

# A simple and convenient approach to the Kröhnke pyridine type synthesis of functionalised indol-3-yl pyridine derivatives using 3-cyanoacetyl indole

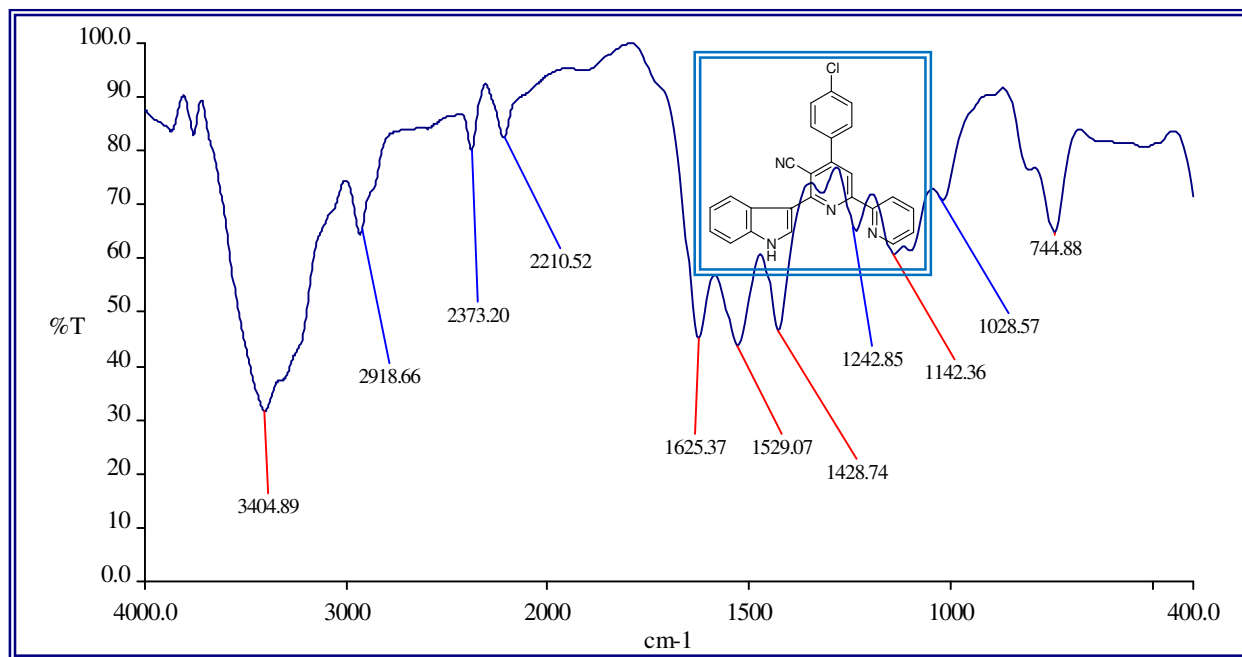
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Organic Chemistry Division, Central Leather Research Institute, Adyar, Chennai 600 020.

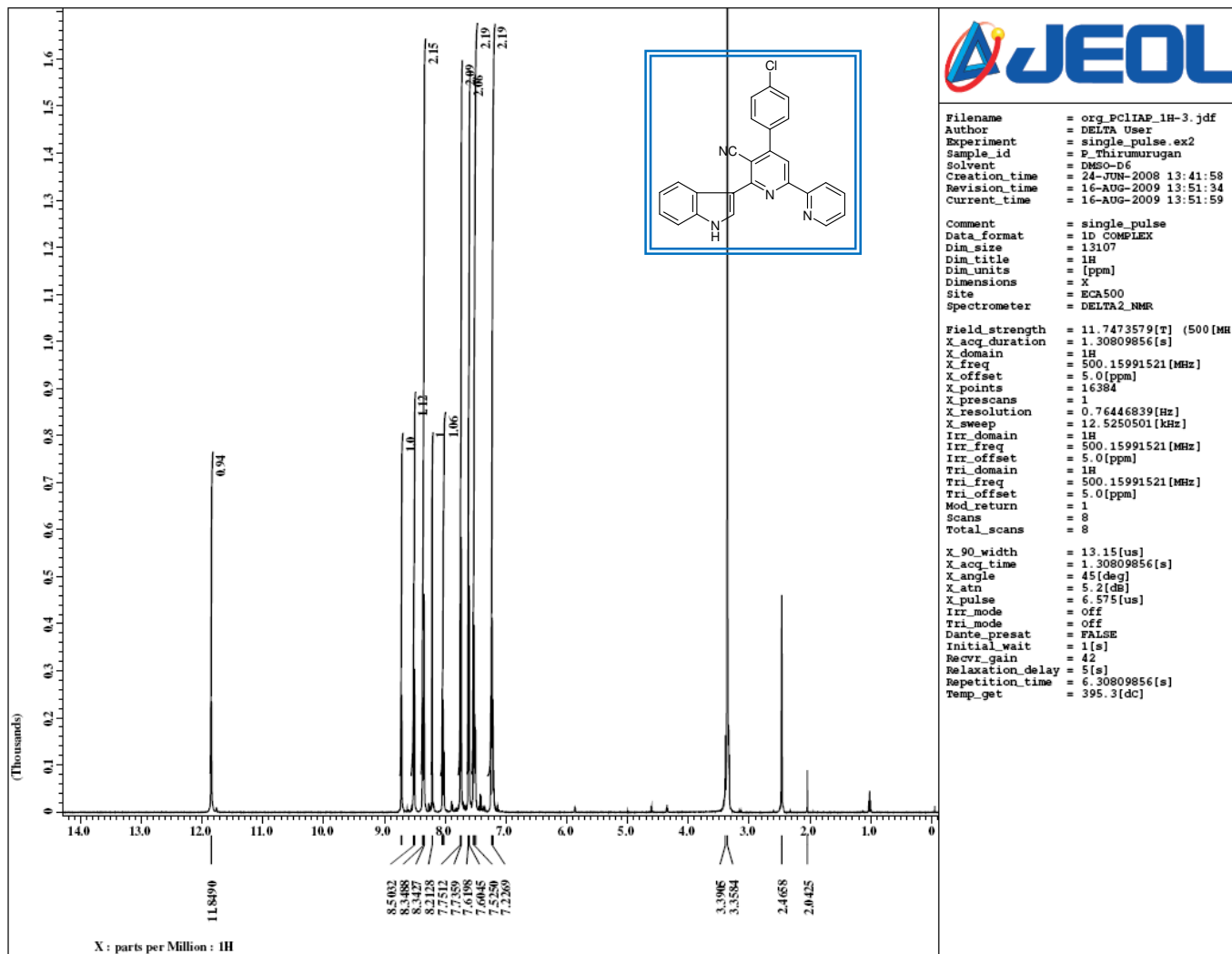
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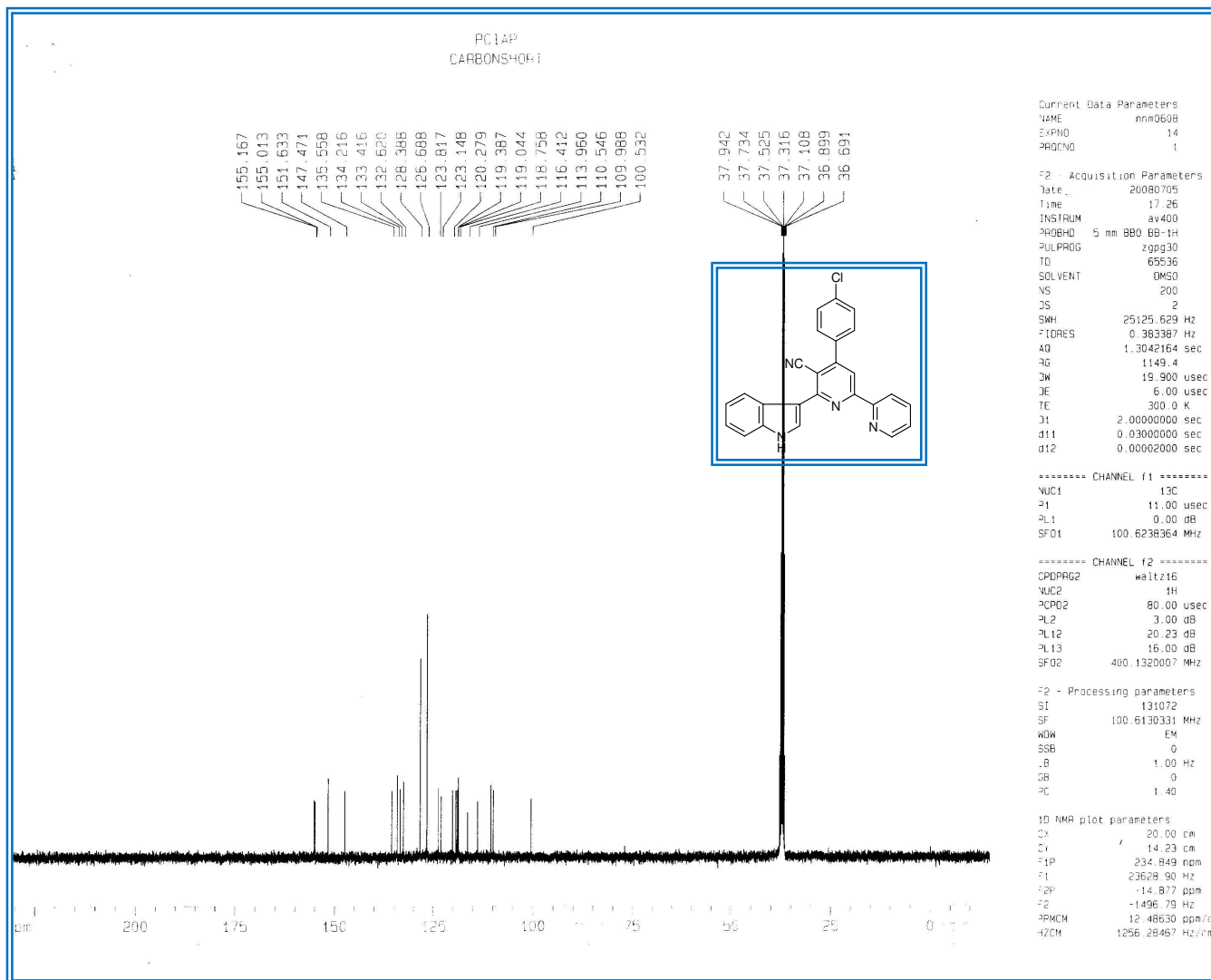
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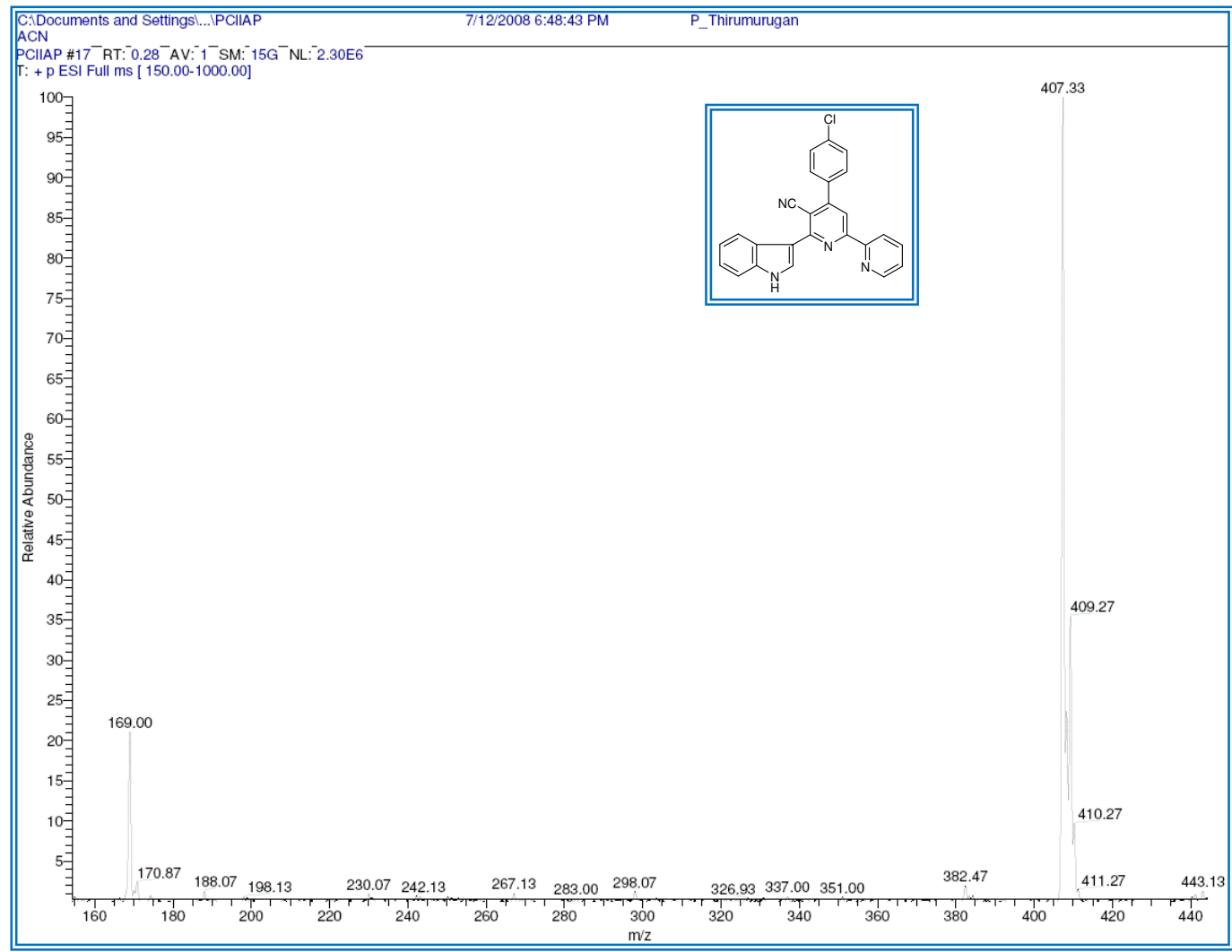
1. IR spectrum of compound **4g**



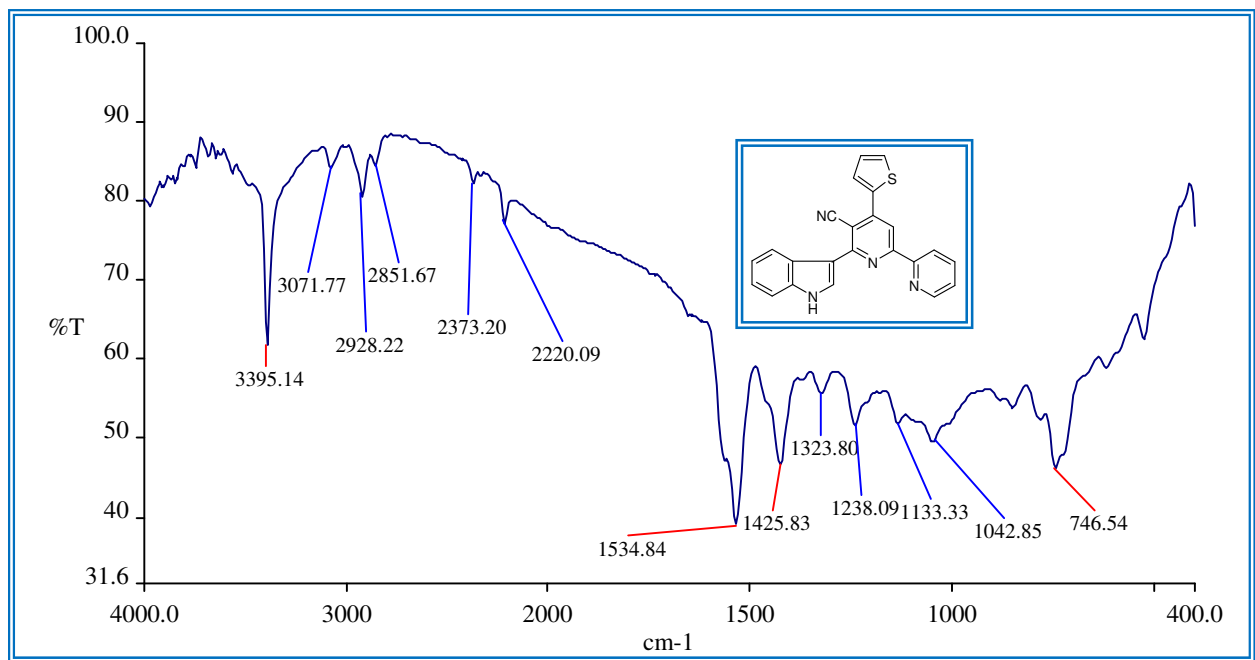
2.  $^1\text{H}$  NMR spectrum of compound 4g



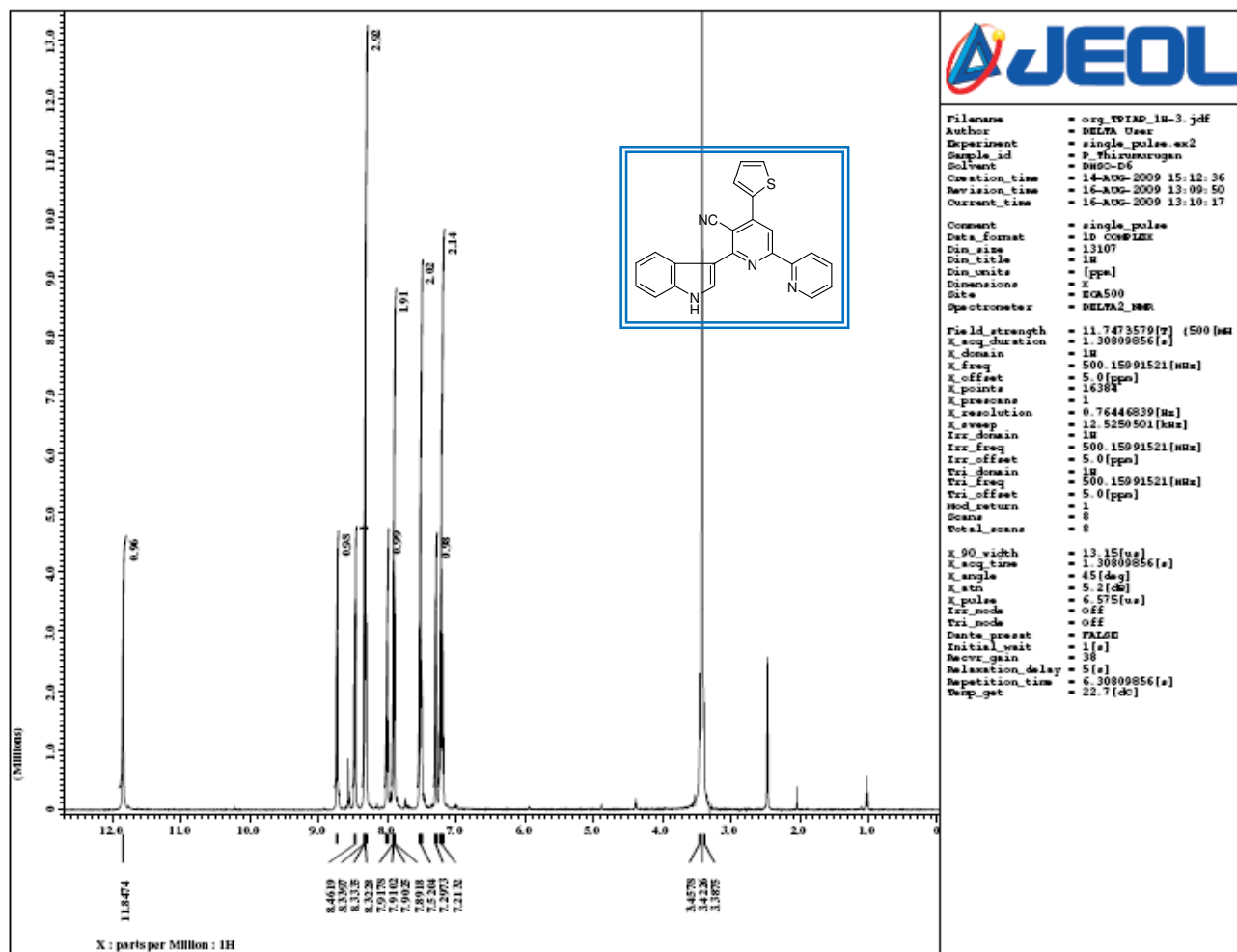
3.  $^{13}\text{C}$  NMR spectrum of compound 4g



