

Supplementary Information

Discovery and SAR study of piperidine-based derivatives as novel influenza virus inhibitors

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Contents:

1. MTT studies of 11e.....S2-S3
2. Copies of ¹H NMR, ¹³C NMR and HRMS spectra of inhibitors.....S4-S54

1. Cytotoxicity in MDCK, HEK293T and hela cells treated with **11e**.

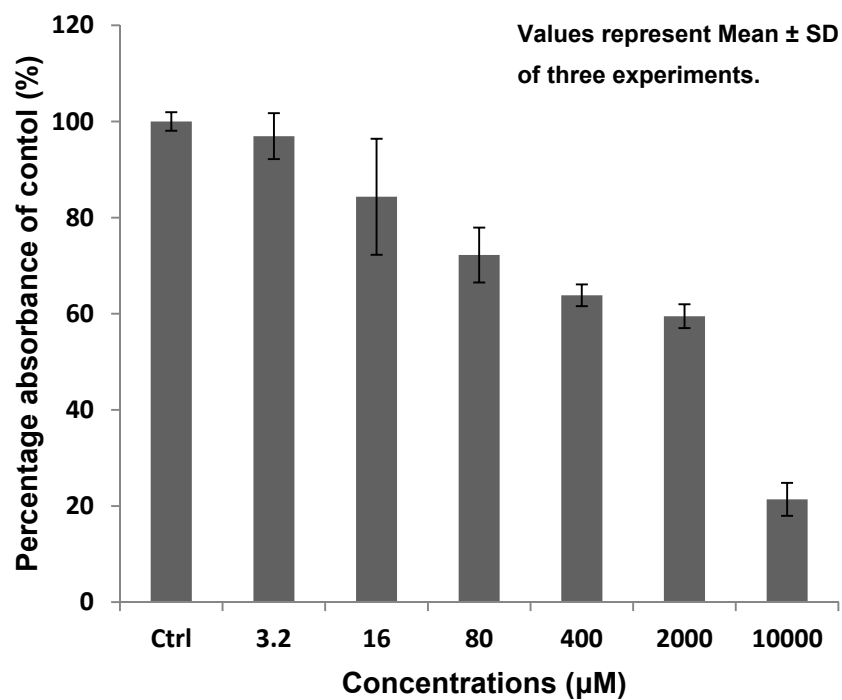


Fig.1. *In vitro* cytotoxicity of **11e** to MDCK cells as determined by MTT assay.

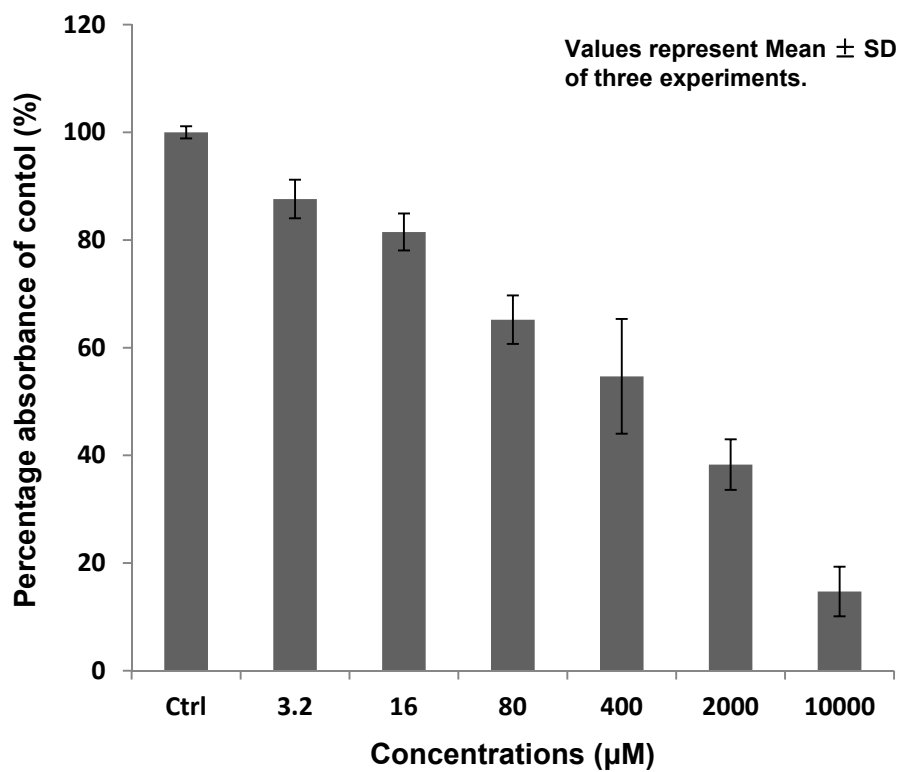


Fig.2. *In vitro* cytotoxicity of **11e** to HEK293T cells as determined by MTT assay.

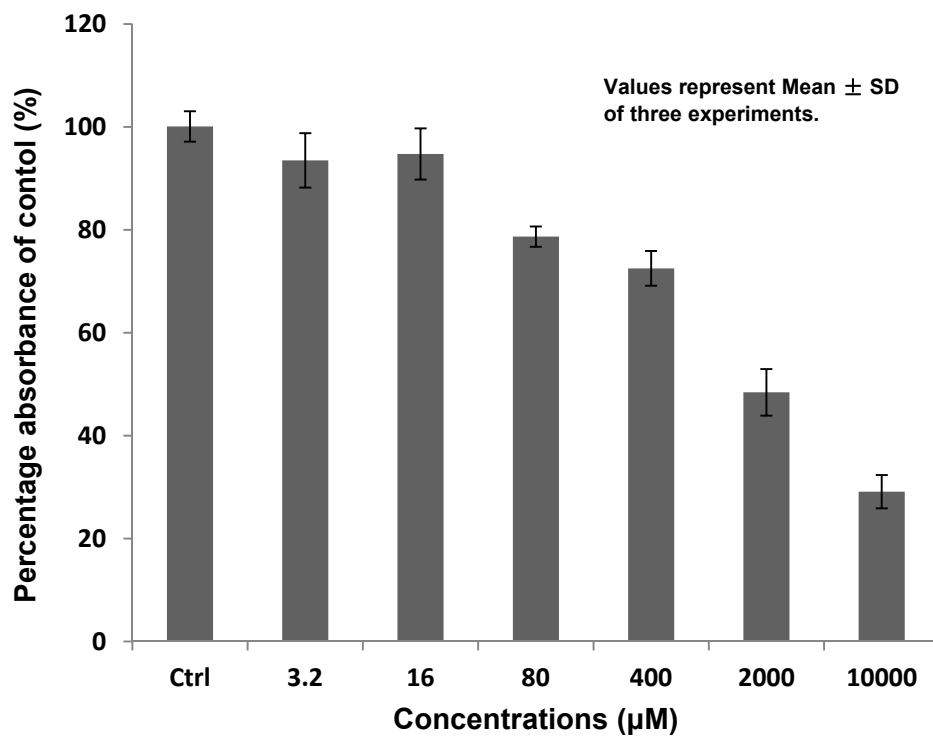
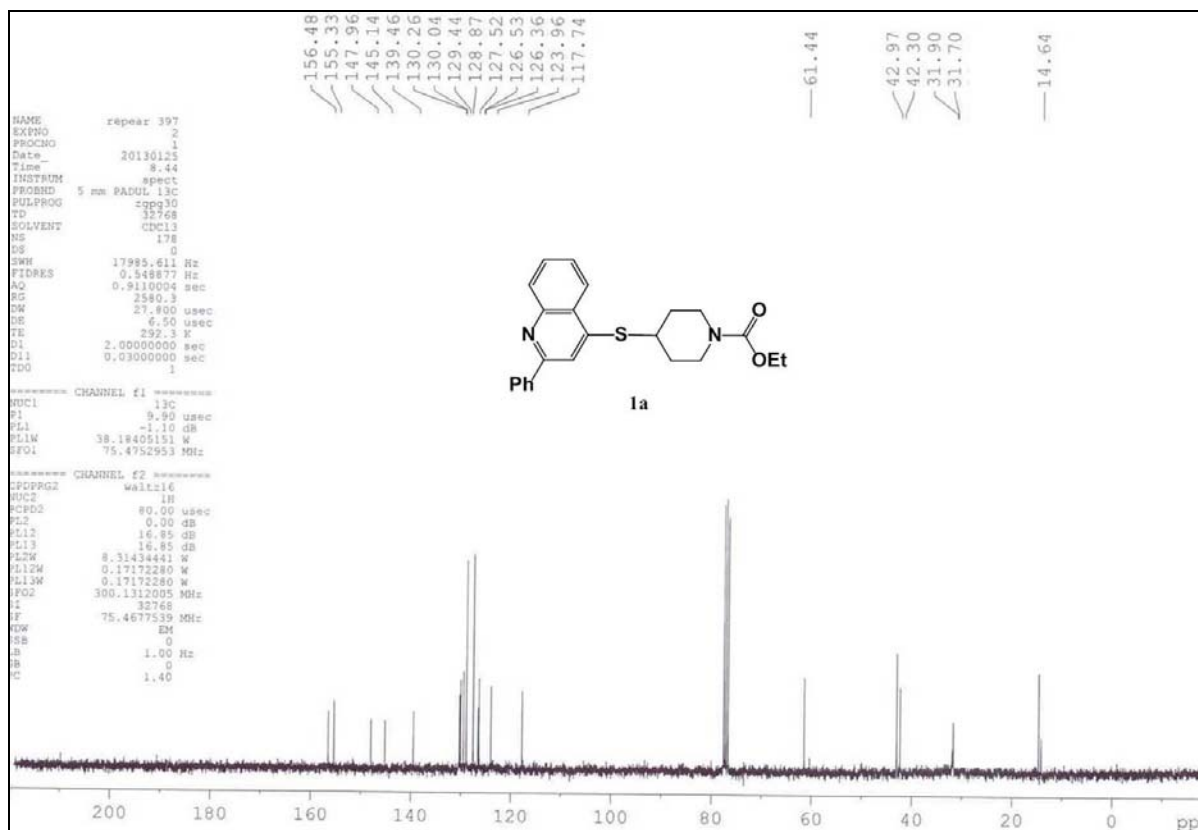
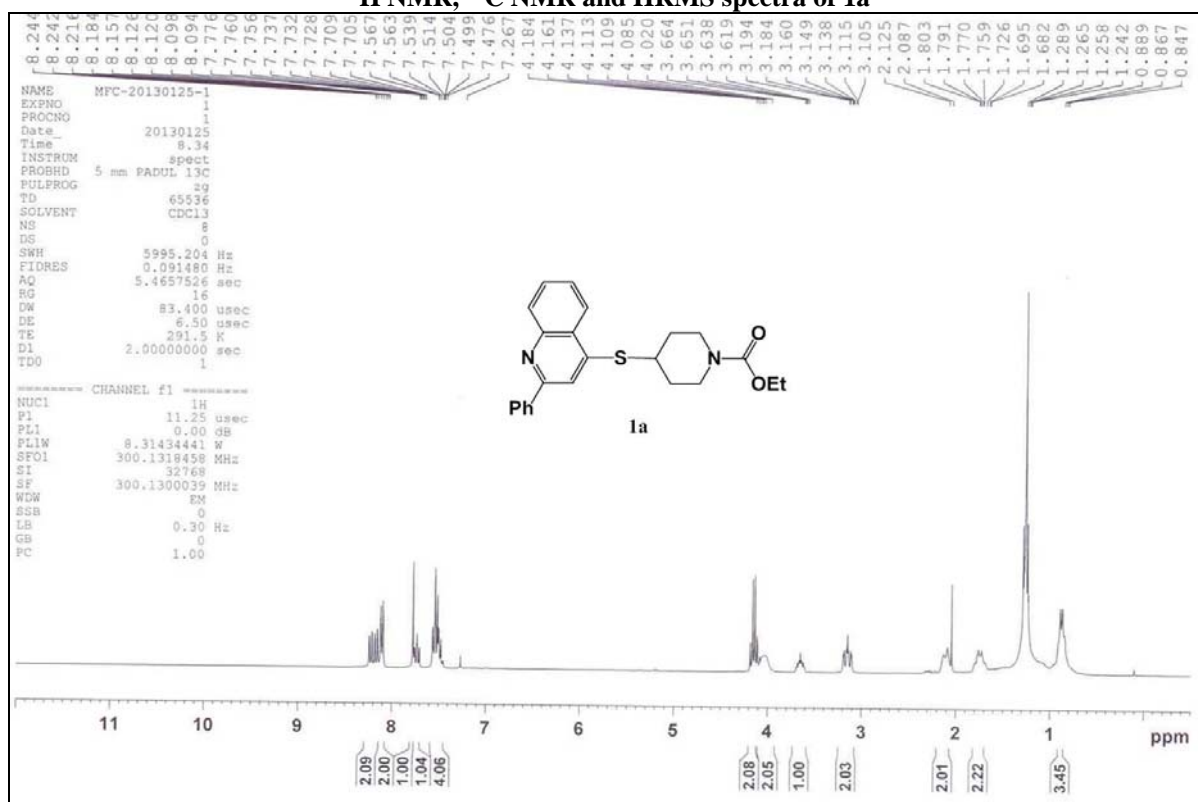
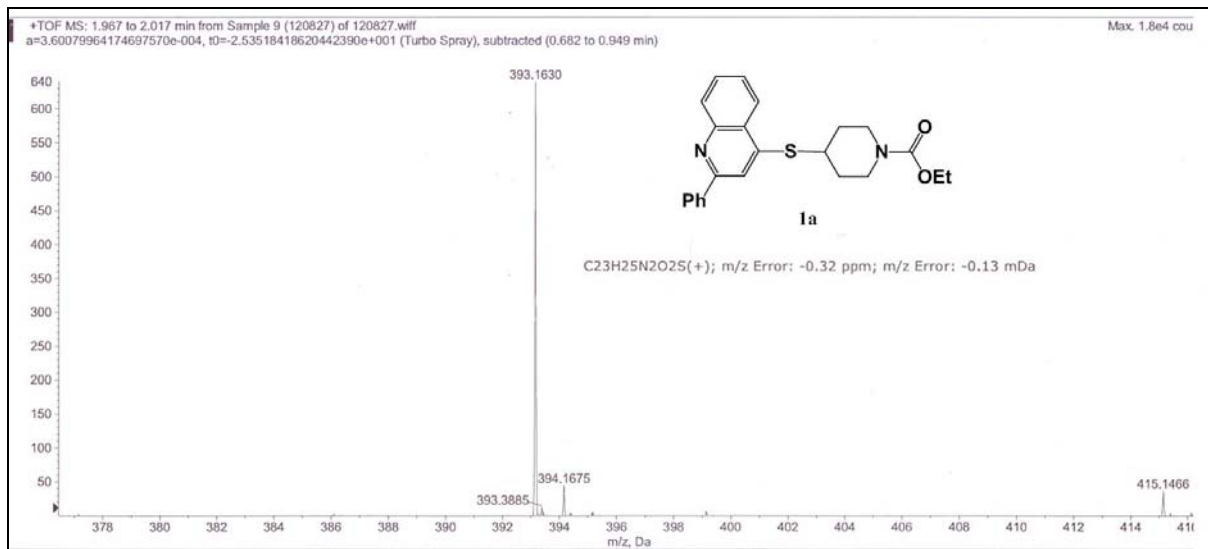


Fig.3. *In vitro* cytotoxicity of **11e** to HeLa cells as determined by MTT assay.

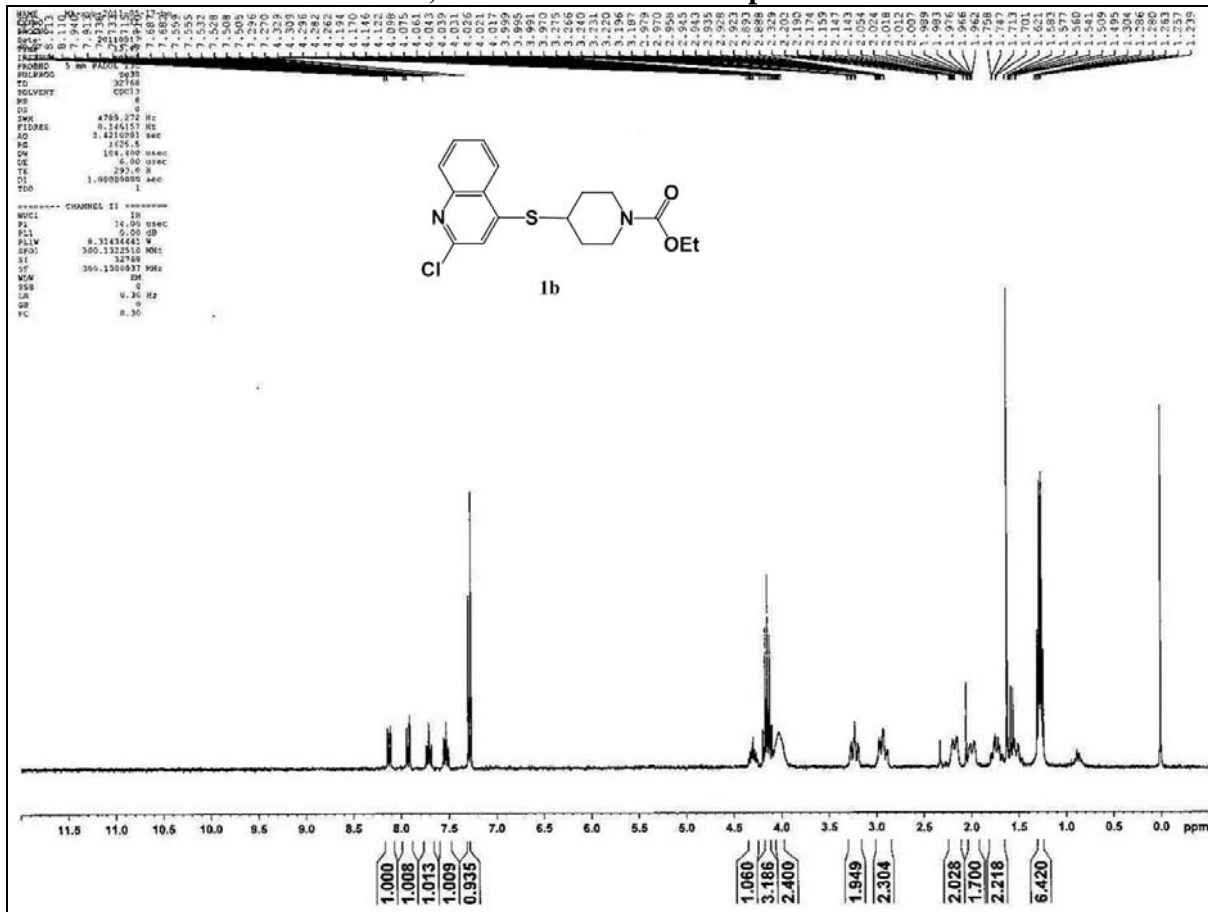
2. ^1H NMR, ^{13}C NMR and HRMS spectra of inhibitors

^1H NMR, ^{13}C NMR and HRMS spectra of 1a

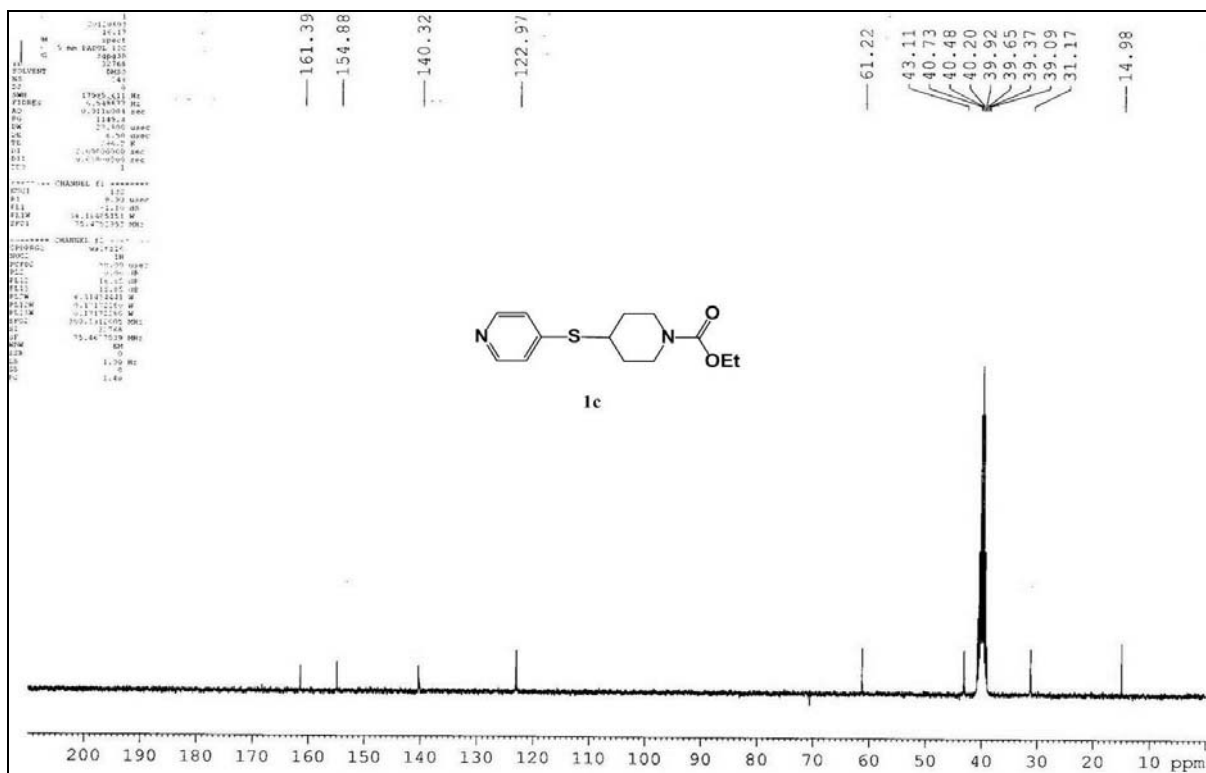
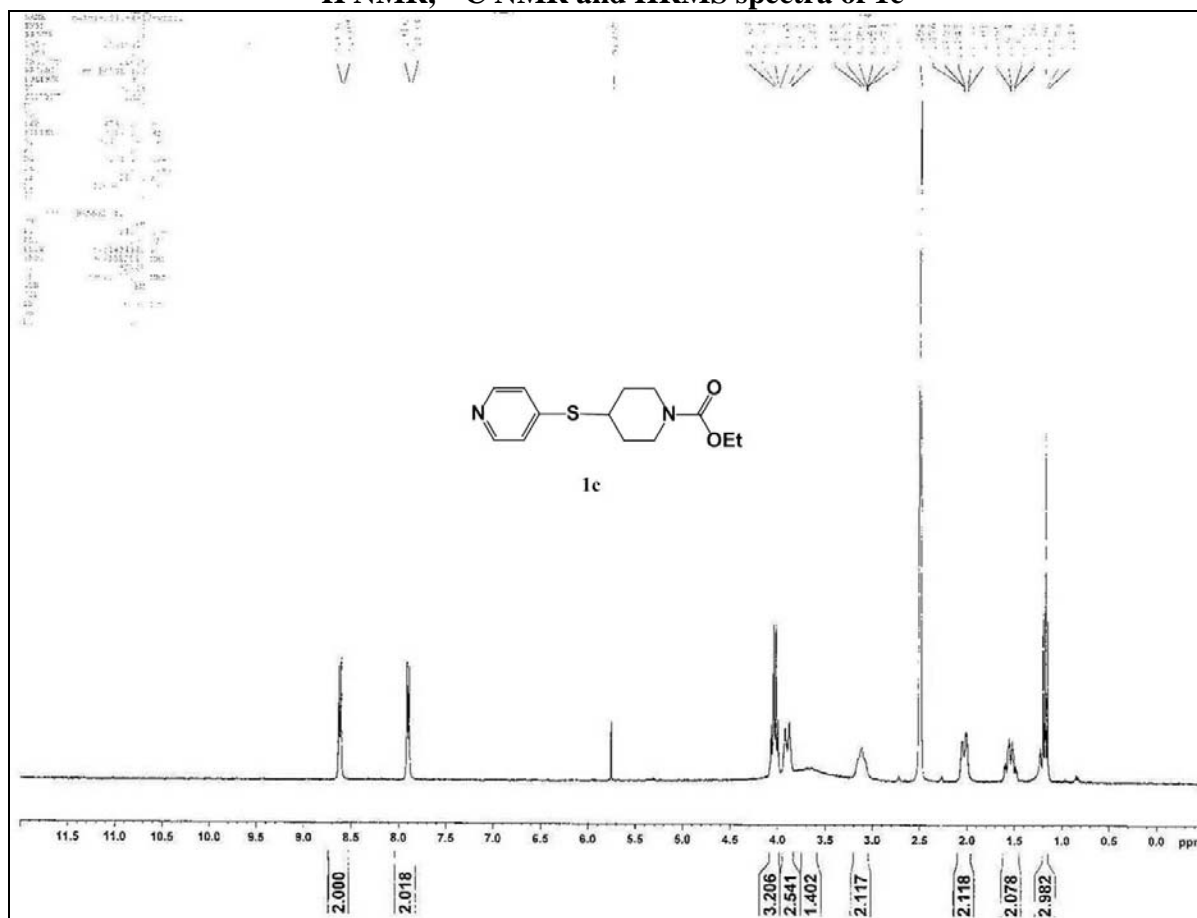


