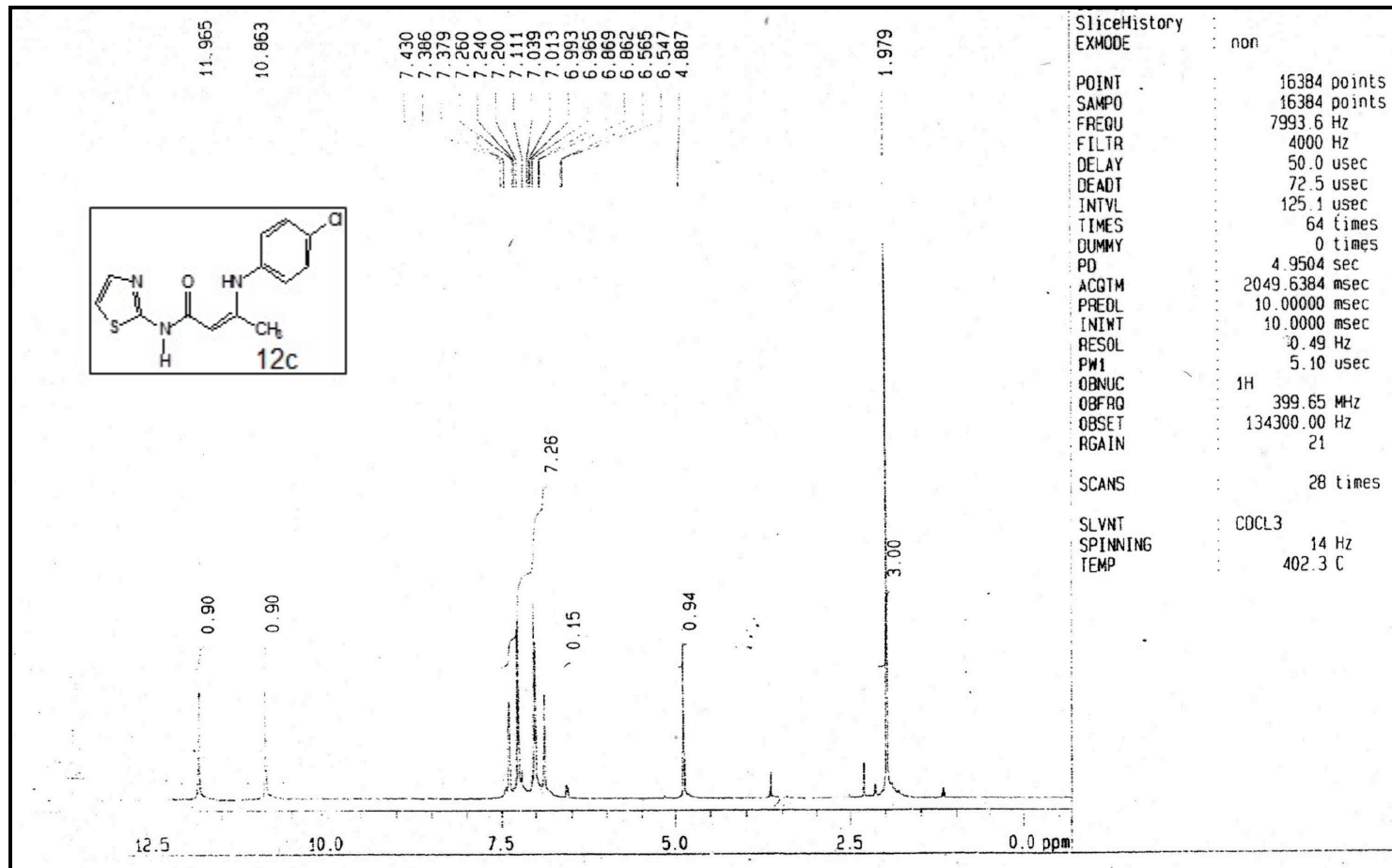


Fig. (25): ¹H NMR Spectrum of Compound (12c)..... Solvent CDCl₃-d₁