4. Mass Spectrum of Compound 4g

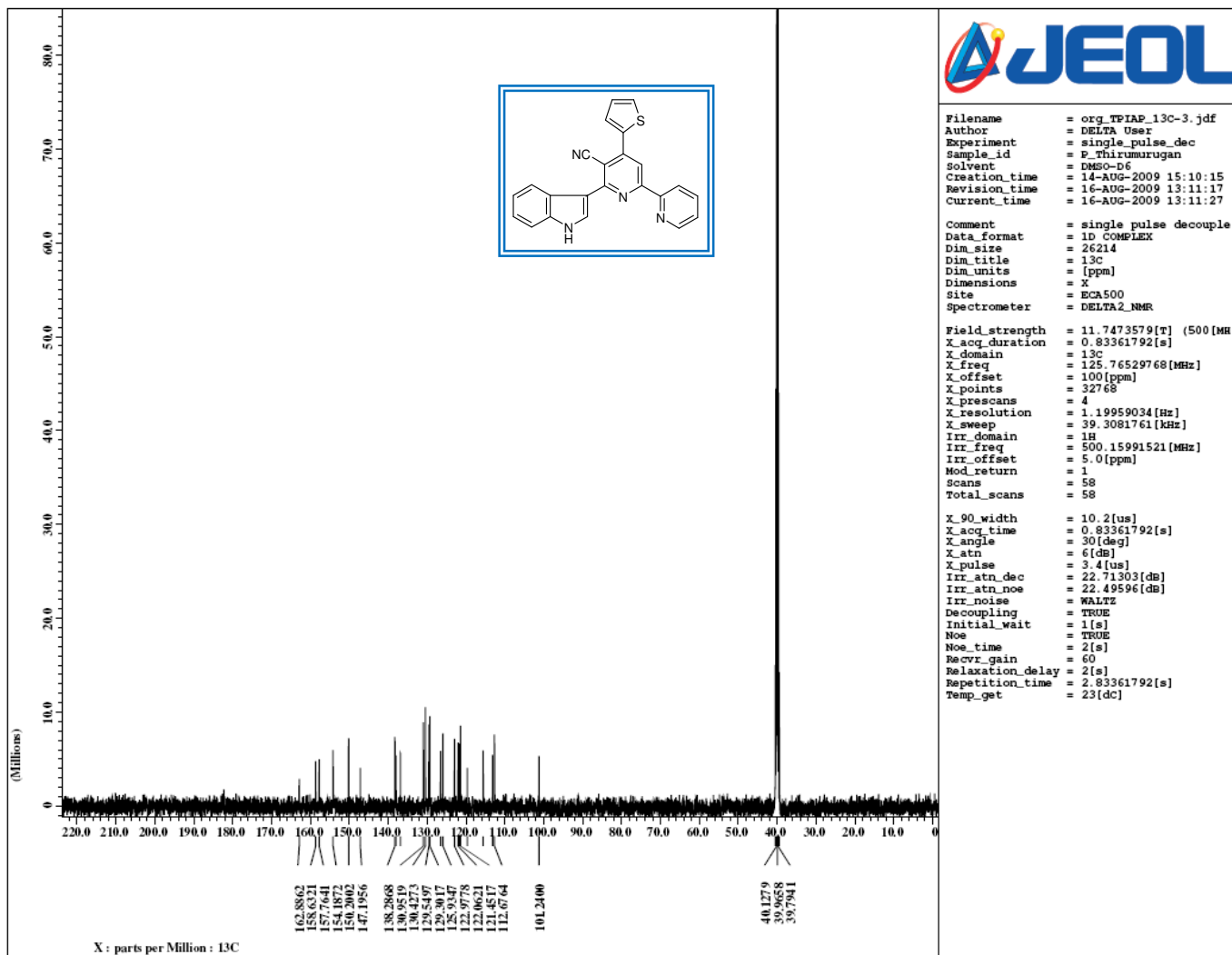


5. IR spectrum of compound **4u**

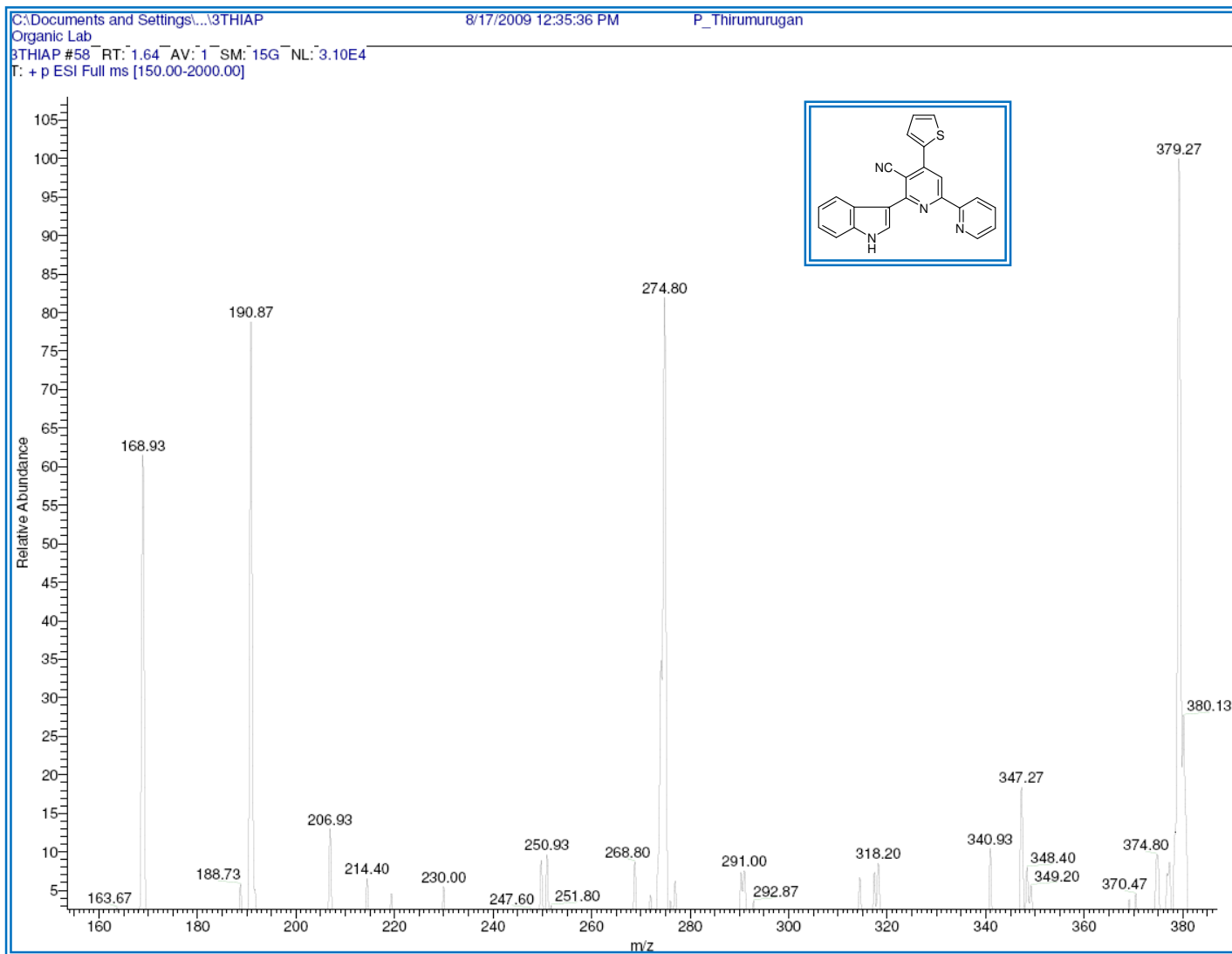


6. <sup>1</sup>H NMR spectrum of compound 4u

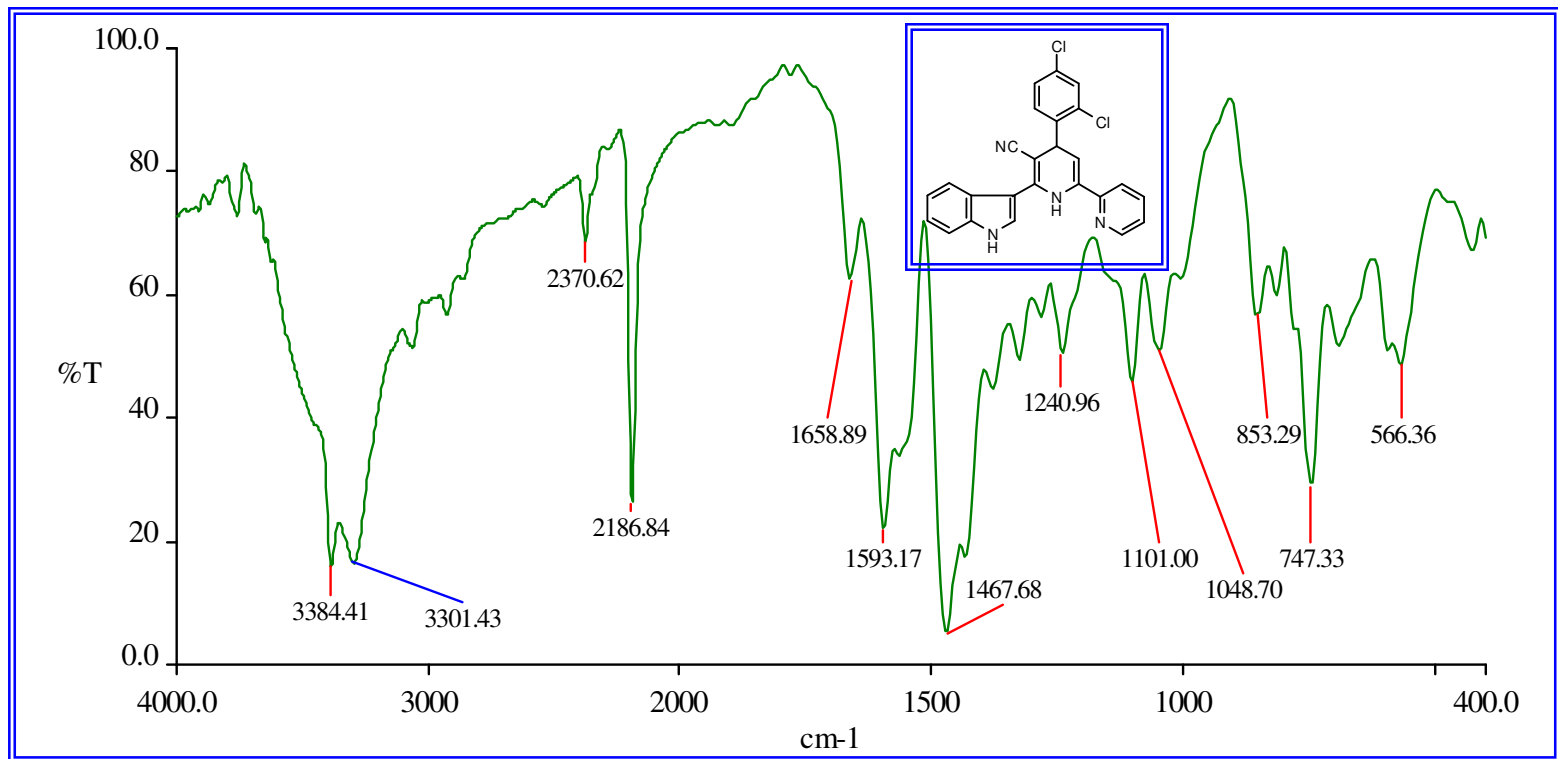




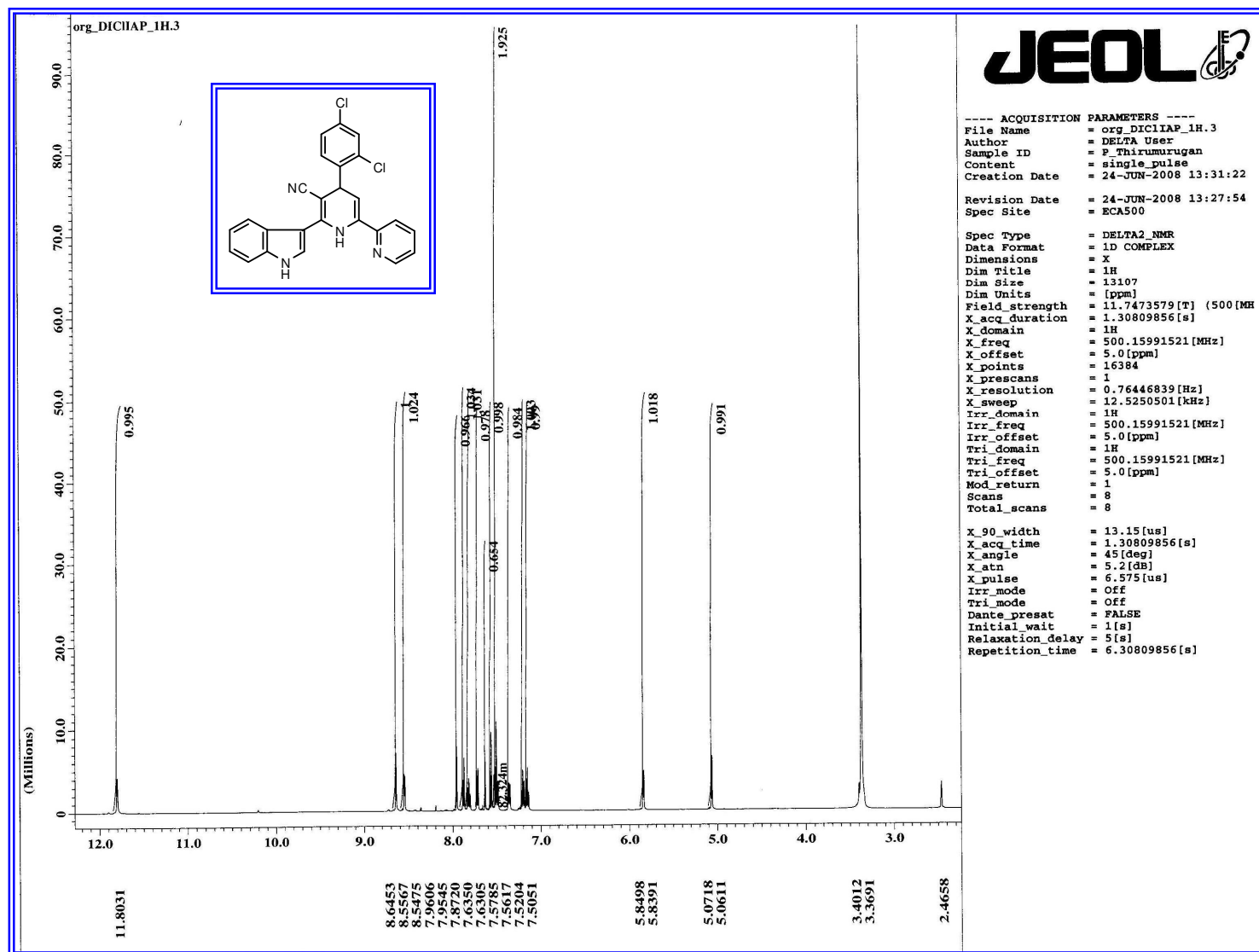
7.  $^{13}\text{C}$  NMR spectrum of compound 4u