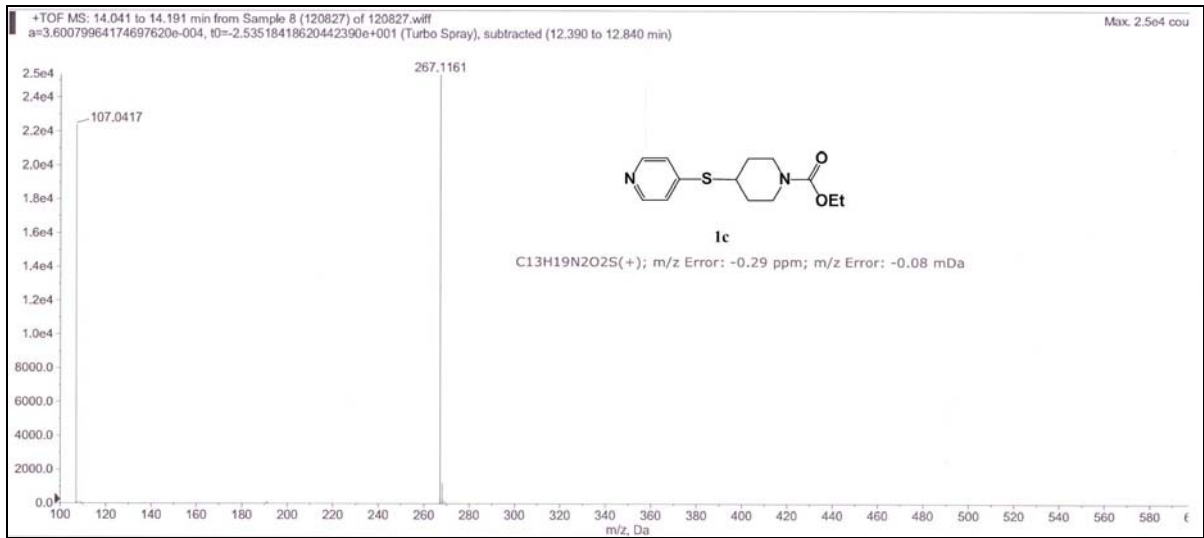


¹H NMR, ¹³C NMR and HRMS spectra of **1b**

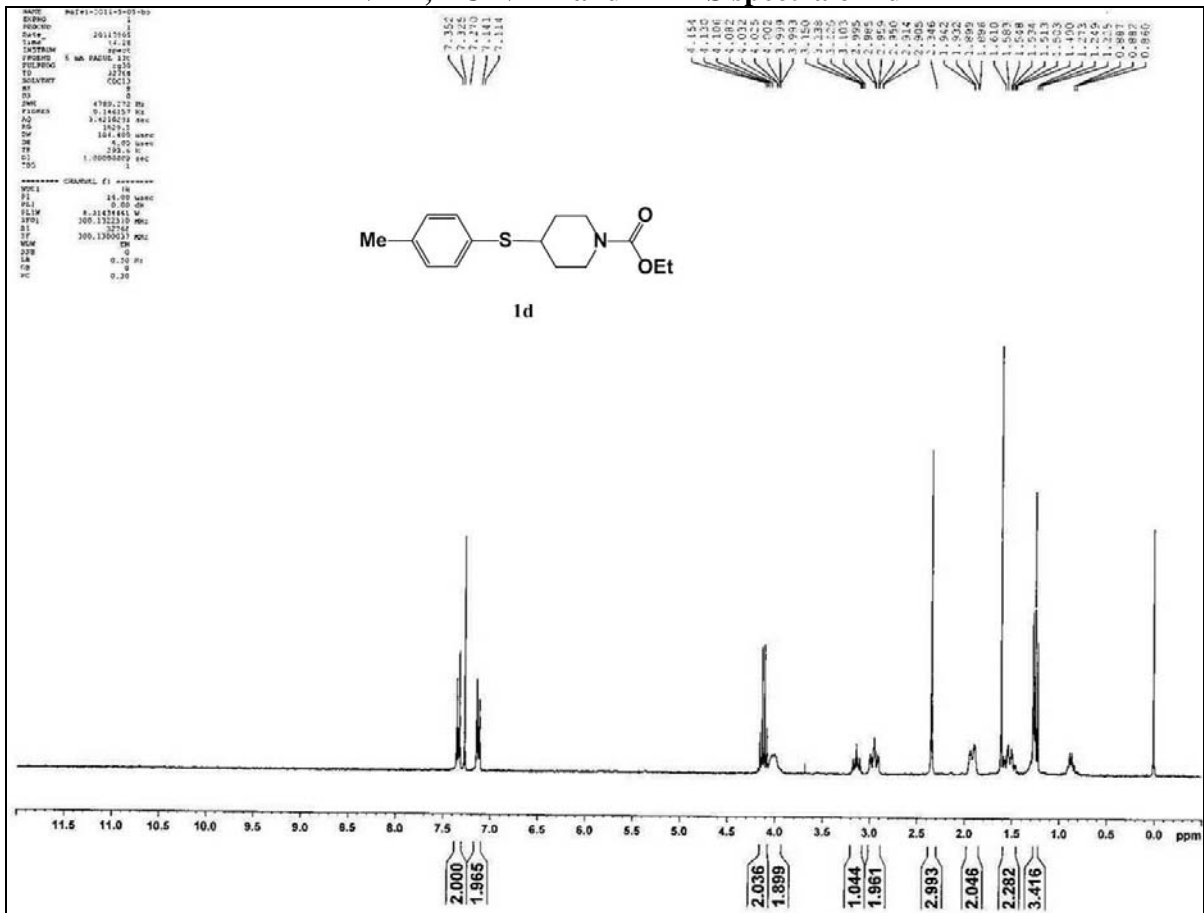


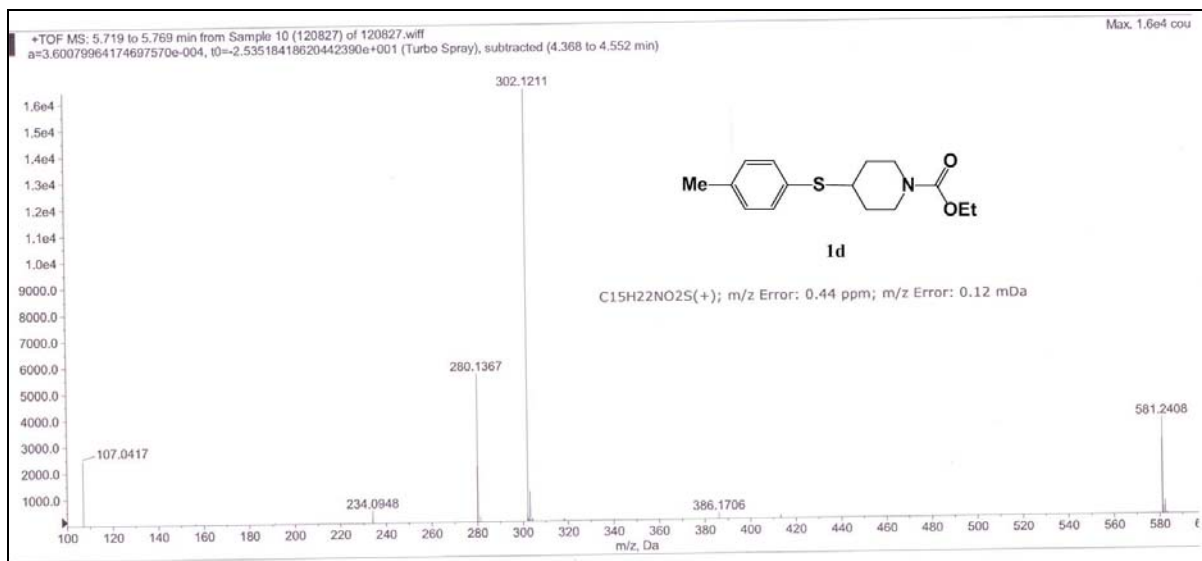
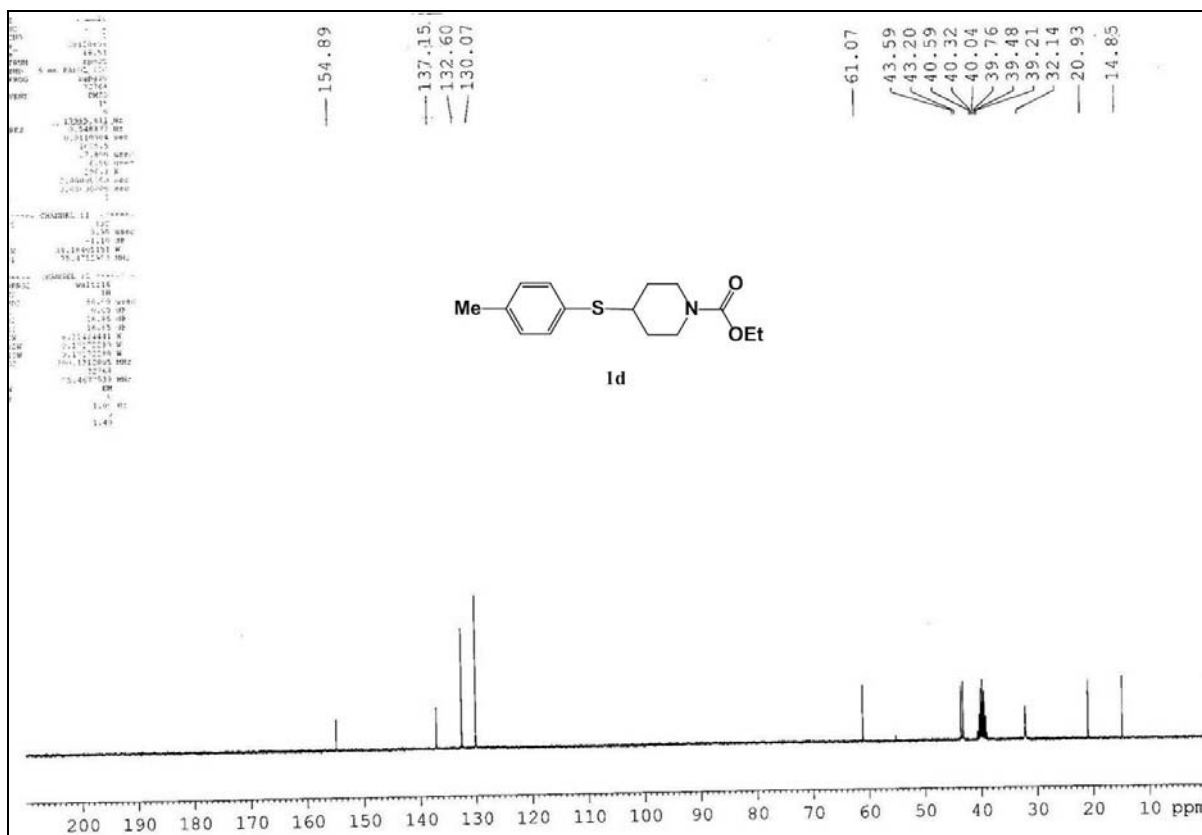
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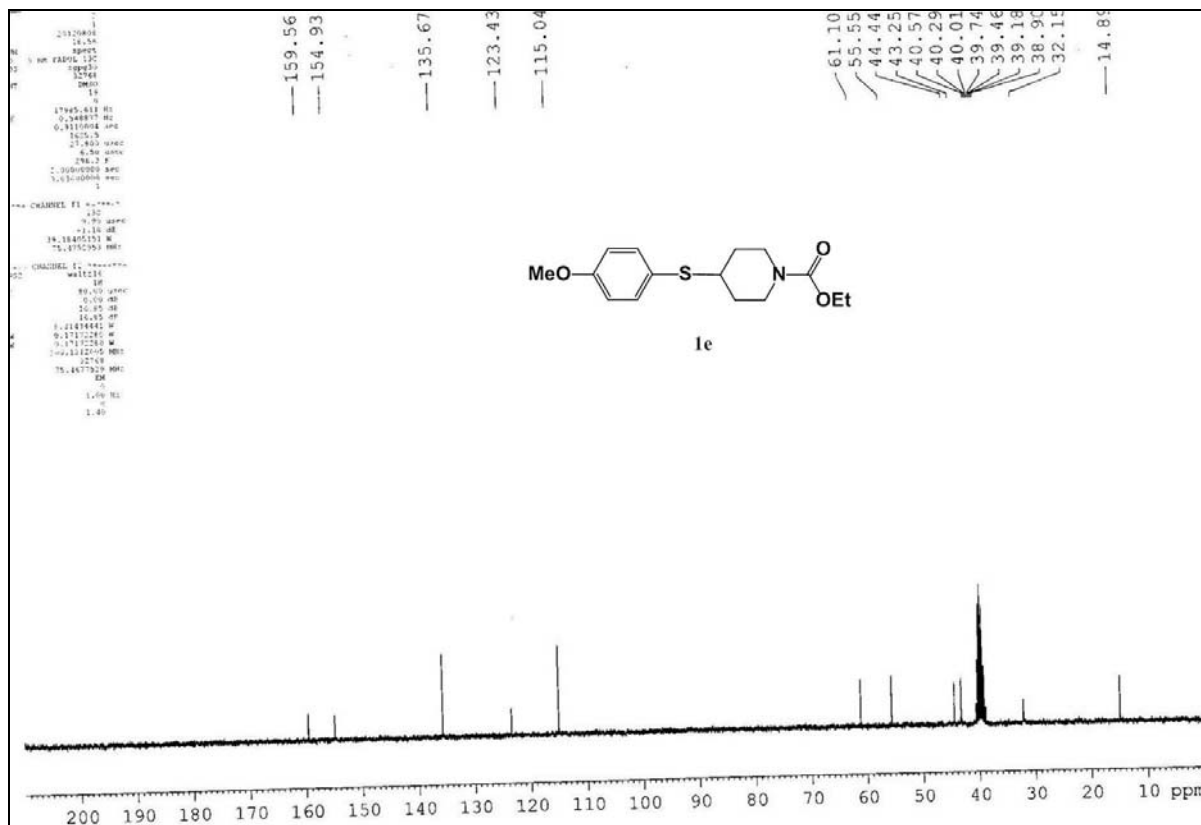
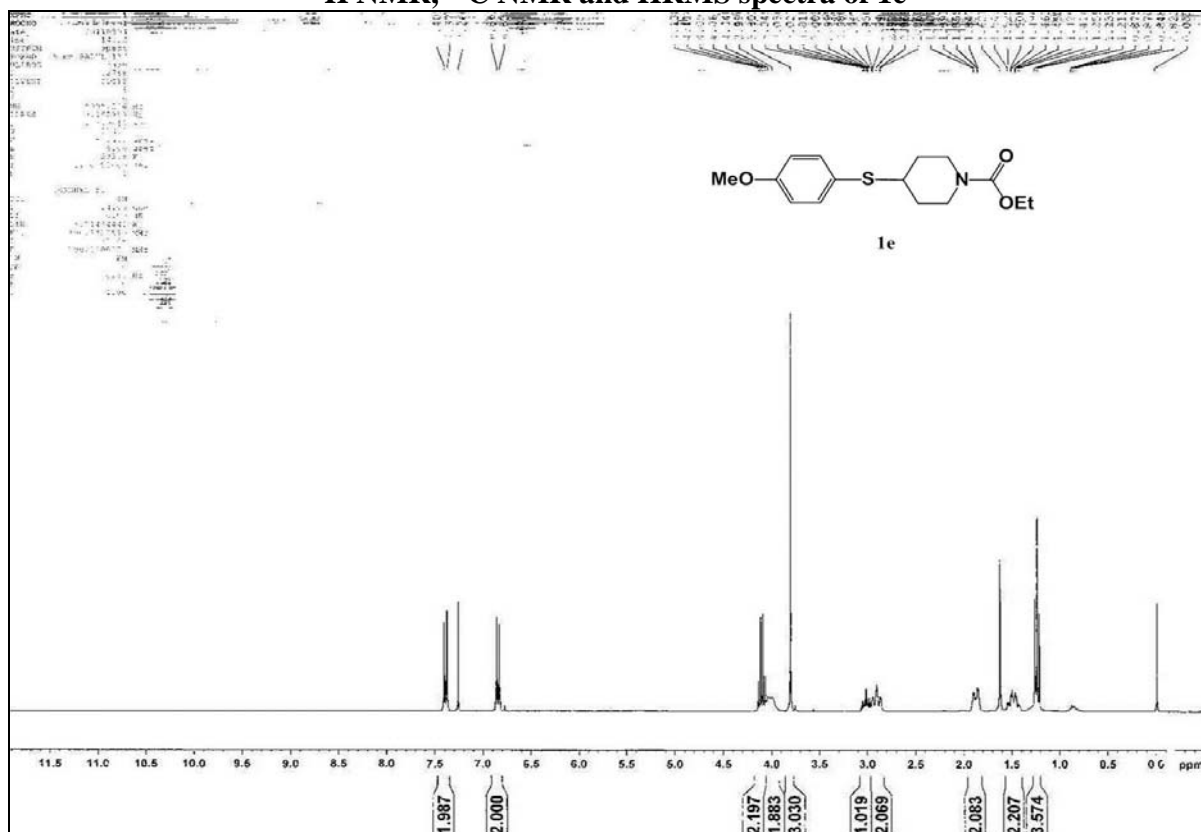


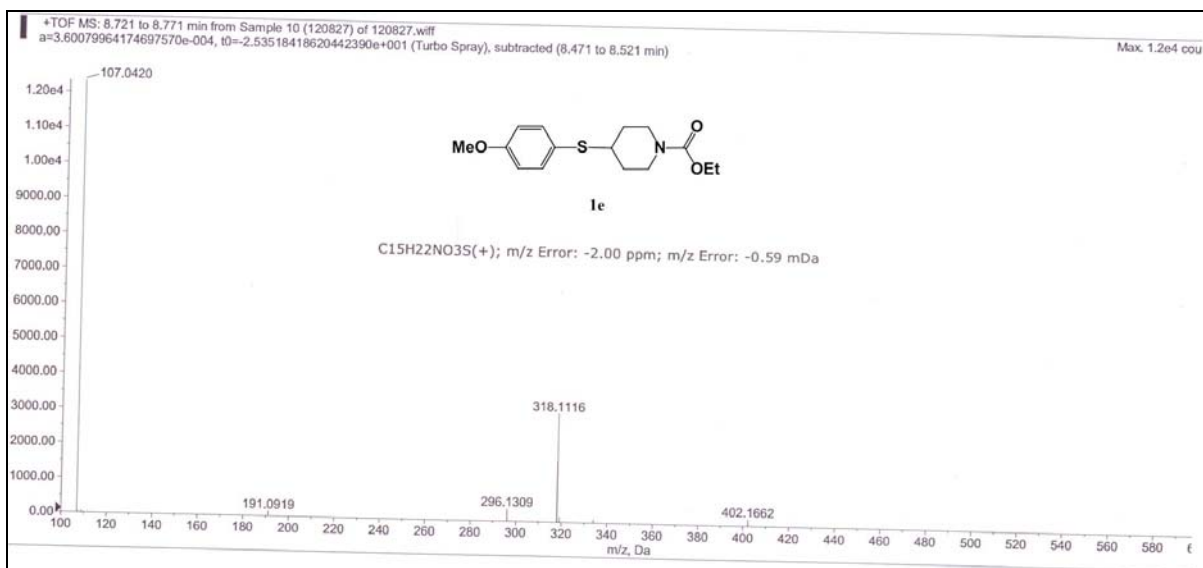
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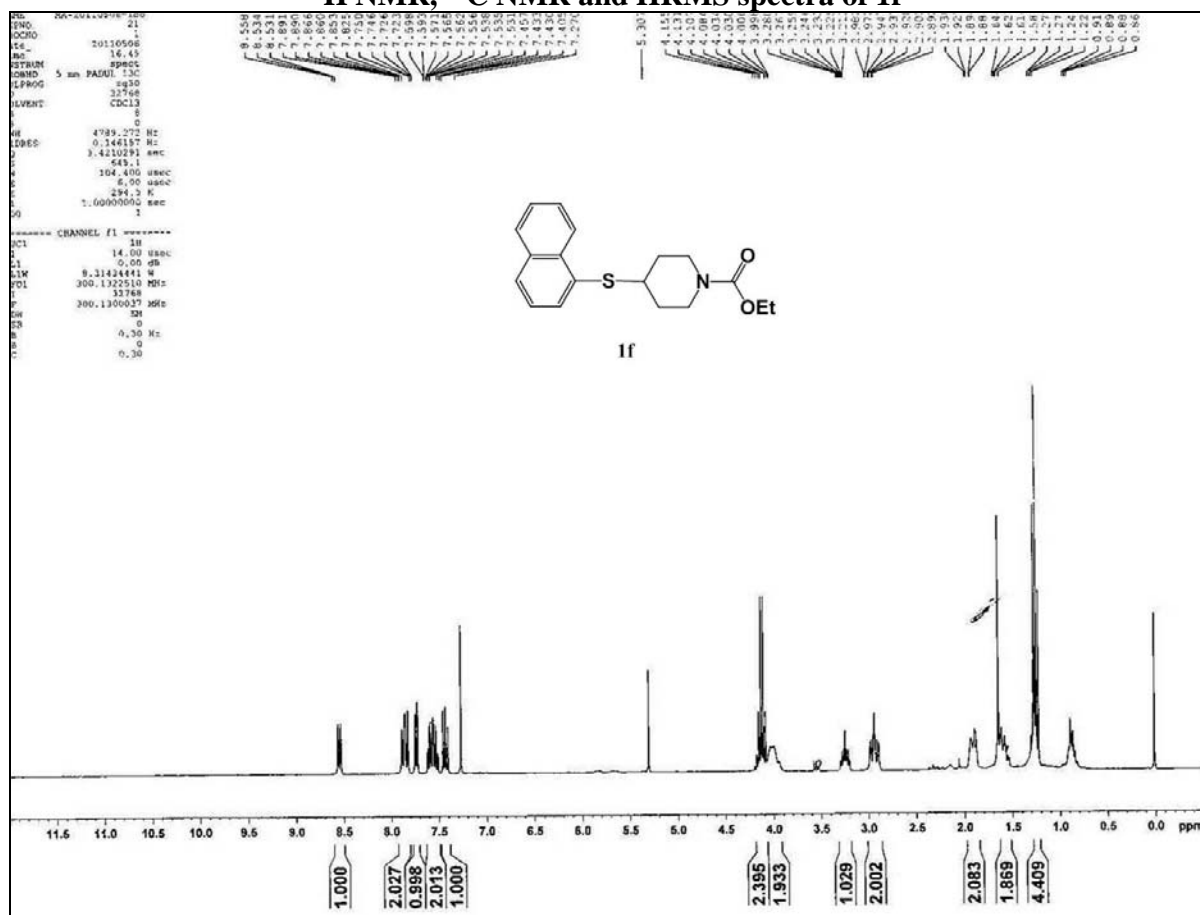


¹H NMR, ¹³C NMR and HRMS spectra of 1e

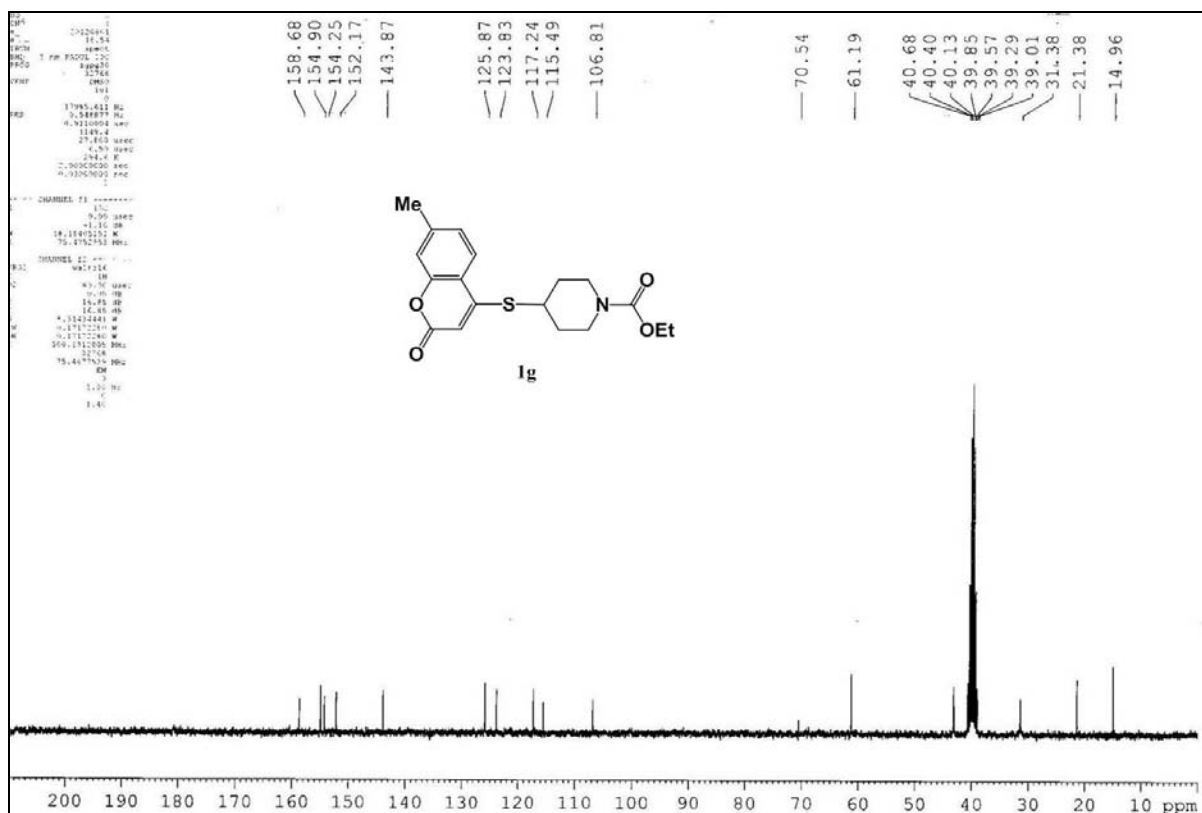
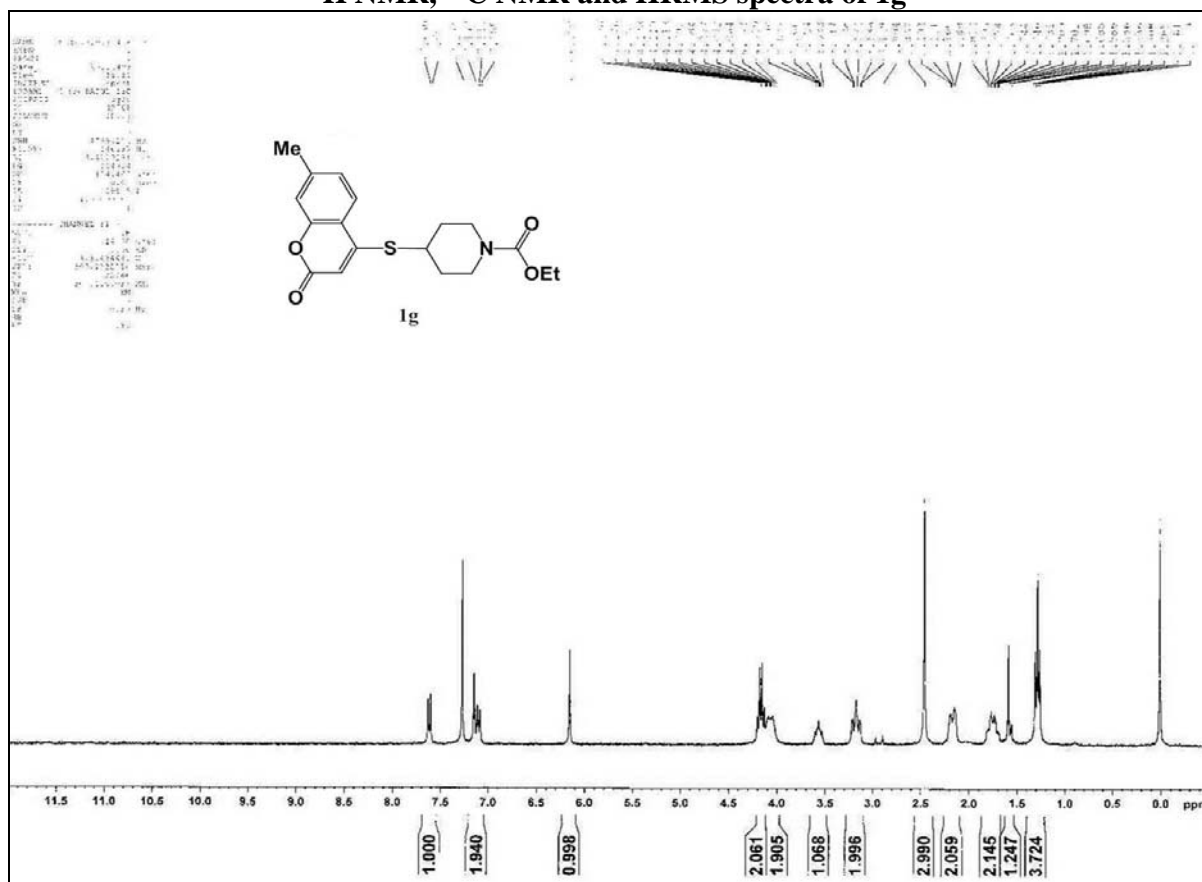


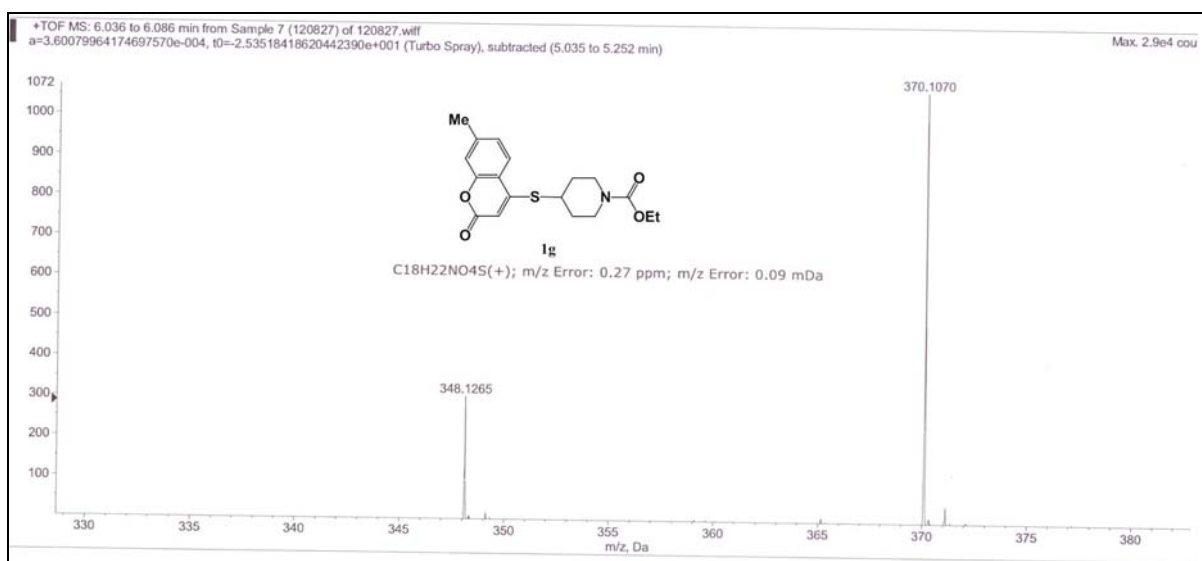


¹H NMR, ¹³C NMR and HRMS spectra of 1f

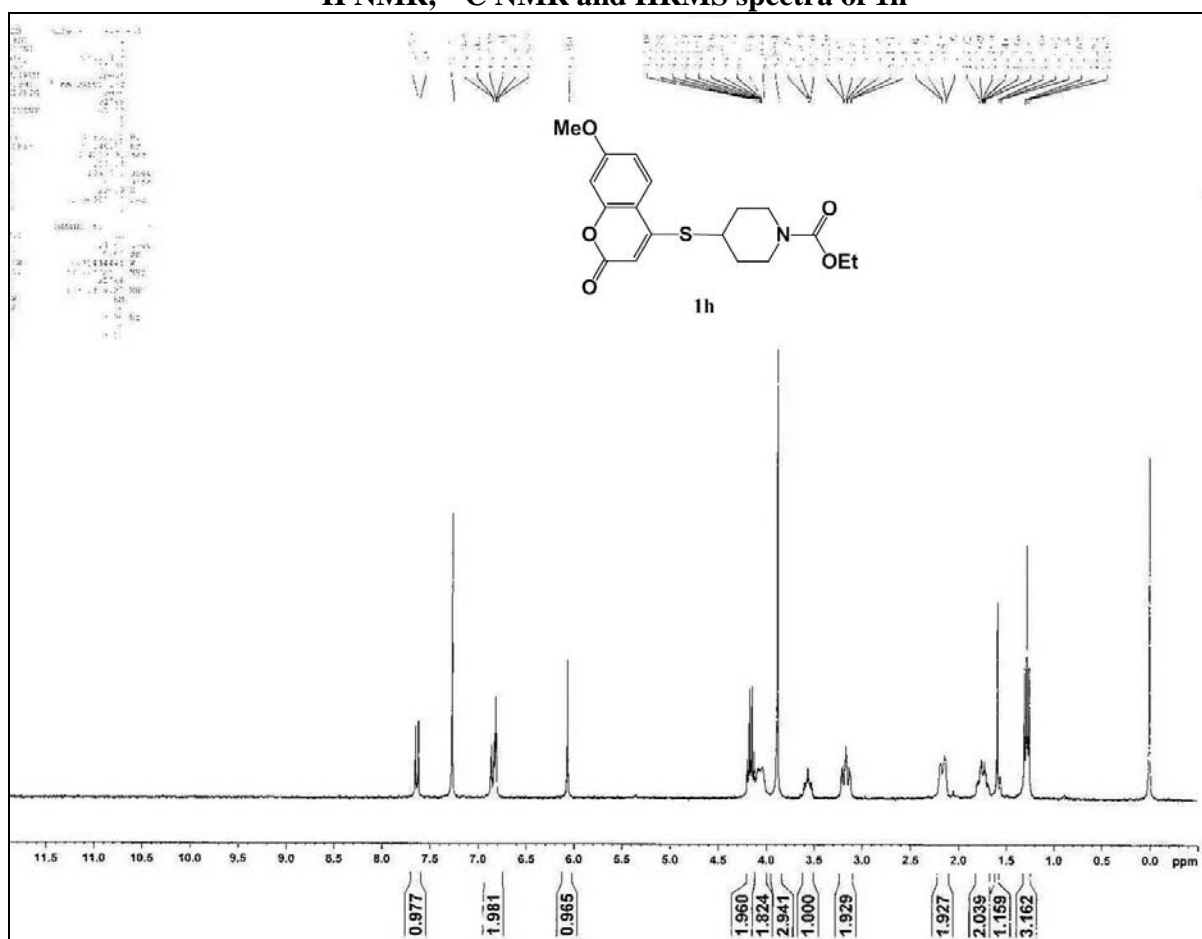


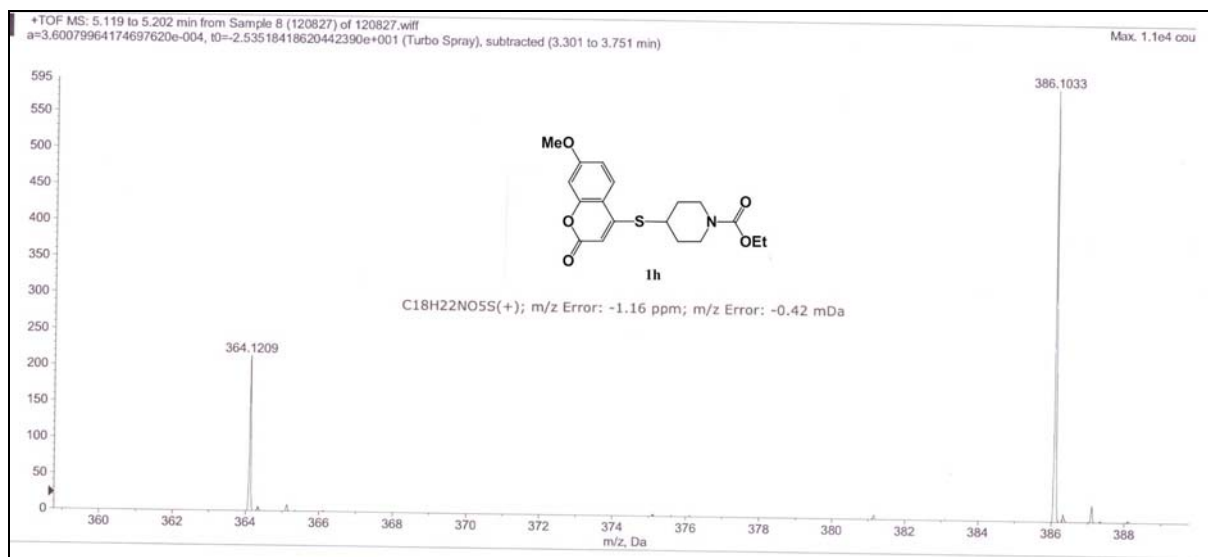
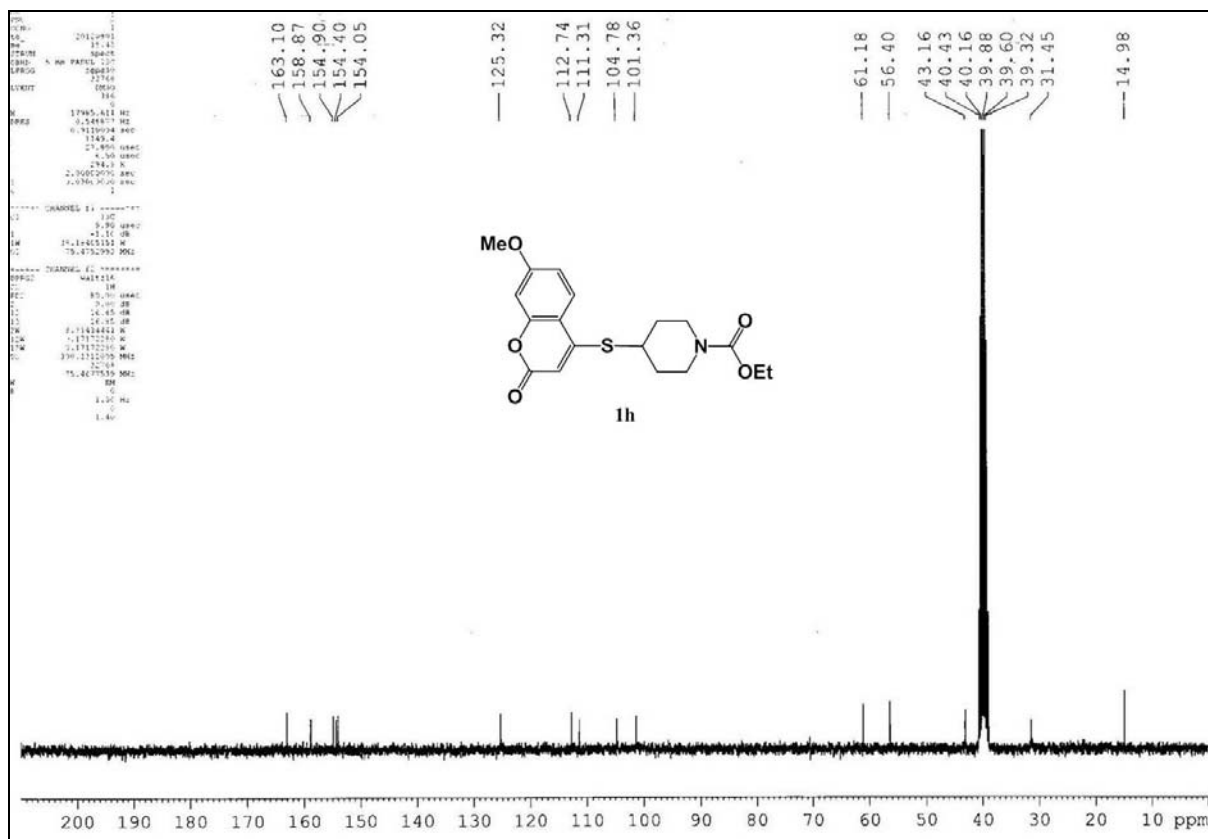
¹H NMR, ¹³C NMR and HRMS spectra of 1g