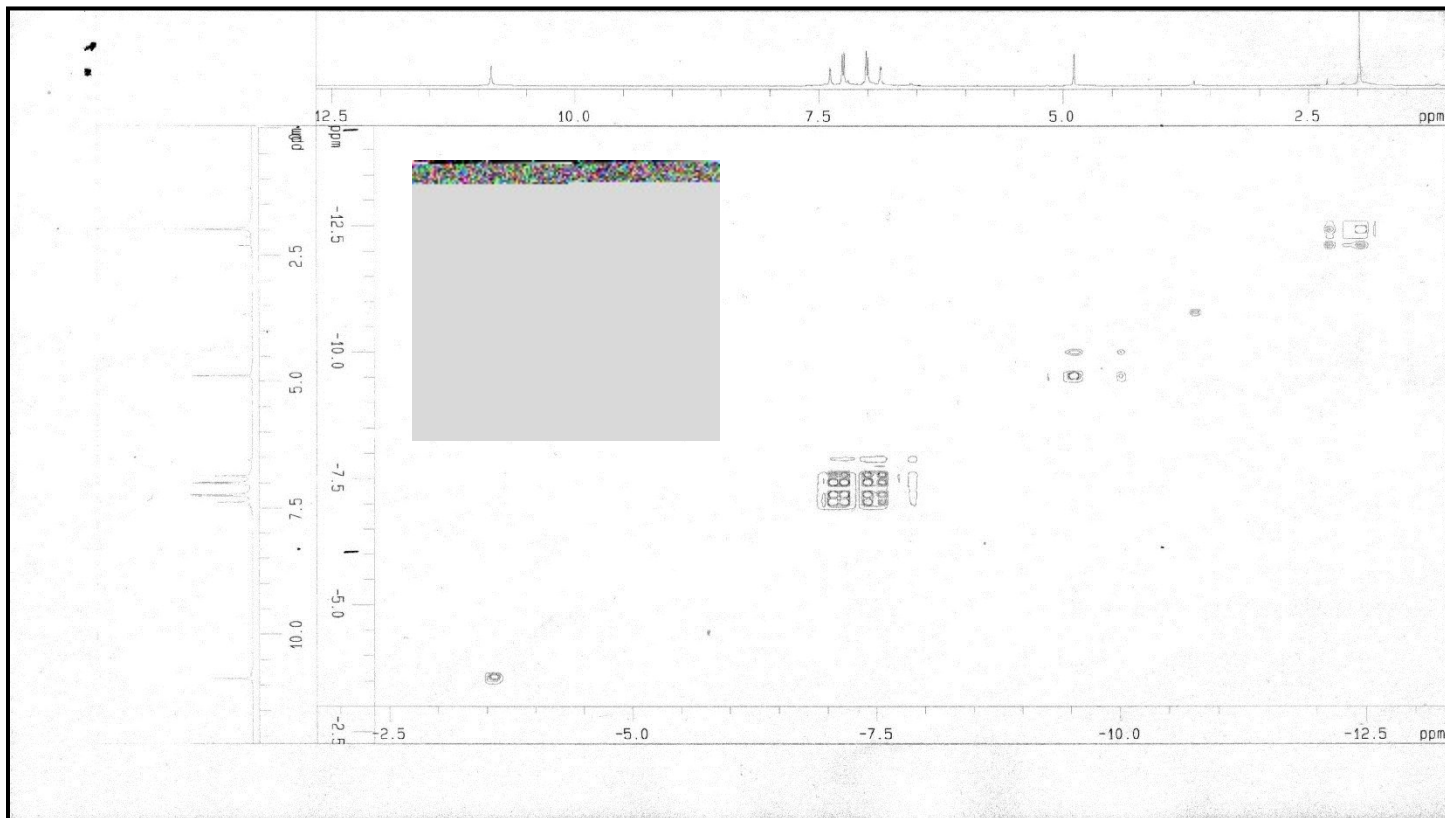


Fig. (26): ^1H - ^1H -COSY NMR Spectrum of Compound (12c)..... Solvent $\text{CDCl}_3\text{-d}_1$