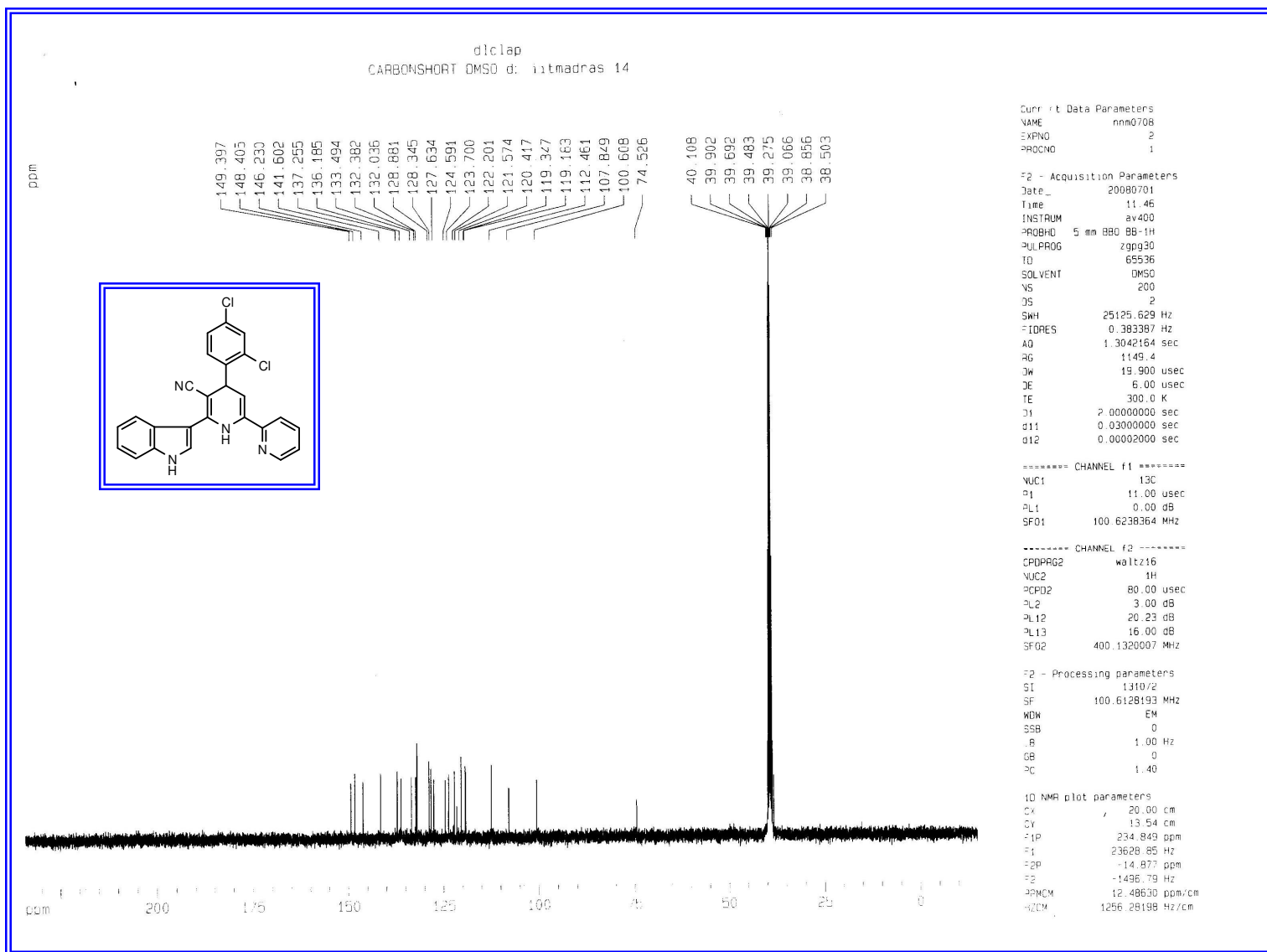
8. Mass spectrum of compound **4u**



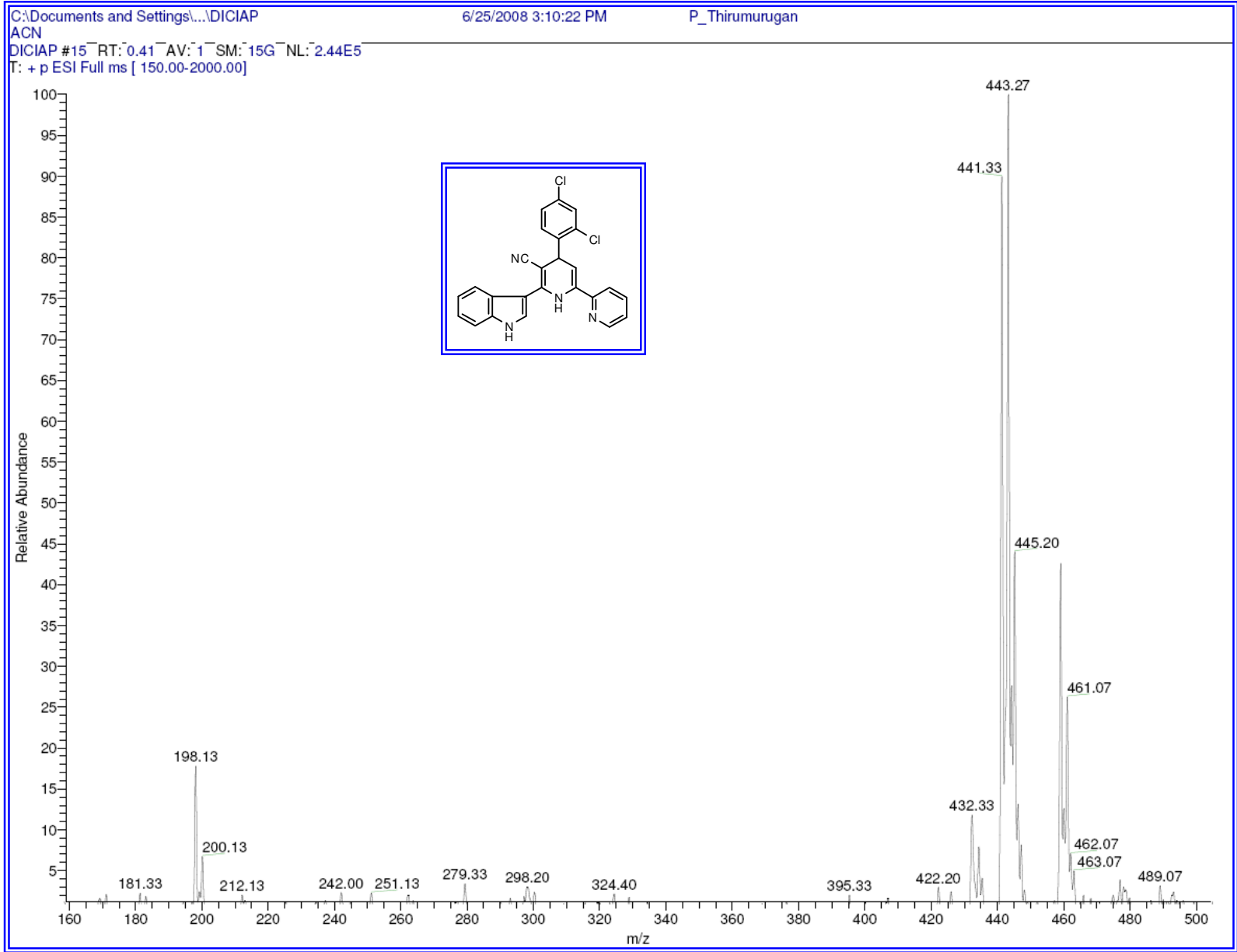
9. IR spectrum of compound 5



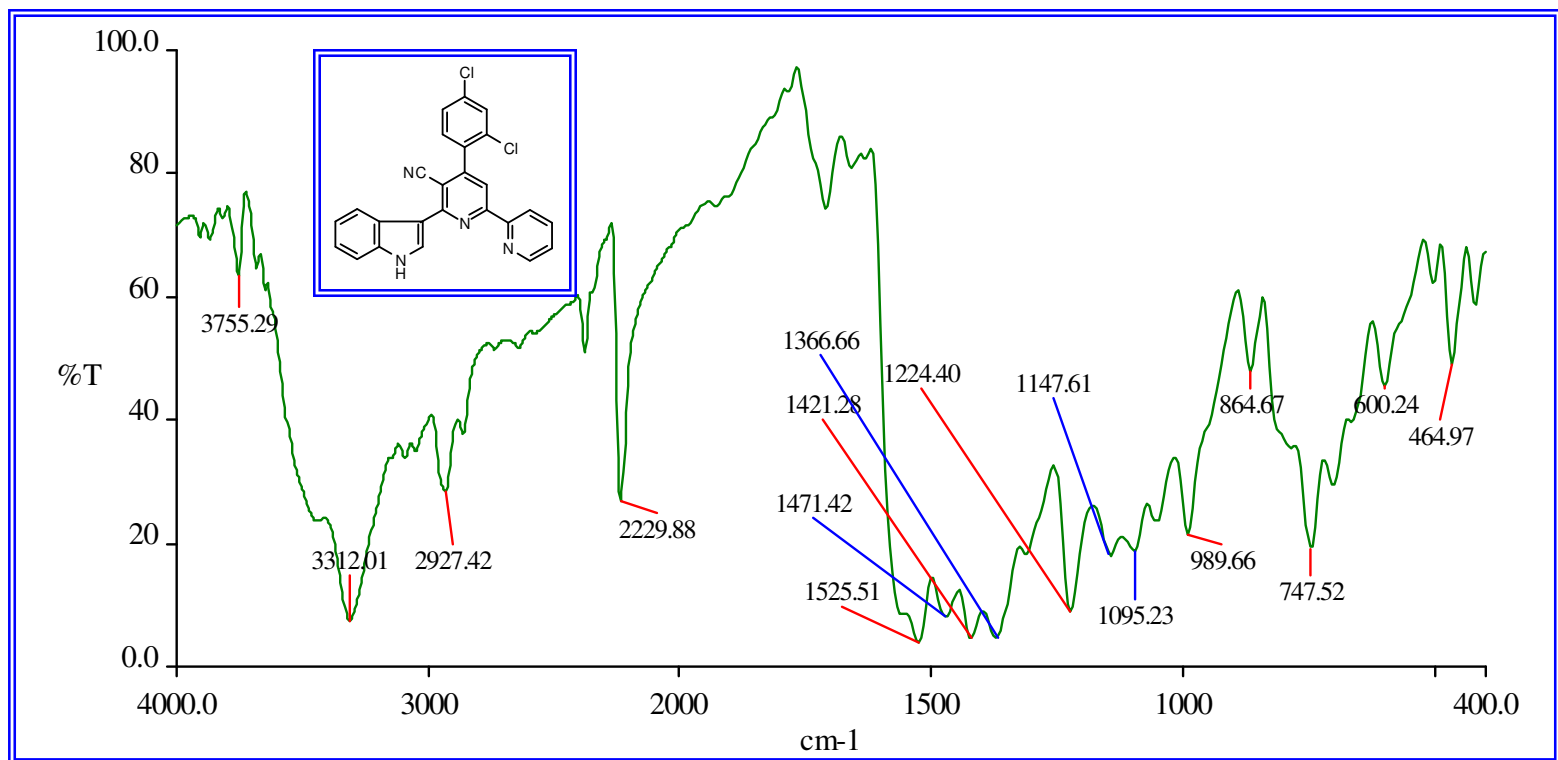
10. 1 NMR spectra of compound 5



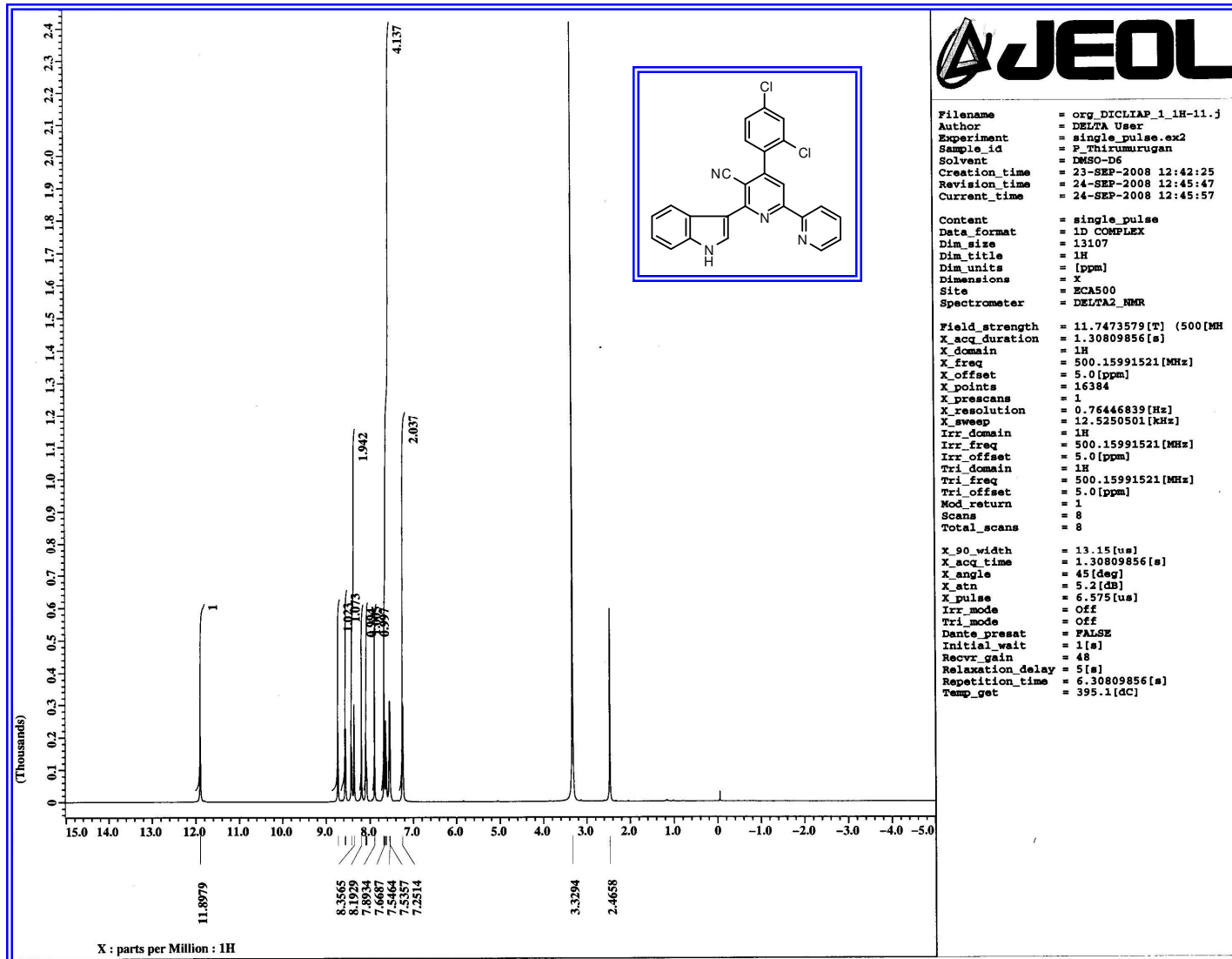
11.  $^{13}\text{C}$  NMR spectrum of compound 5