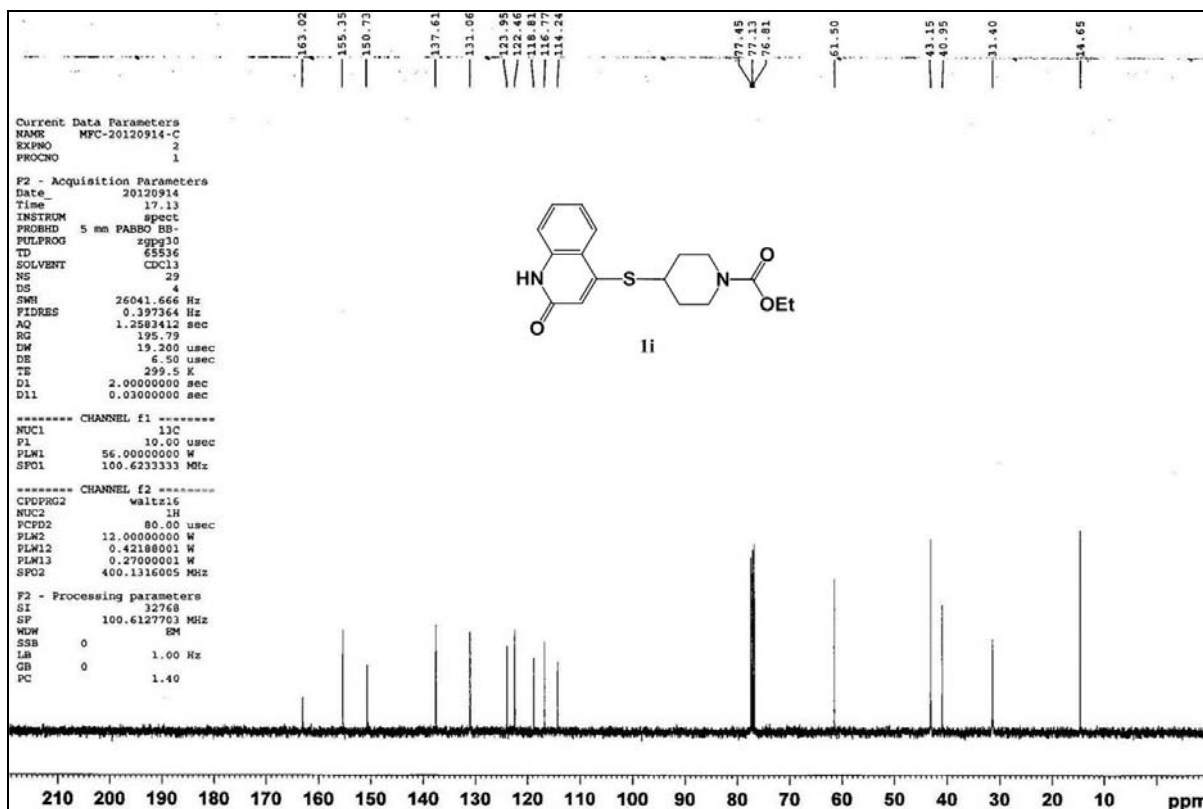
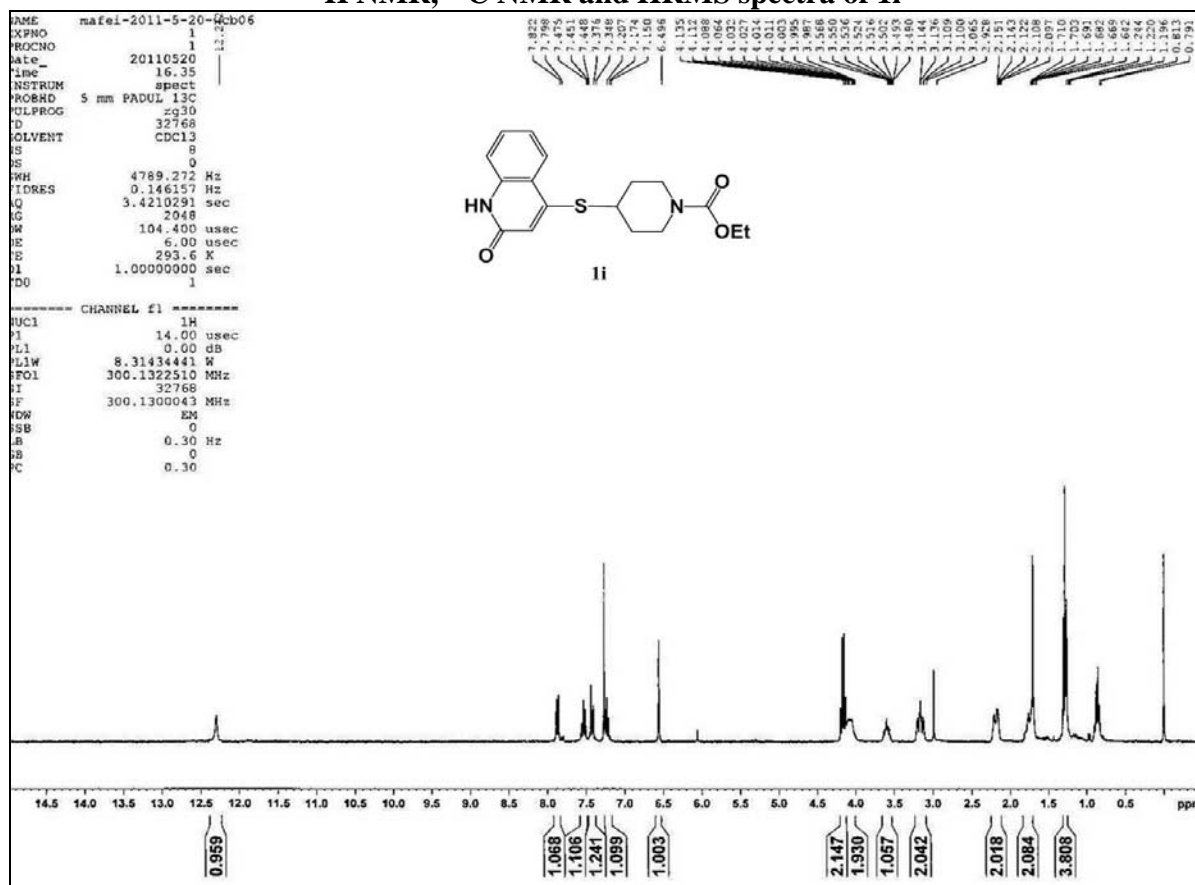


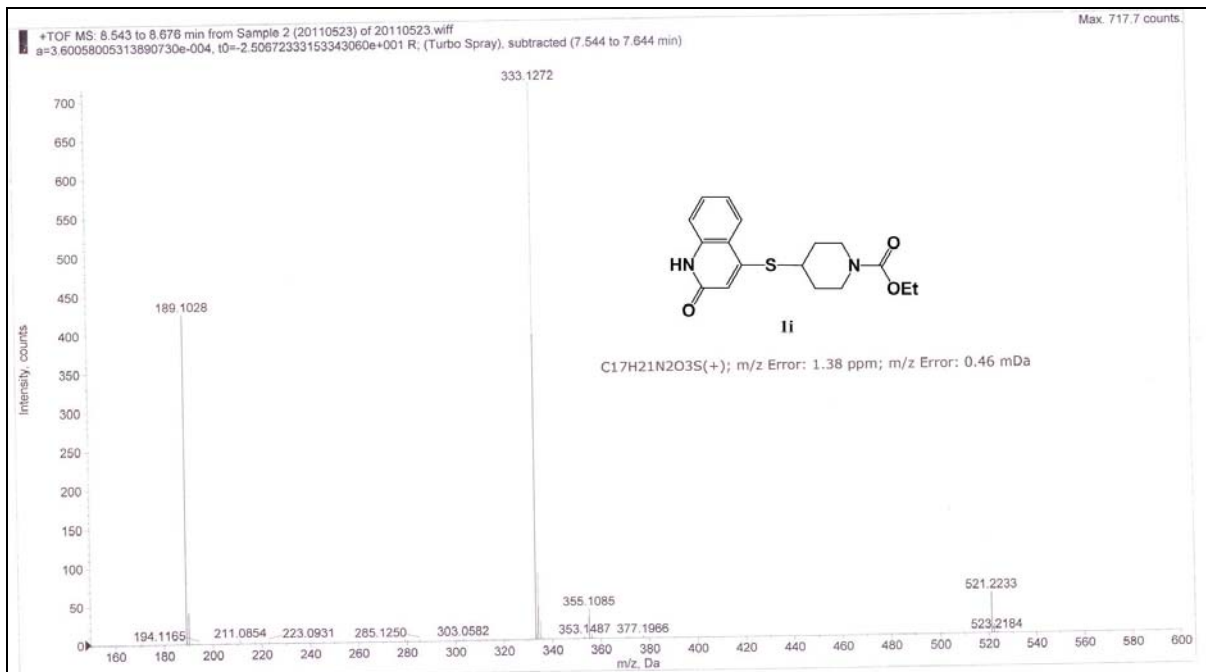
¹H NMR, ¹³C NMR and HRMS spectra of 1h



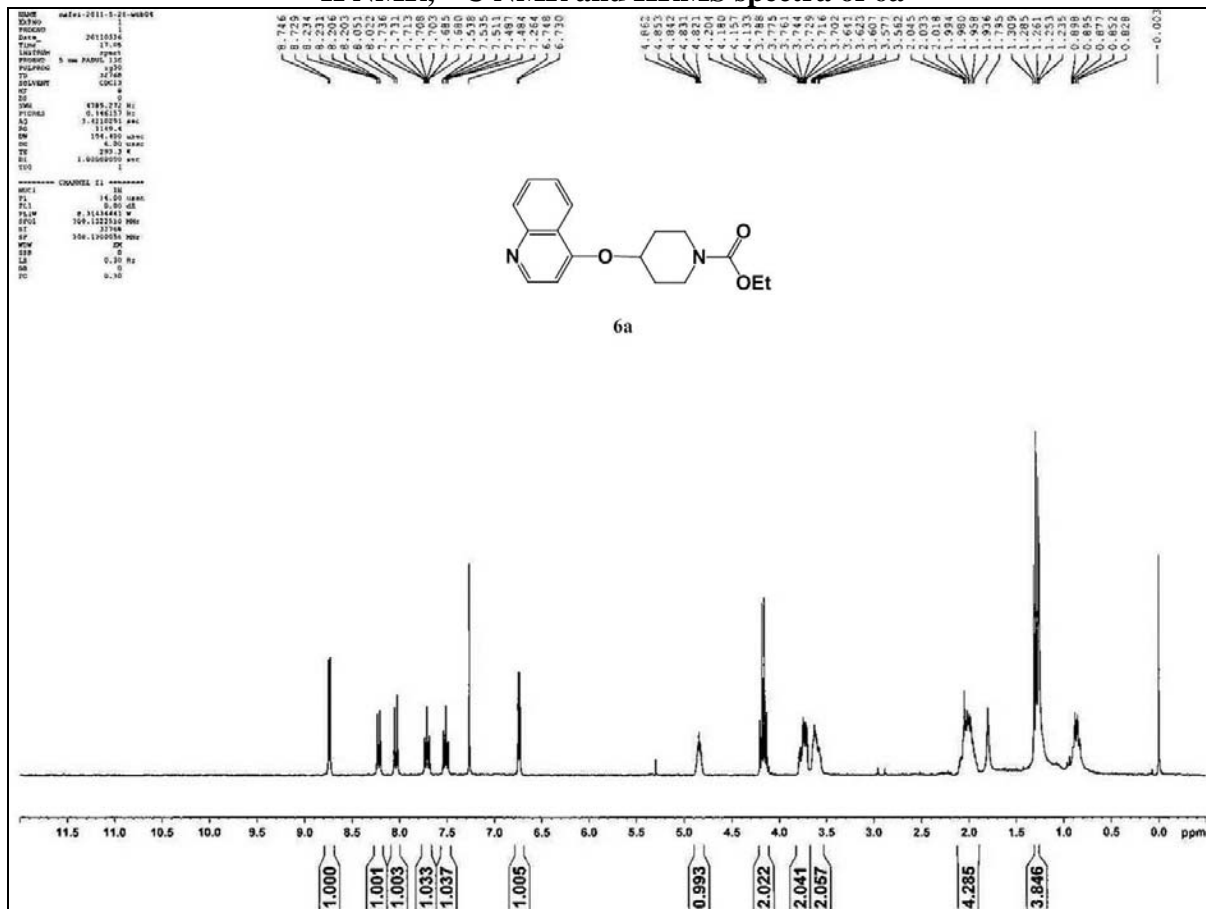


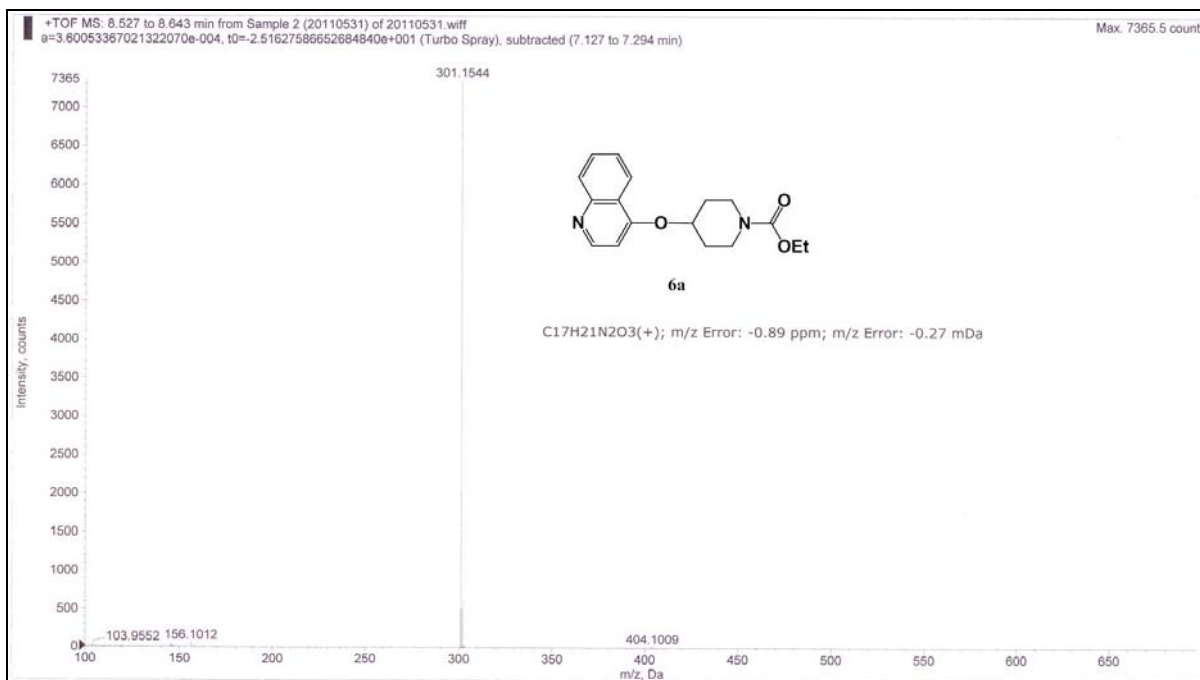
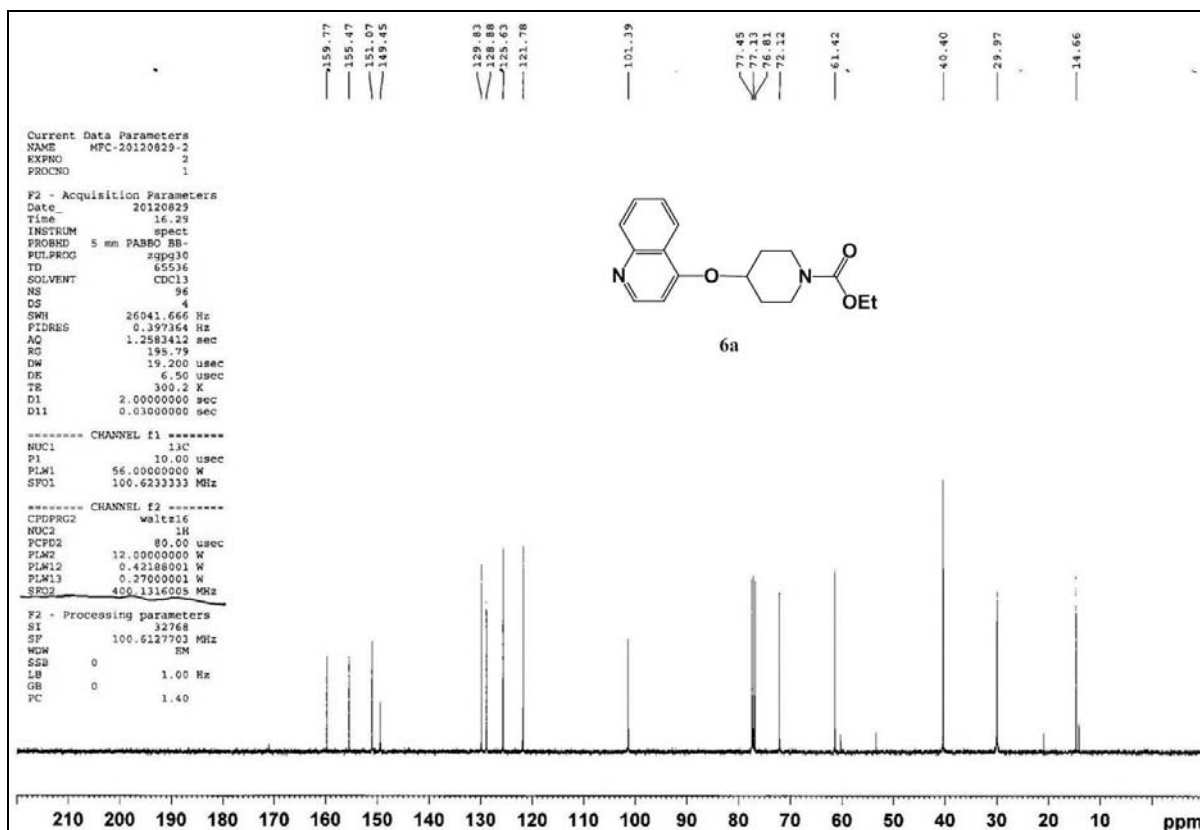
¹H NMR, ¹³C NMR and HRMS spectra of 1i



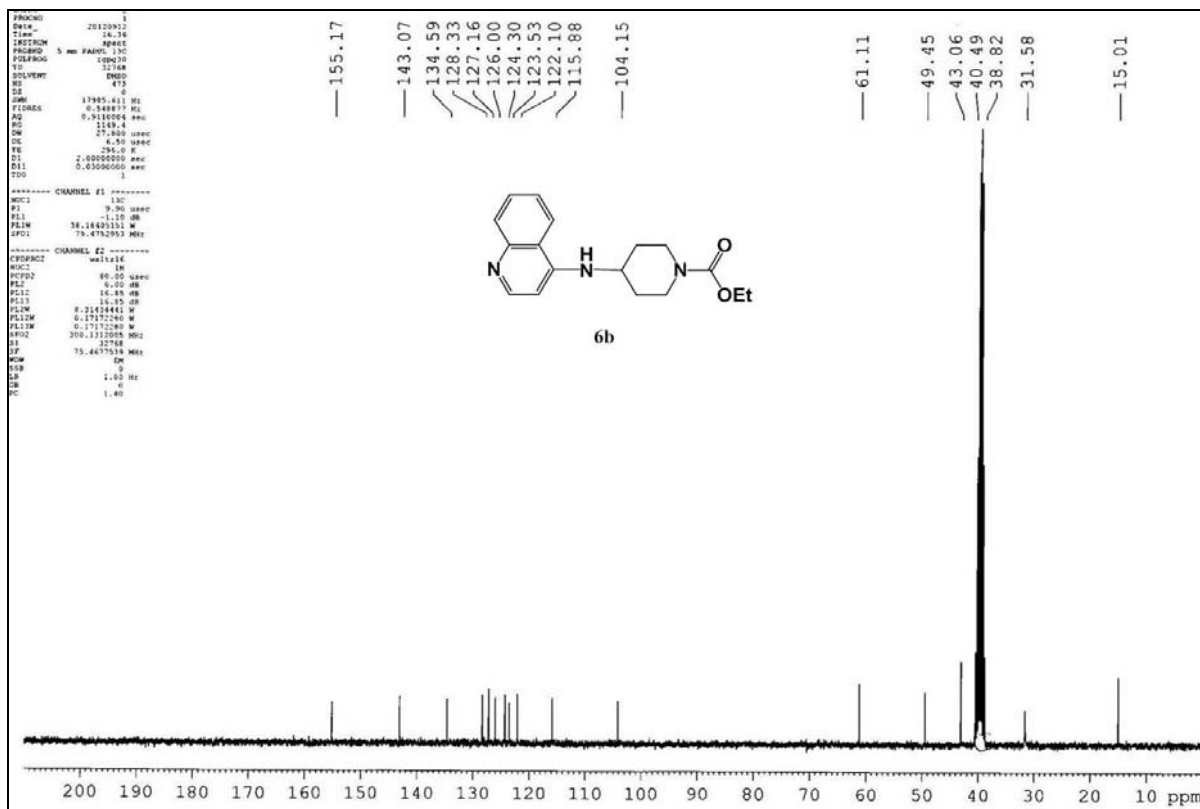
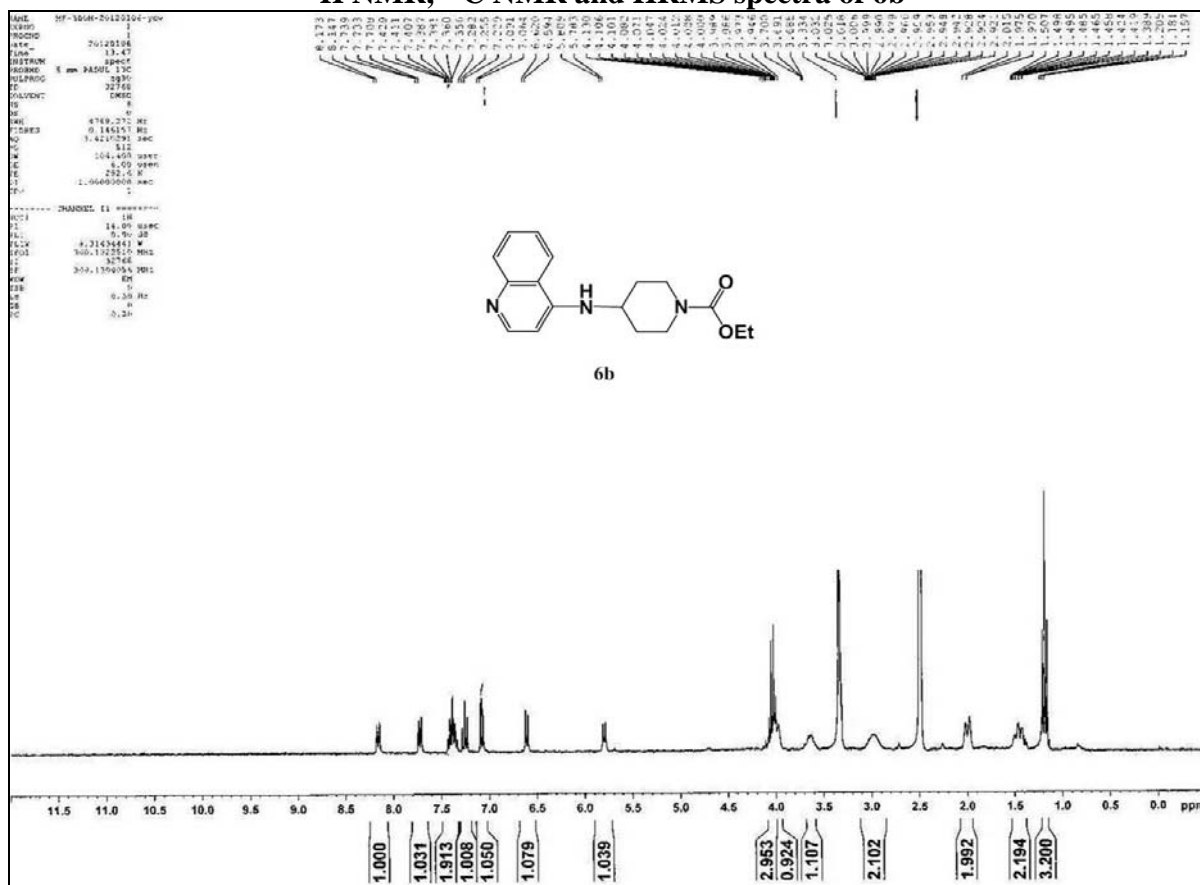


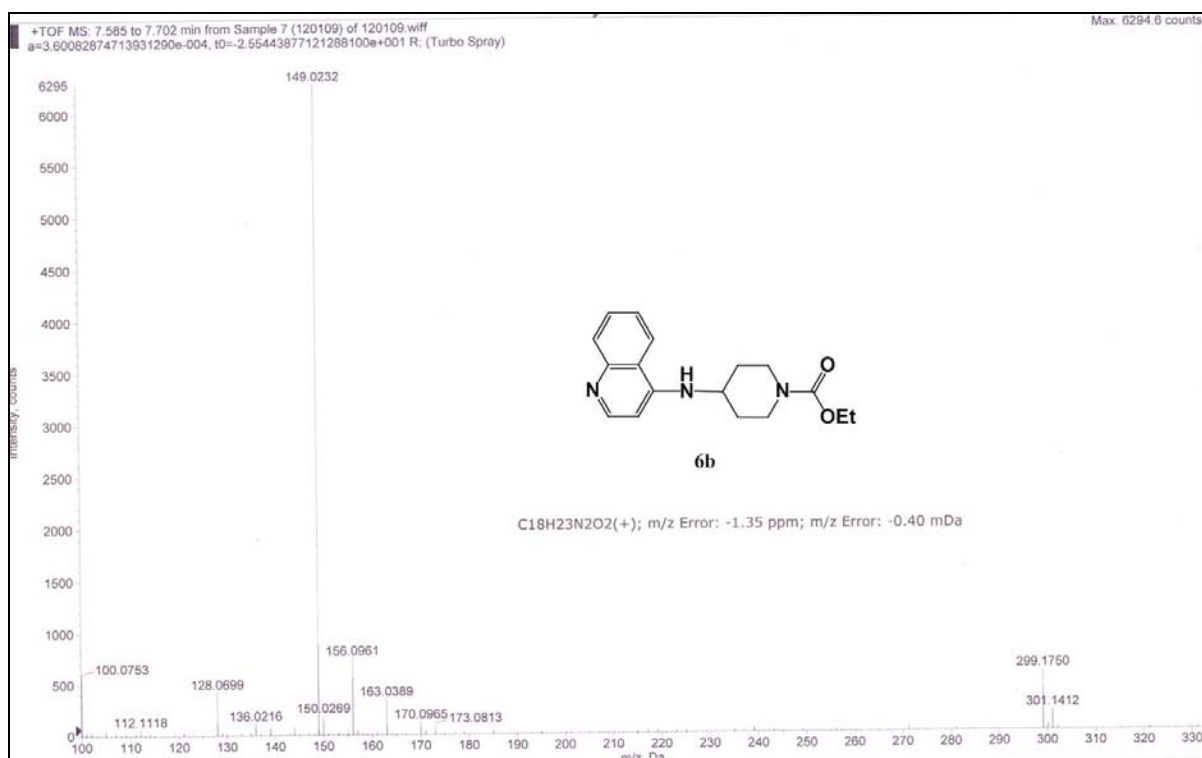
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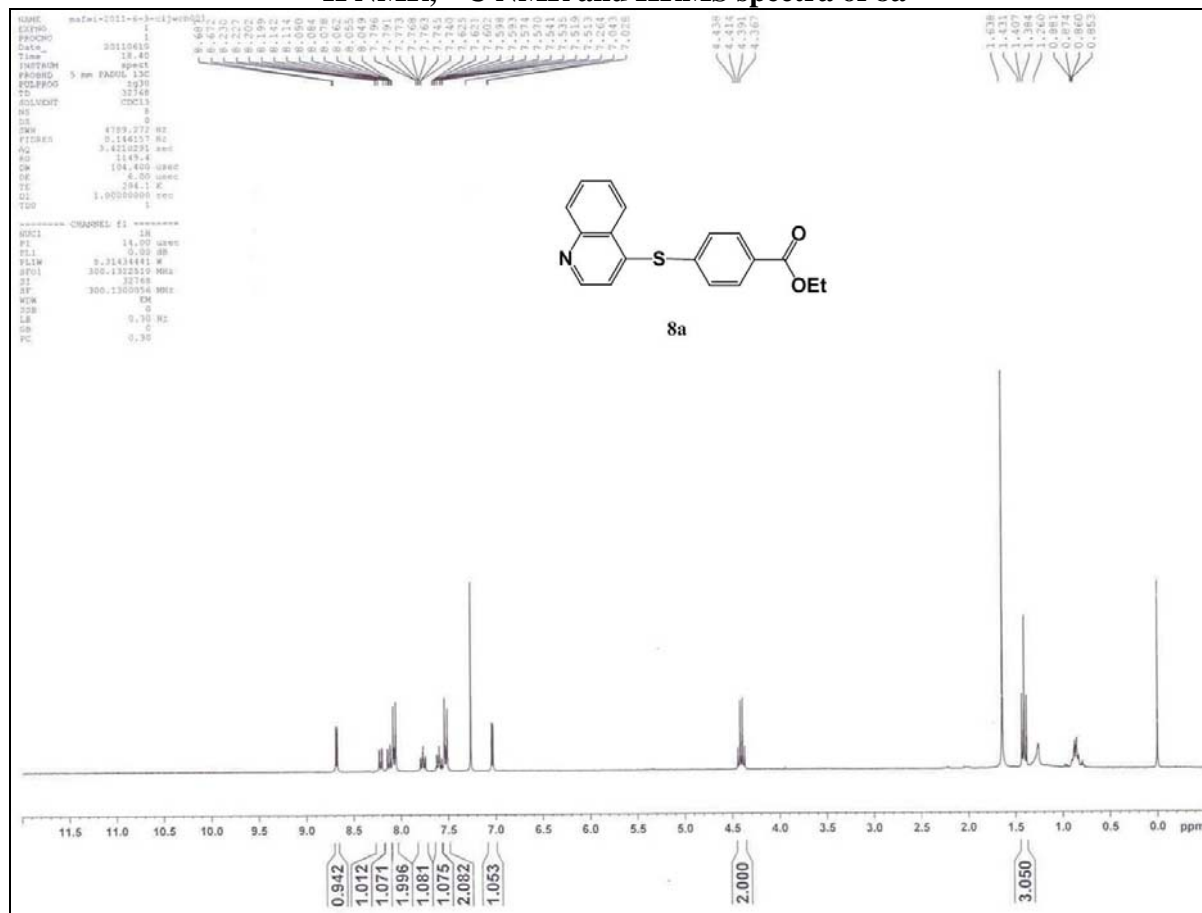