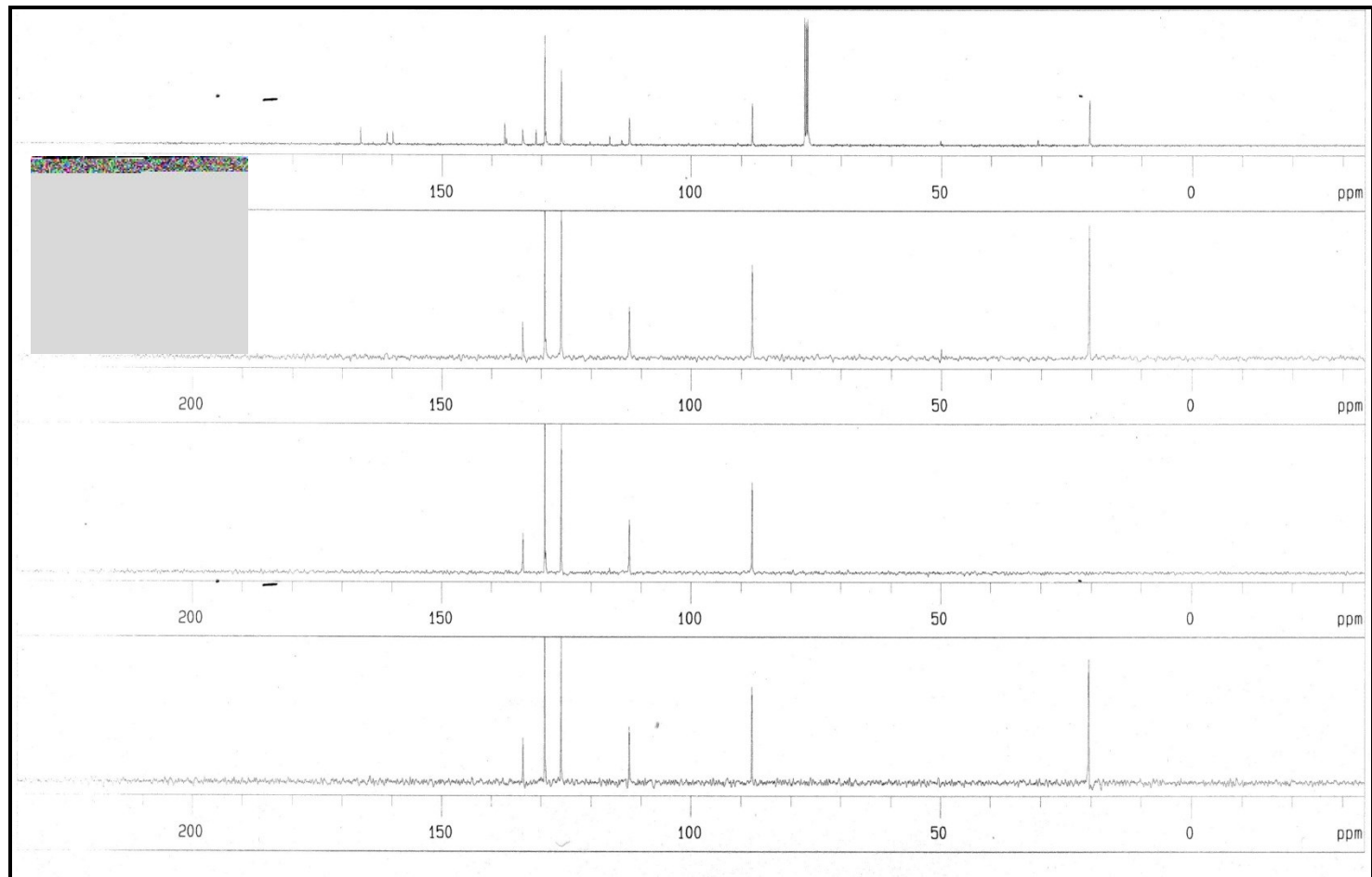


Fig. (27): ^{13}C +(Dept-135,90,45) NMR Spectrum of Compound (12c)..... Solvent $\text{CDCl}_3\text{-d}_1$