12. Mass spectrum of compound 5

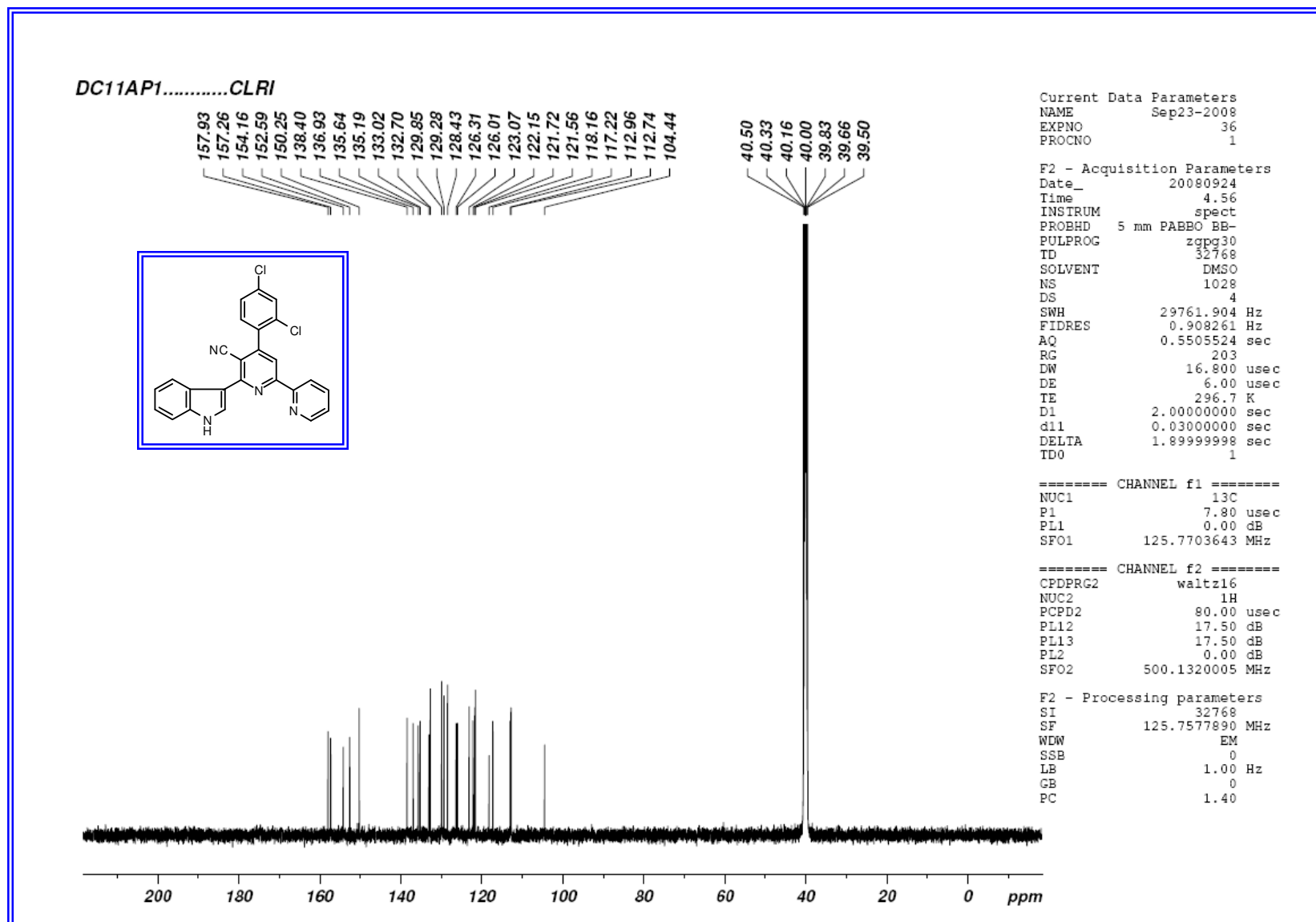


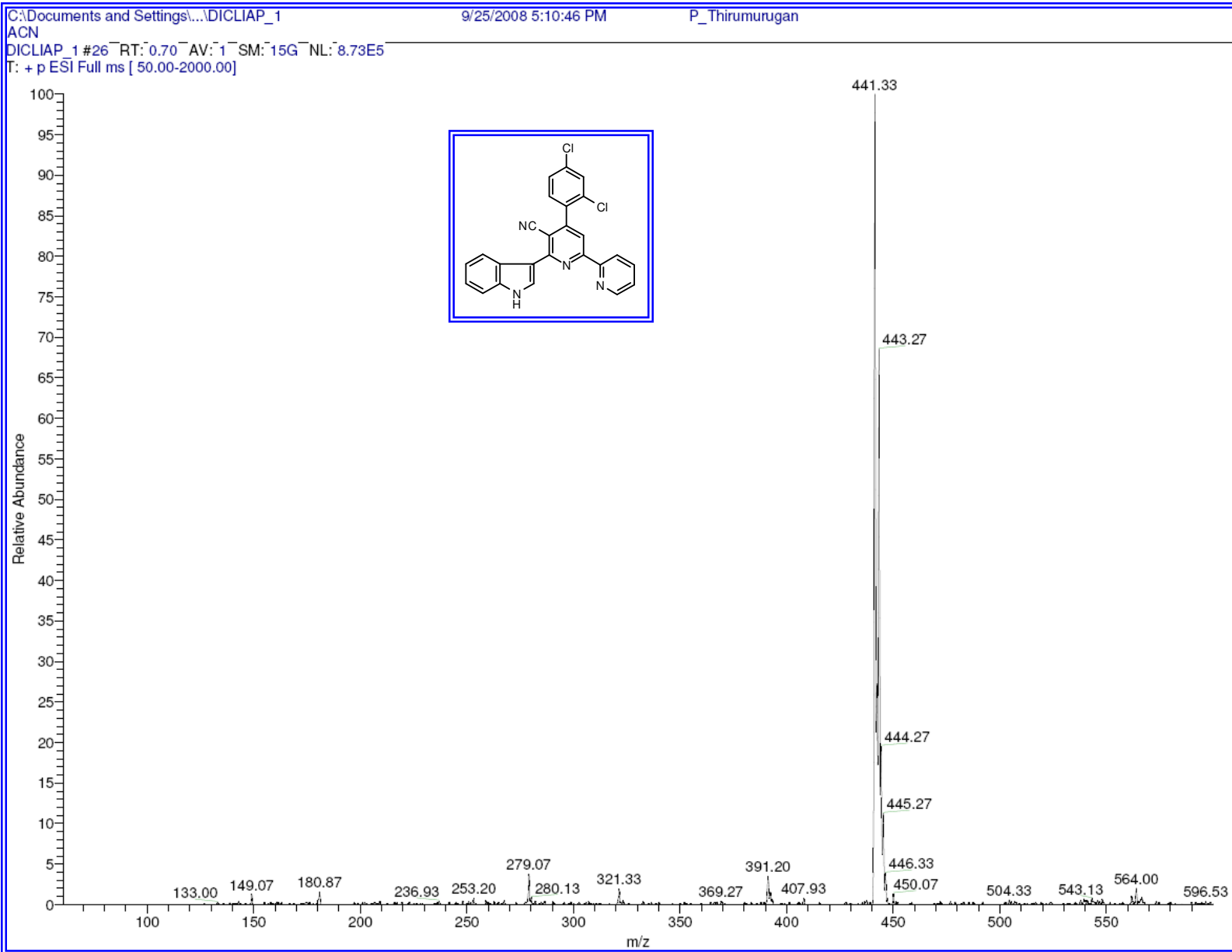
13. IR spectrum of compound 6



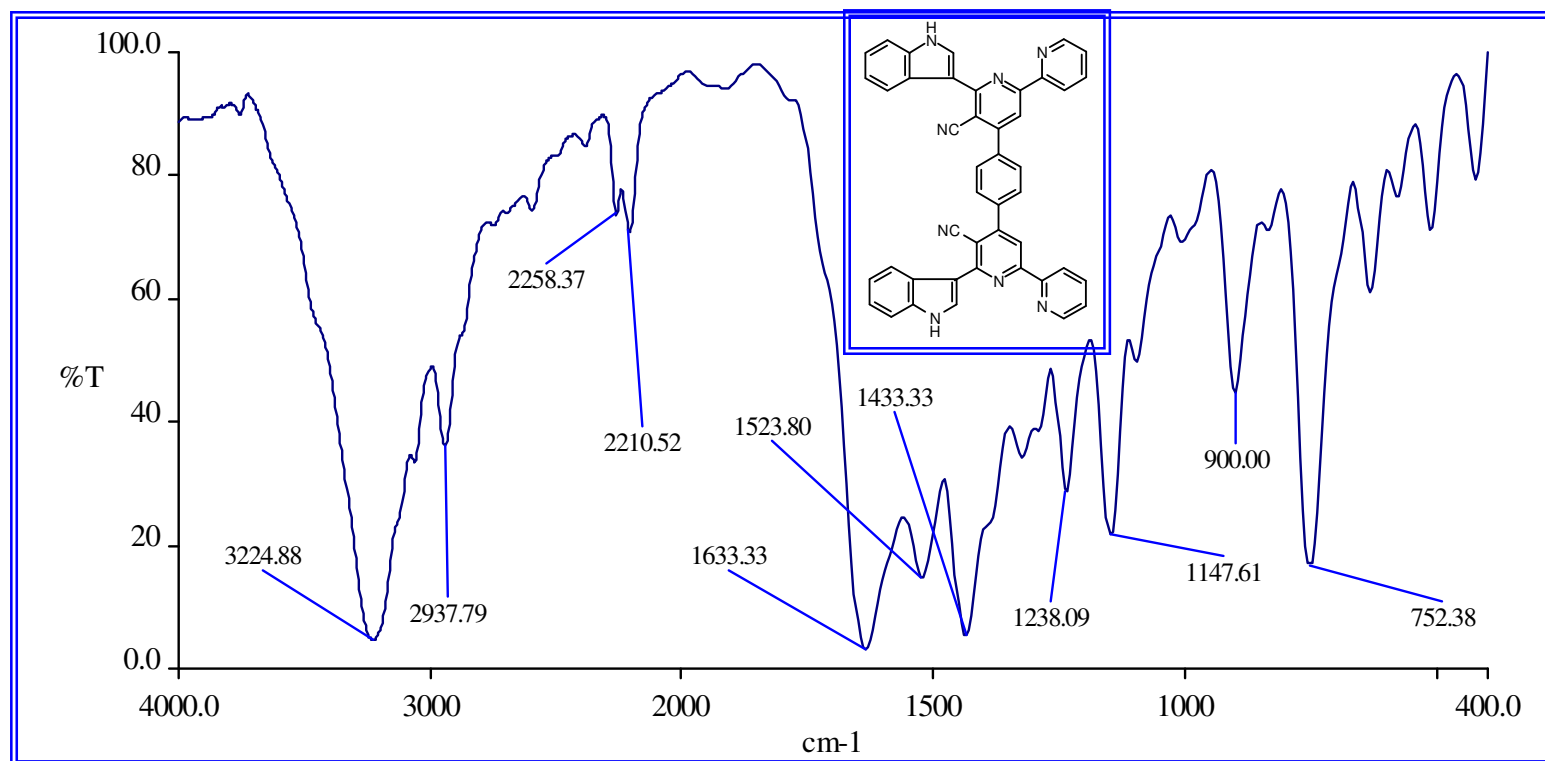
14.  $^1\text{H}$  NMR spectrum of compound 6



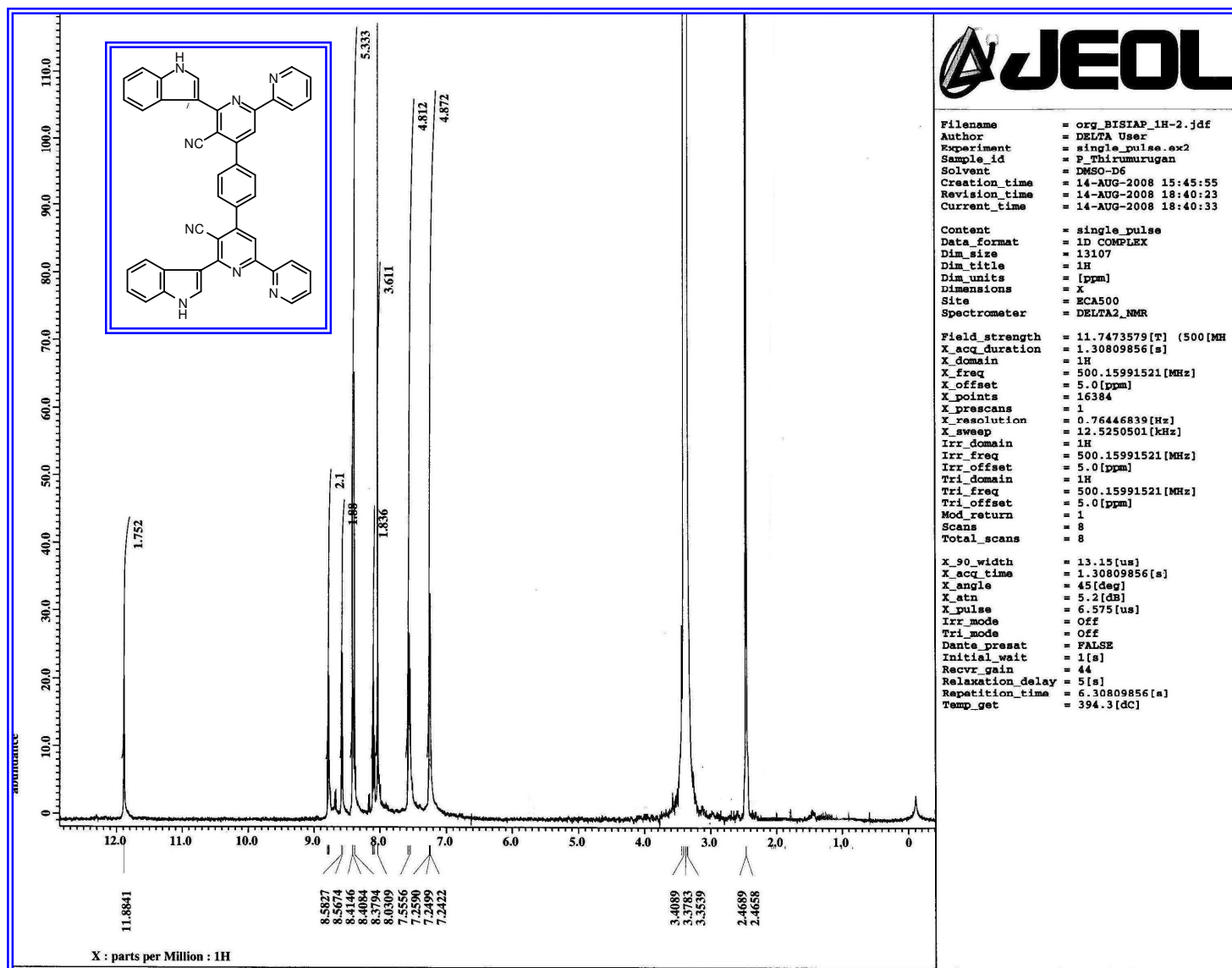




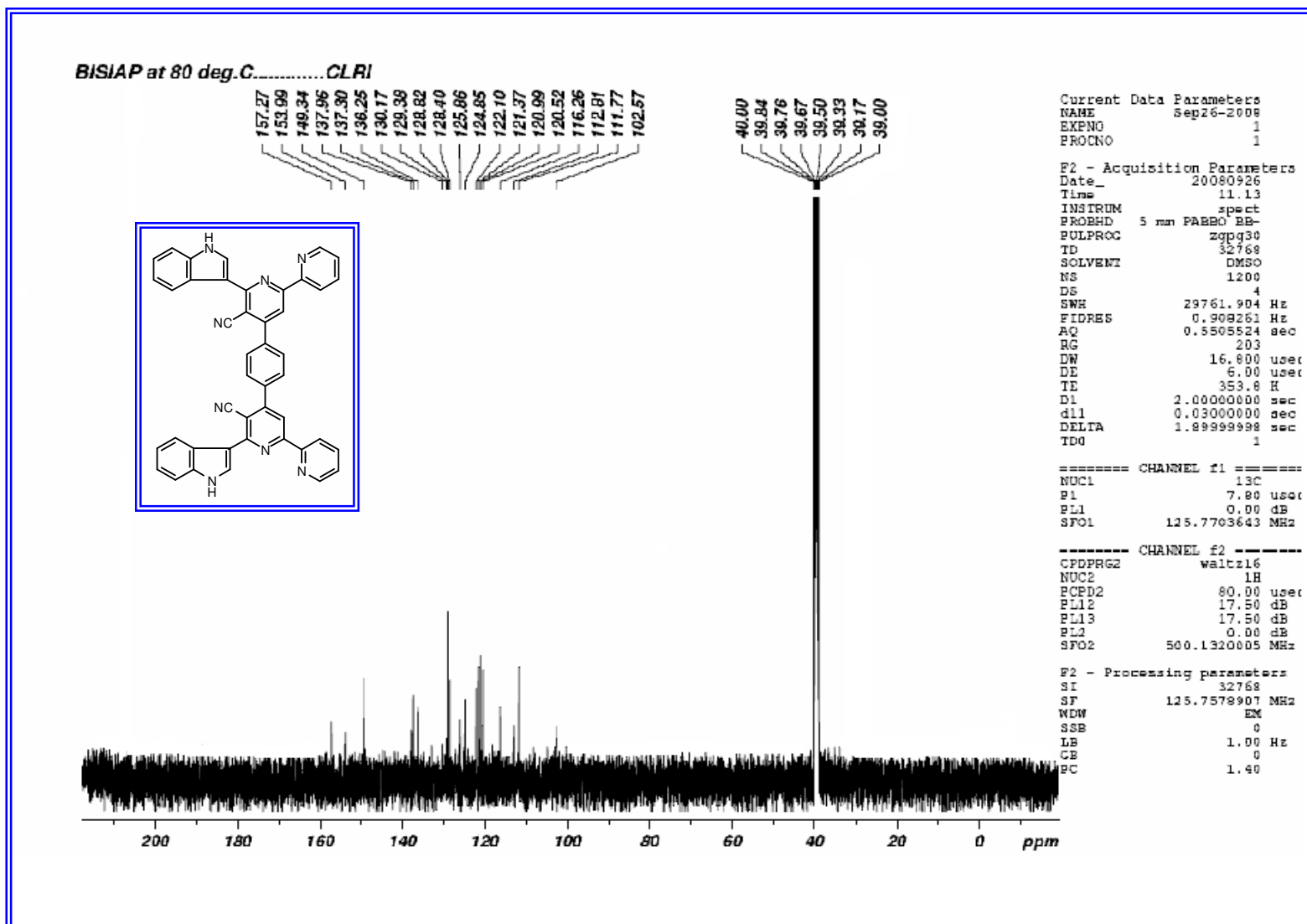
16. Mass spectrum of compound 6



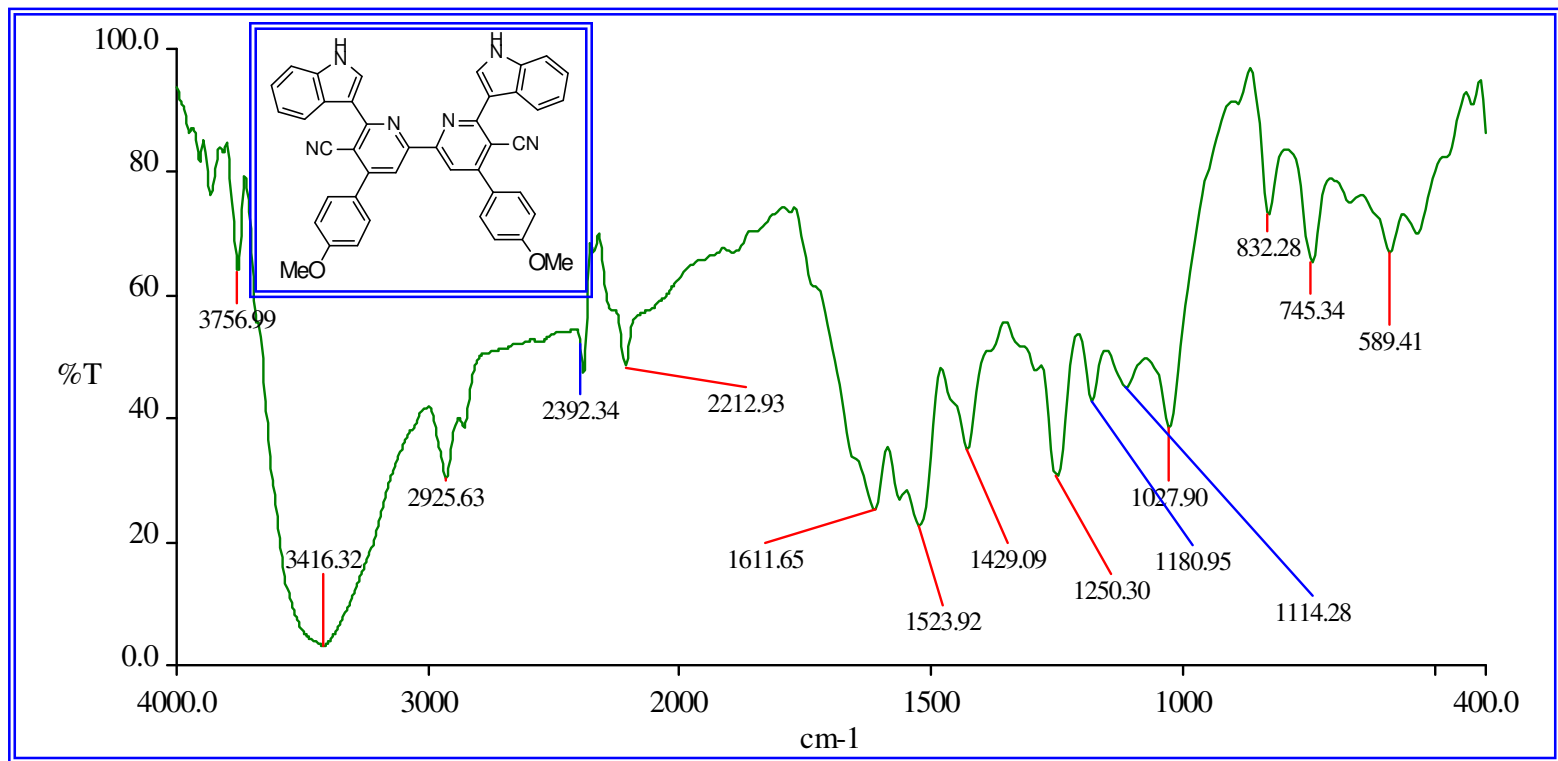
17. IR spectrum of compound 8



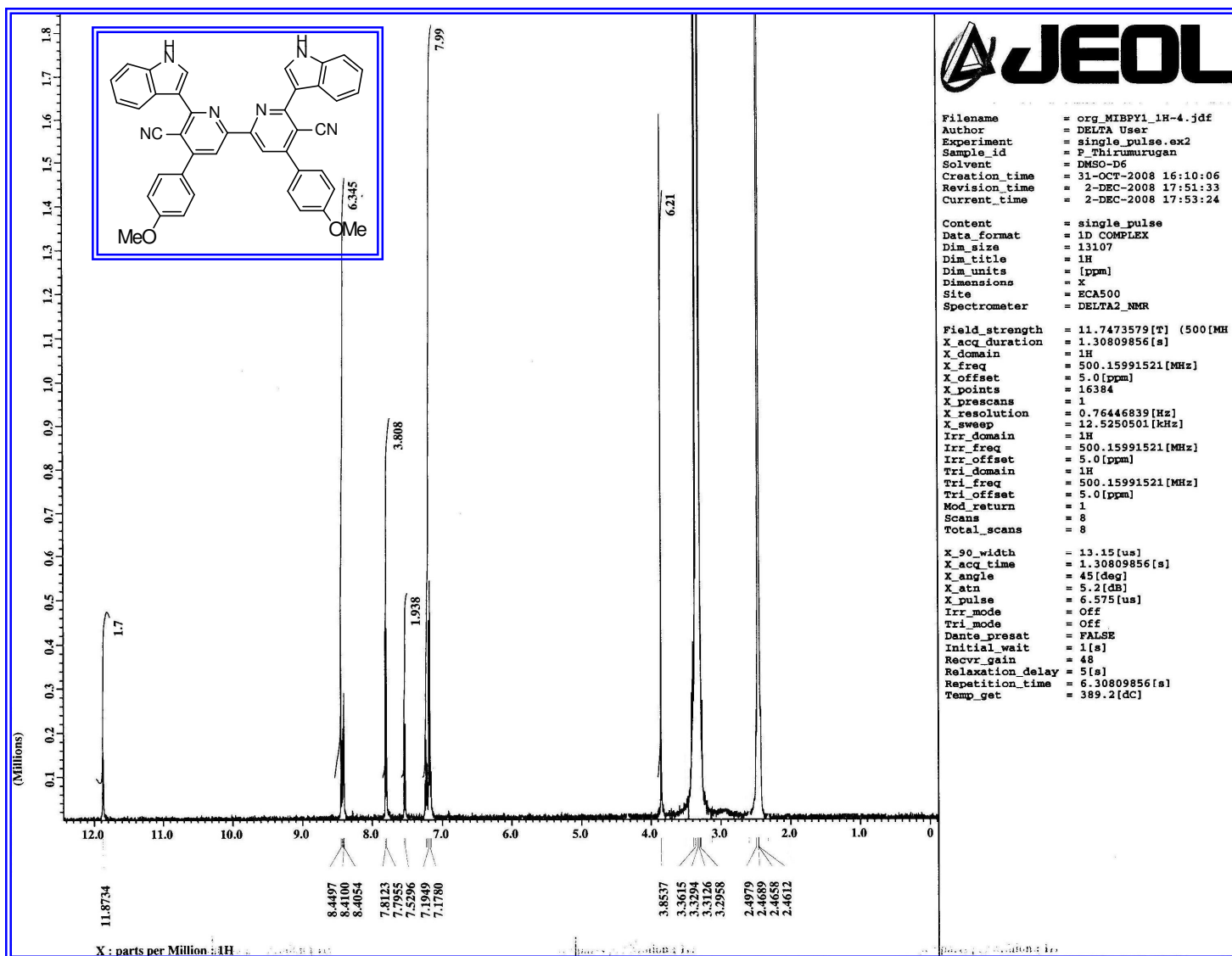
18. <sup>1</sup>H NMR spectrum of compound 8