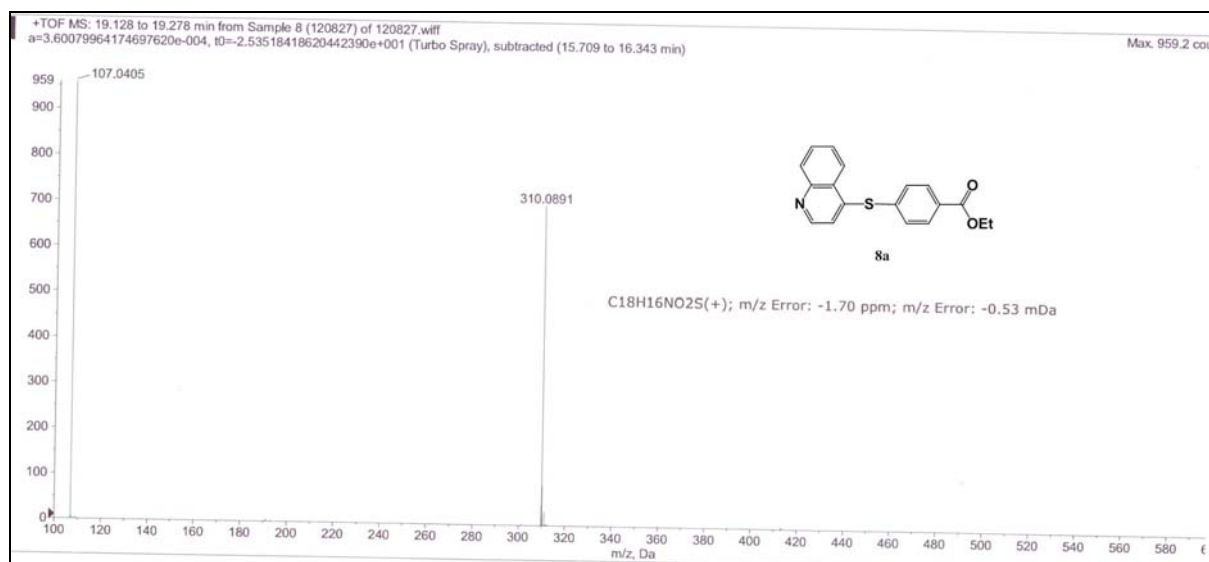
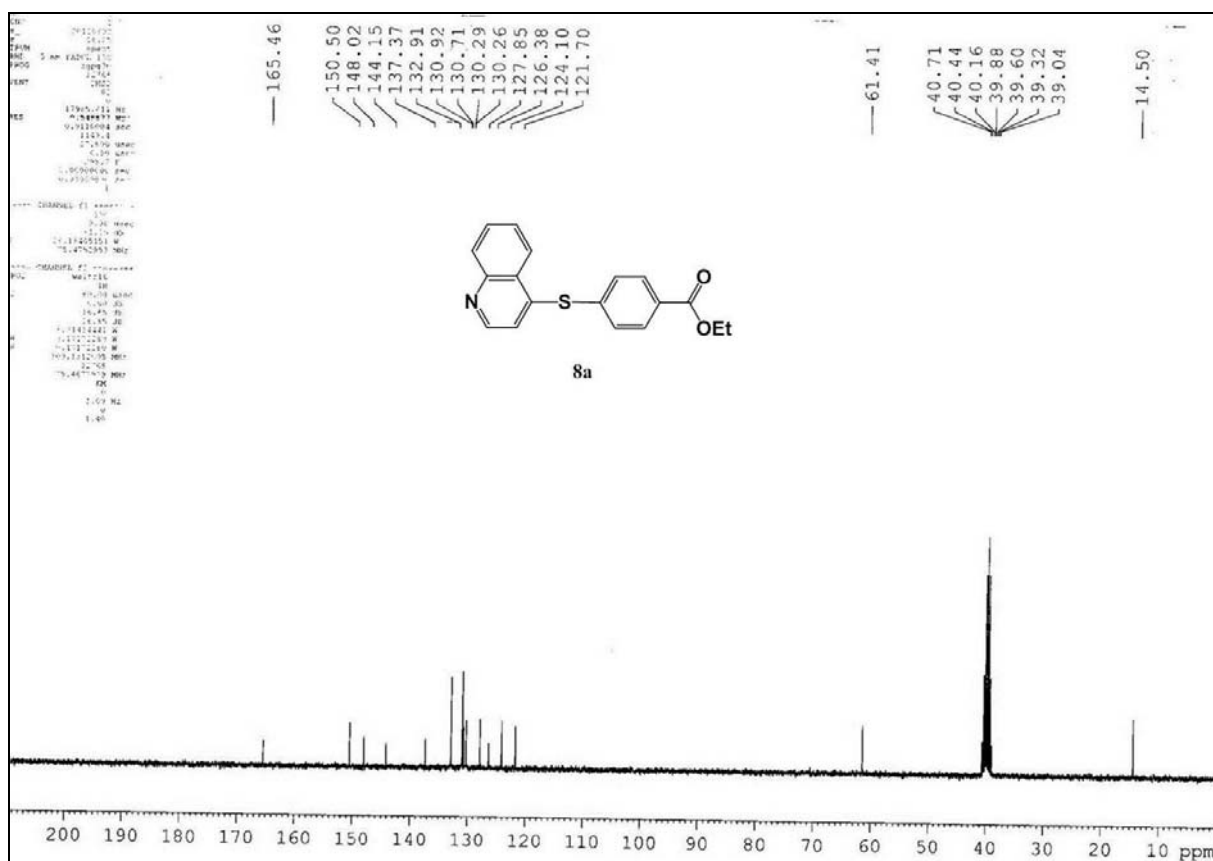
¹H NMR, ¹³C NMR and HRMS spectra of 6b



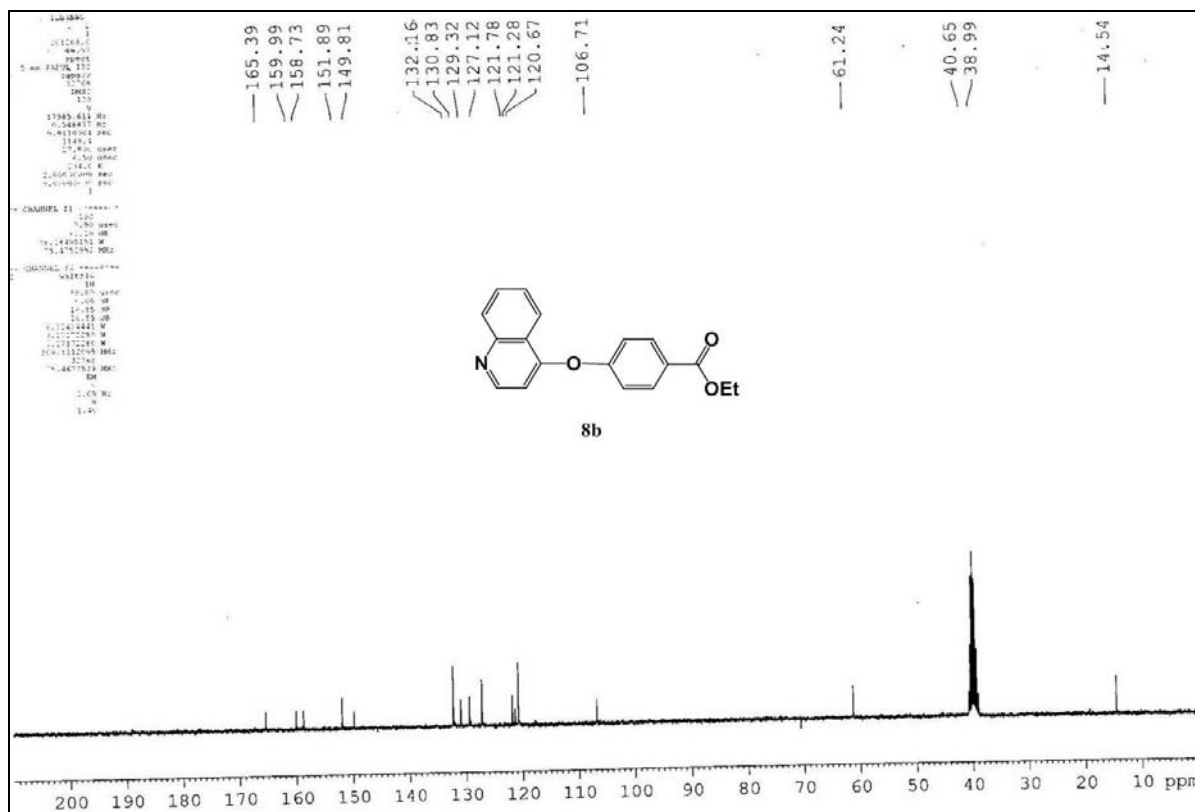
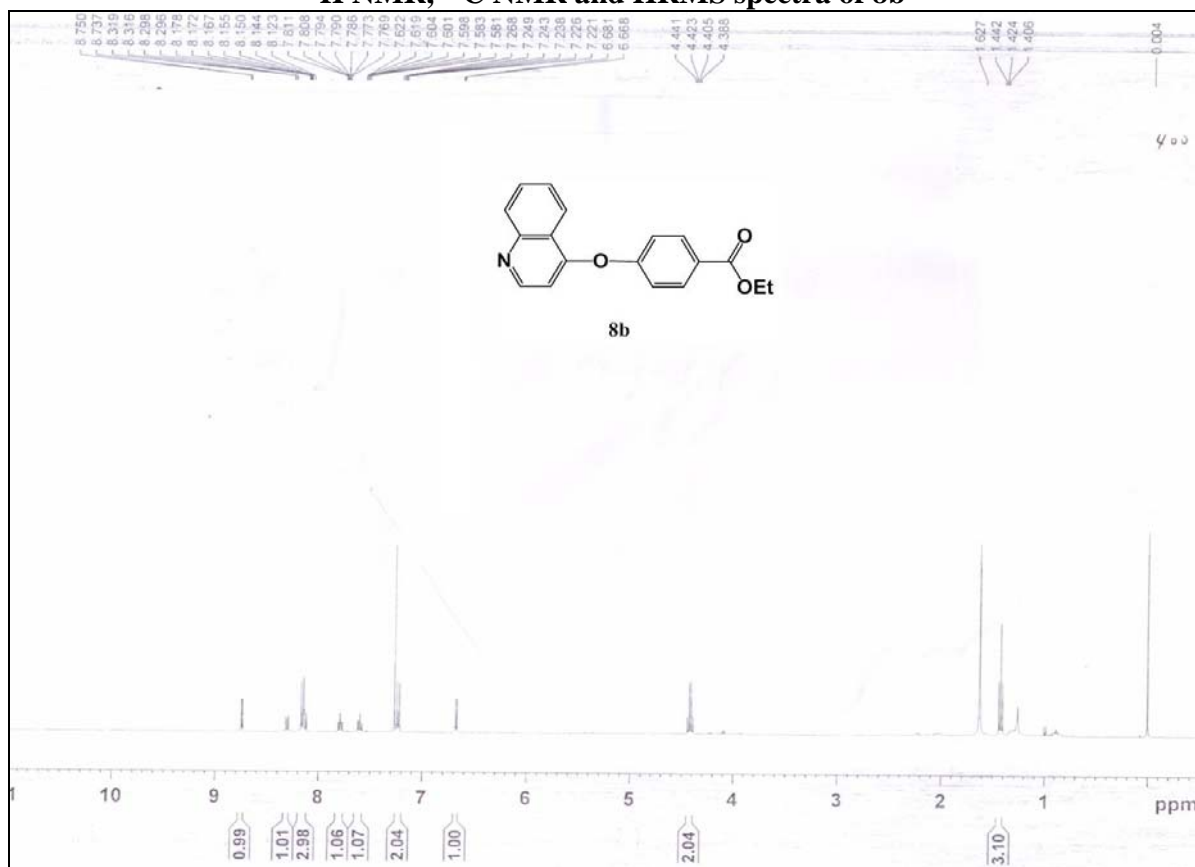


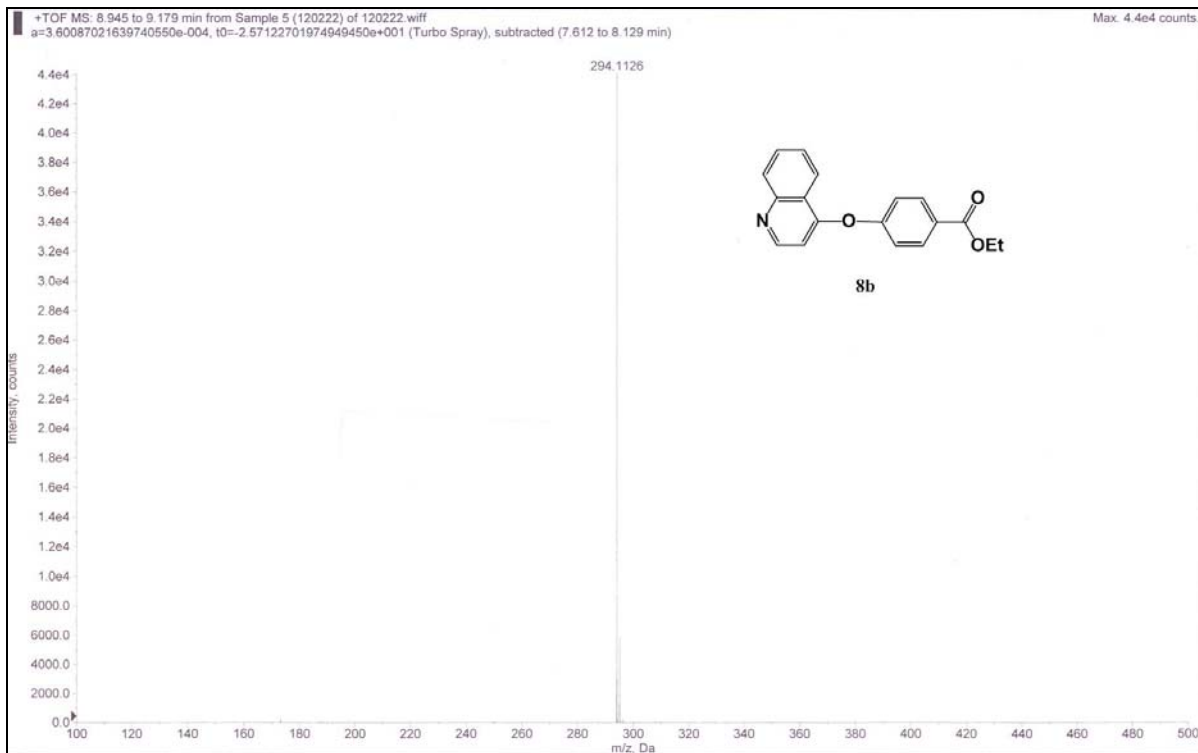
¹H NMR, ¹³C NMR and HRMS spectra of 8a



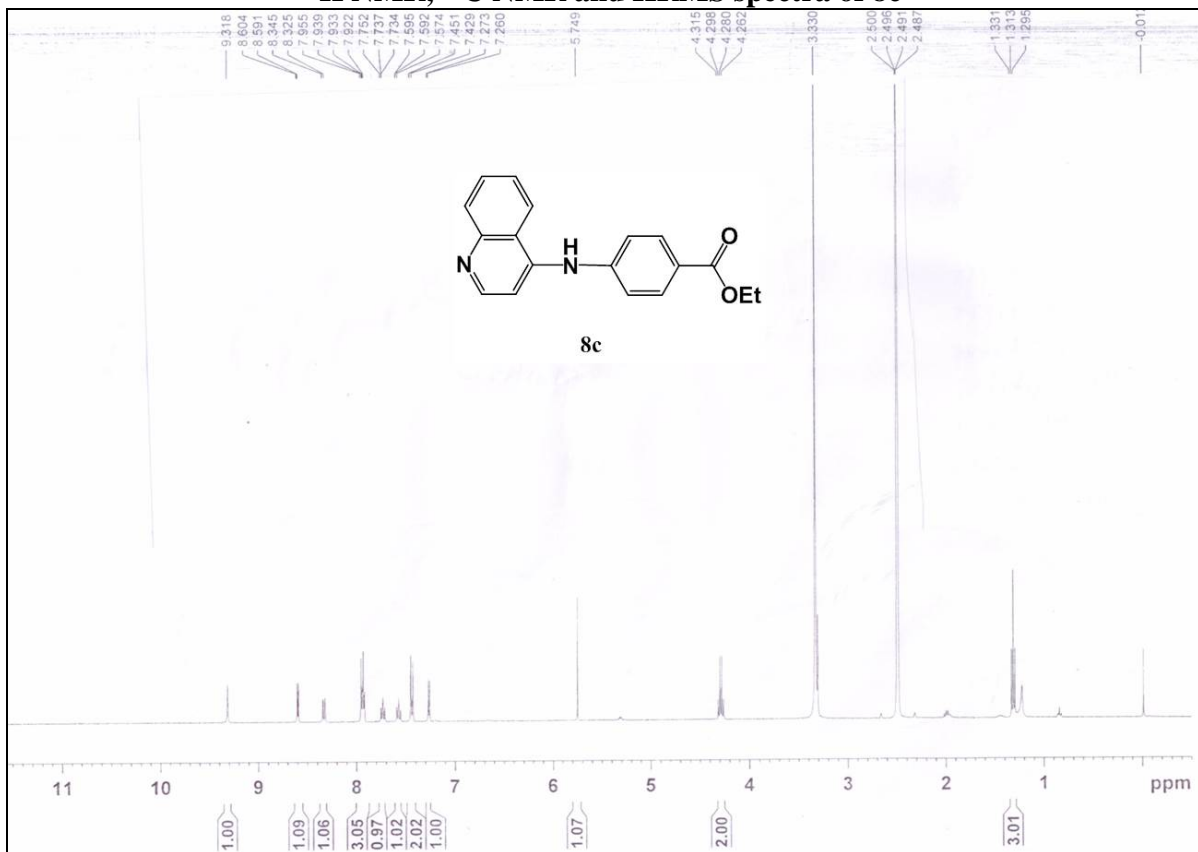


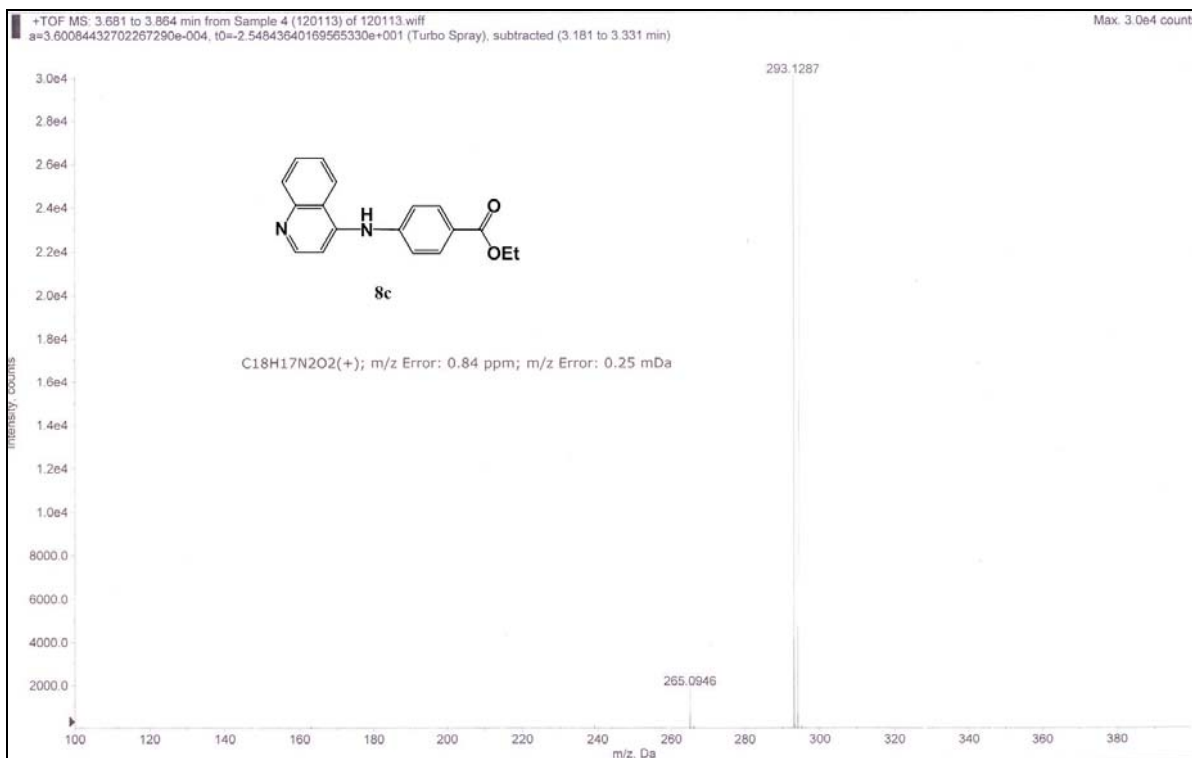
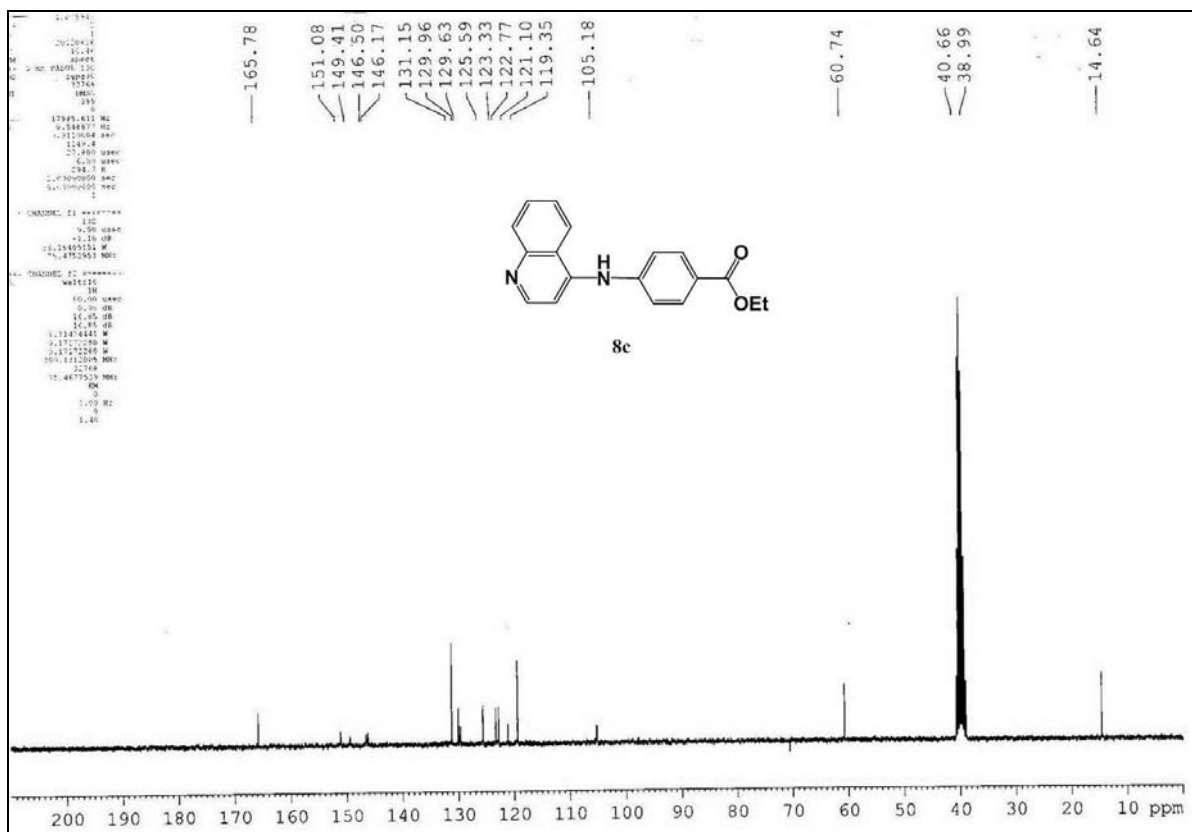
¹H NMR, ¹³C NMR and HRMS spectra of 8b



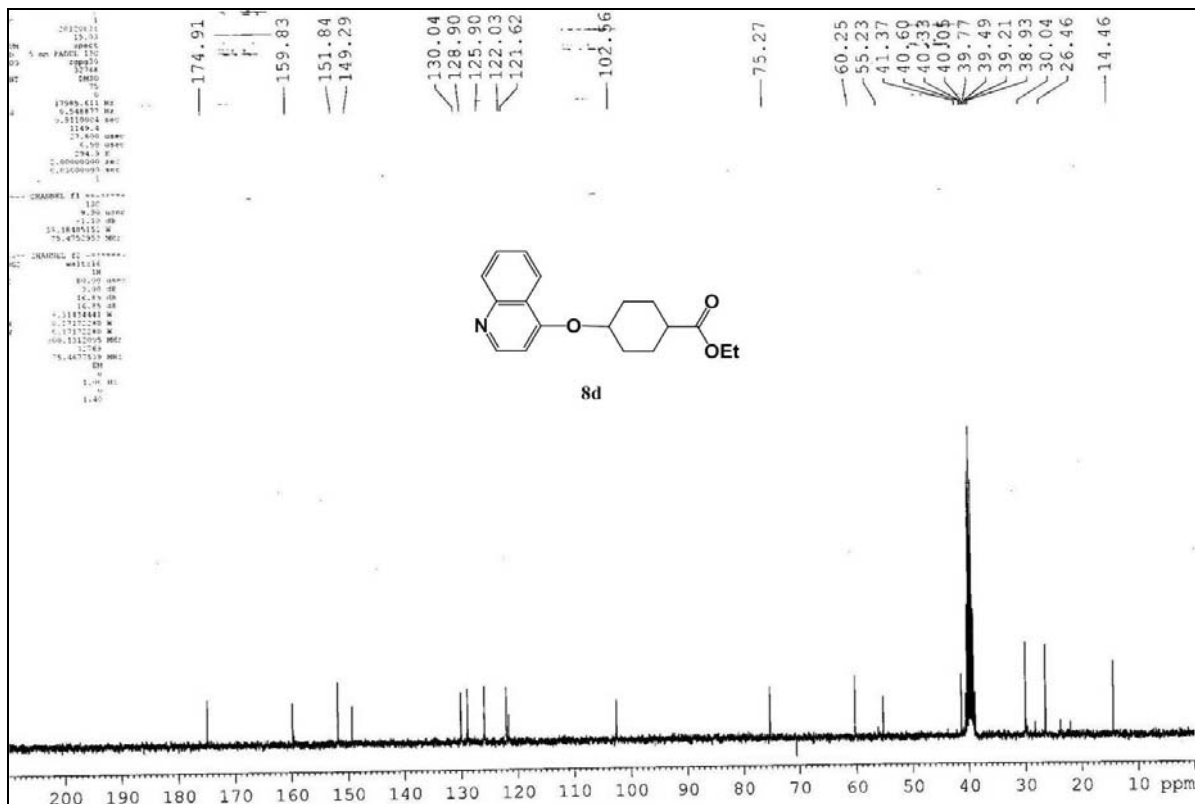
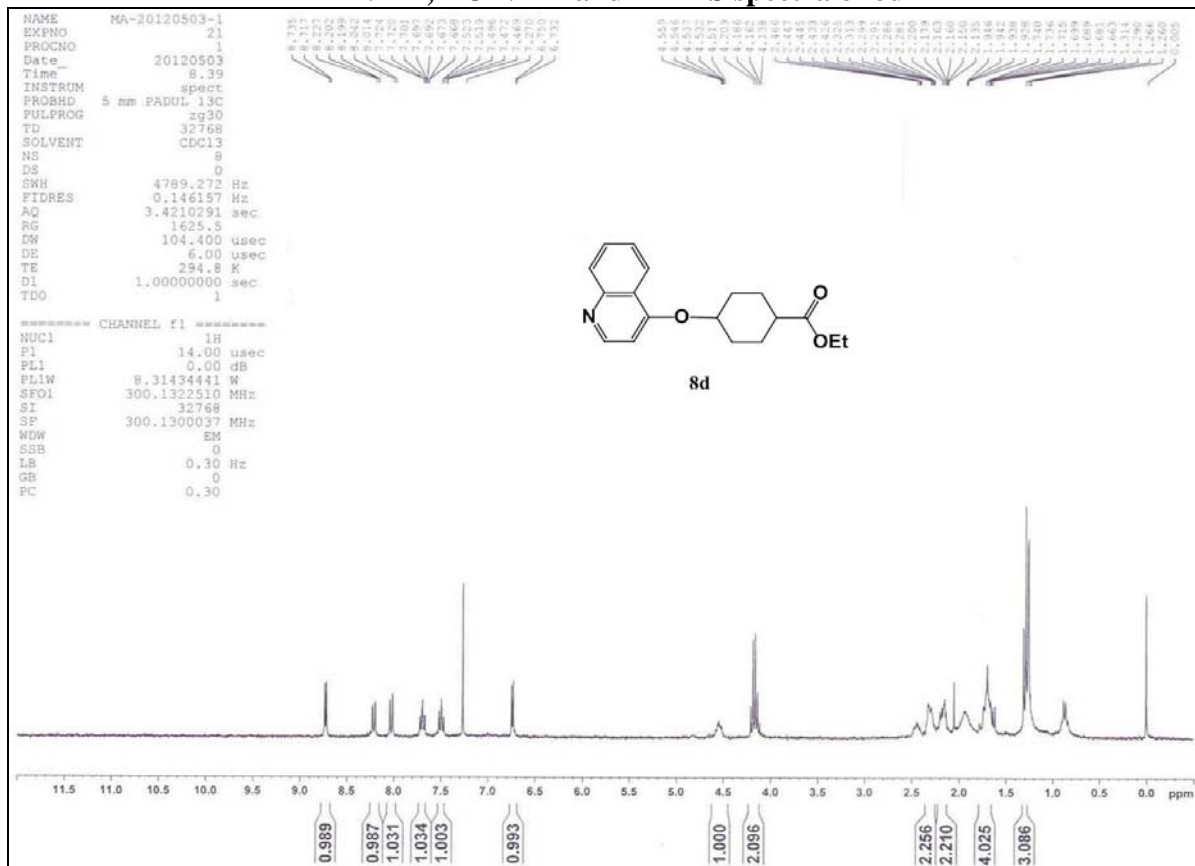


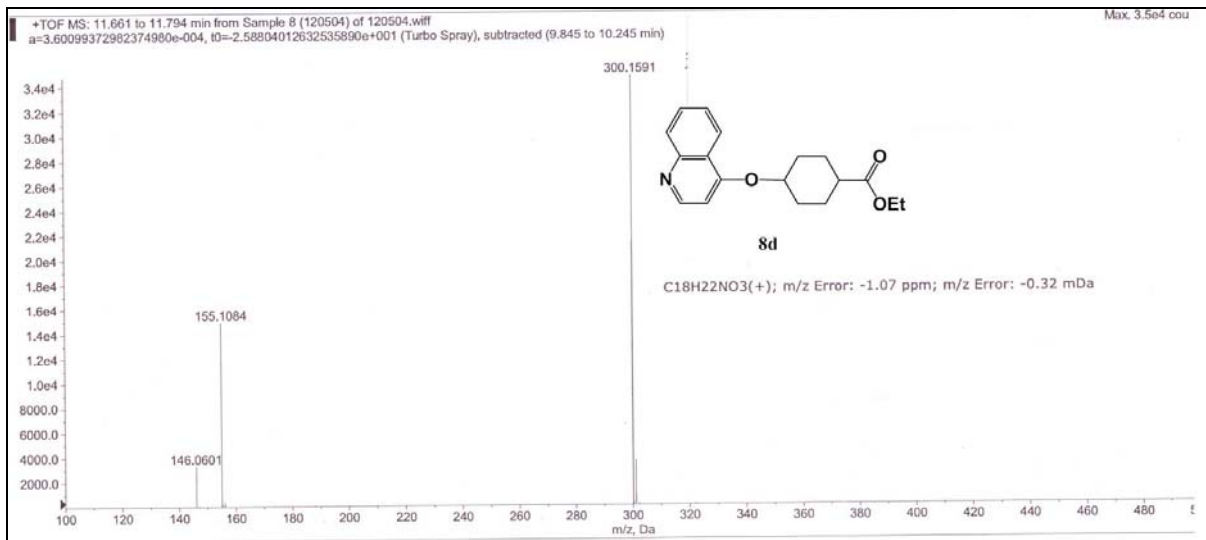
¹H NMR, ¹³C NMR and HRMS spectra of 8c



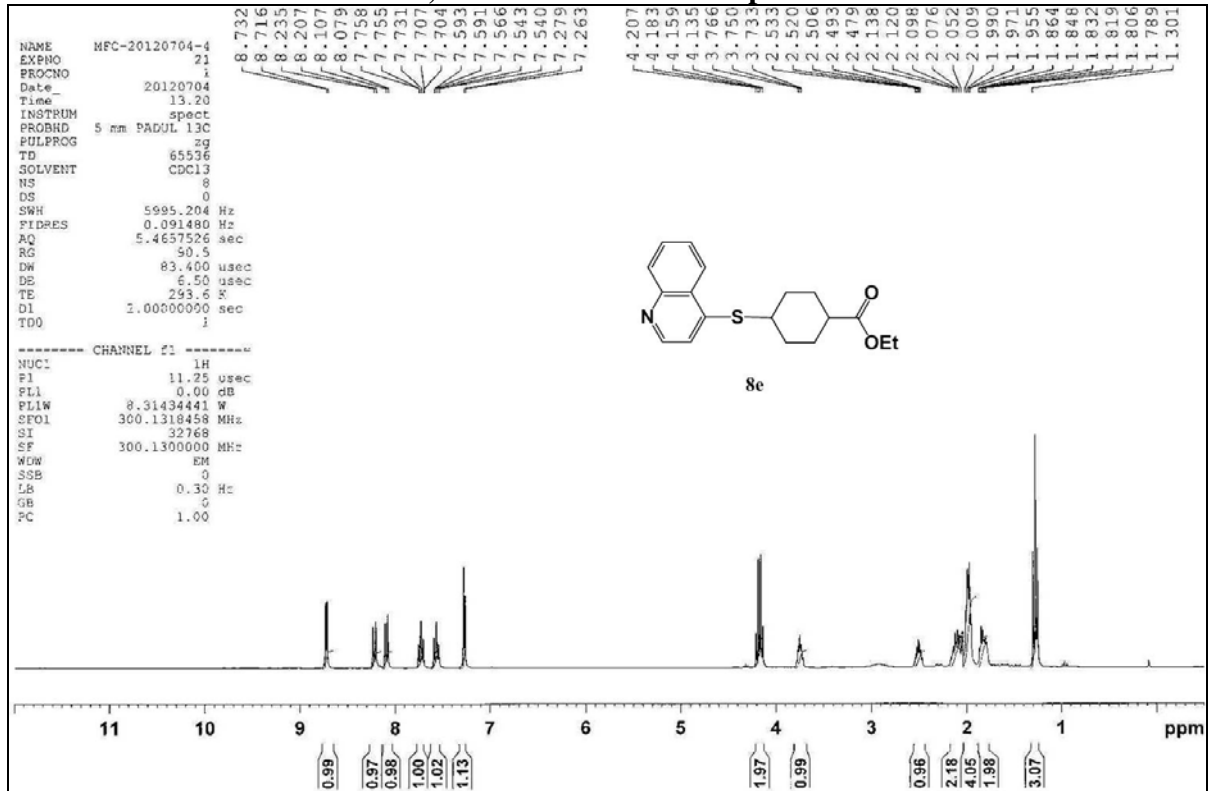


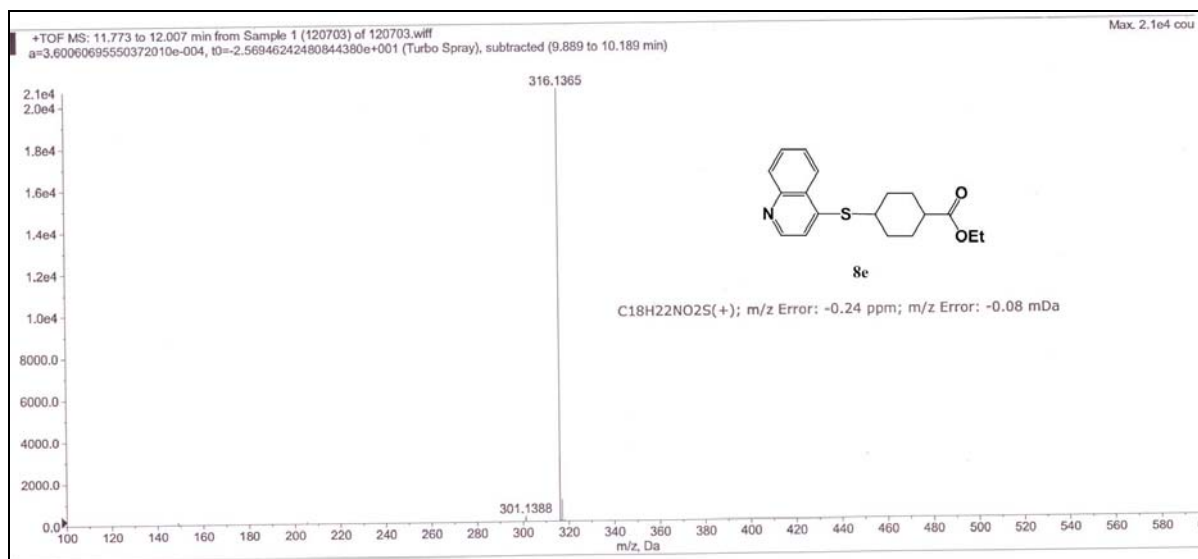
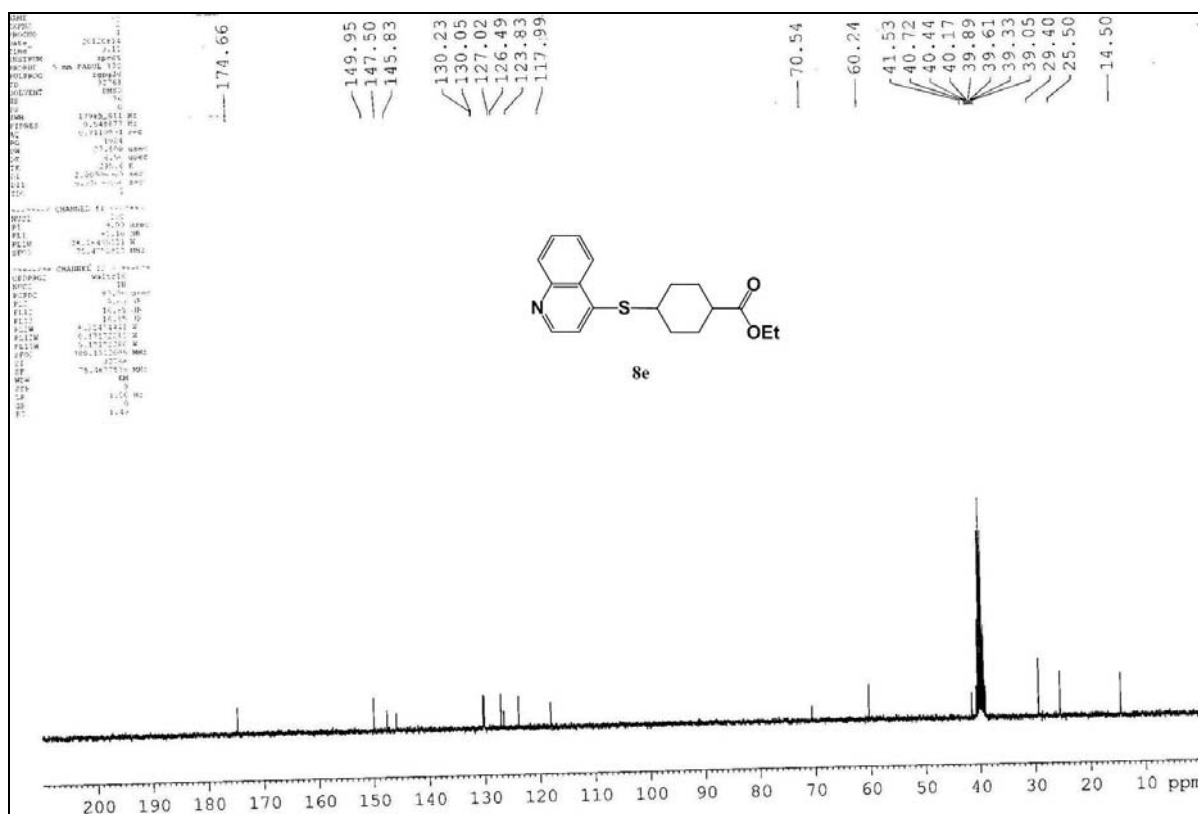
^1H NMR, ^{13}C NMR and HRMS spectra of 8d