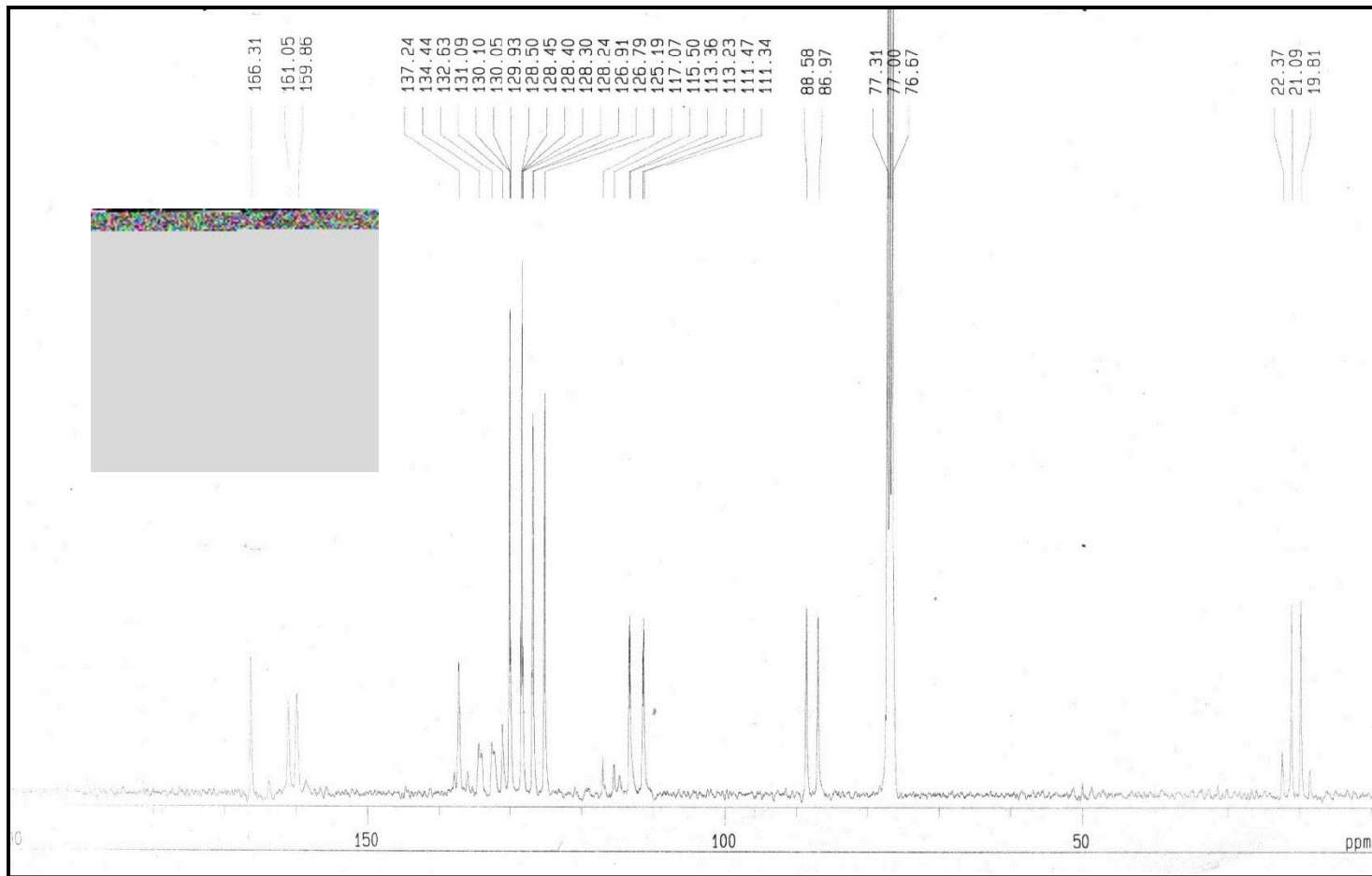


Fig. (28): (NOE) ^{13}C NMR Spectrum of Compound (12c)..... Solvent $\text{CDCl}_3\text{-d}_1$