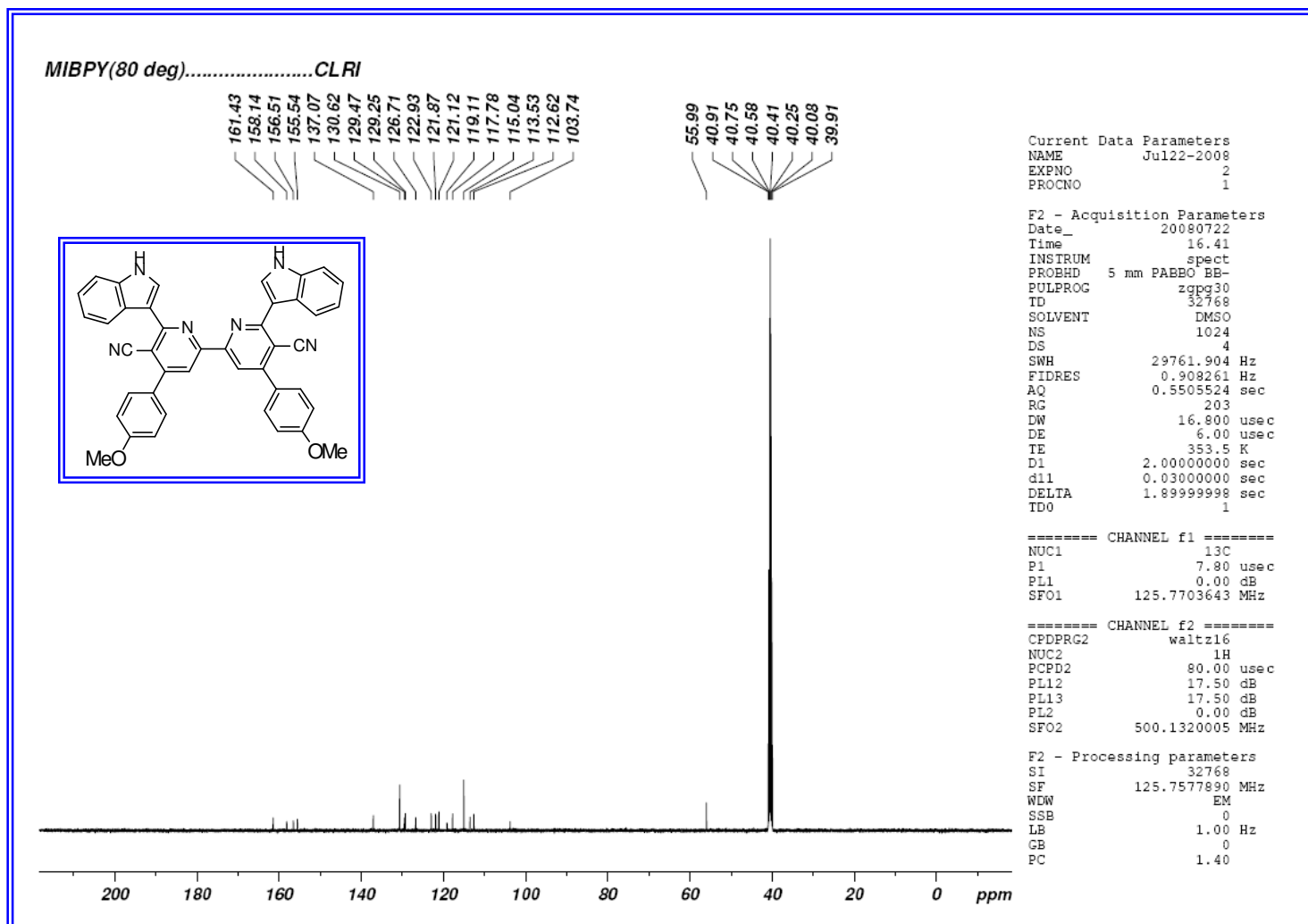
19 <sup>13</sup>C NMR spectrum of compound 8