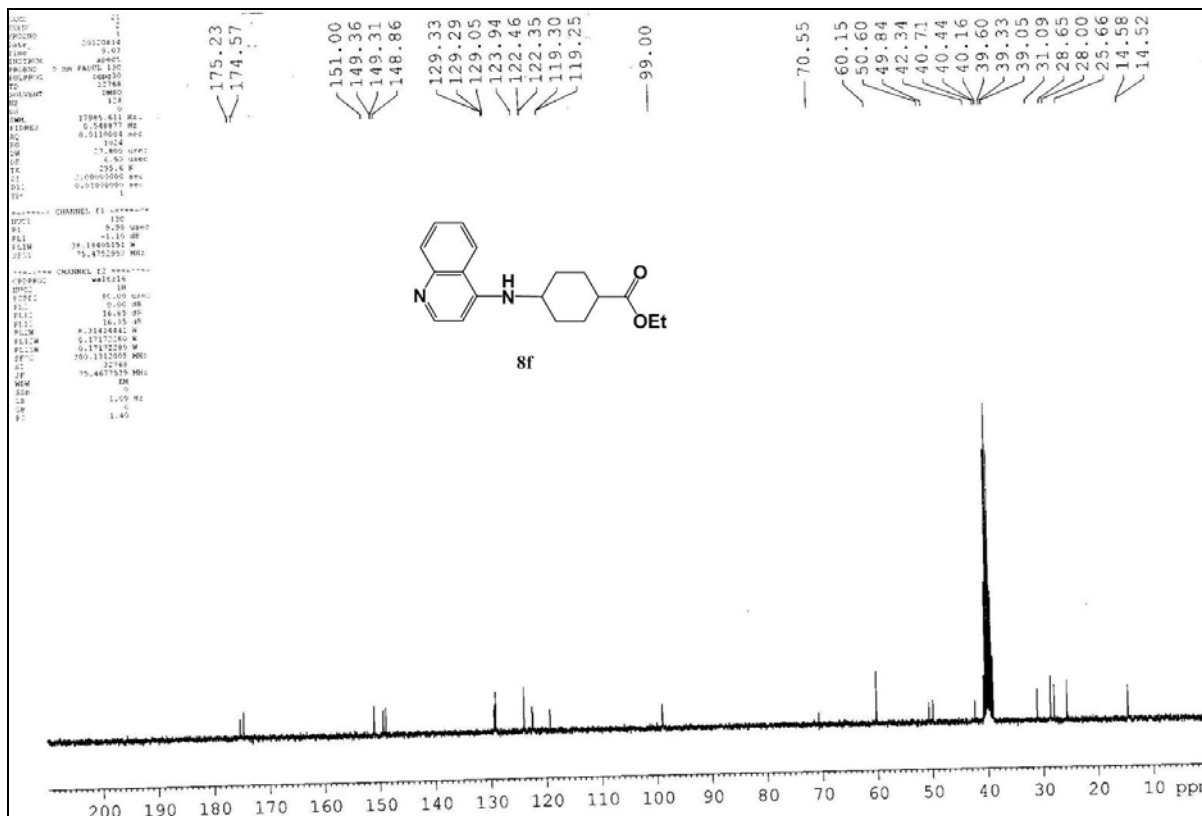
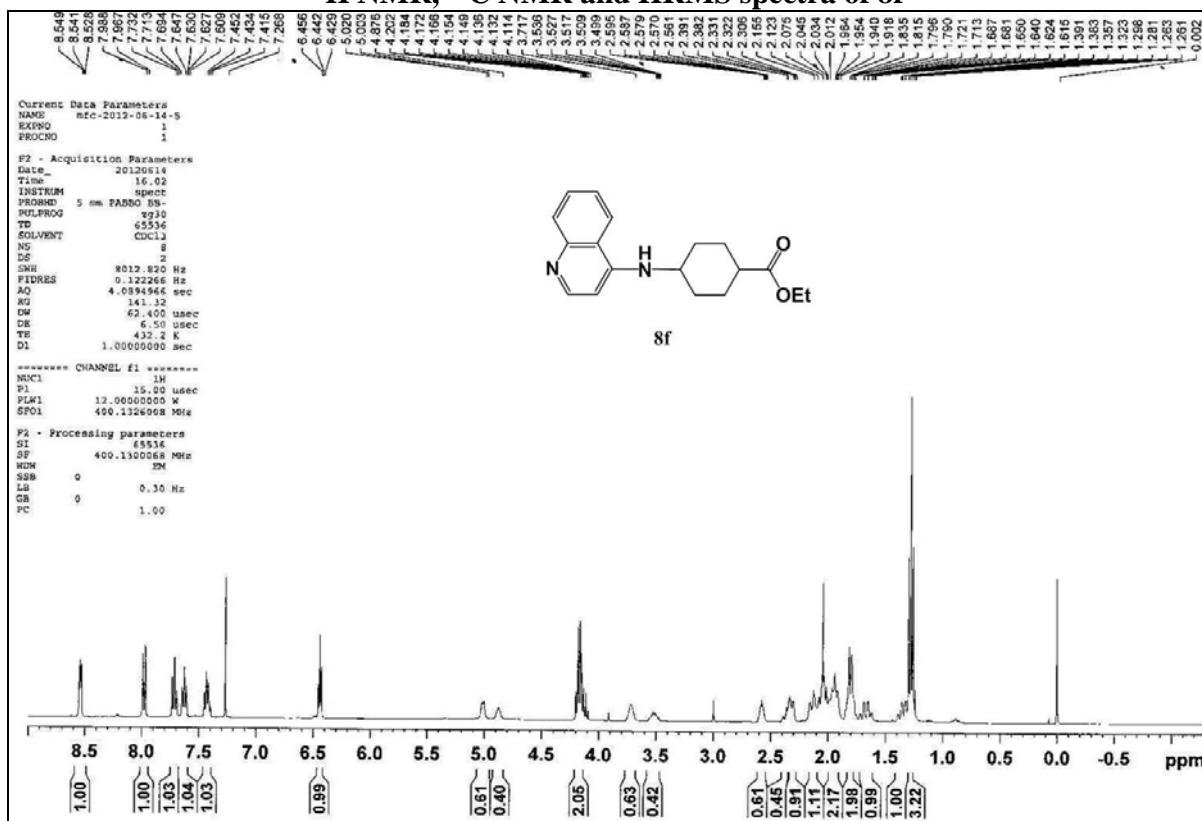


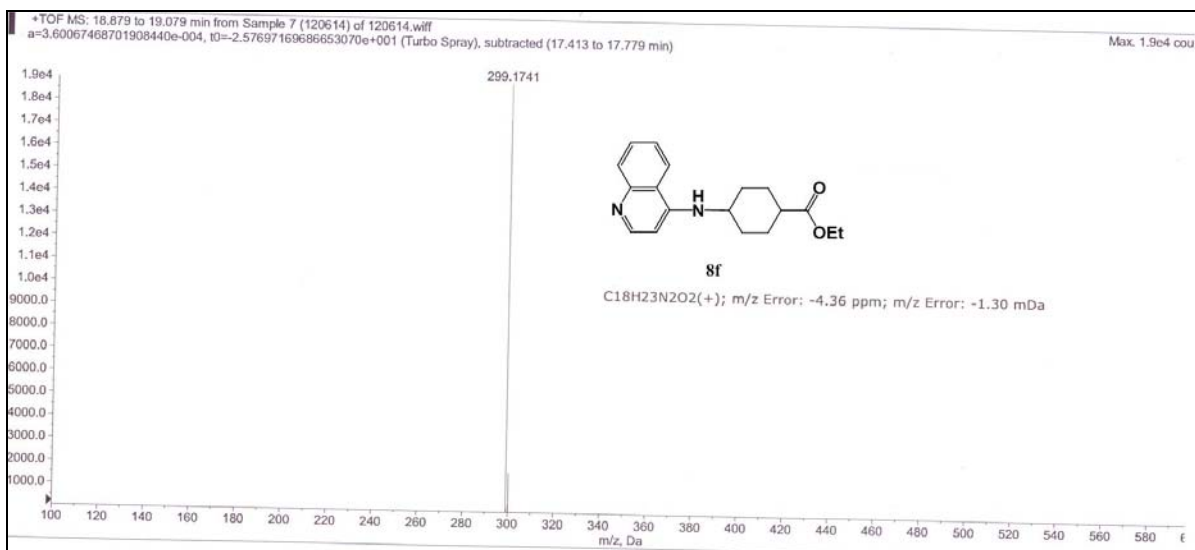
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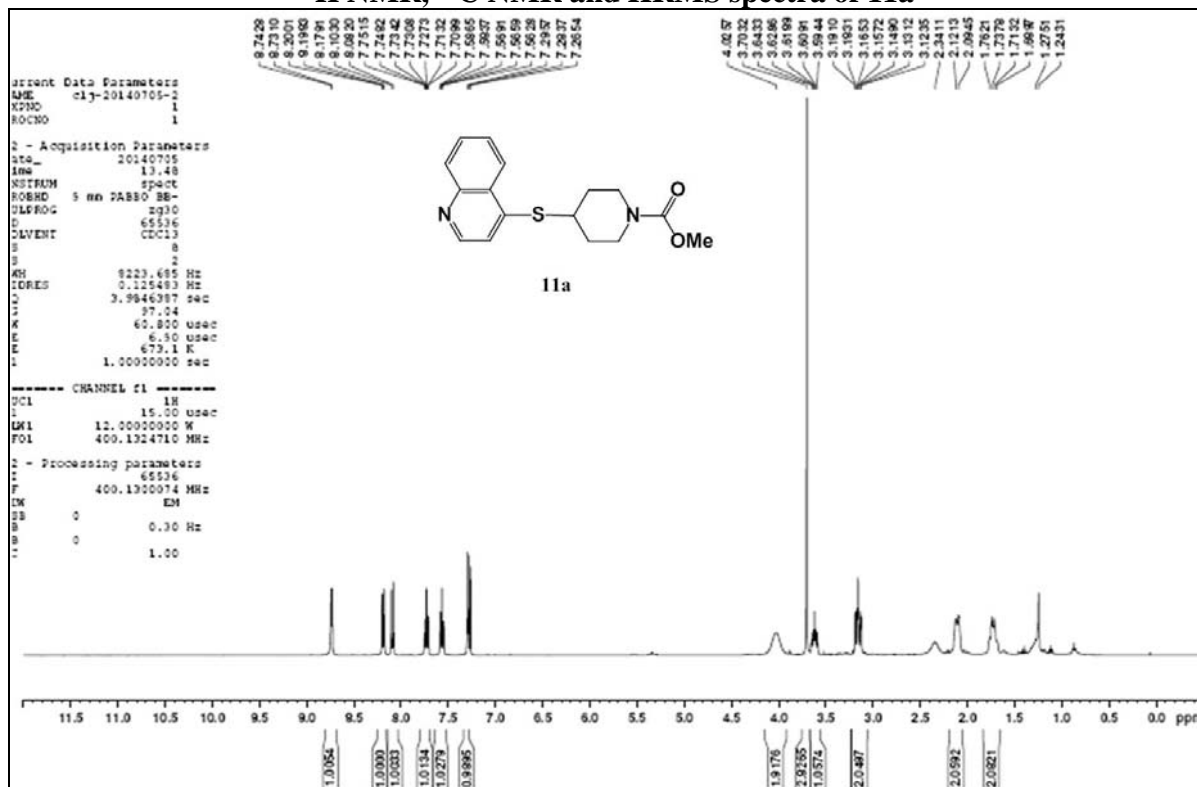


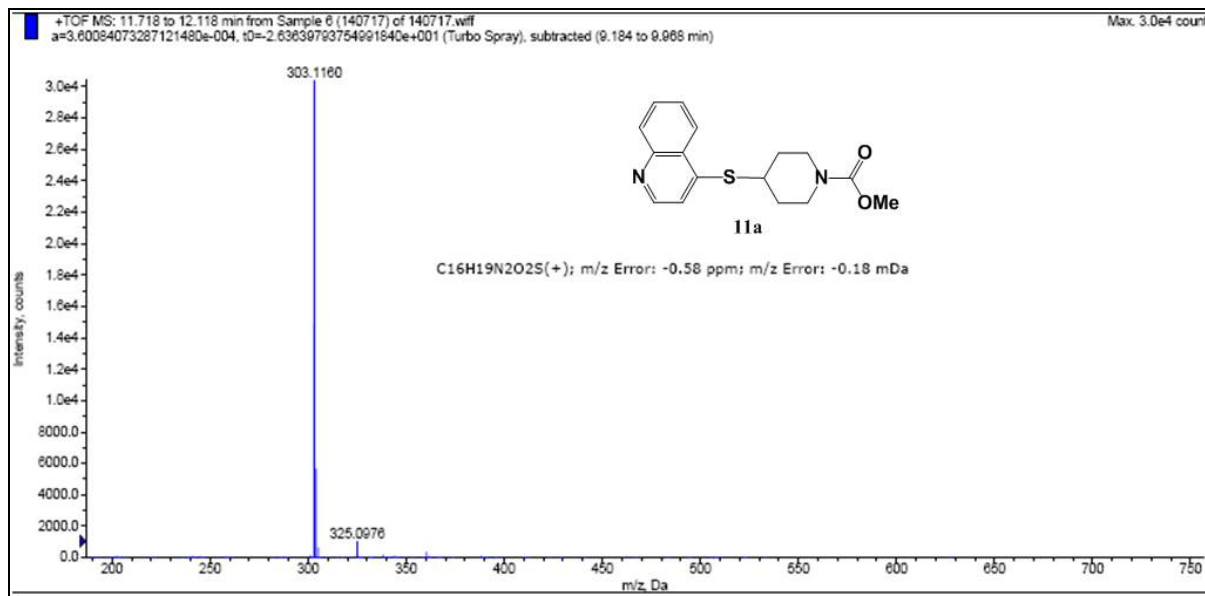
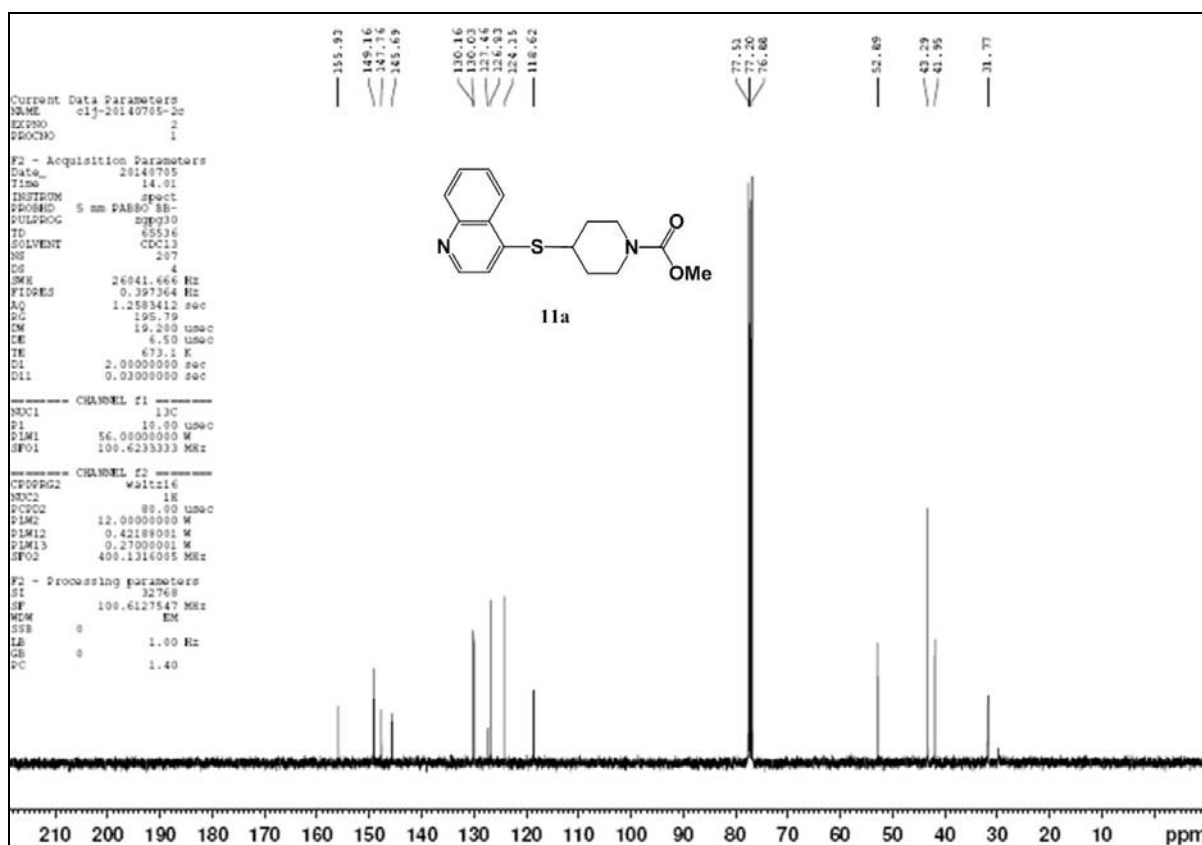
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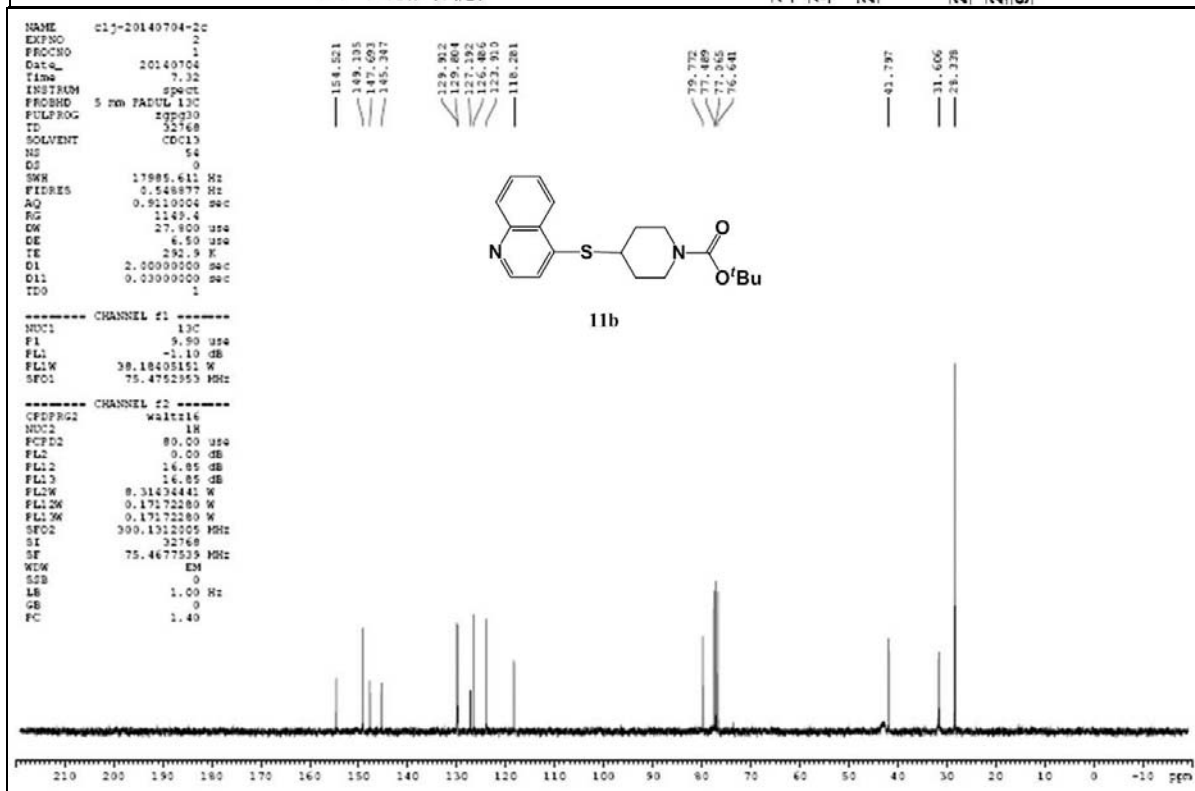
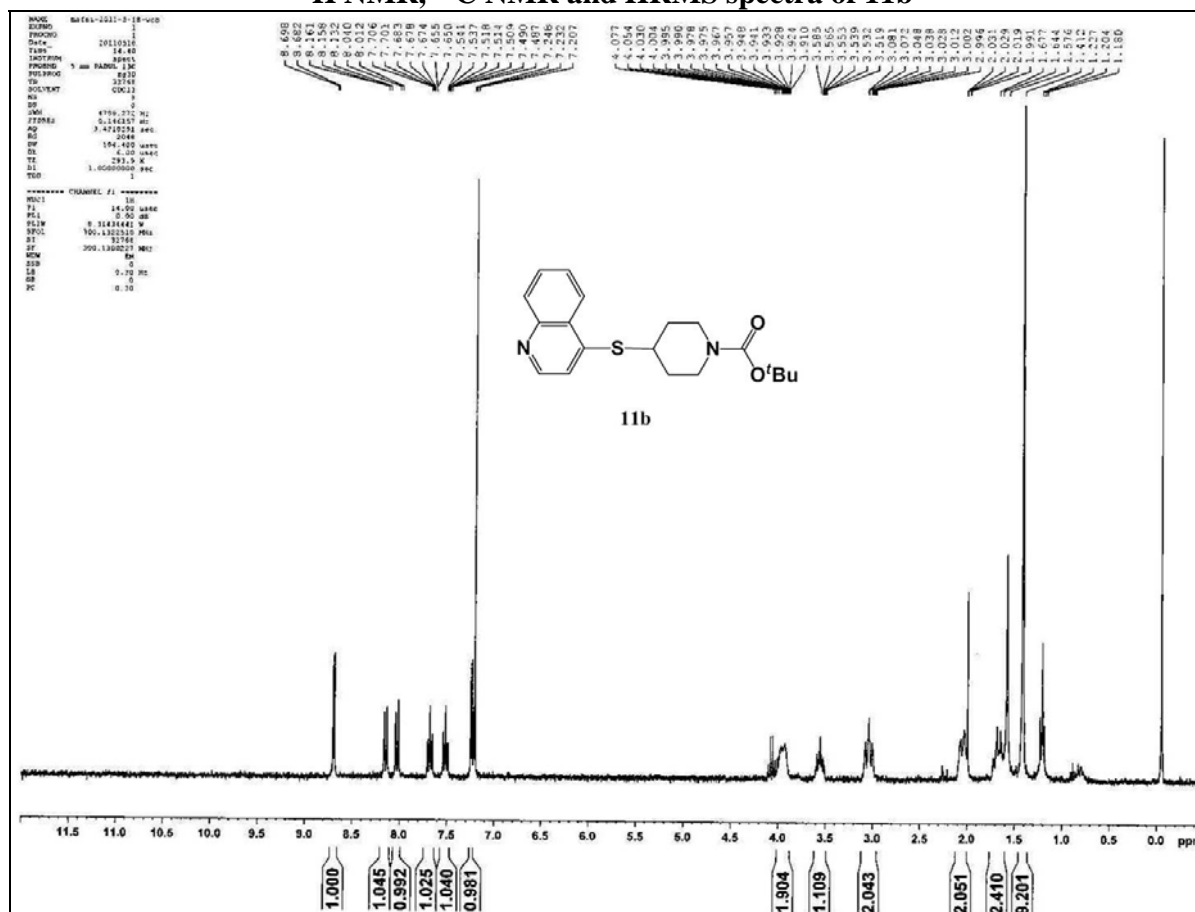