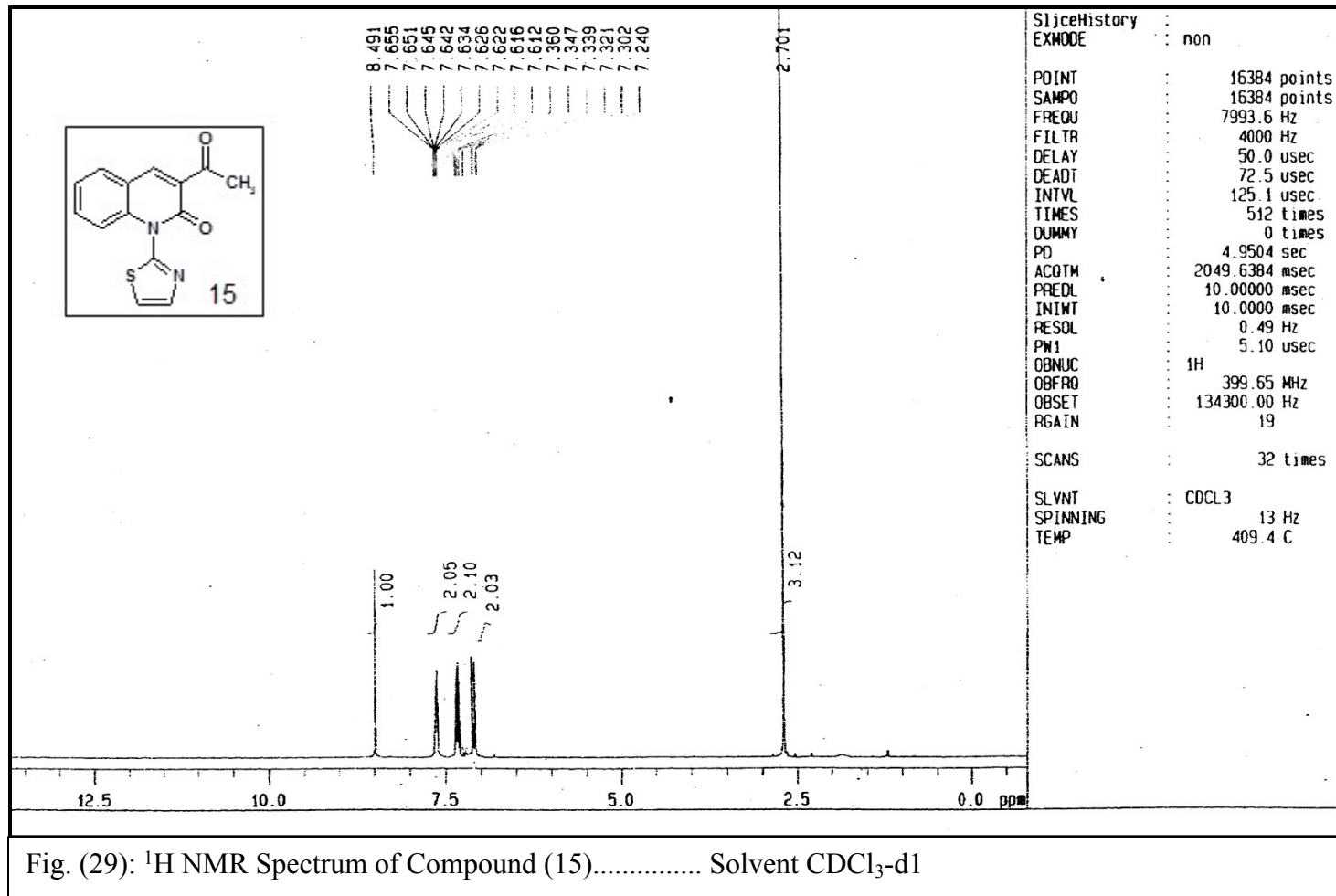


Fig. (29): ¹H NMR Spectrum of Compound (15)..... Solvent CDCl₃-d₁