20. IR spectrum of compound **10d**

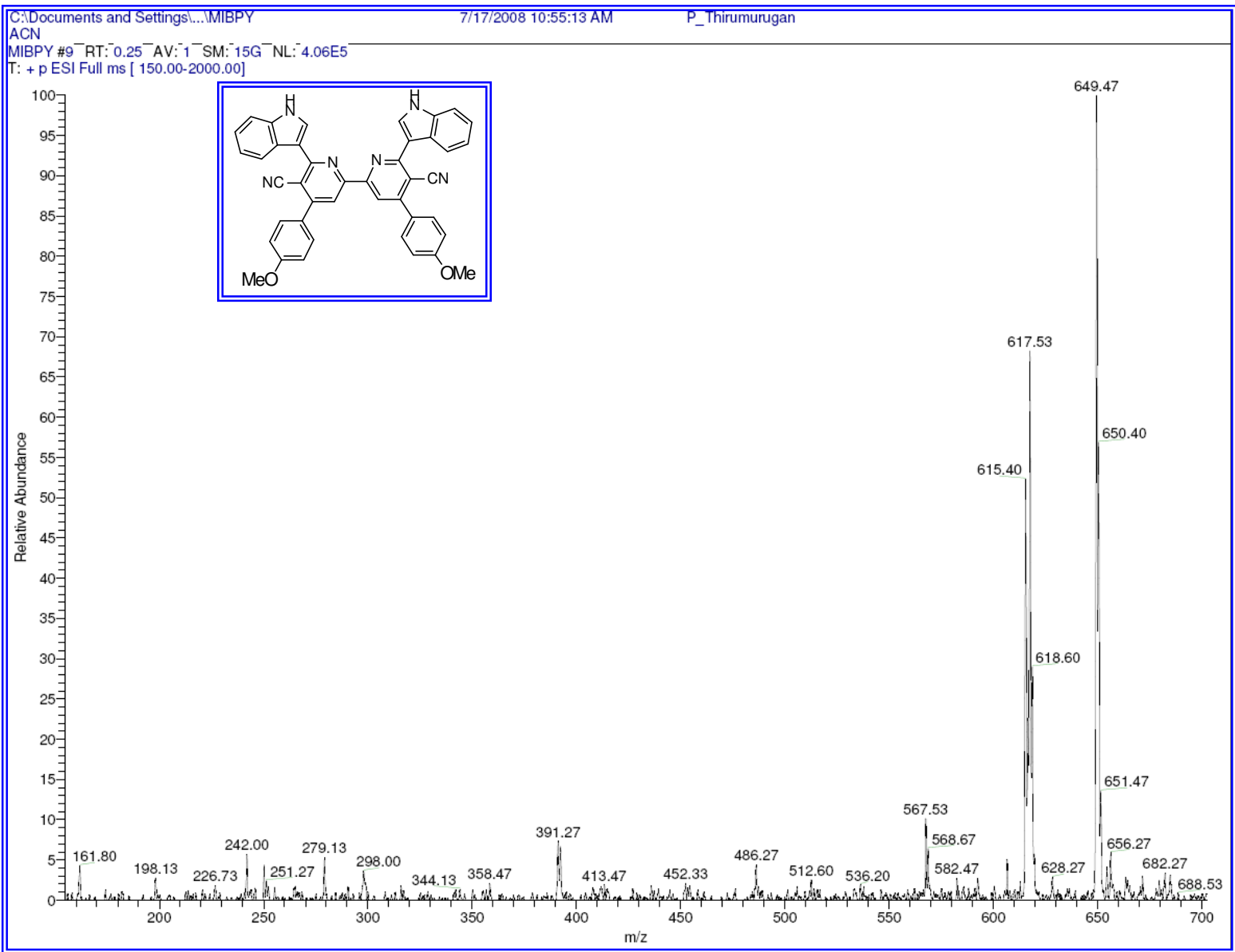


21. <sup>1</sup>H NMR spectrum of compound 10d

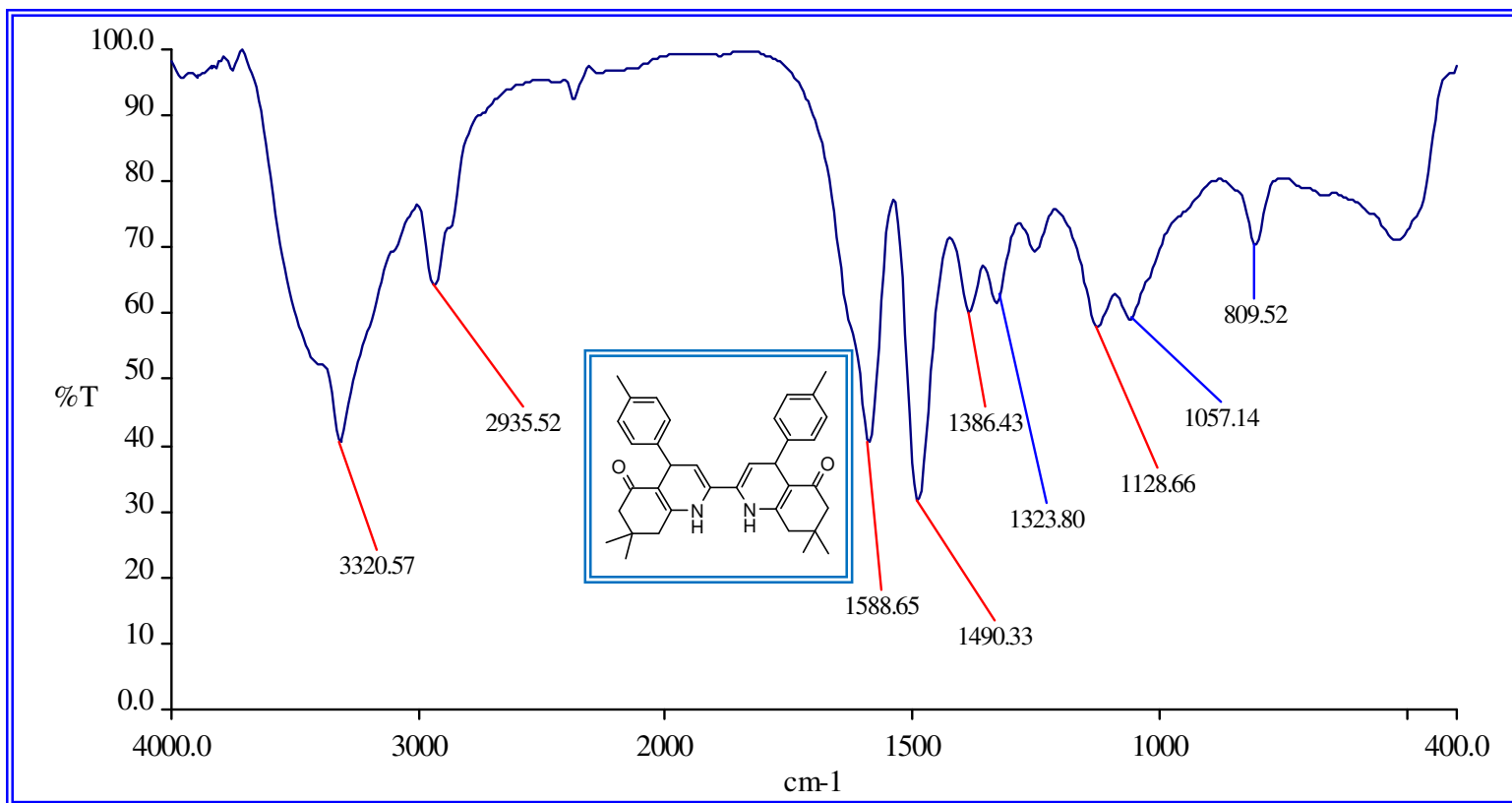


22.  $^{13}\text{C}$  NMR spectrum of compound **10d**

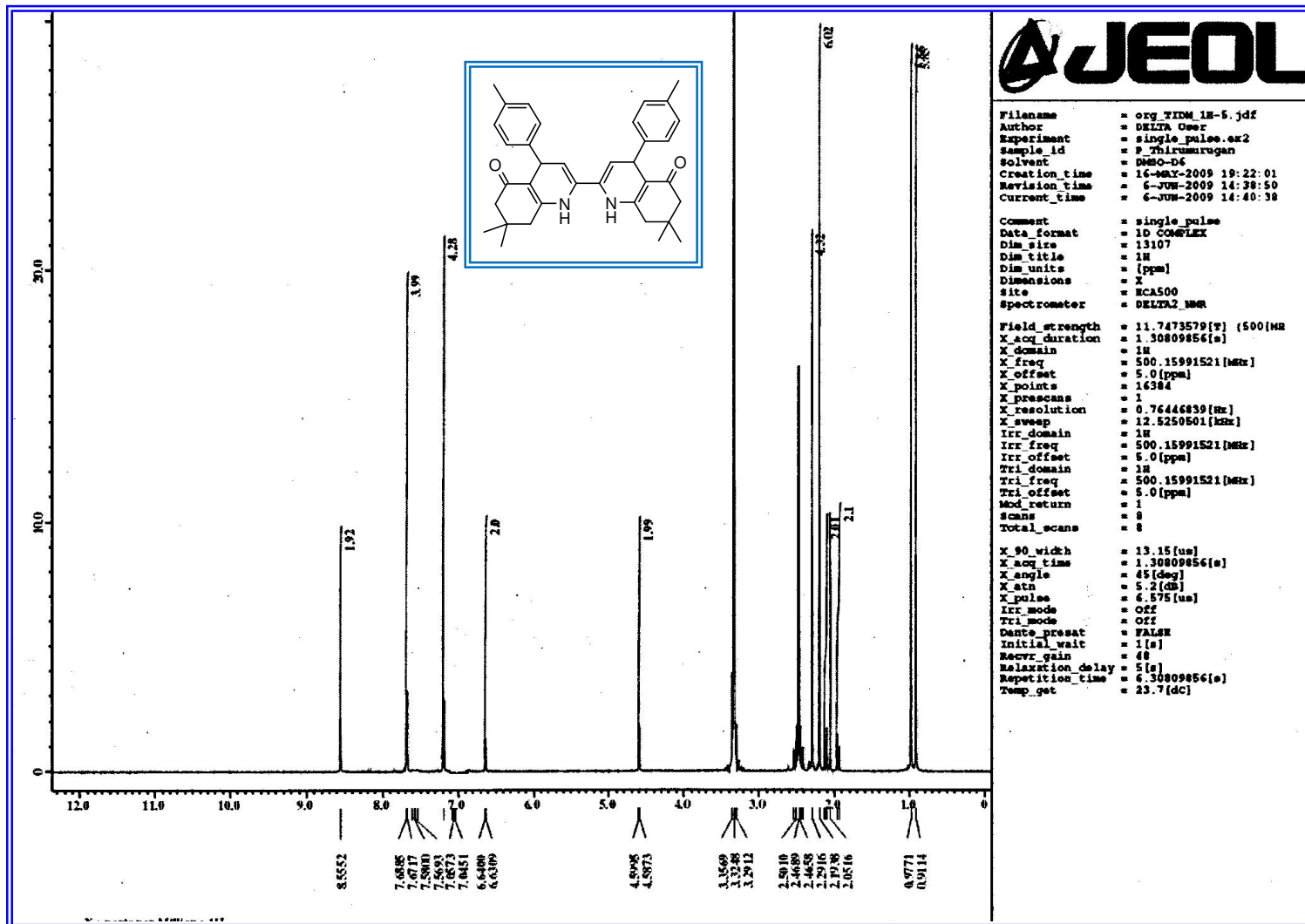




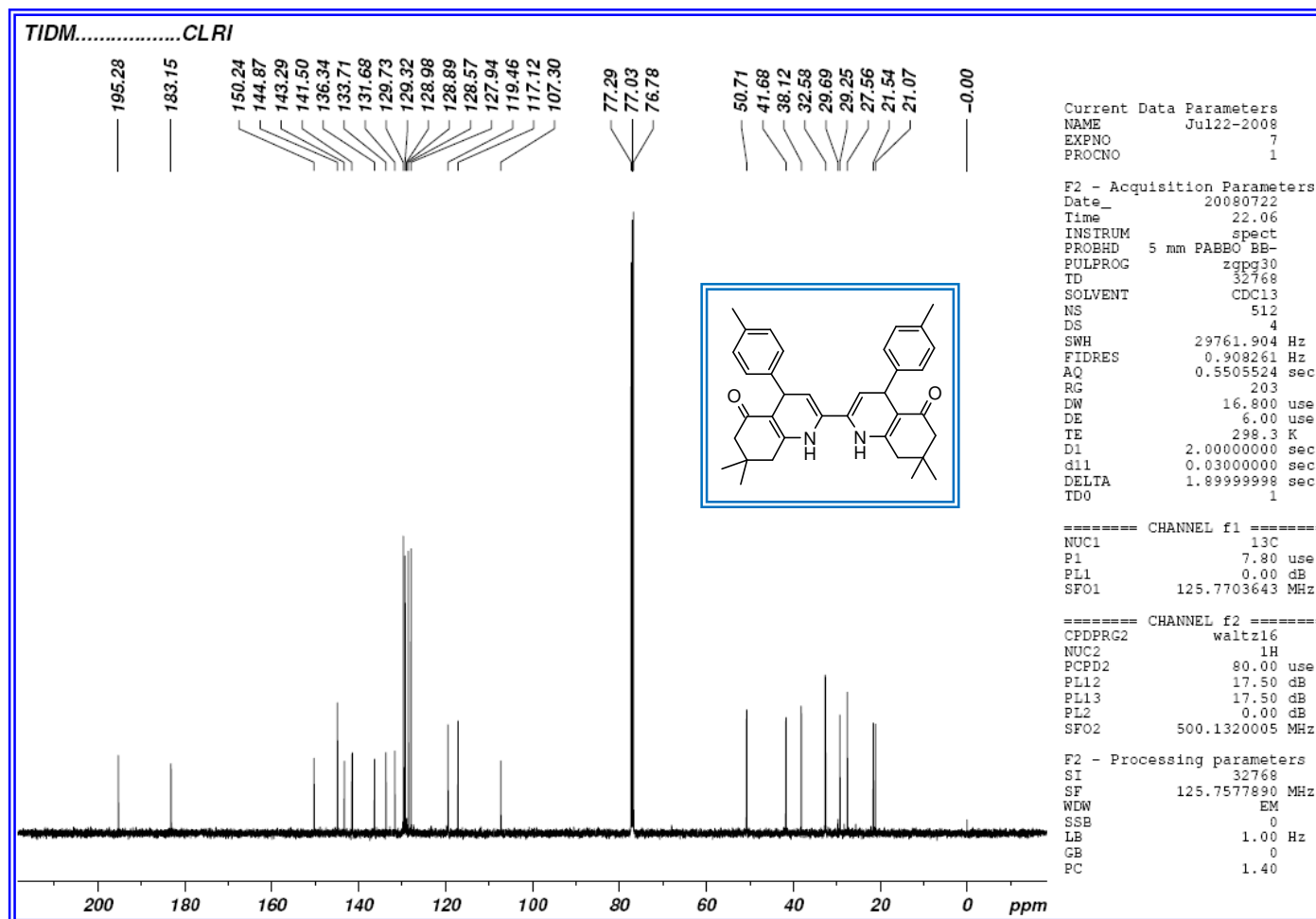
23. Mass spectrum compound 10d



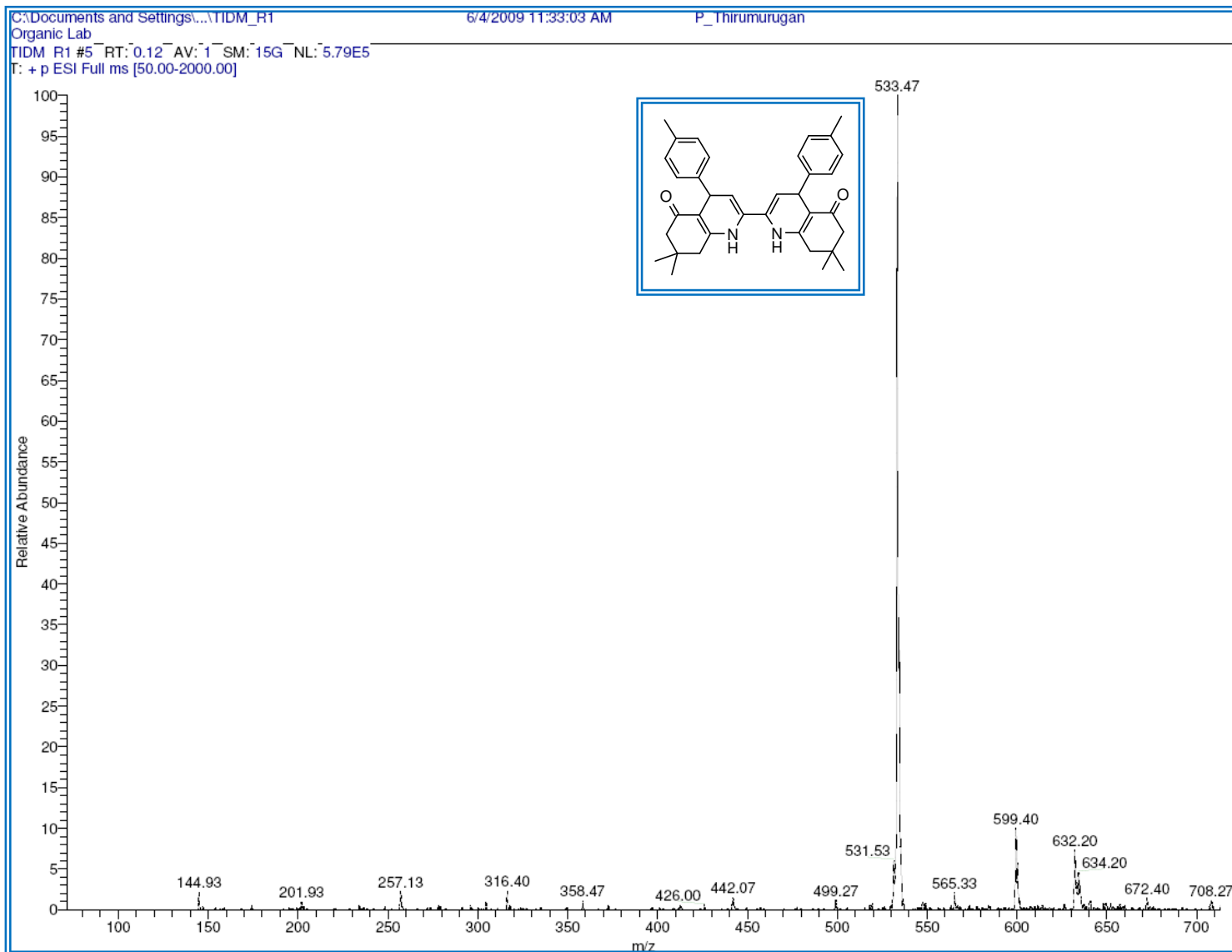
24. IR Spectrum of Compound **12b**



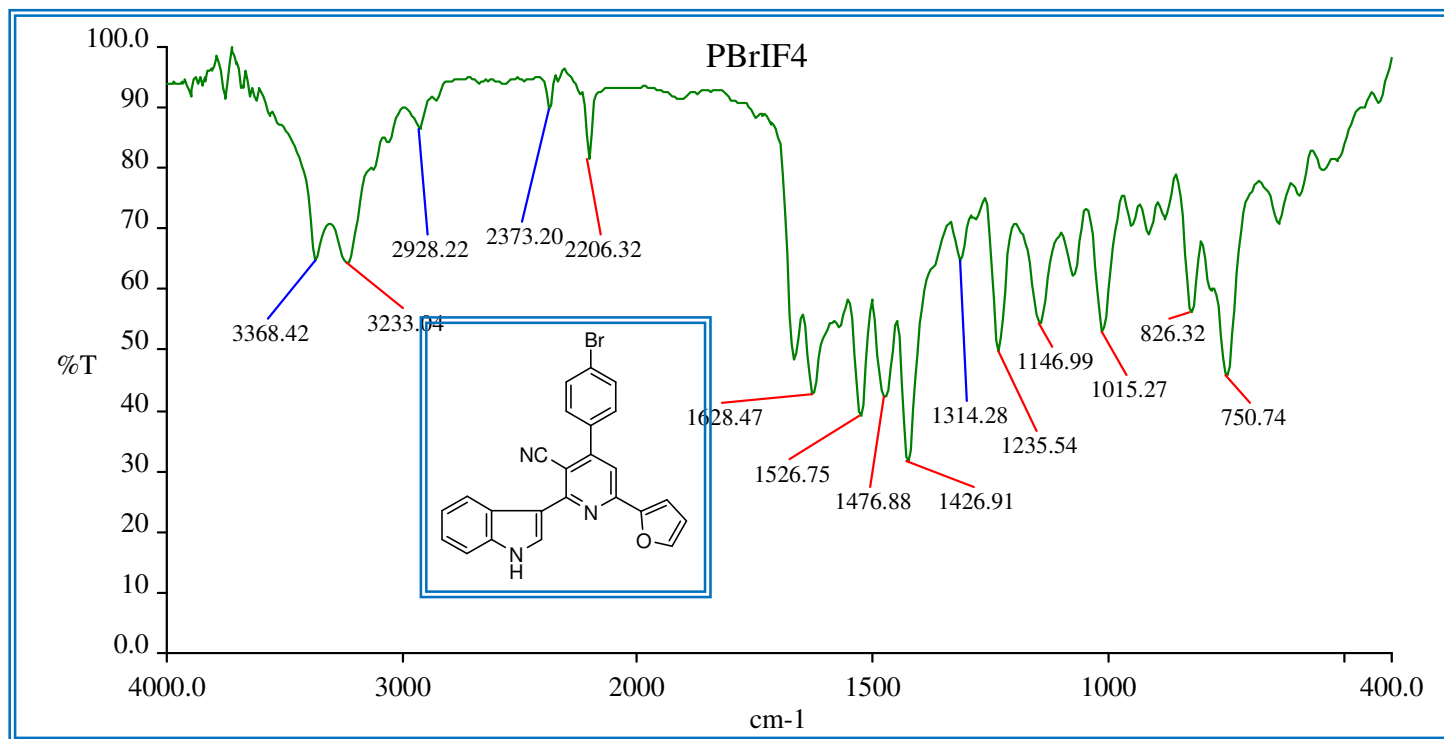
25.  $^1\text{H}$  NMR of Compound 12b



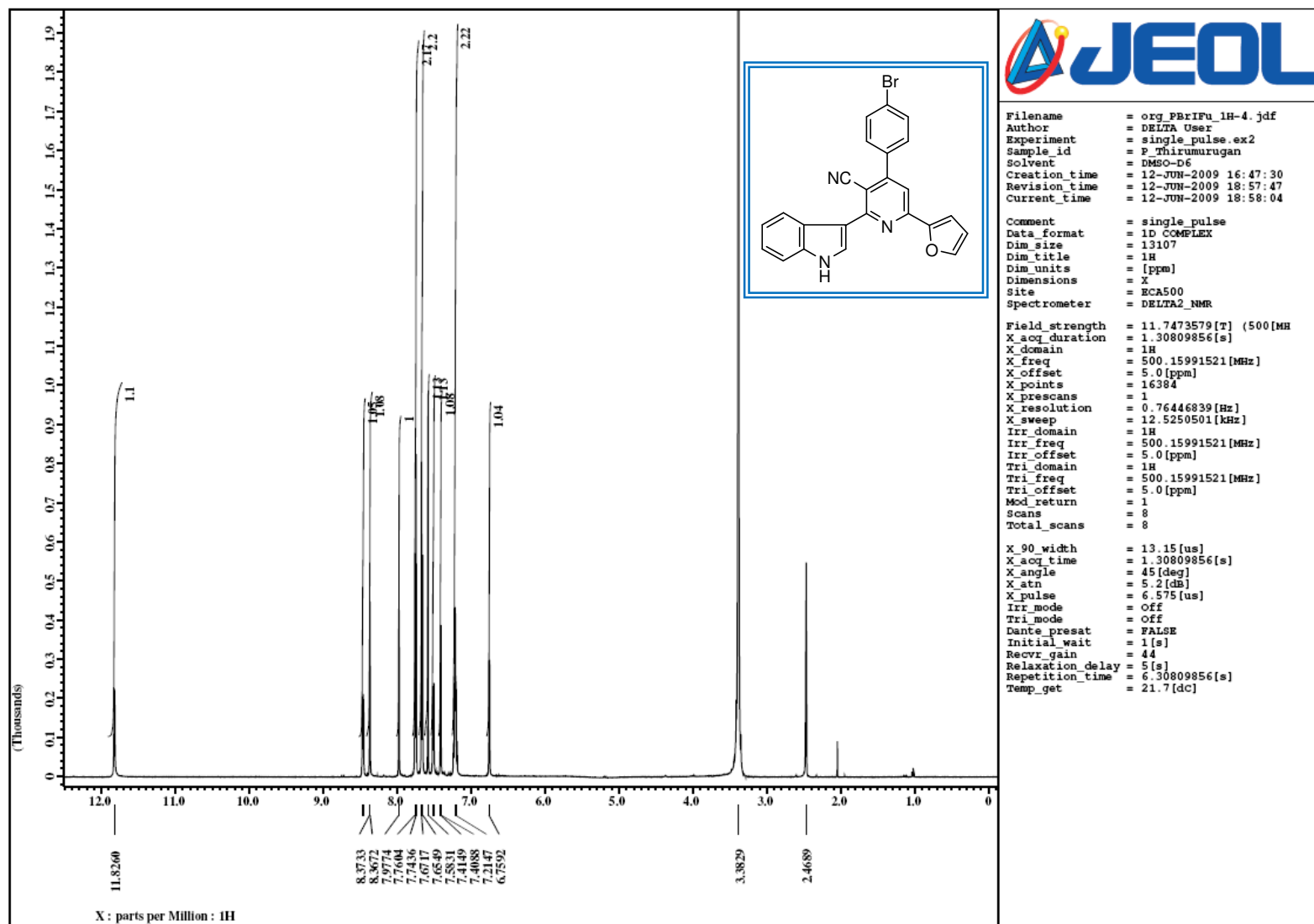
26.  $^{13}\text{C}$  NMR of Compound 12b