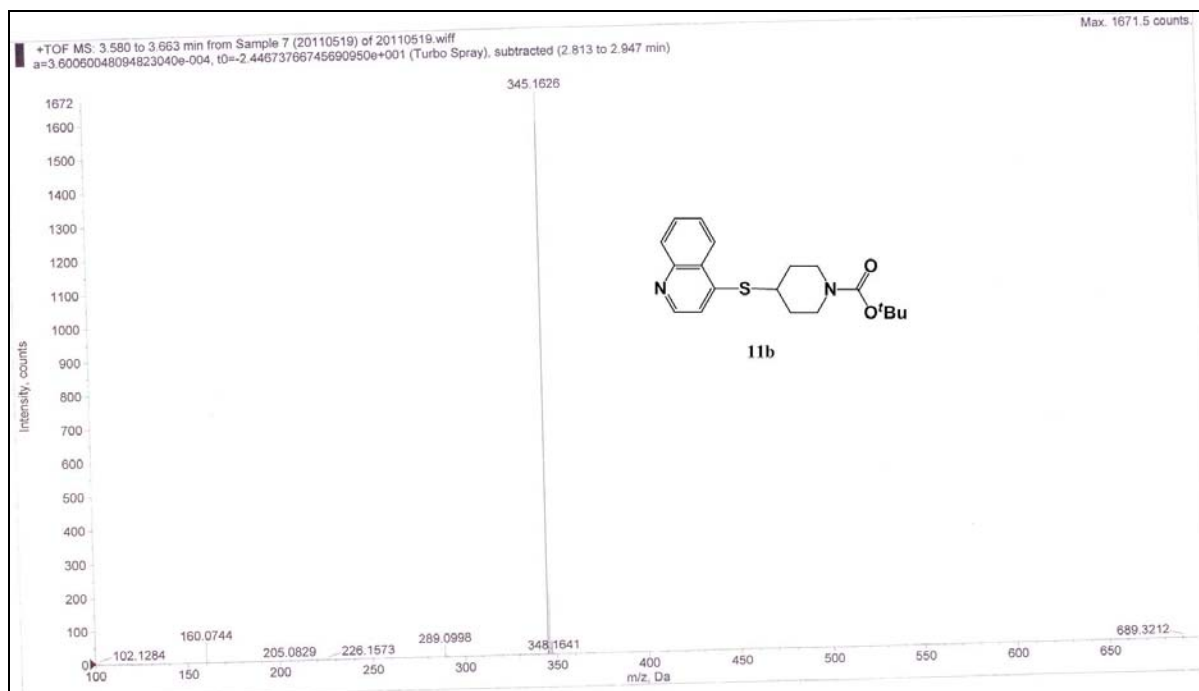
¹H NMR, ¹³C NMR and HRMS spectra of 11a



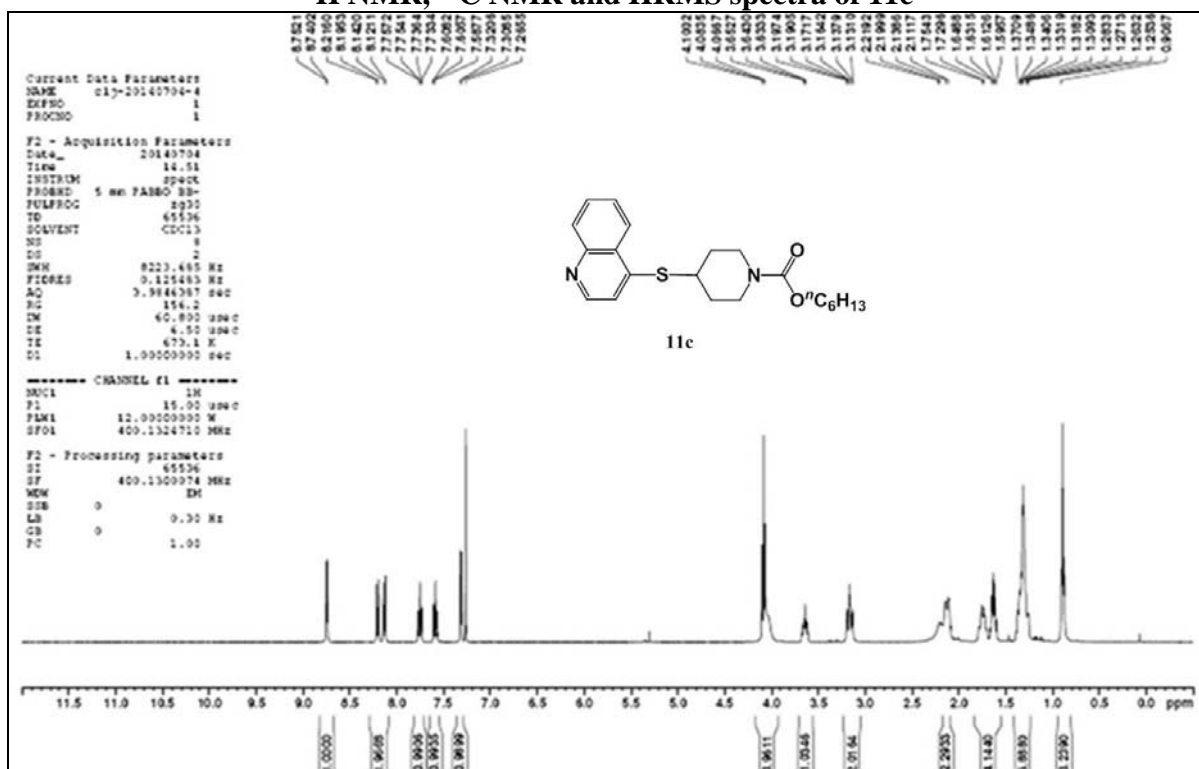


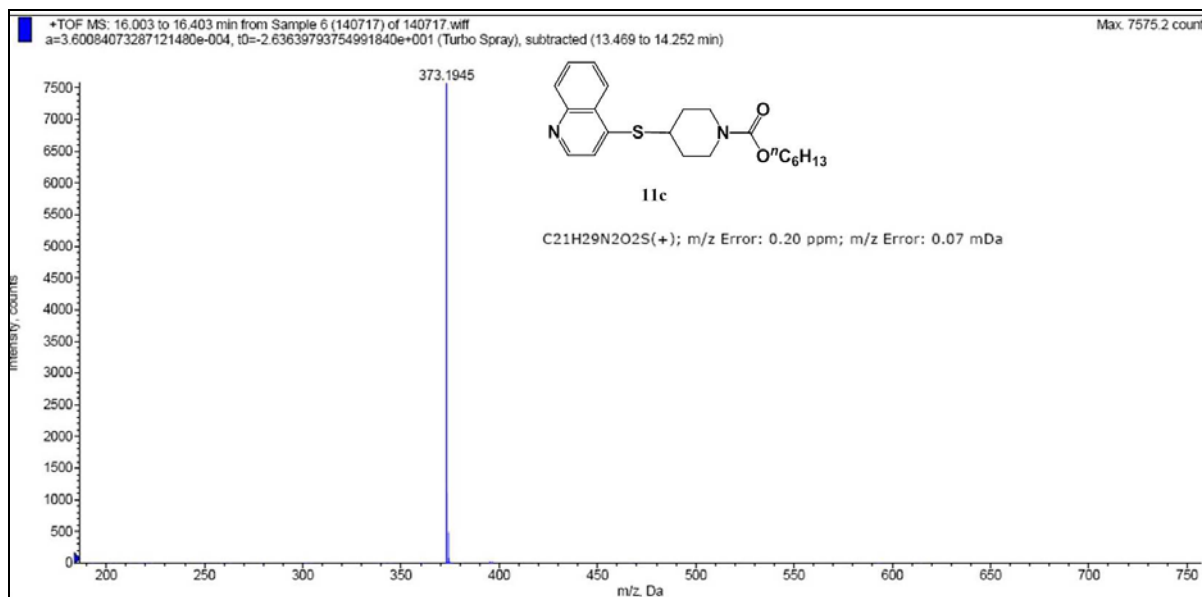
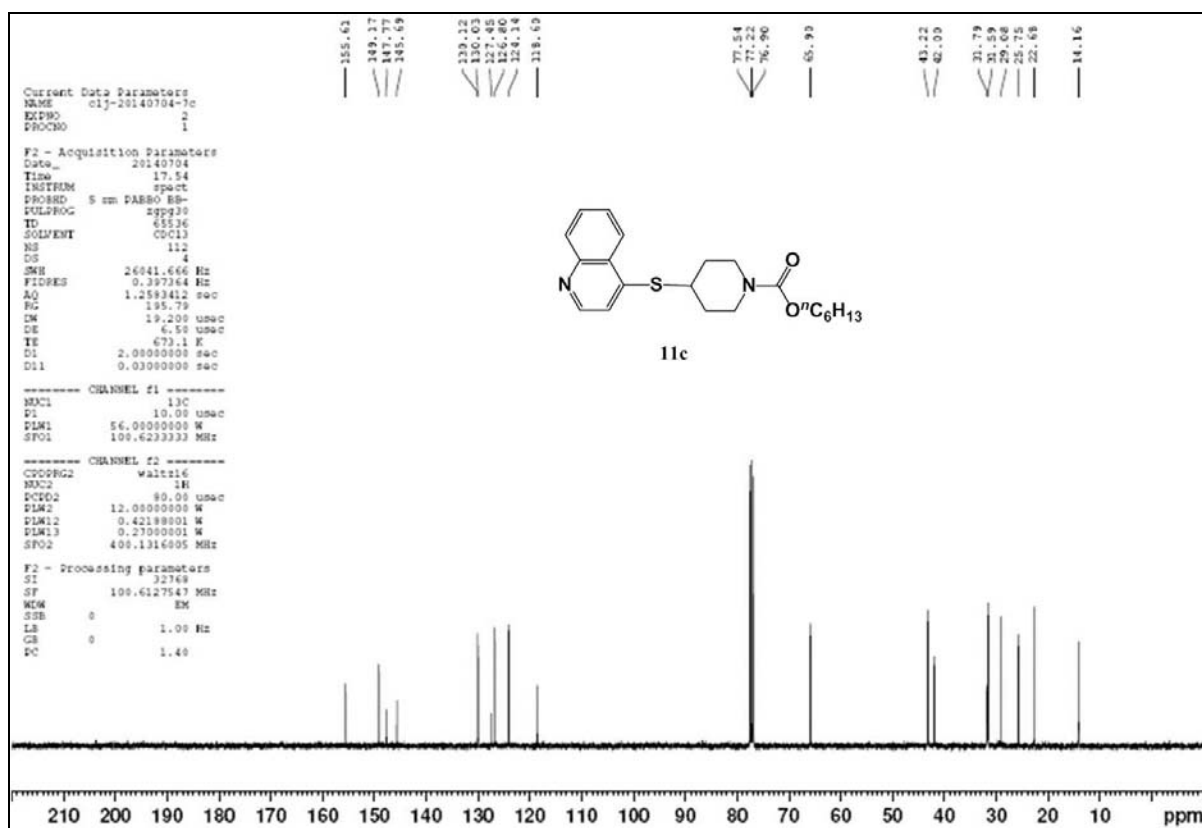
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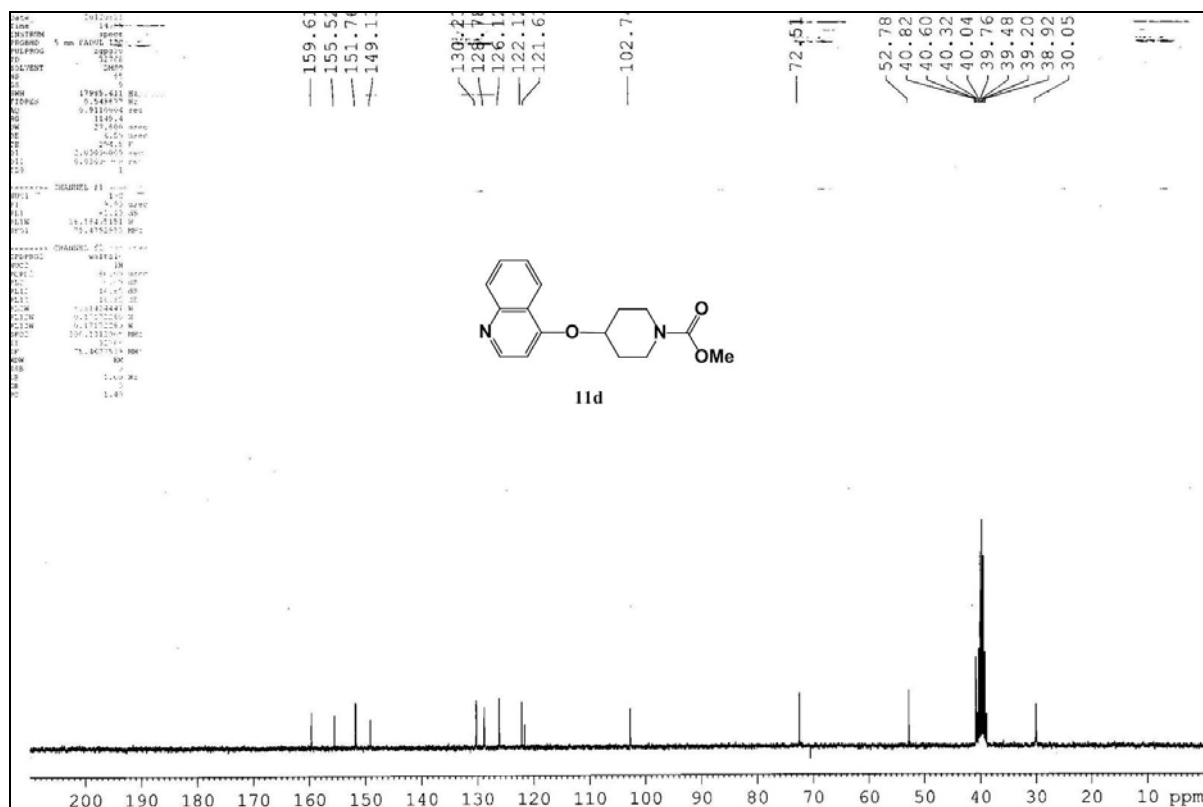
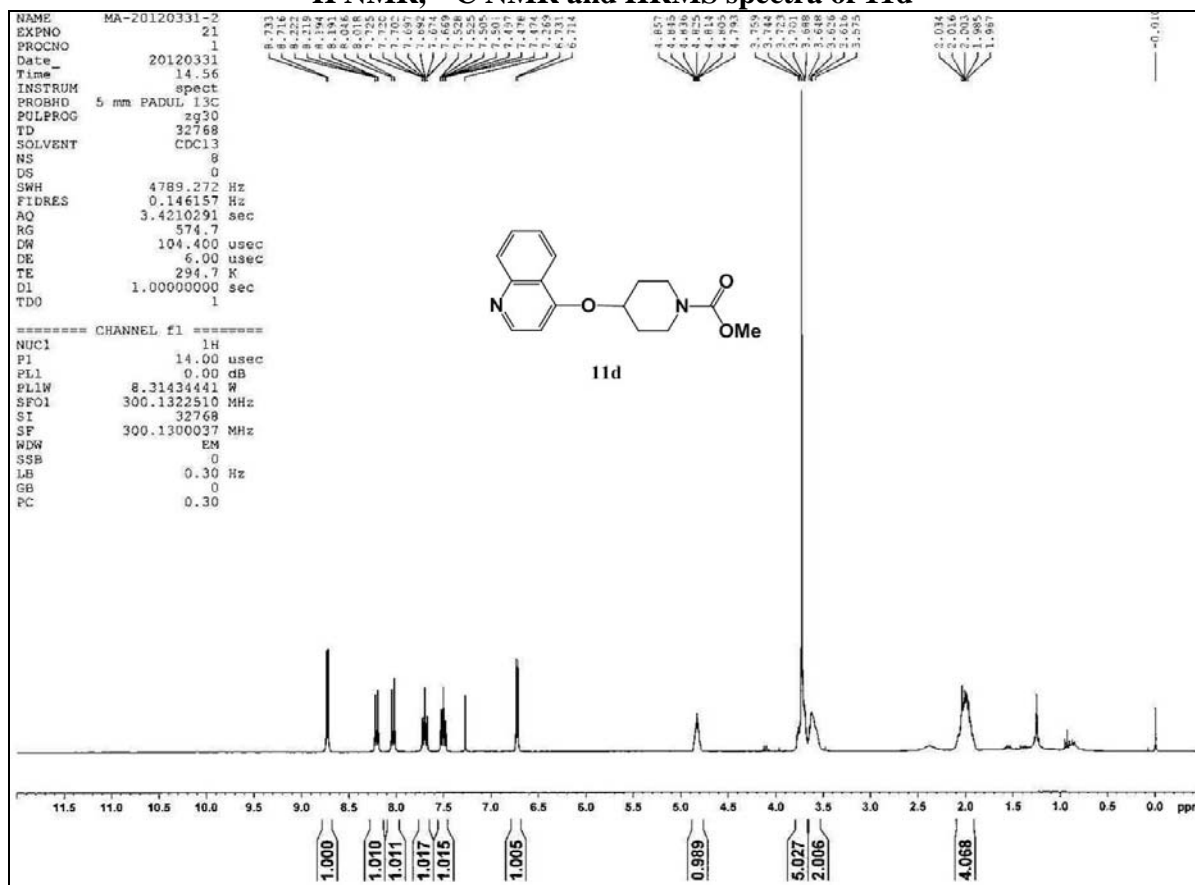


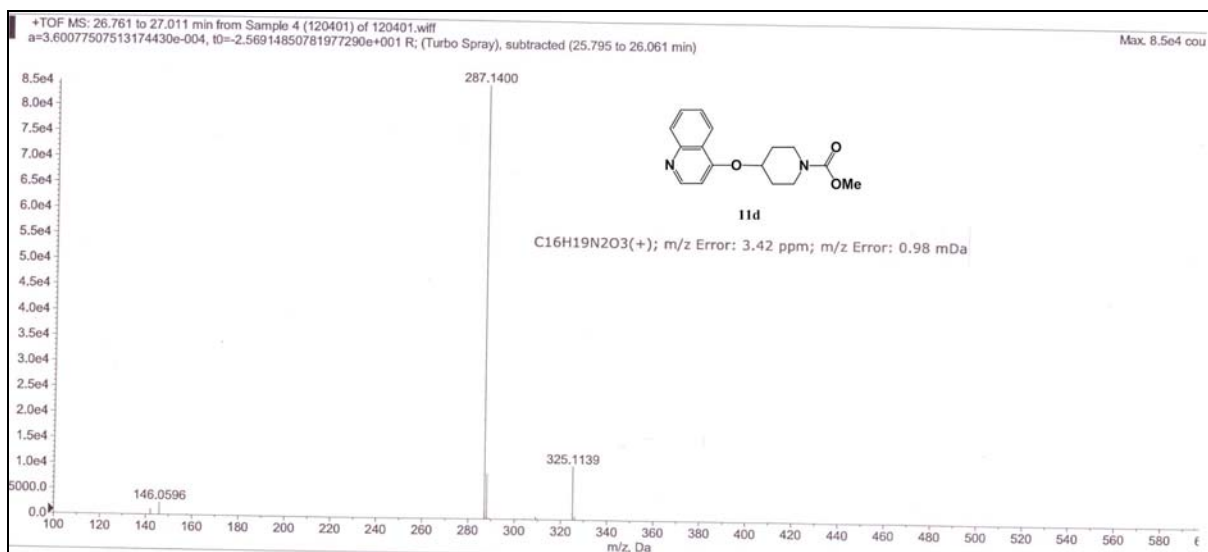
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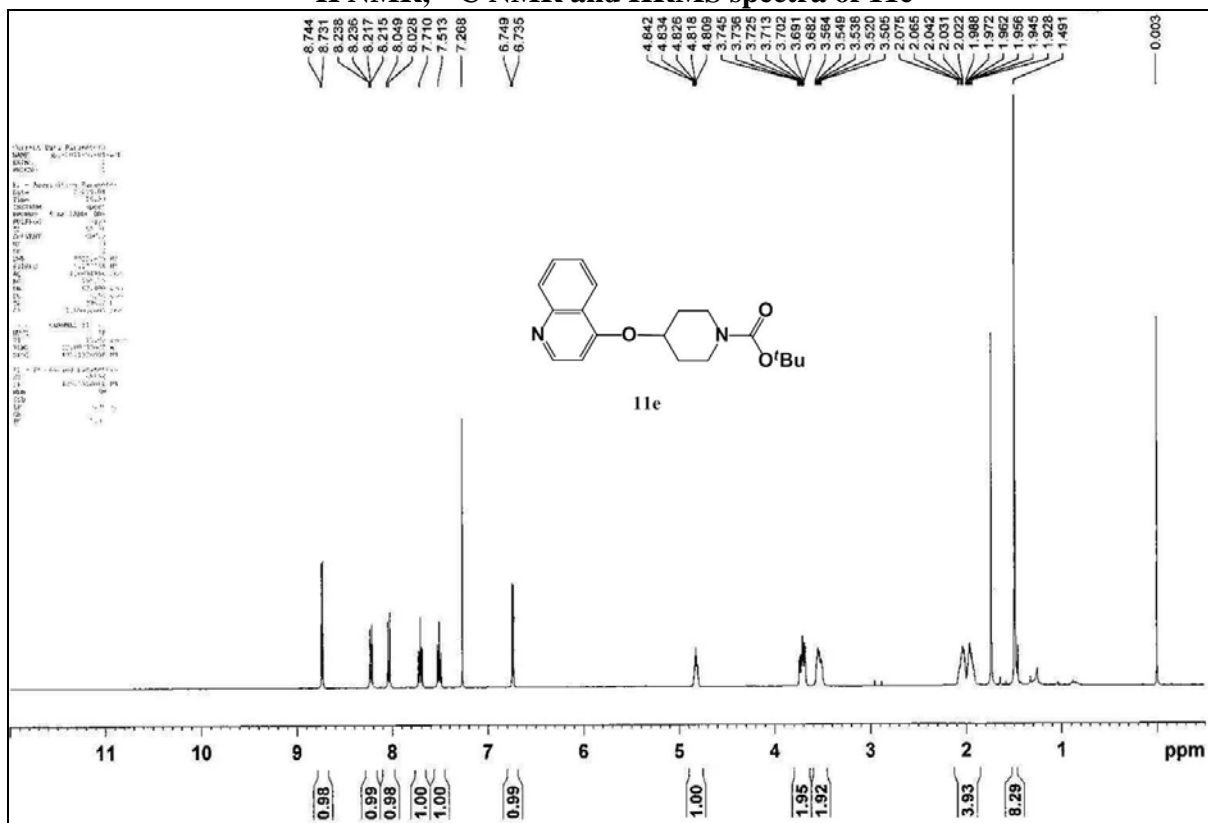


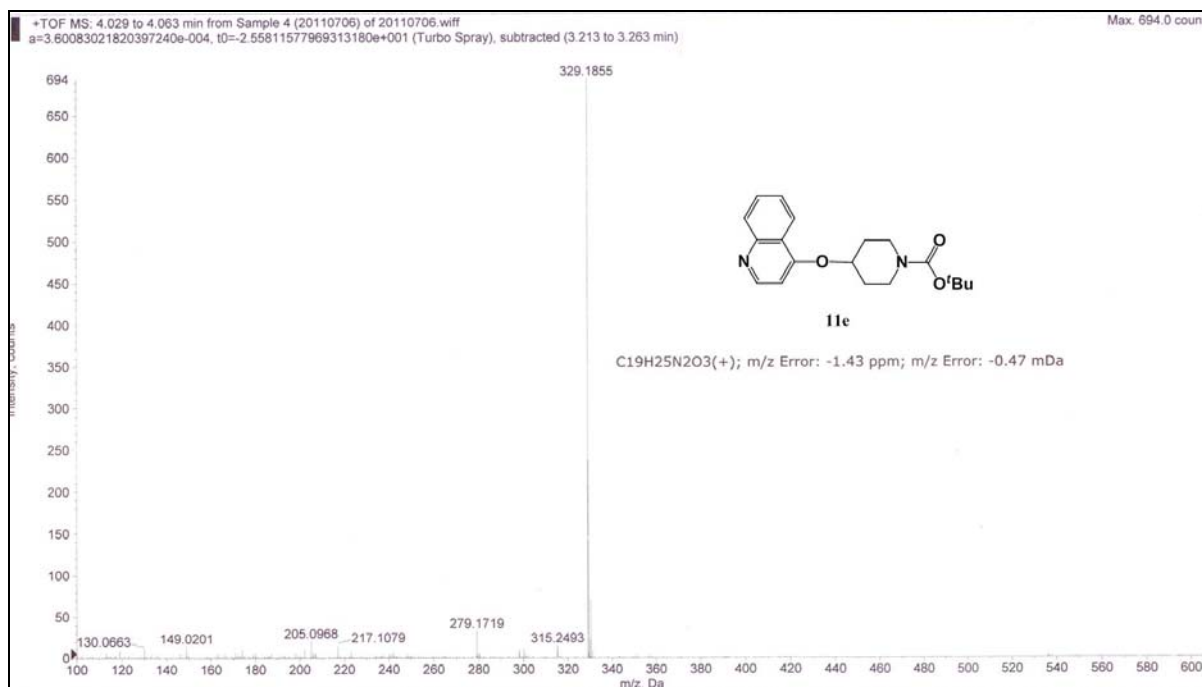
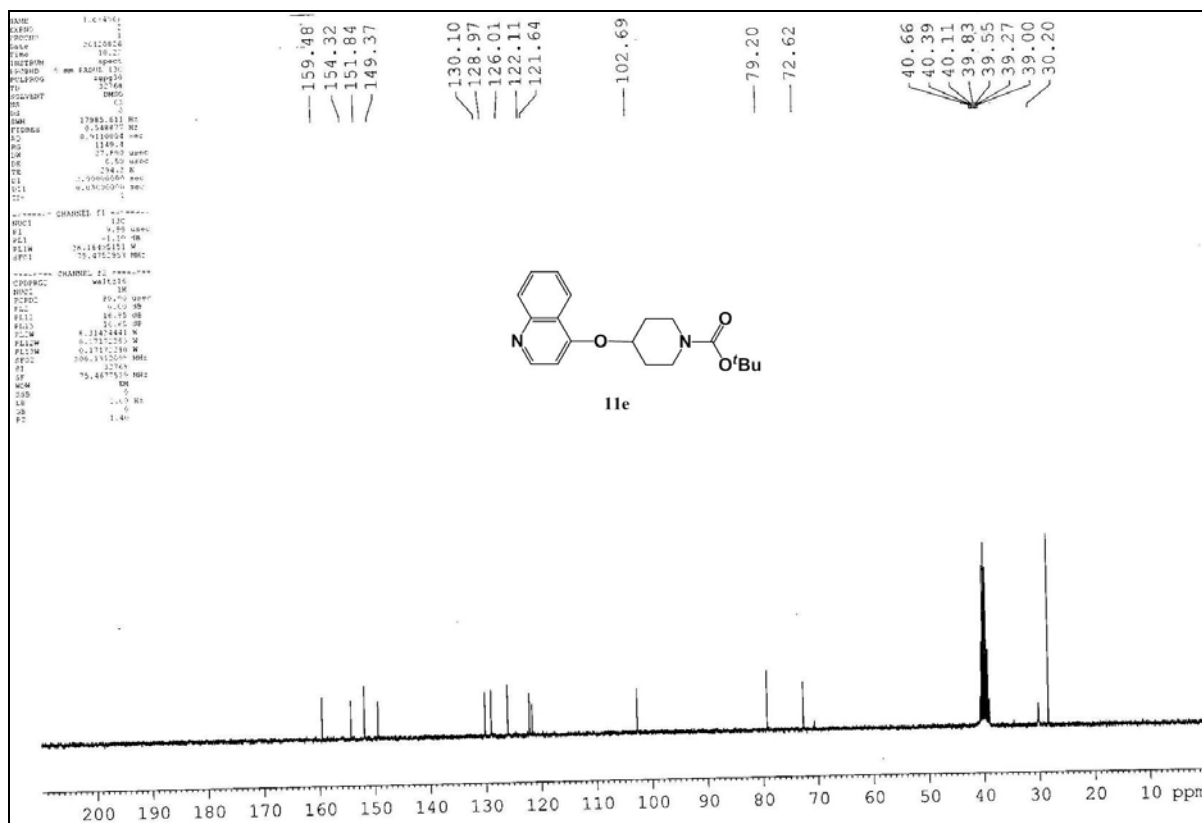
¹H NMR, ¹³C NMR and HRMS spectra of 11d



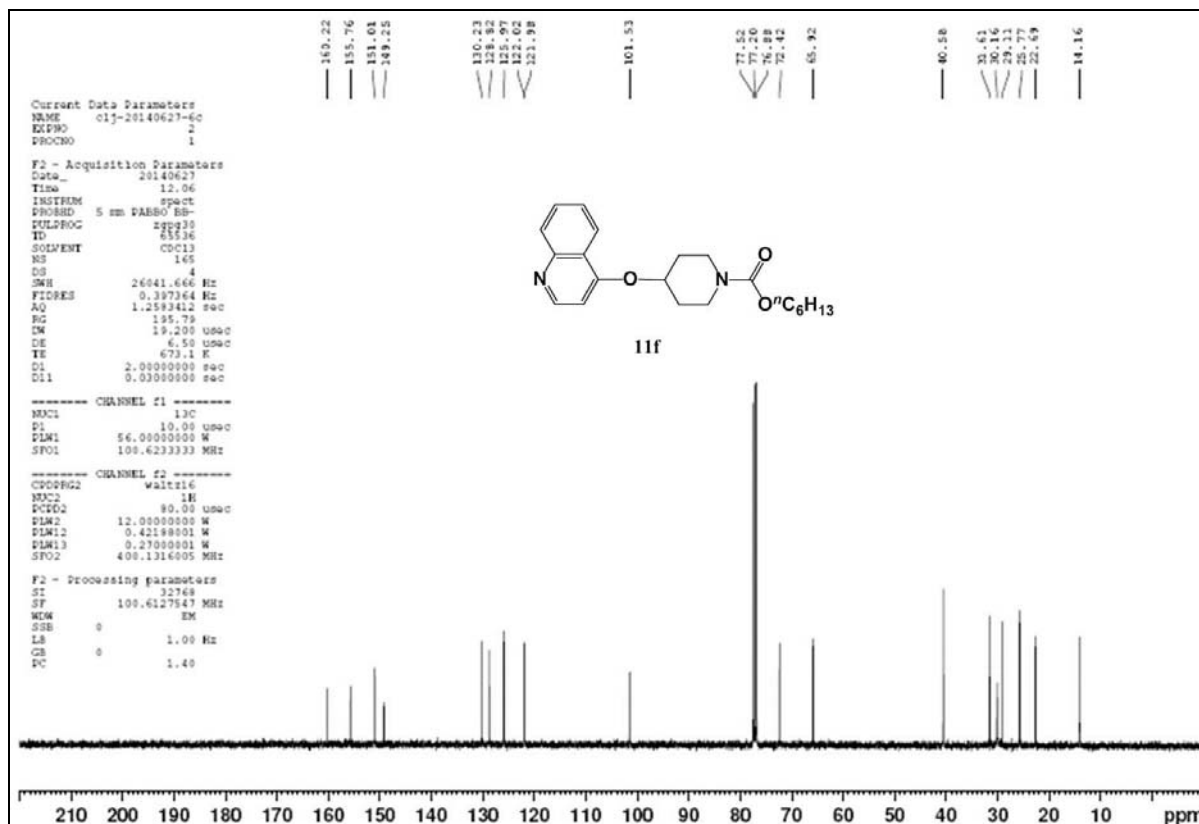
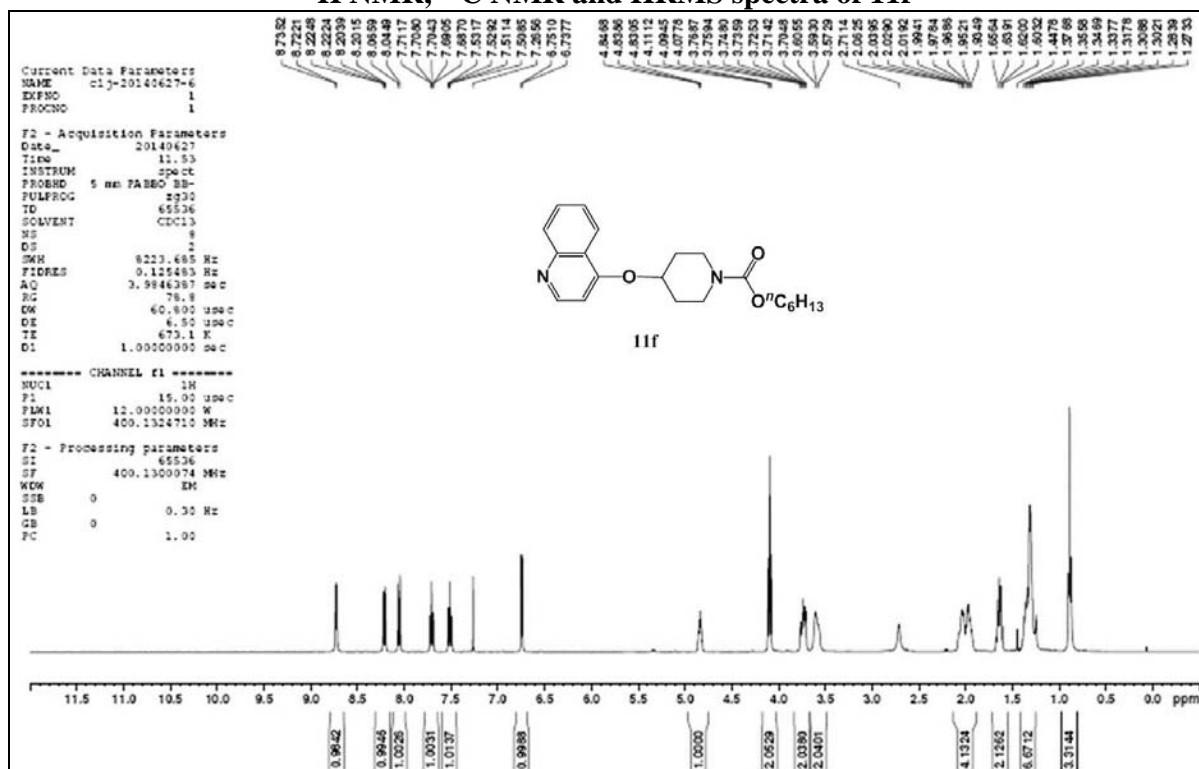


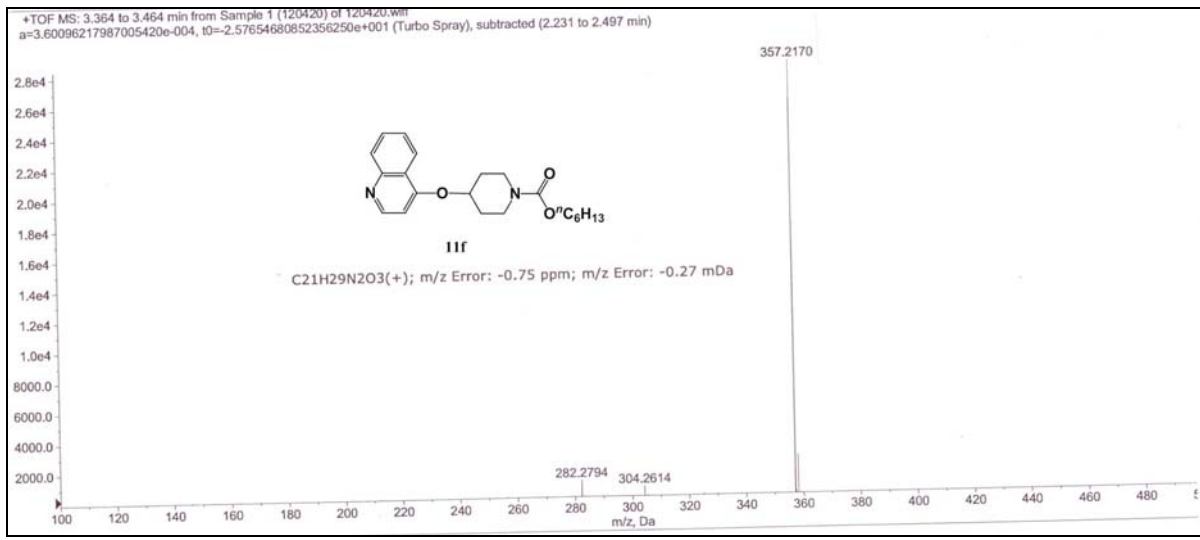
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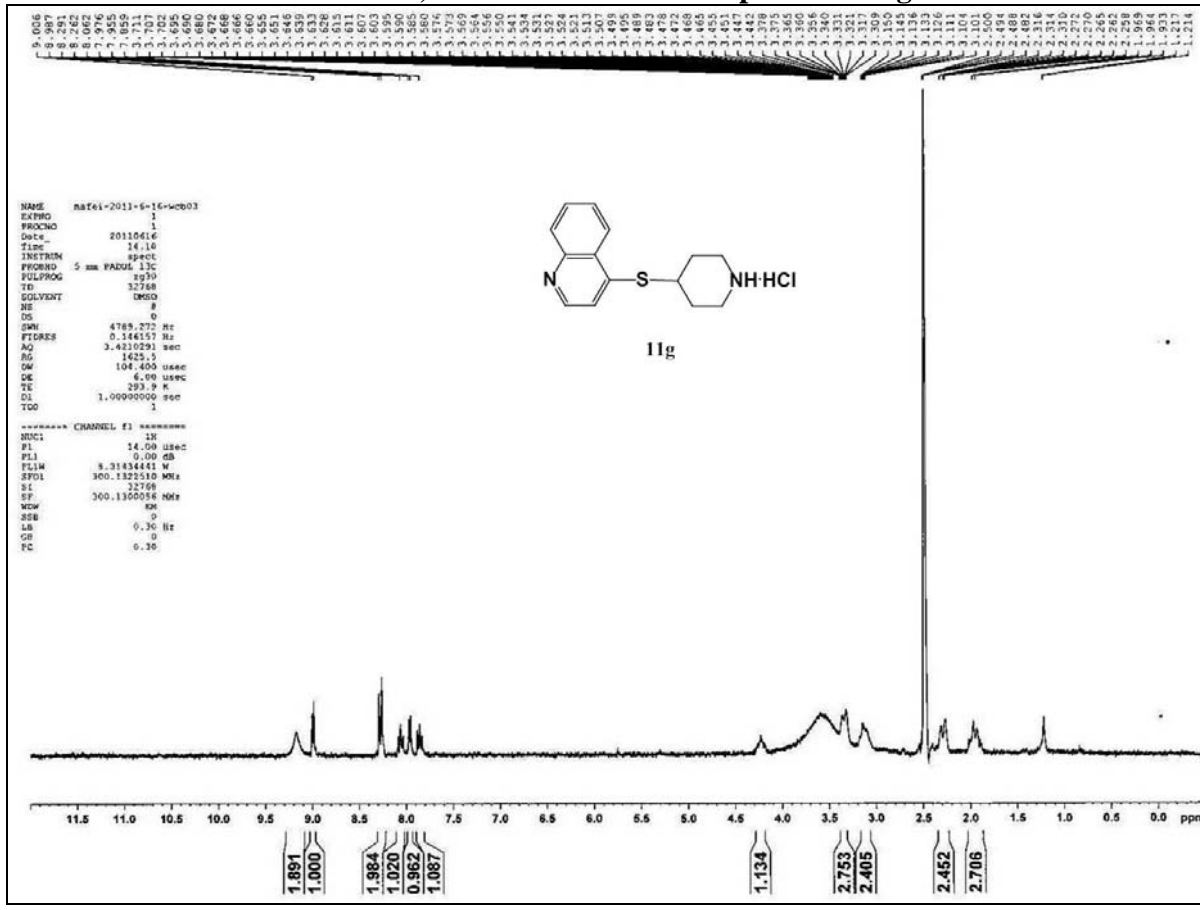