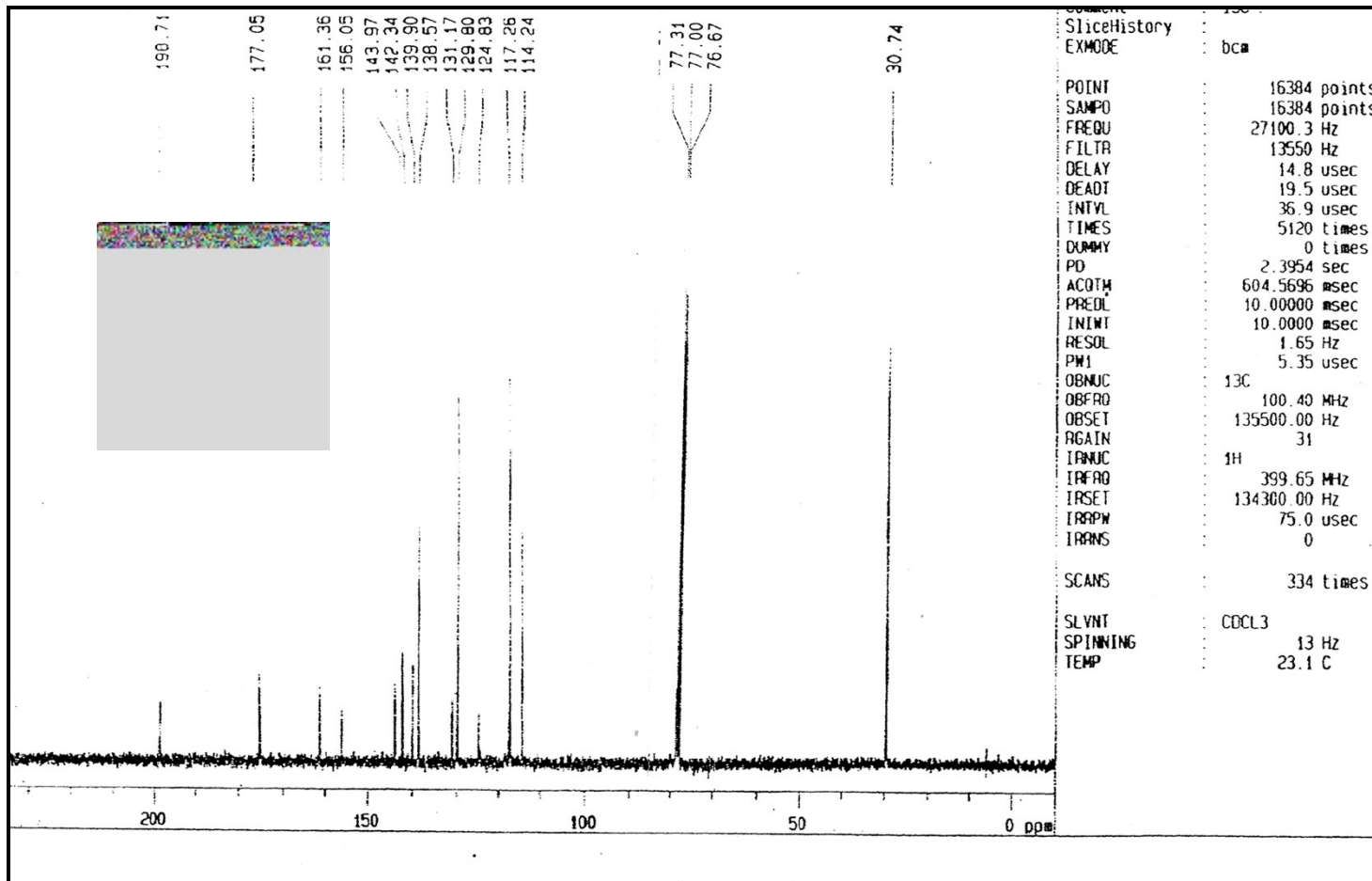


Fig. (30): ¹³C NMR Spectrum of Compound (15)..... Solvent CDCl₃-d₁