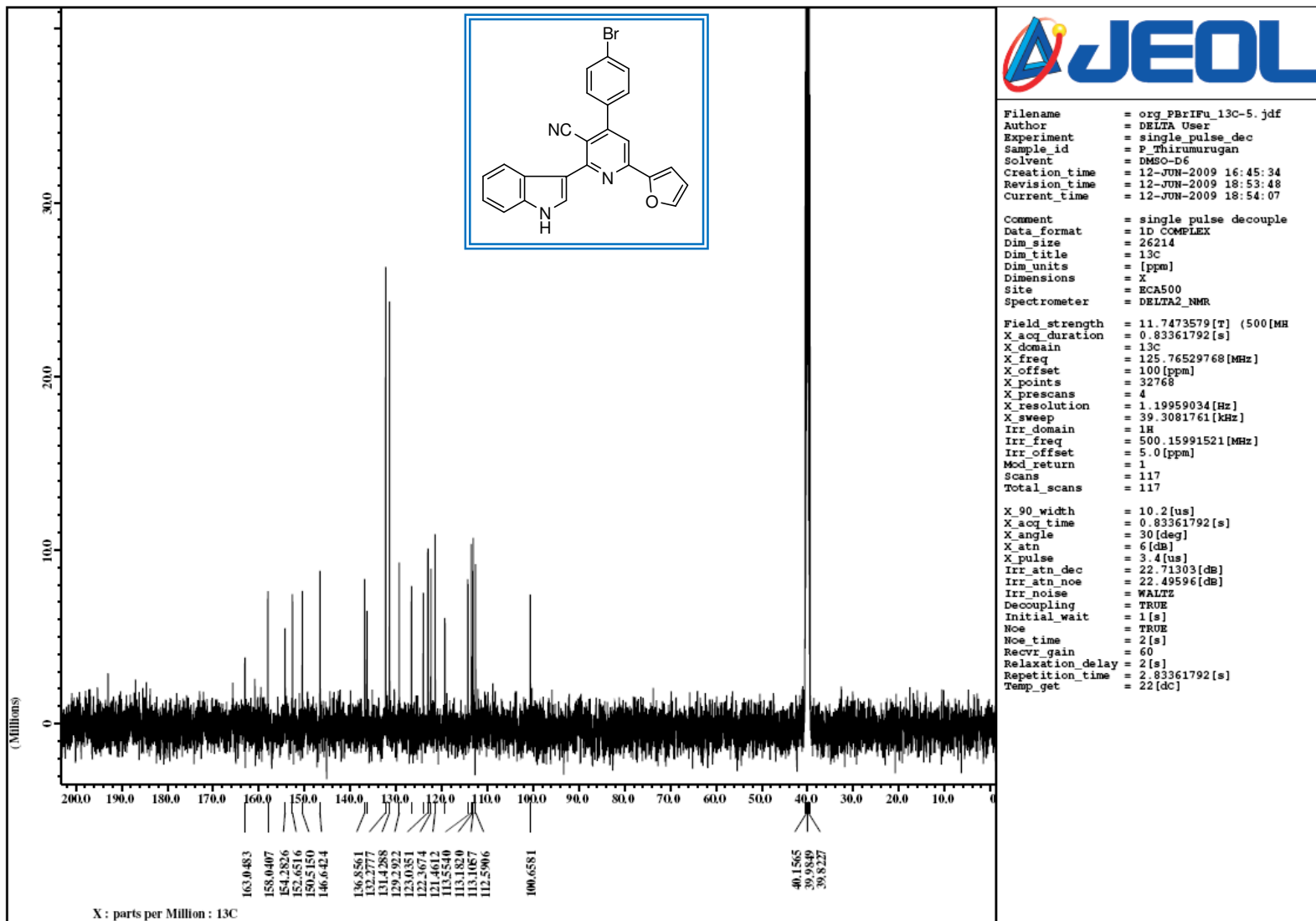
27. Mass Spectrum of Compound **12b**



28. IR Spectrum of Compound **14e**

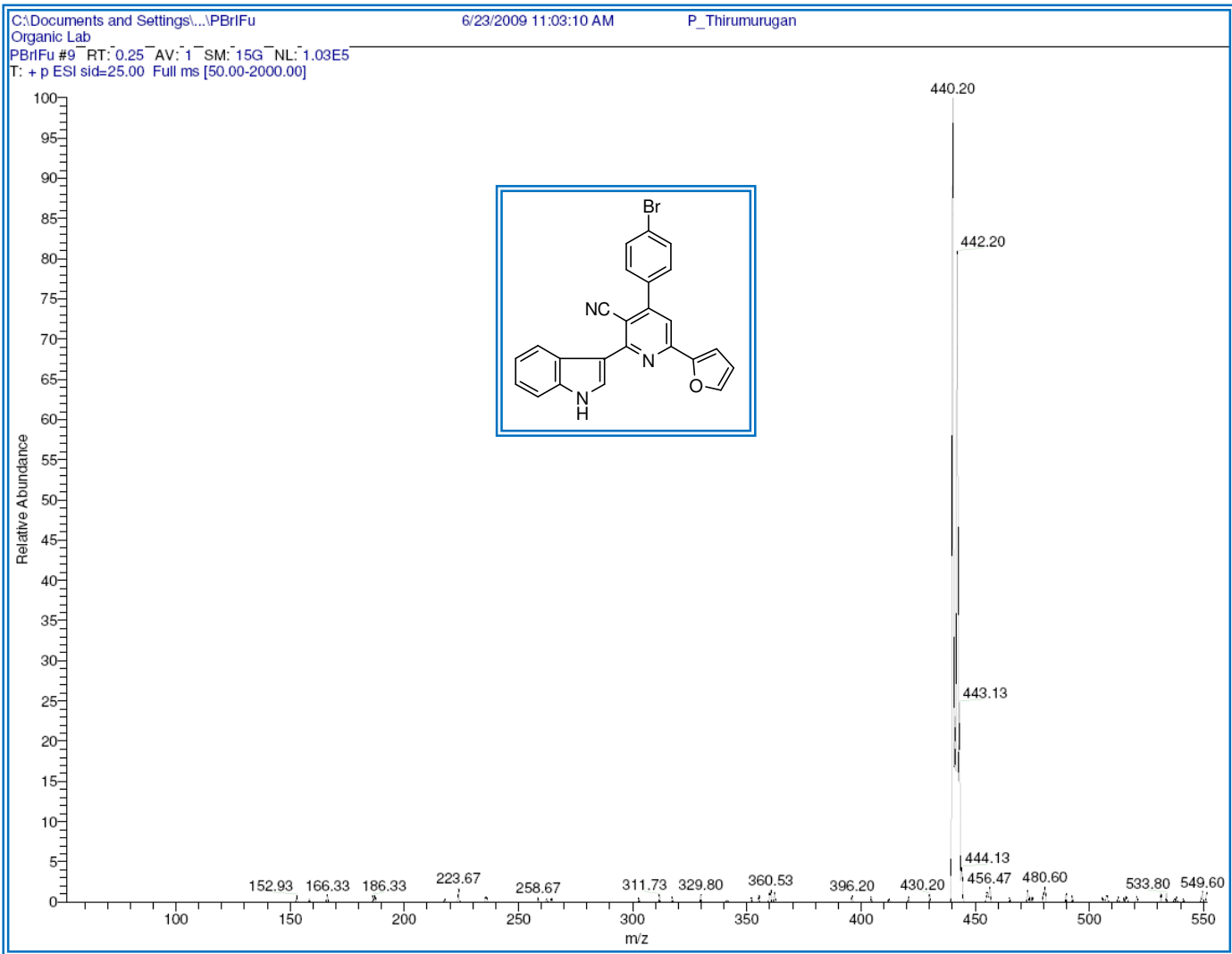


29. <sup>1</sup>H NMR of Compound 14e

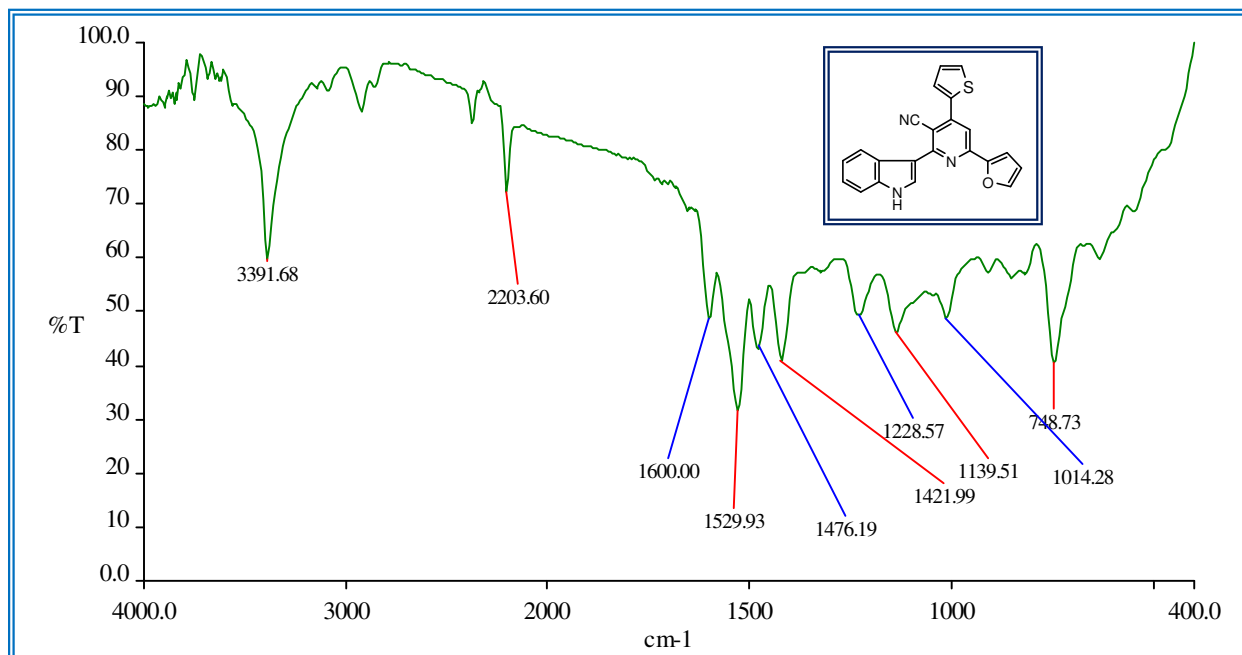


30.  $^{13}\text{C}$  NMR of Compound 14e

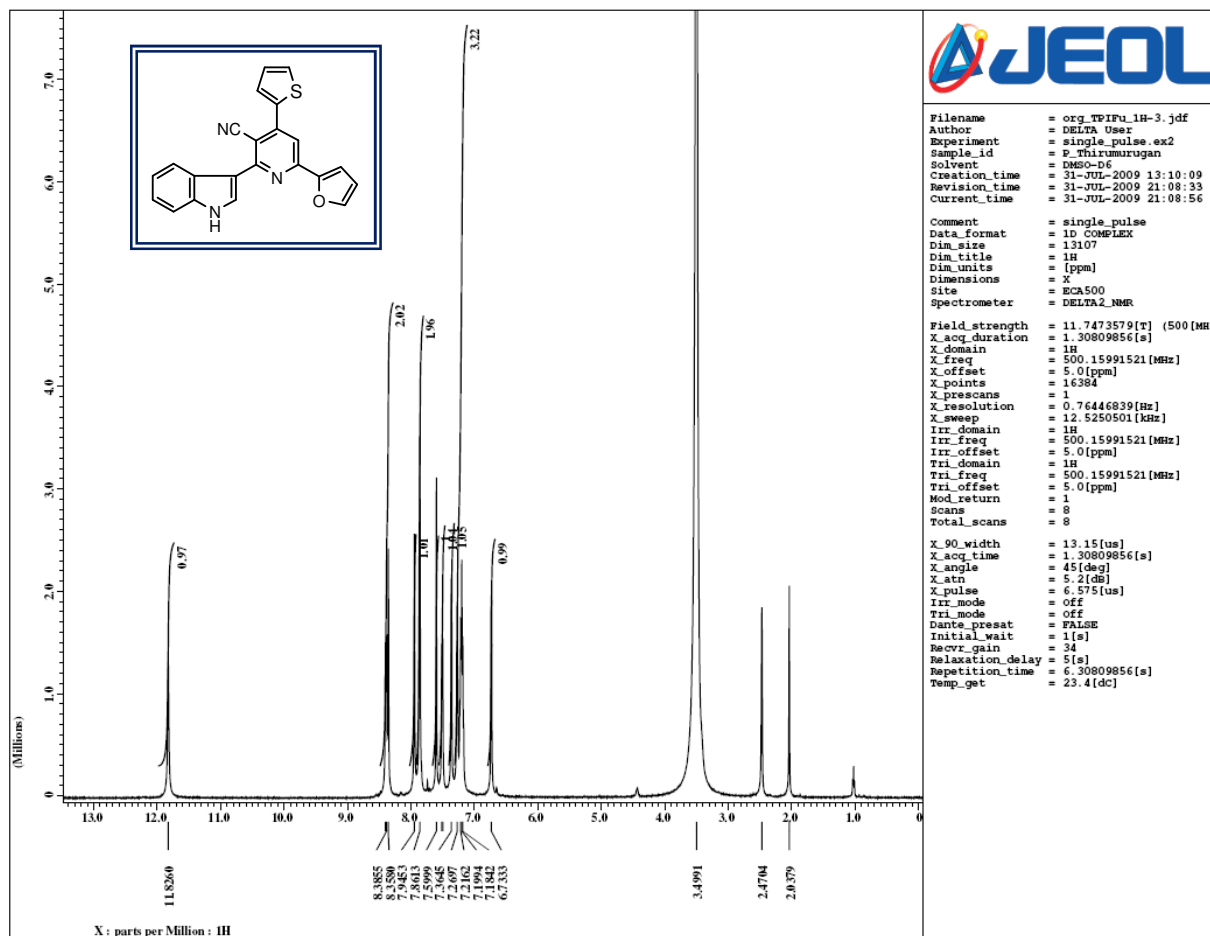




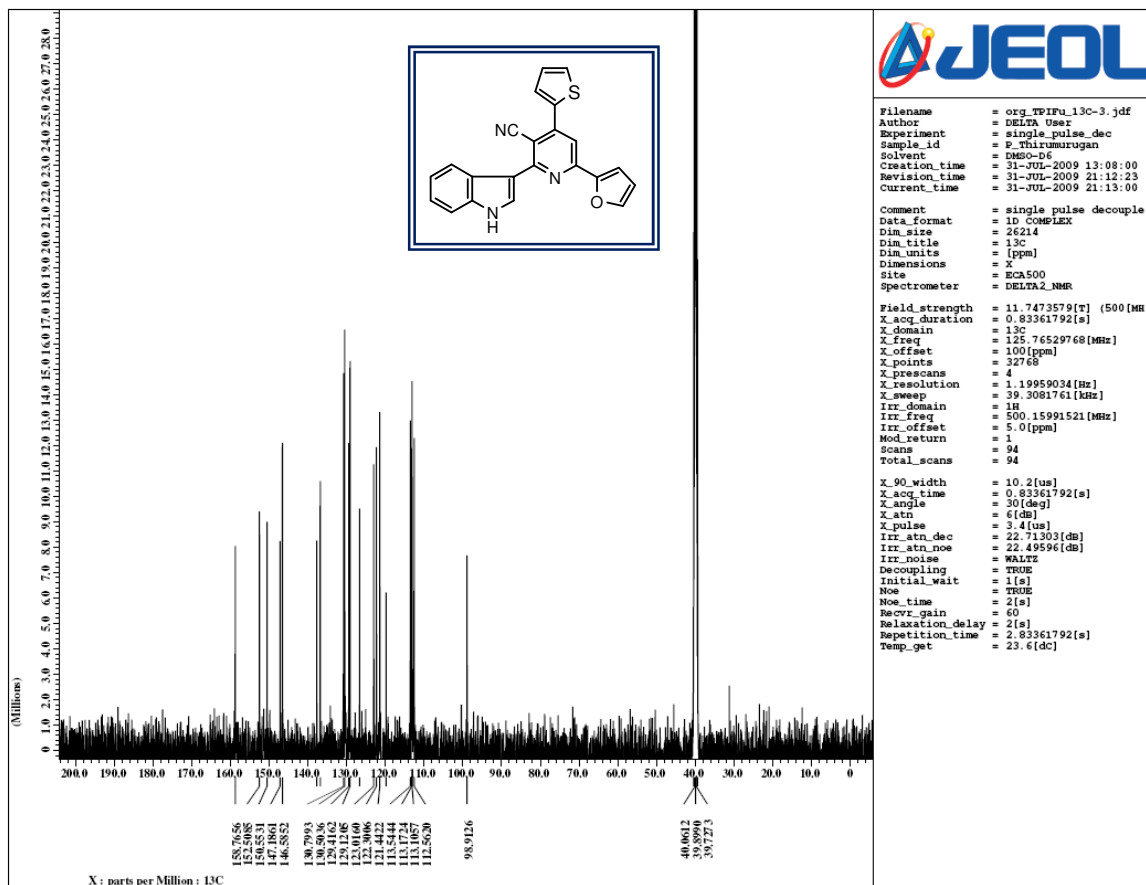
31. Mass Spectrum of Compound **14e**



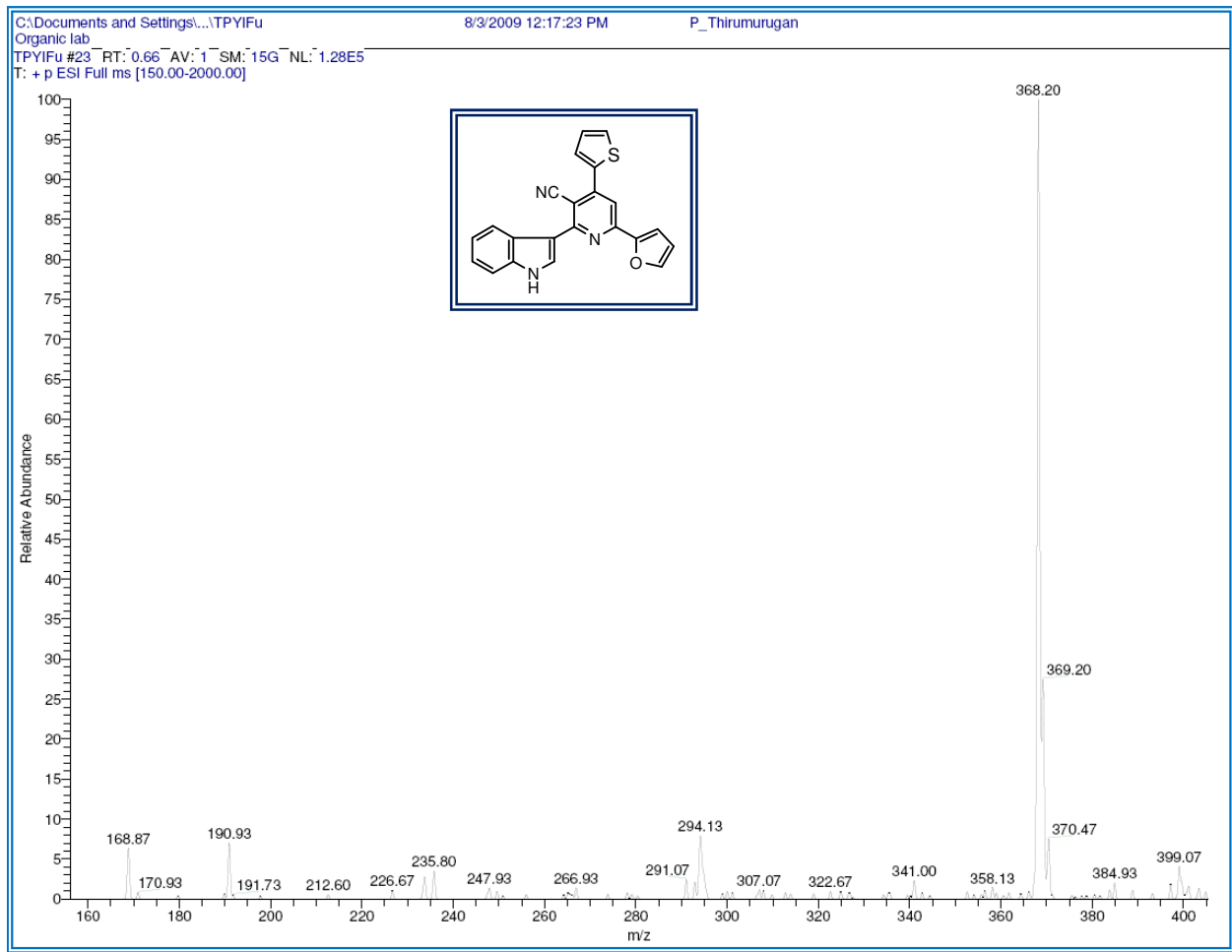
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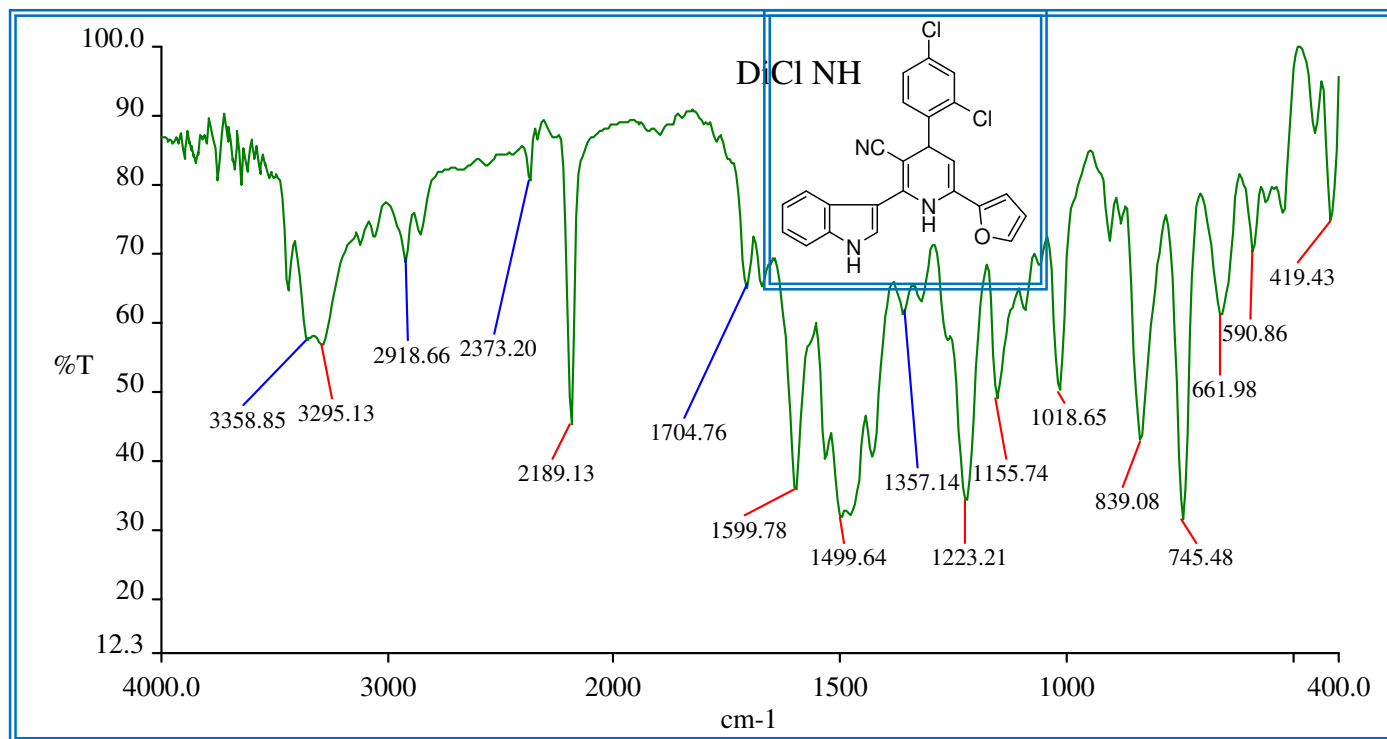
33. <sup>1</sup>H NMR of Compound 14i



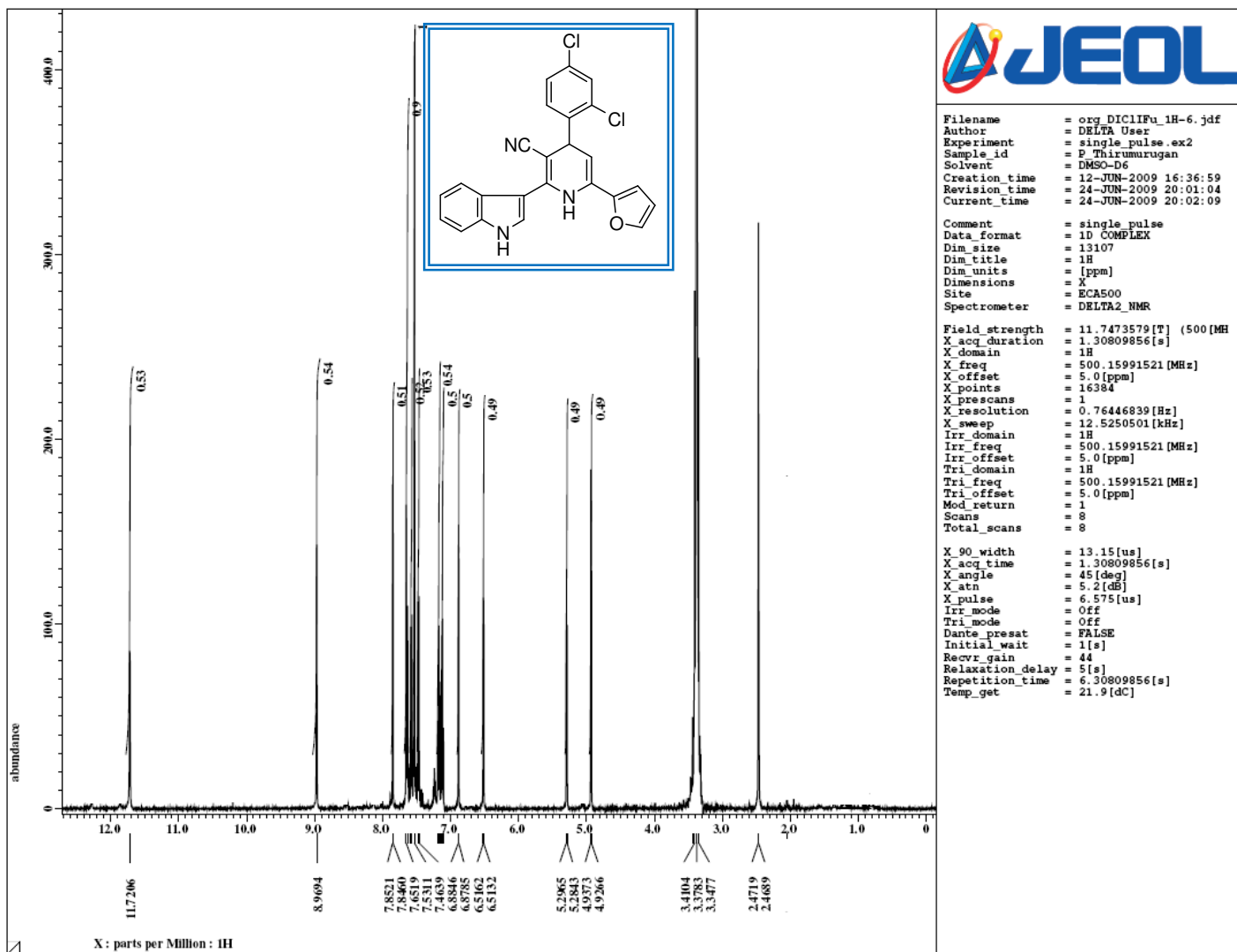
34.  $^{13}\text{C}$  NMR of Compound 14i