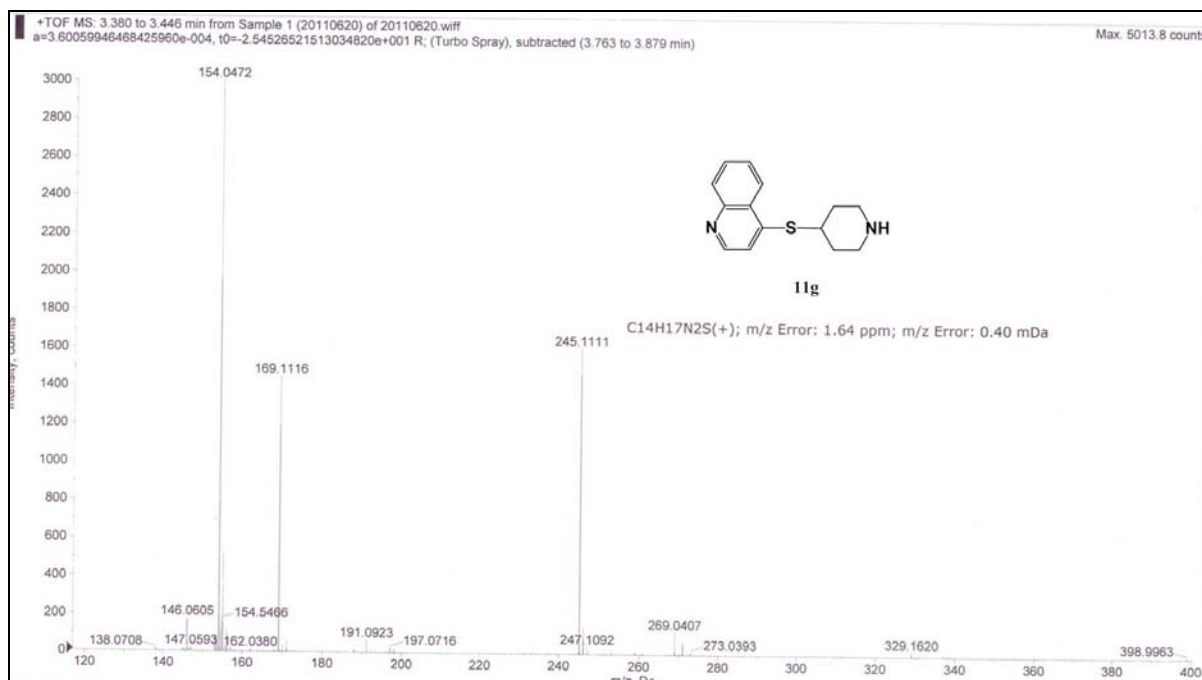
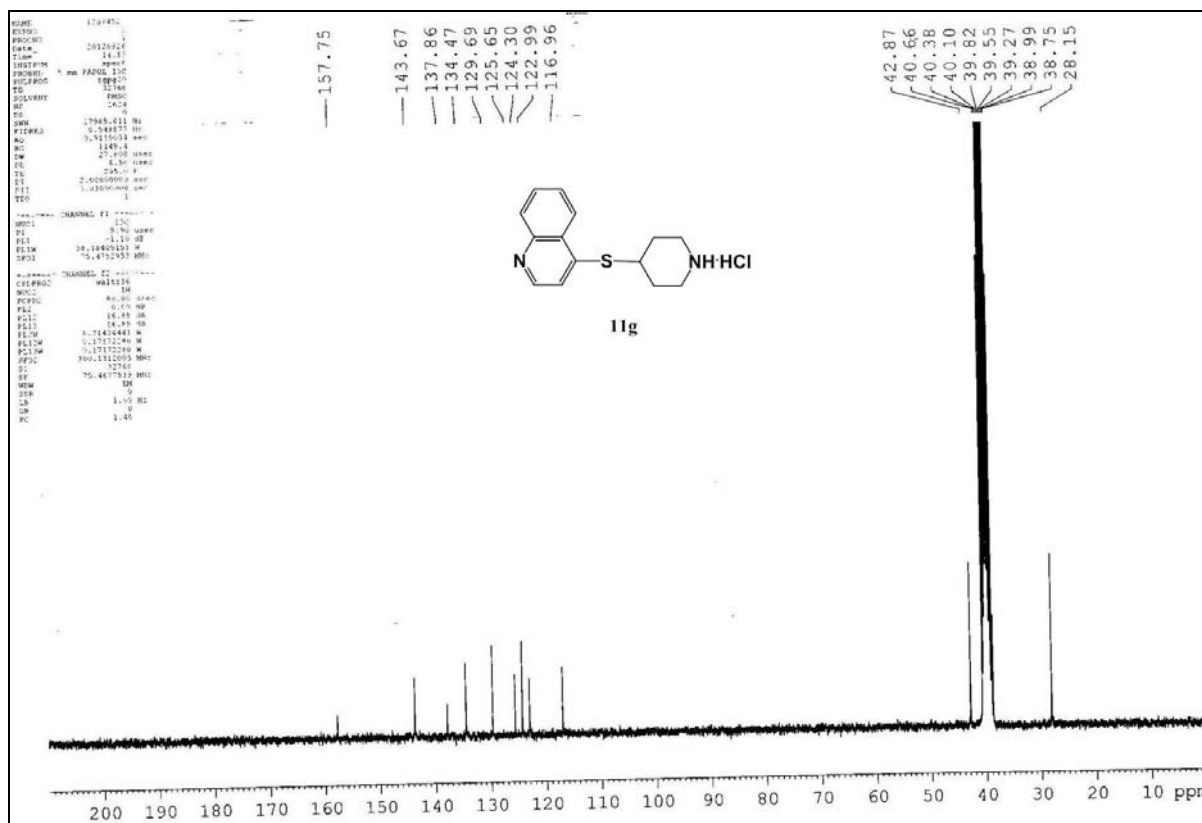
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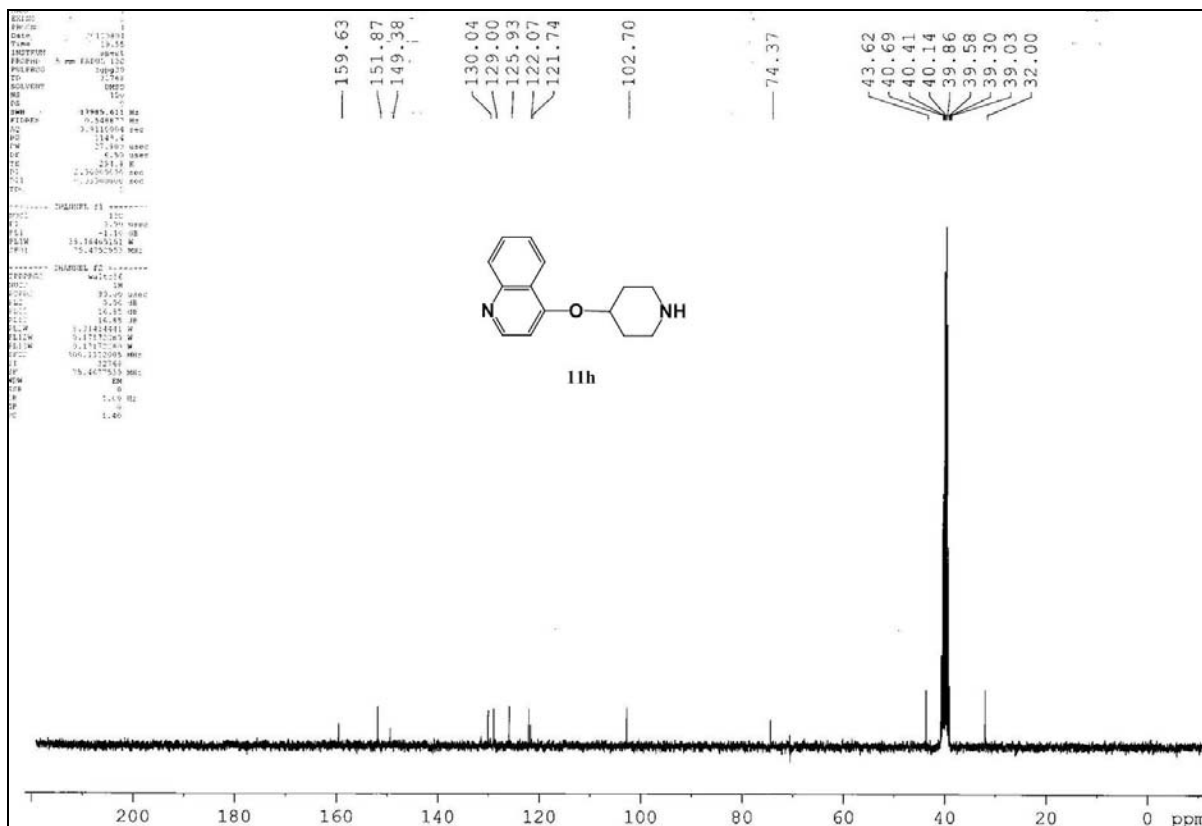
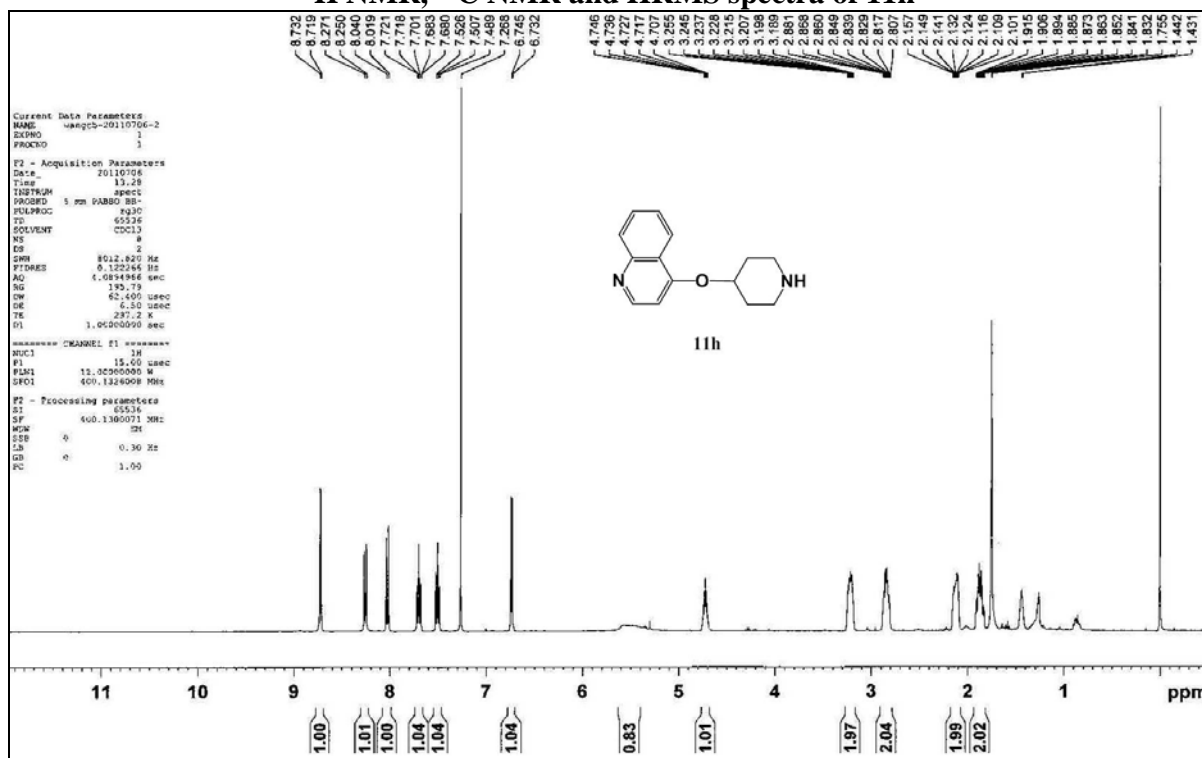


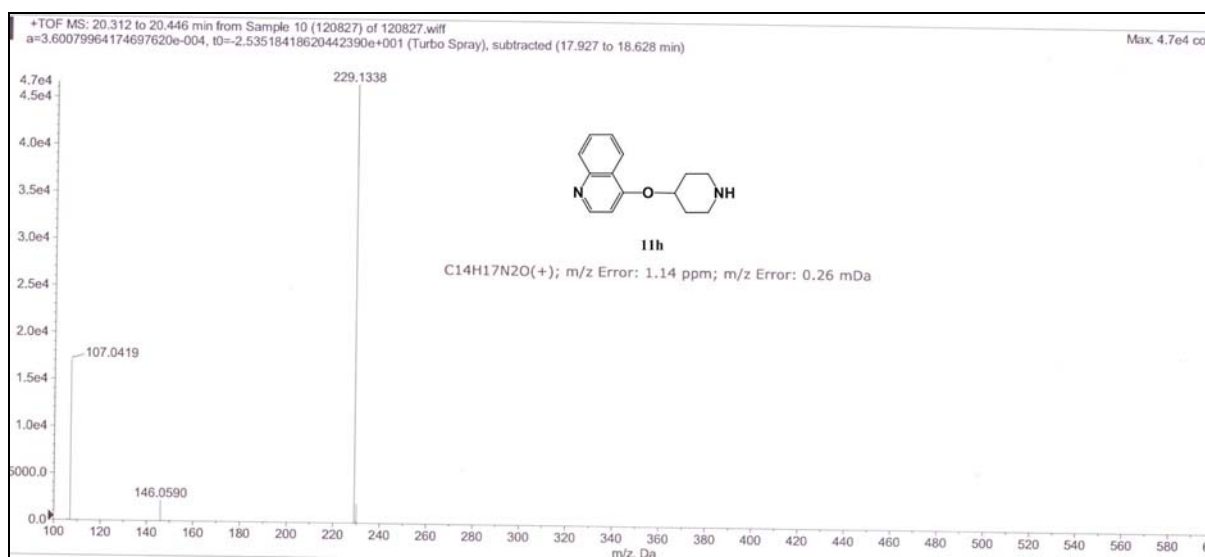
¹H NMR, ¹³C NMR and HRMS spectra of 11g



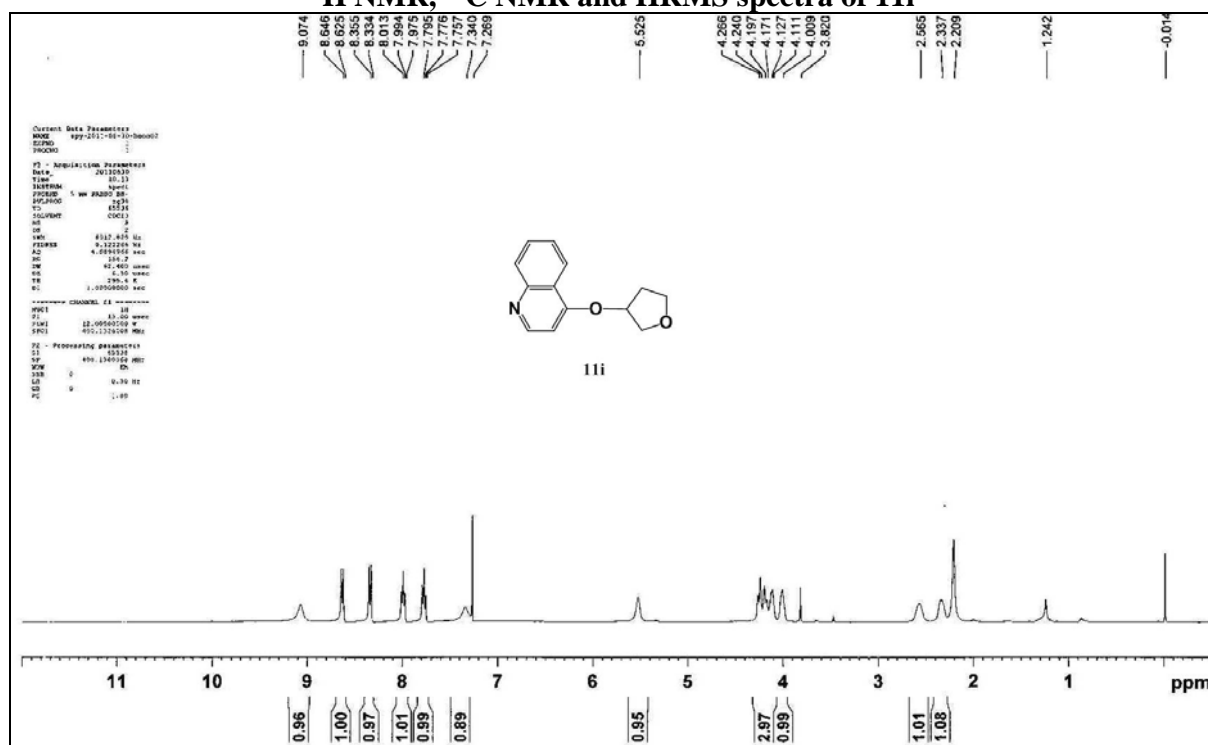


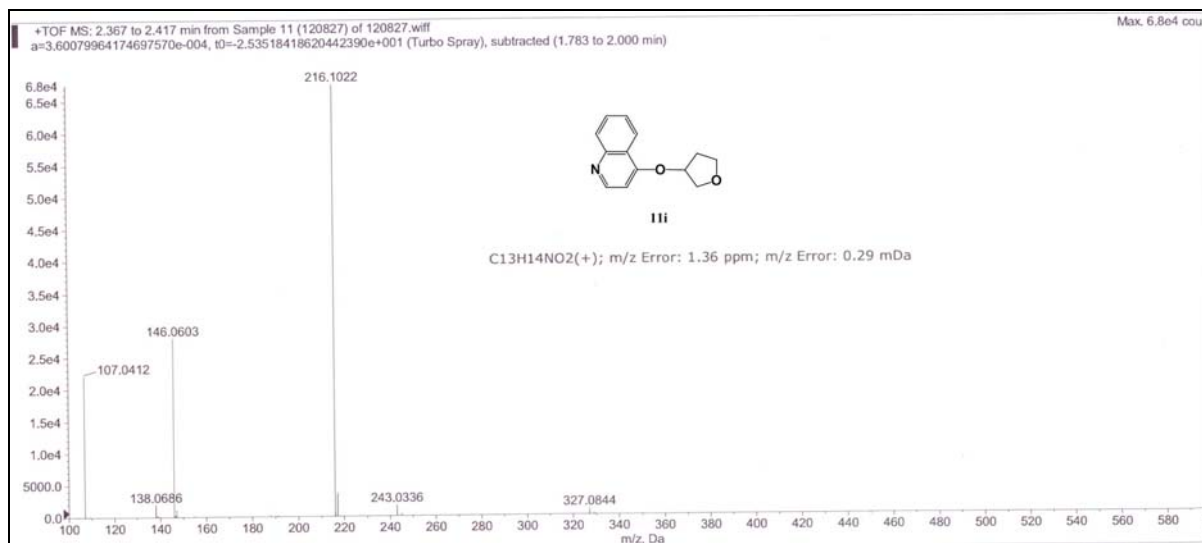
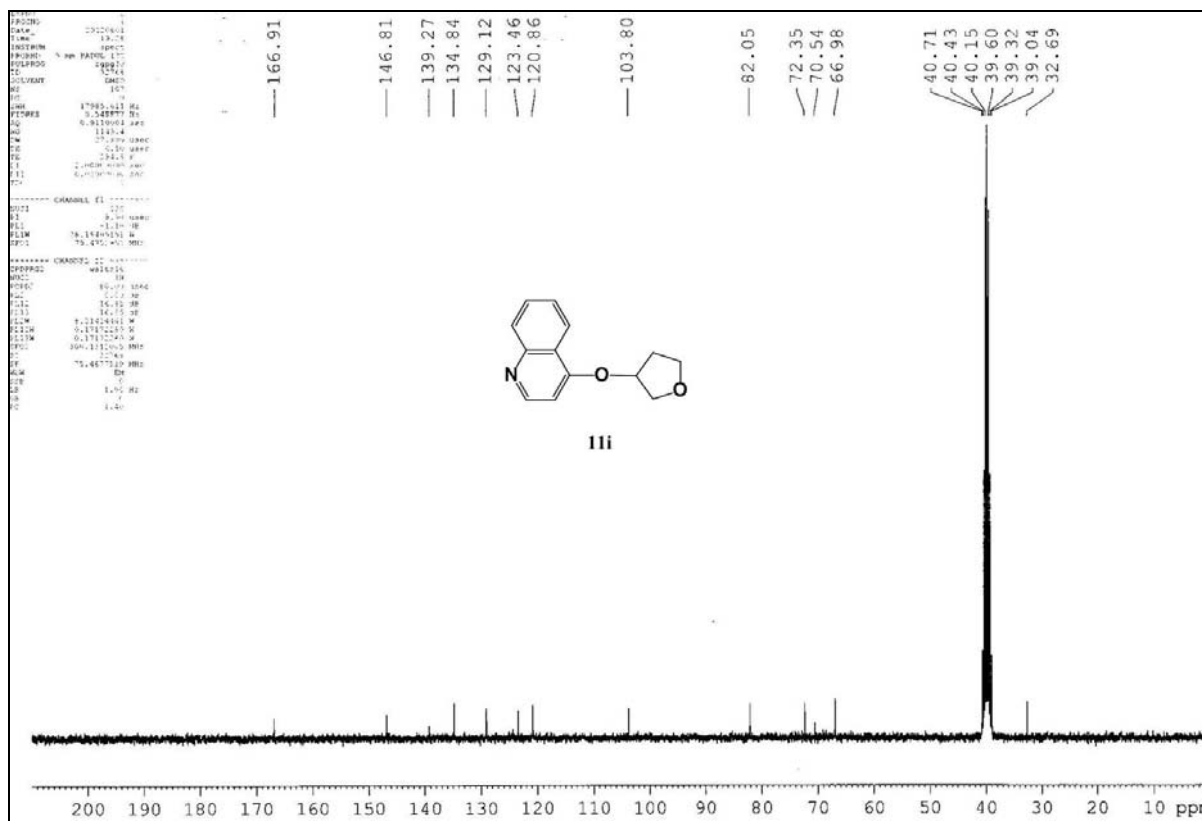
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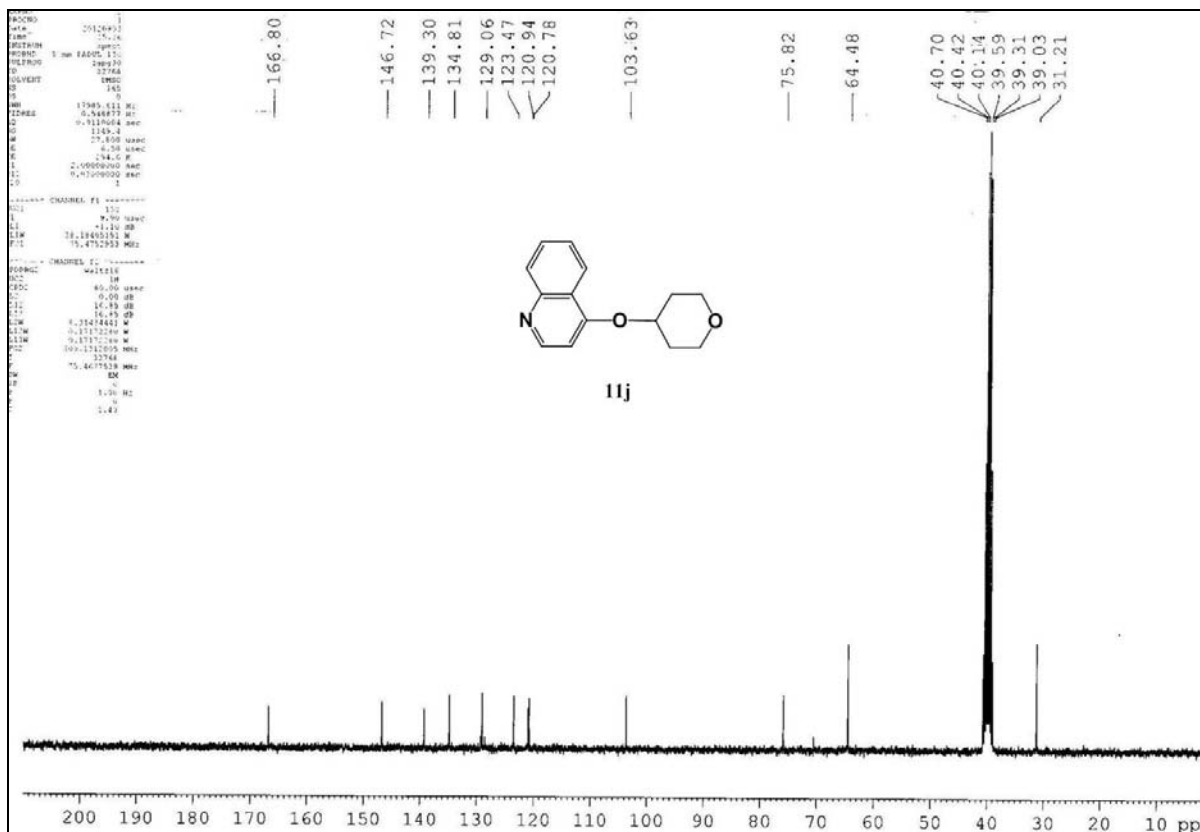
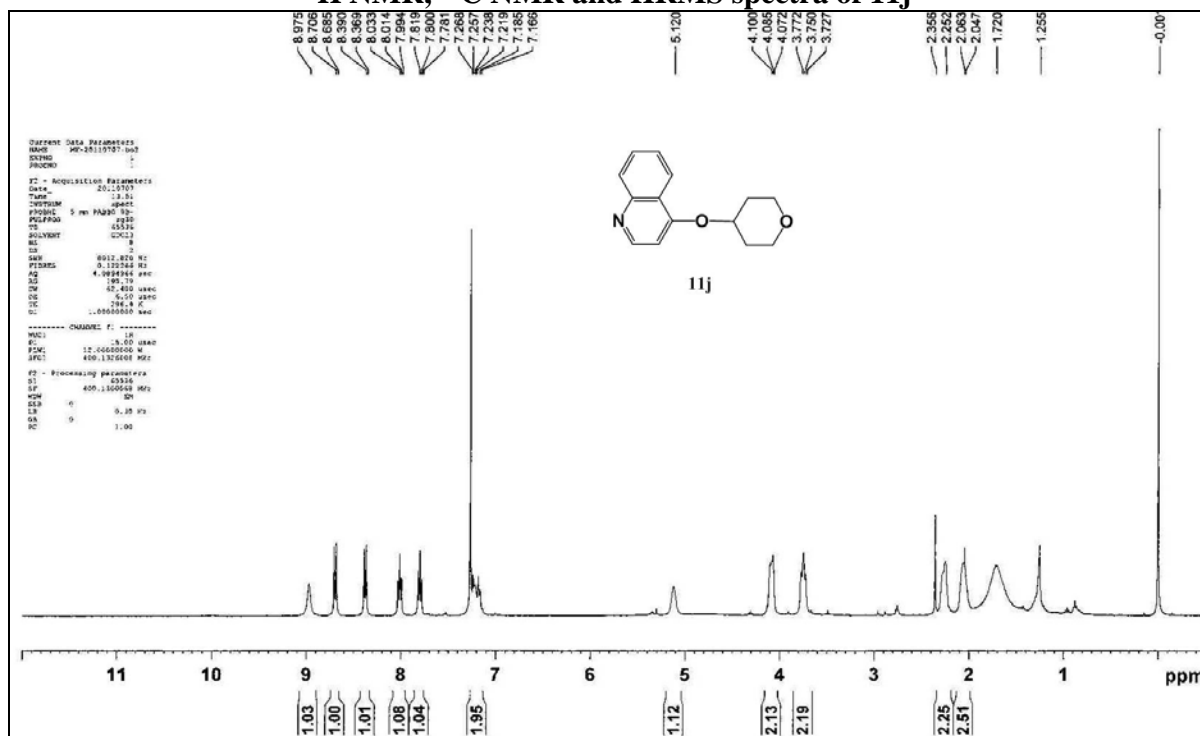


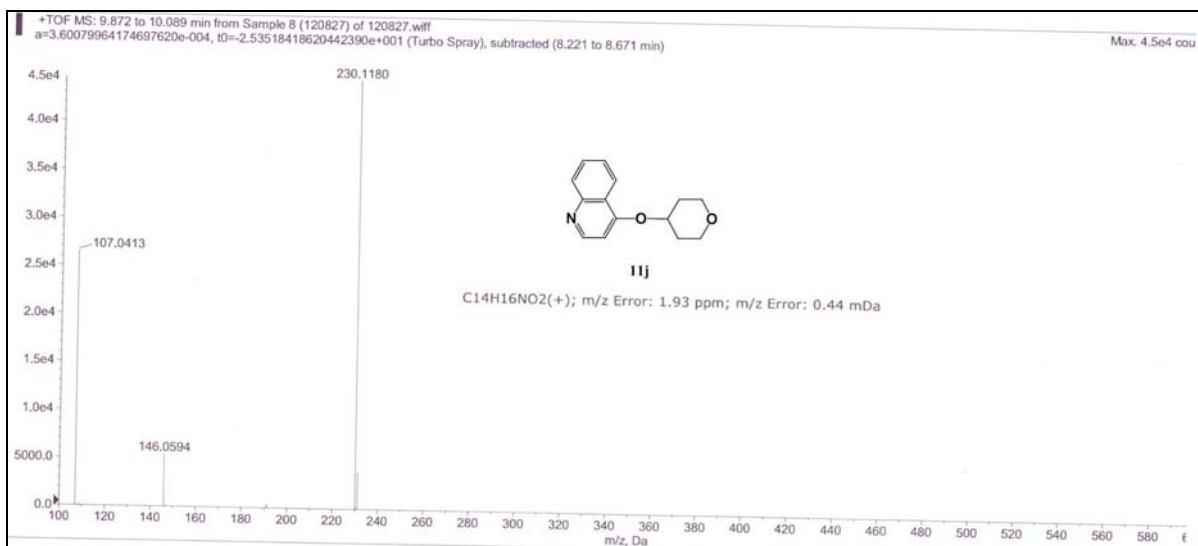
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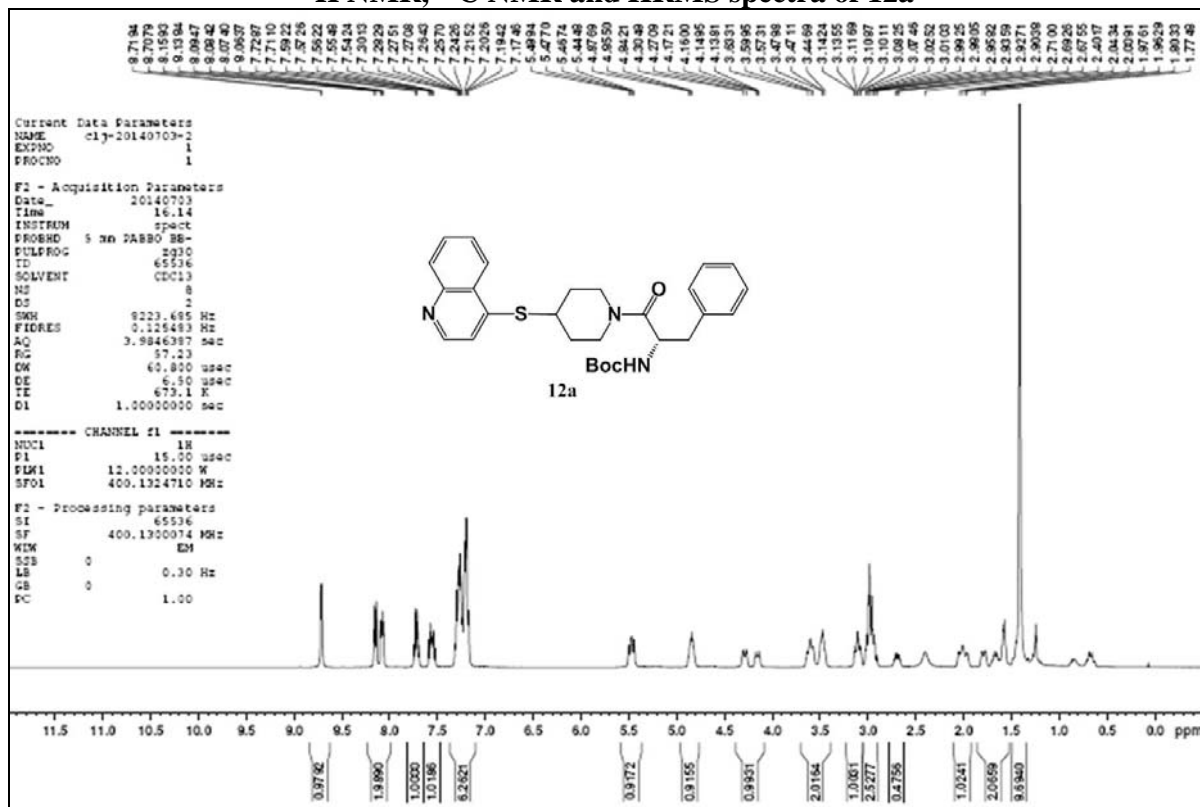