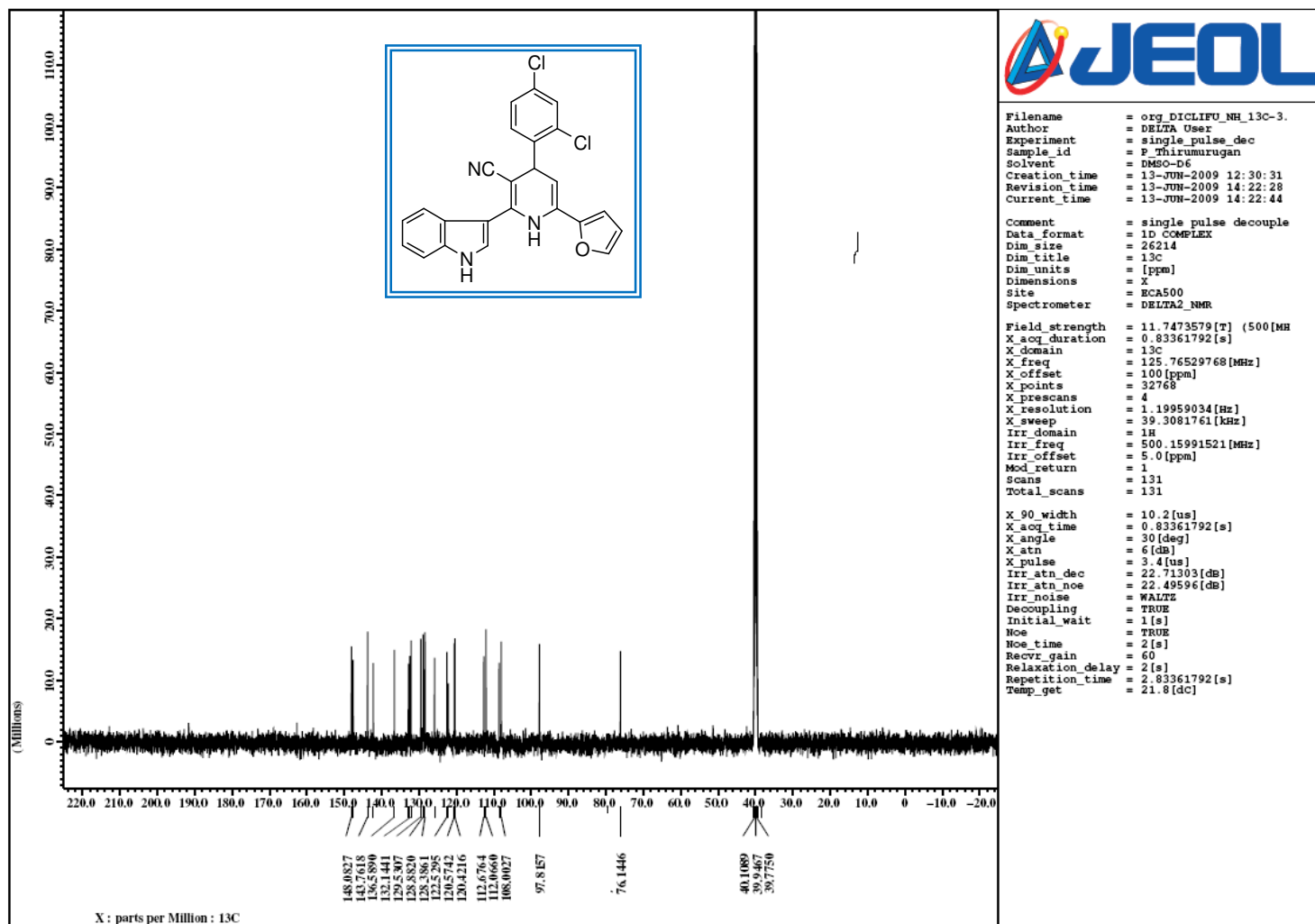
35. Mass Spectrum of Compound **14i**



36. IR Spectrum of Compound 15

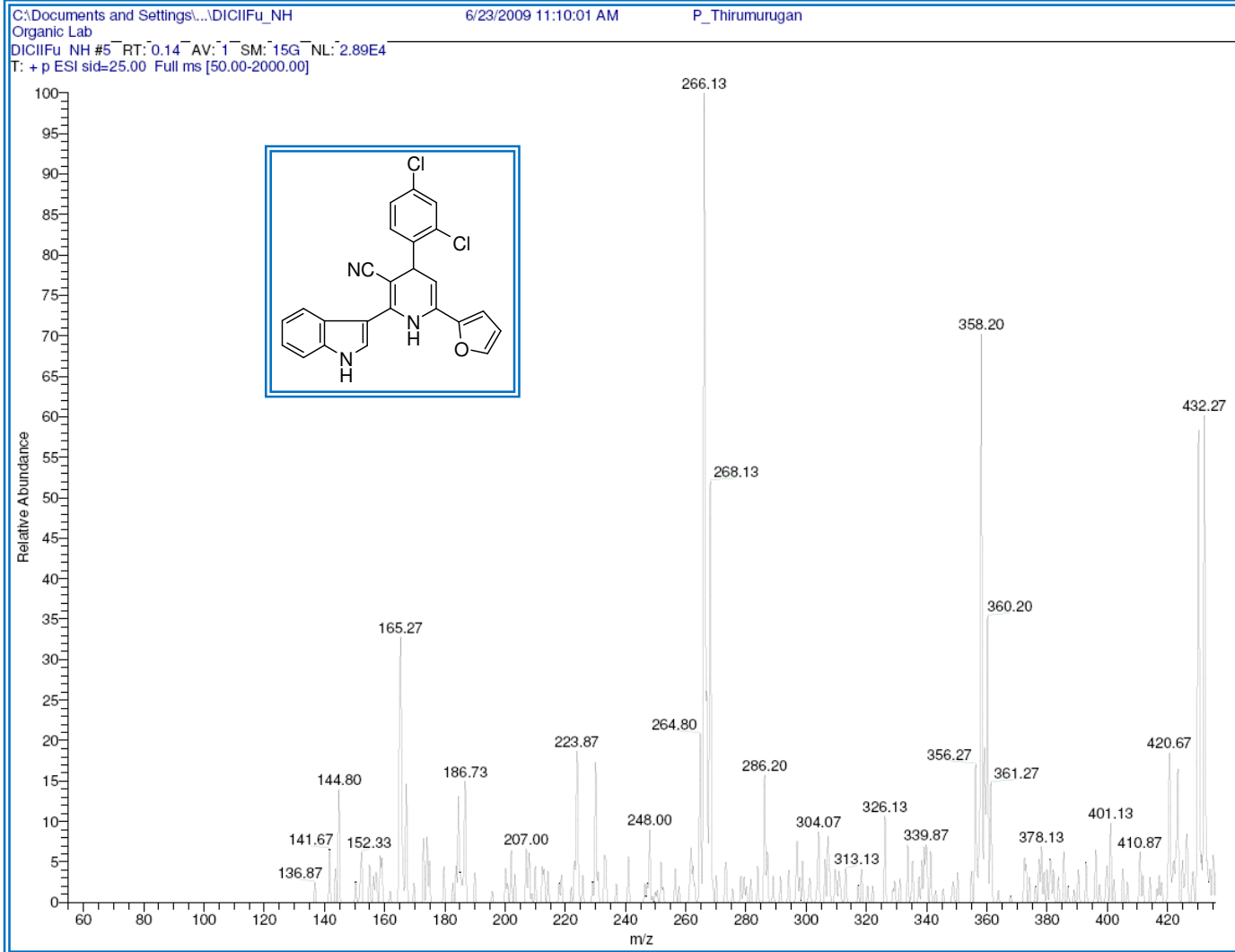


37. <sup>1</sup>H NMR of Compound 15

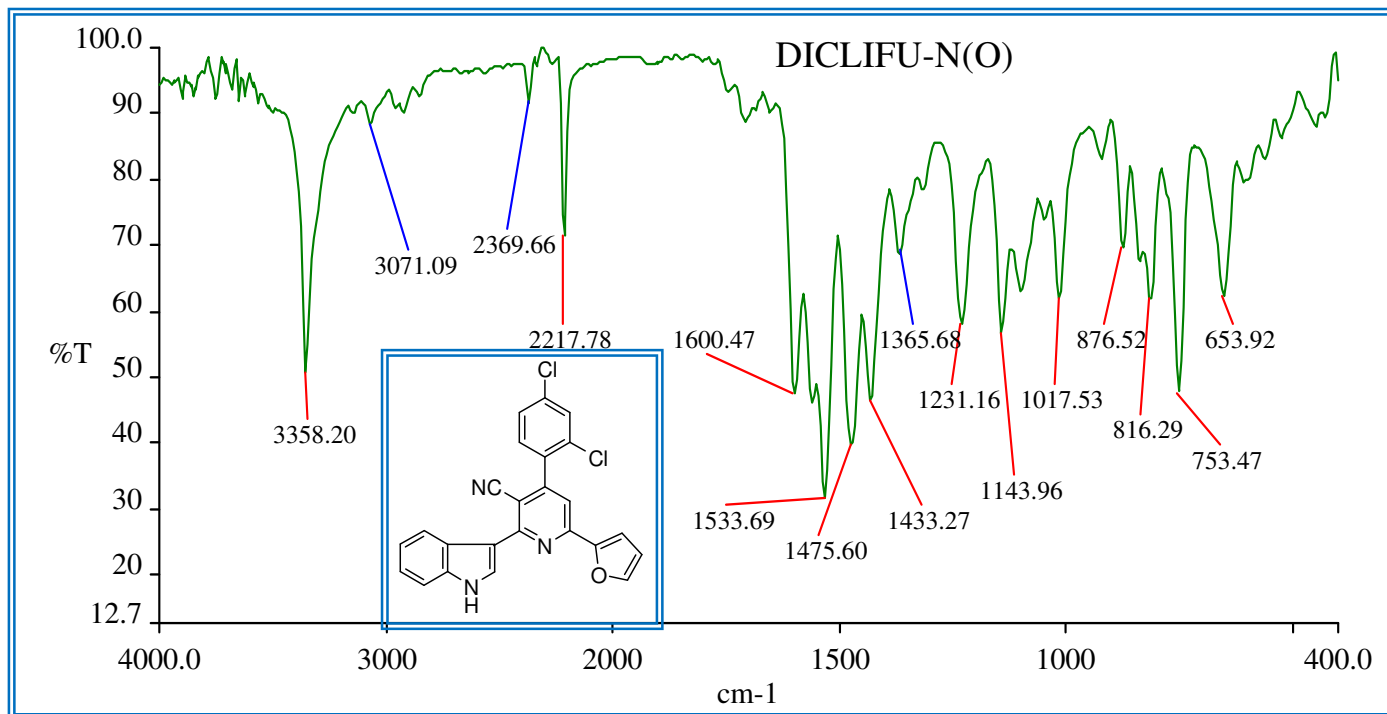


38.  $^{13}\text{C}$  NMR of Compound 15

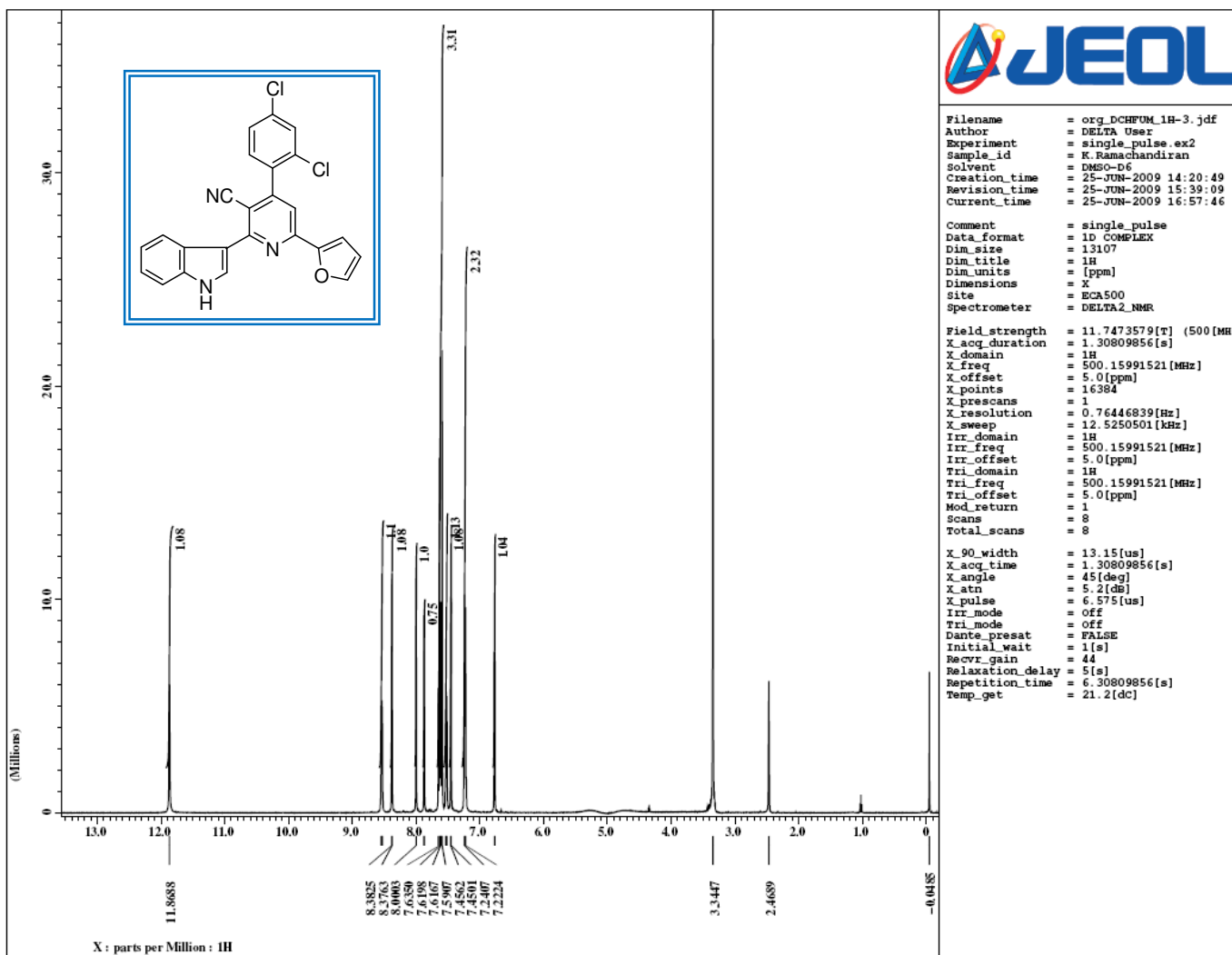




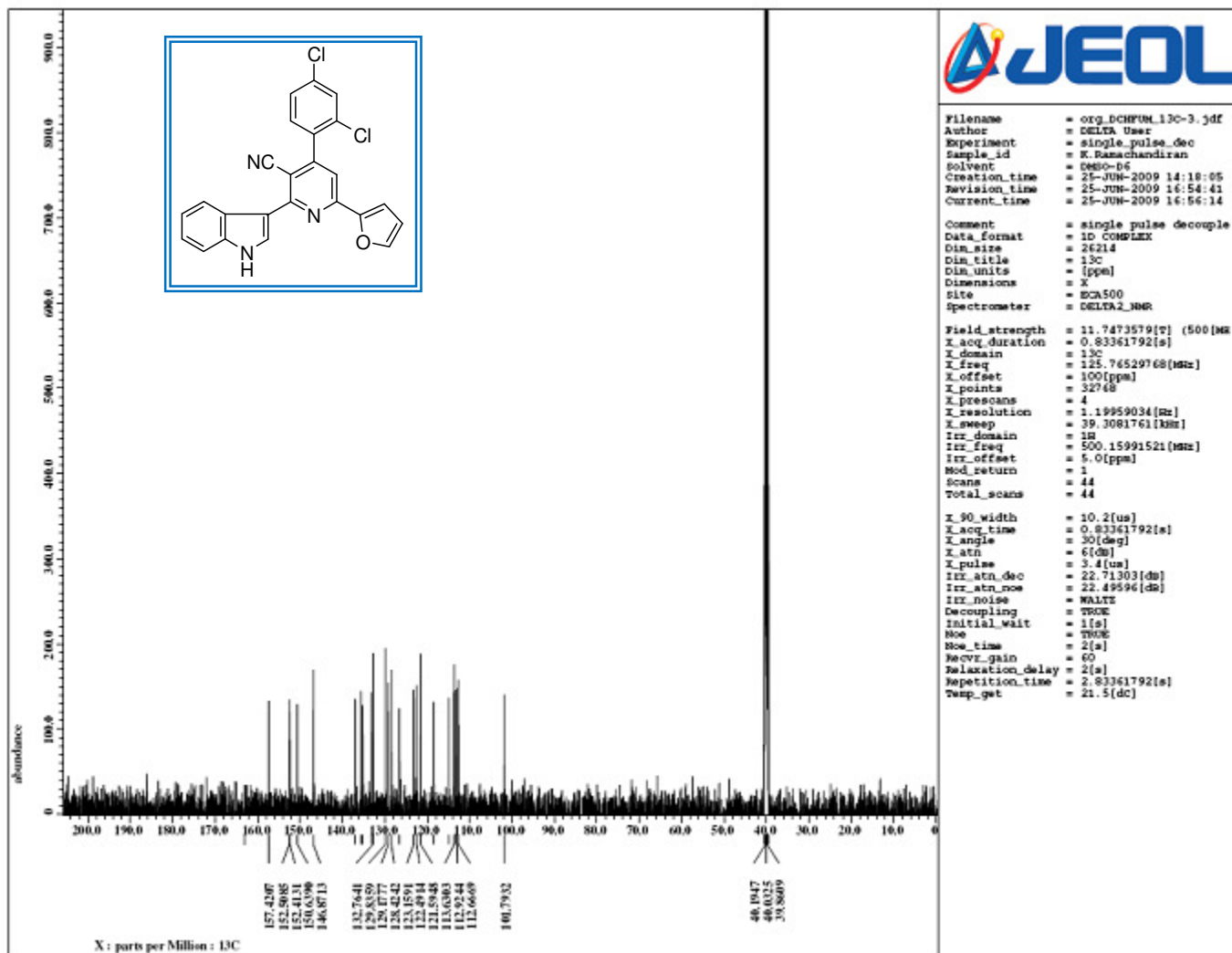
39. Mass Spectrum of Compound 15



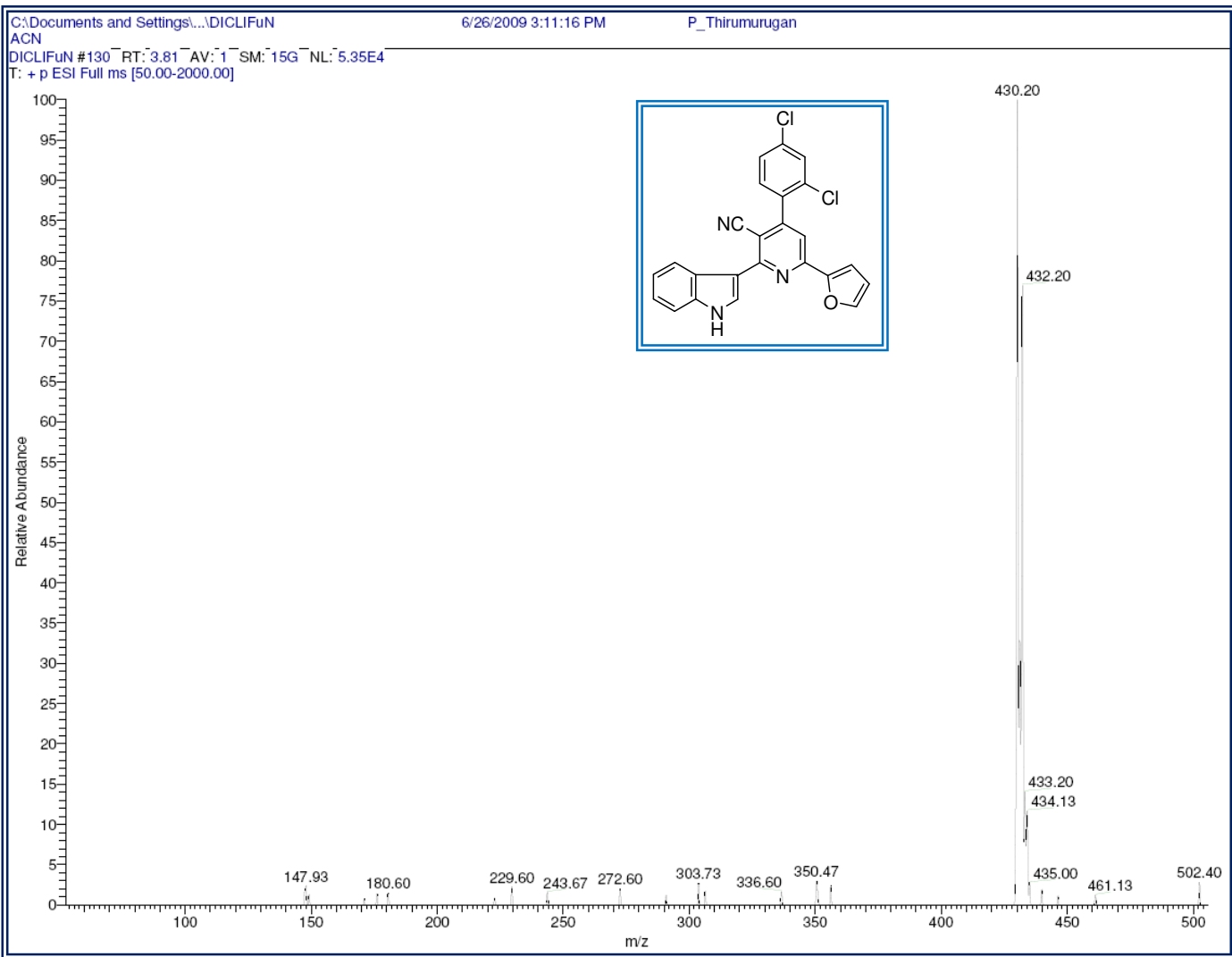
40. IR Spectrum of Compound **16**



41. <sup>1</sup>H NMR of Compound 16



42.  $^{13}\text{C}$  NMR of Compound 16



43. Mass Spectrum of Compound 16