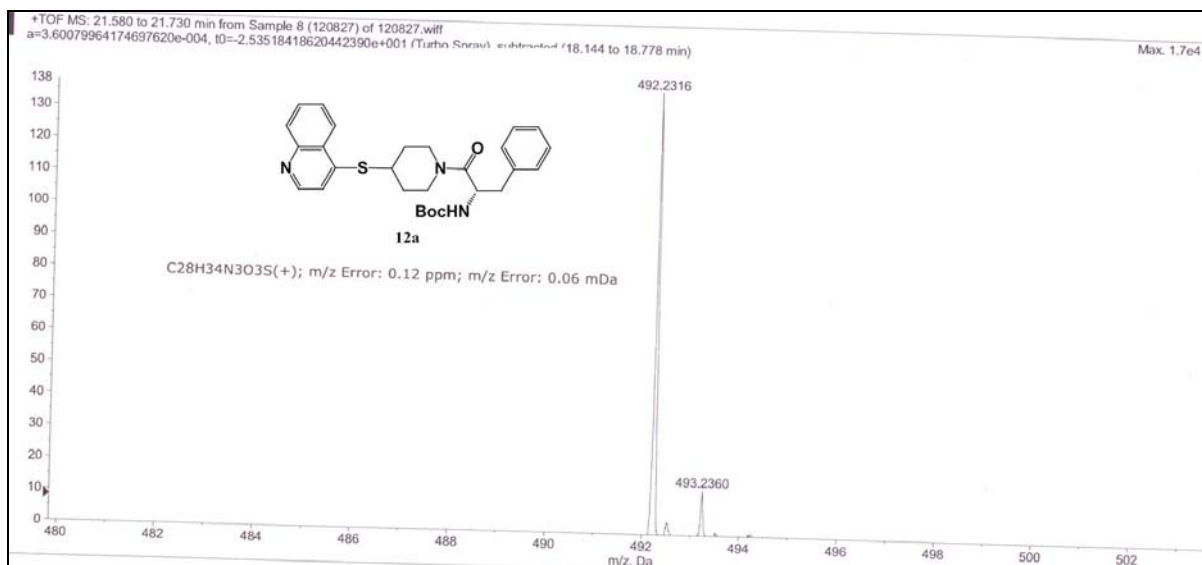
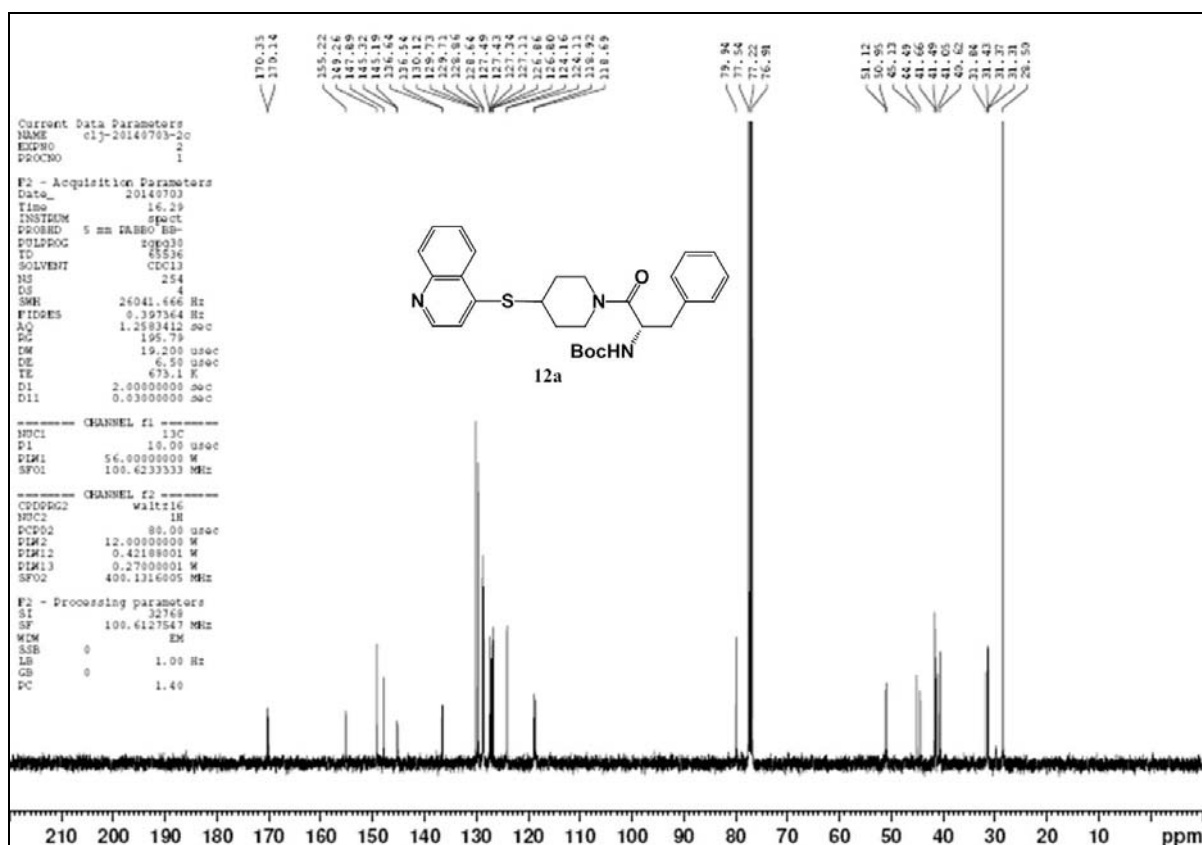
¹H NMR, ¹³C NMR and HRMS spectra of 11j



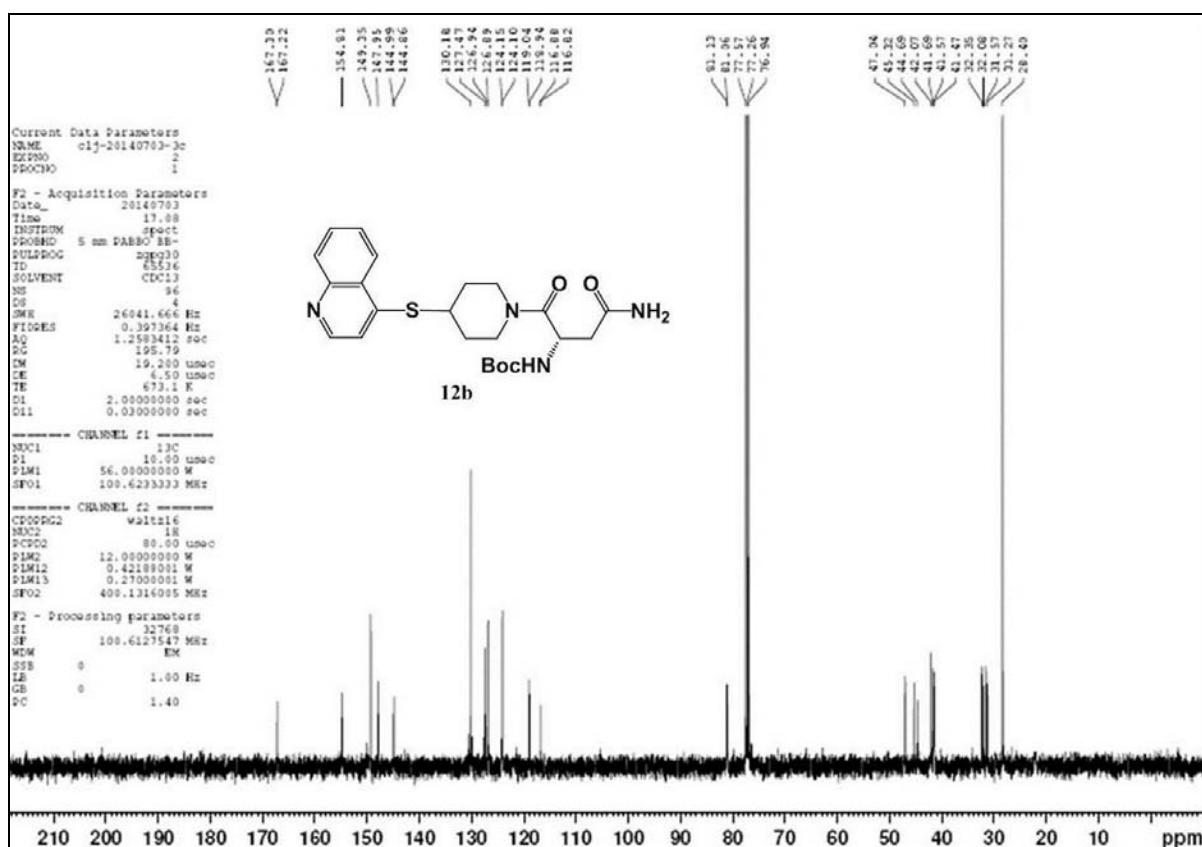
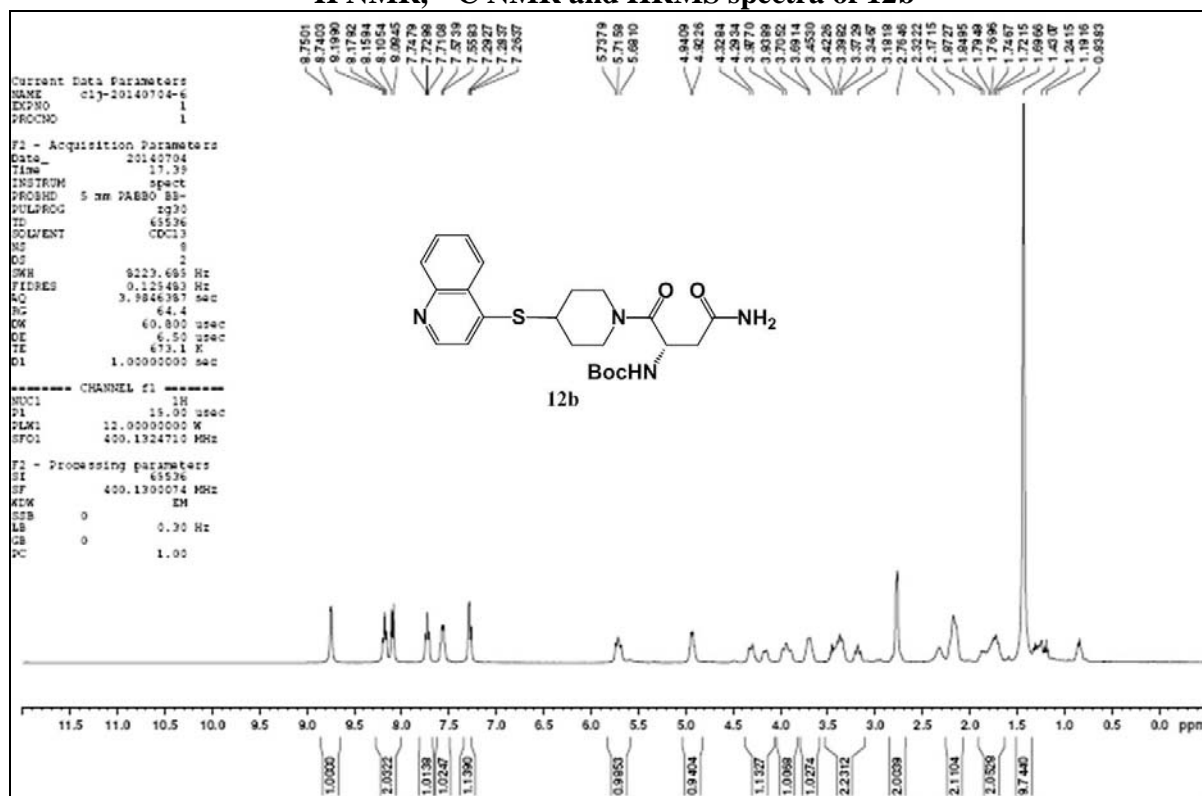


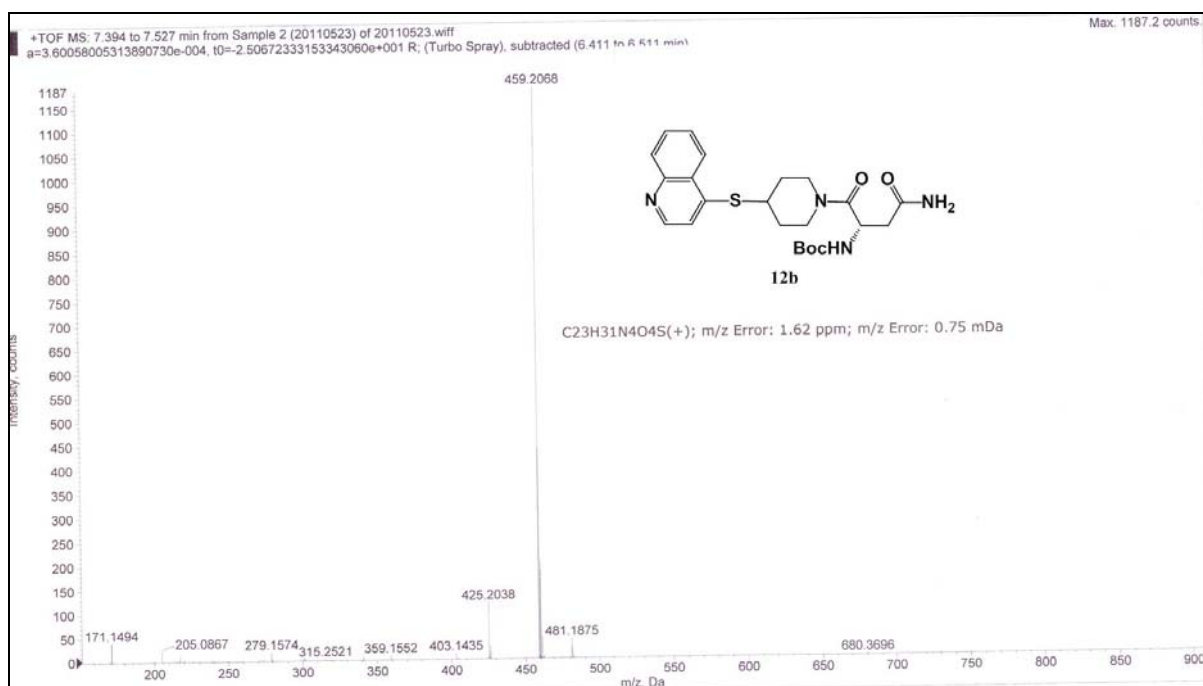
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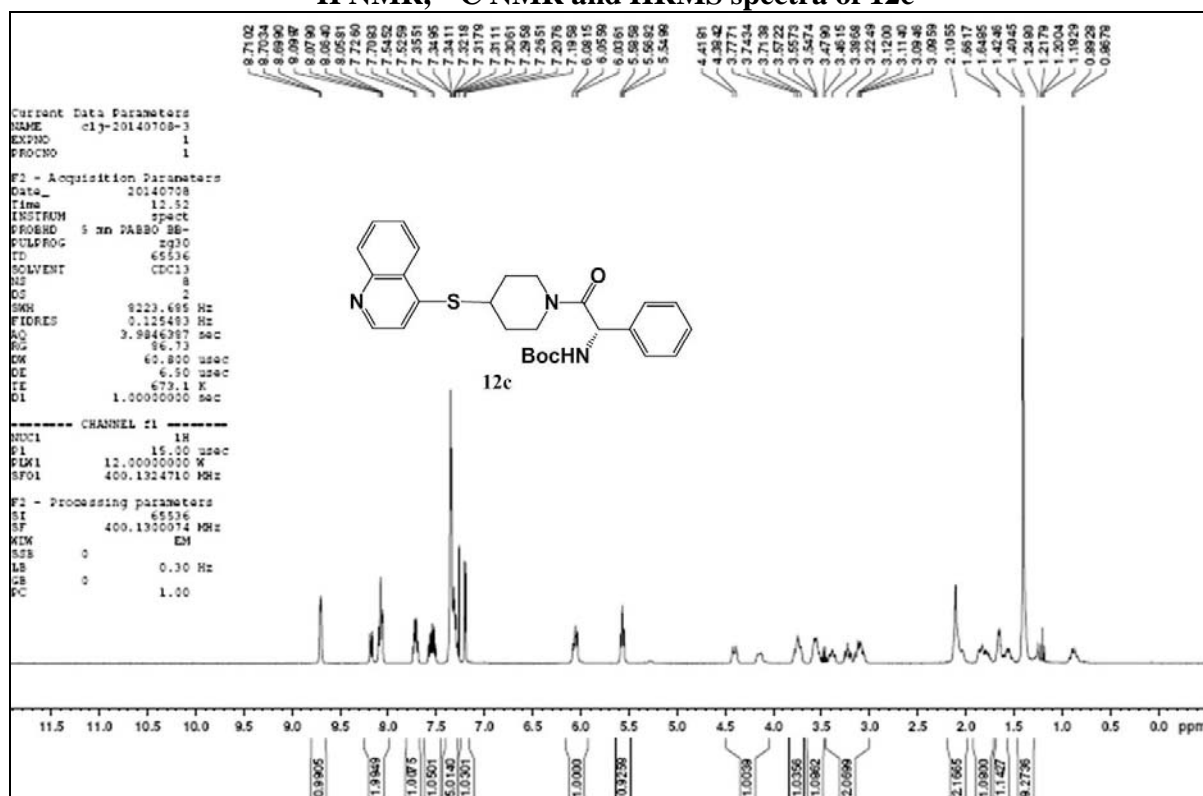


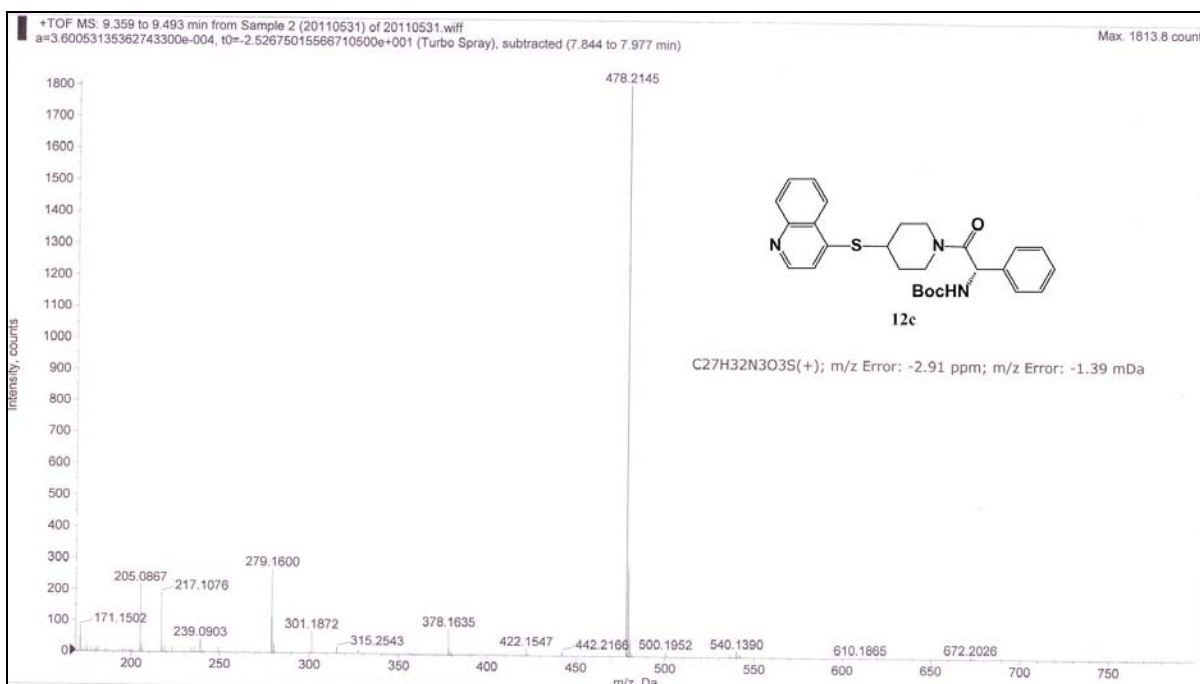
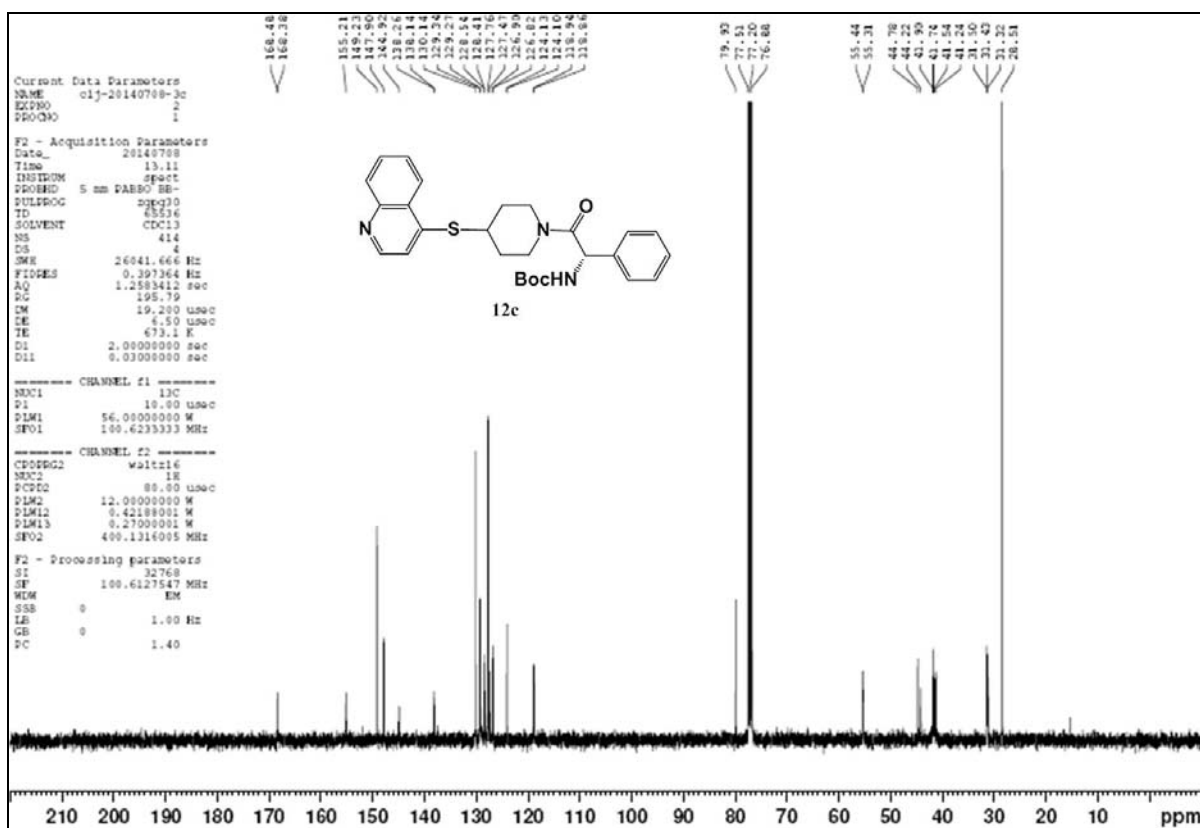
¹H NMR, ¹³C NMR and HRMS spectra of 12b



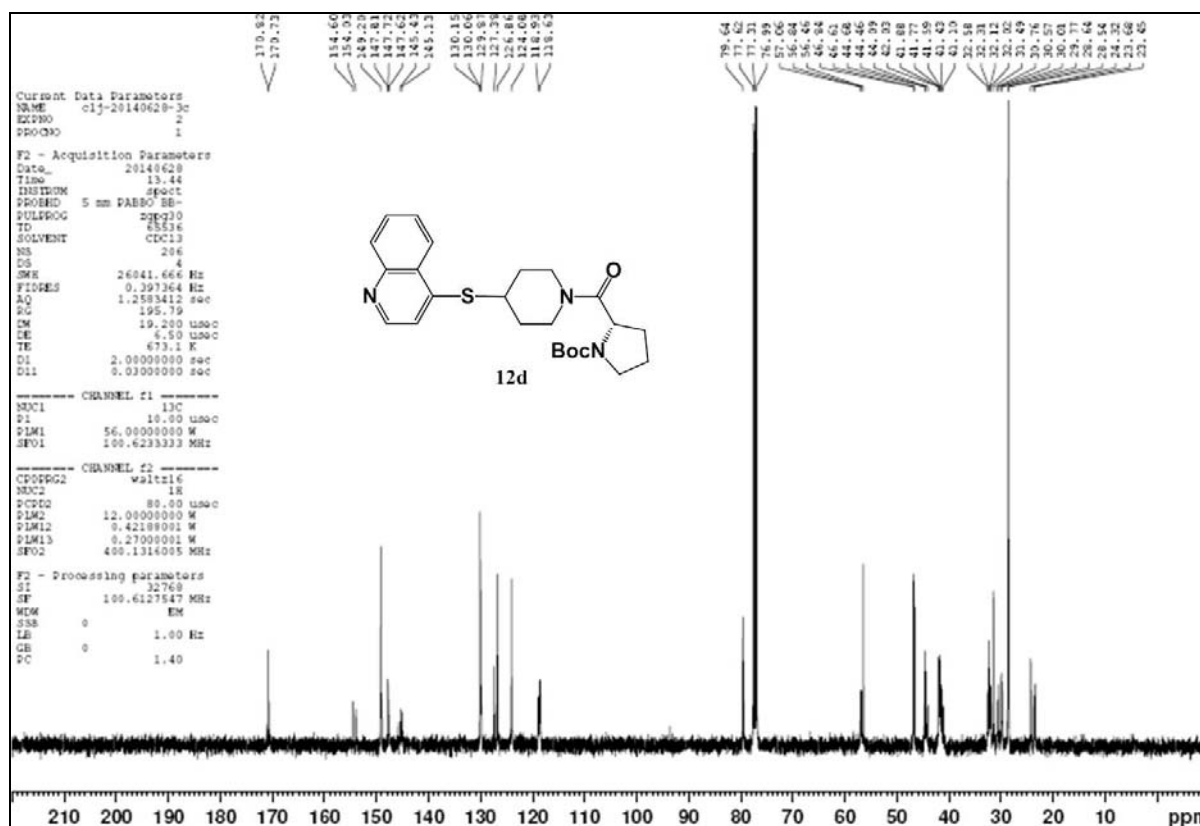
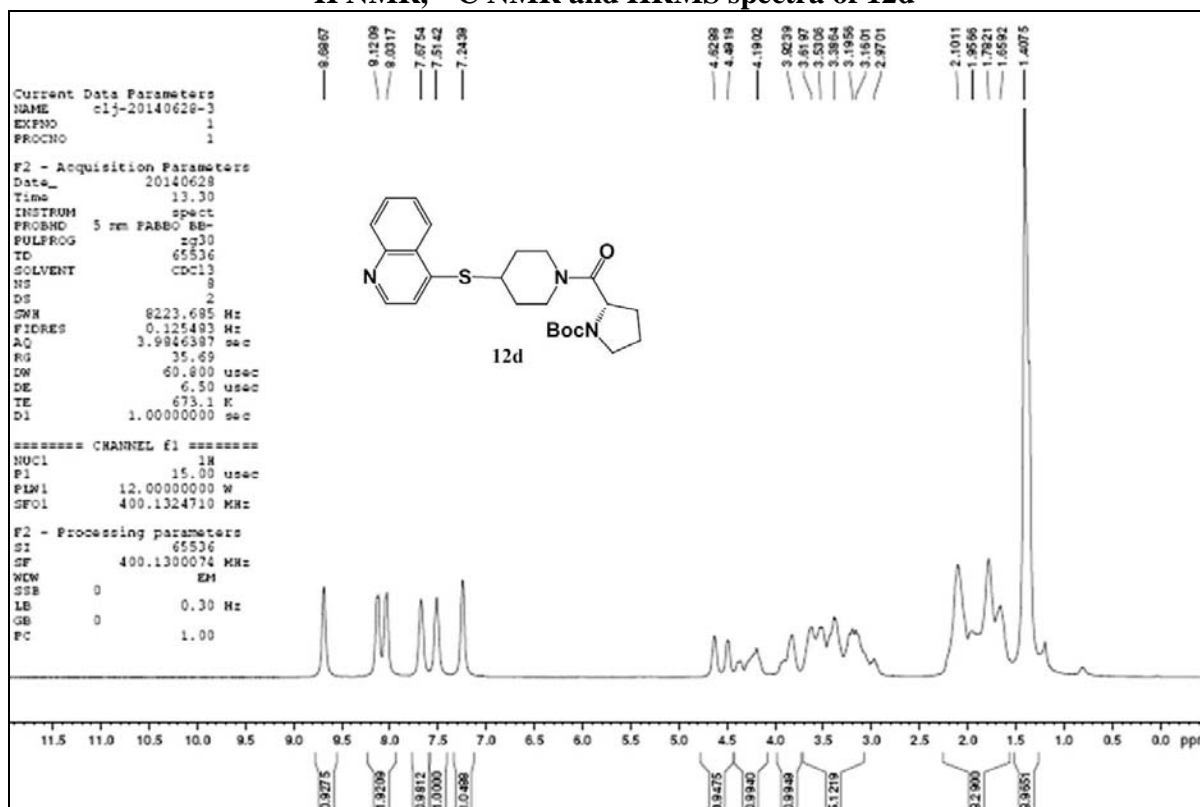


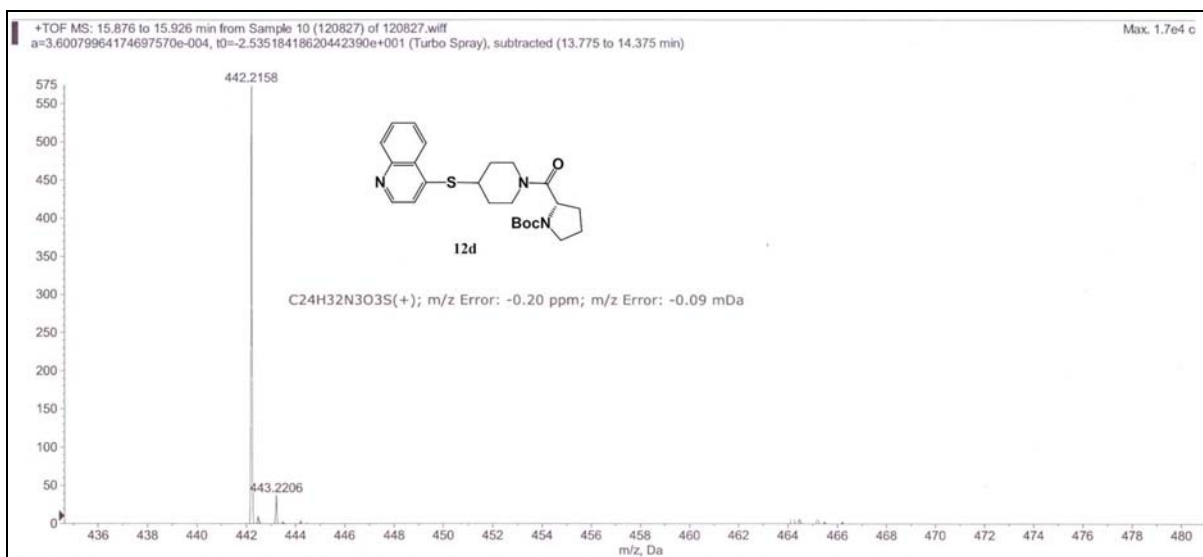
¹H NMR, ¹³C NMR and HRMS spectra of 12c



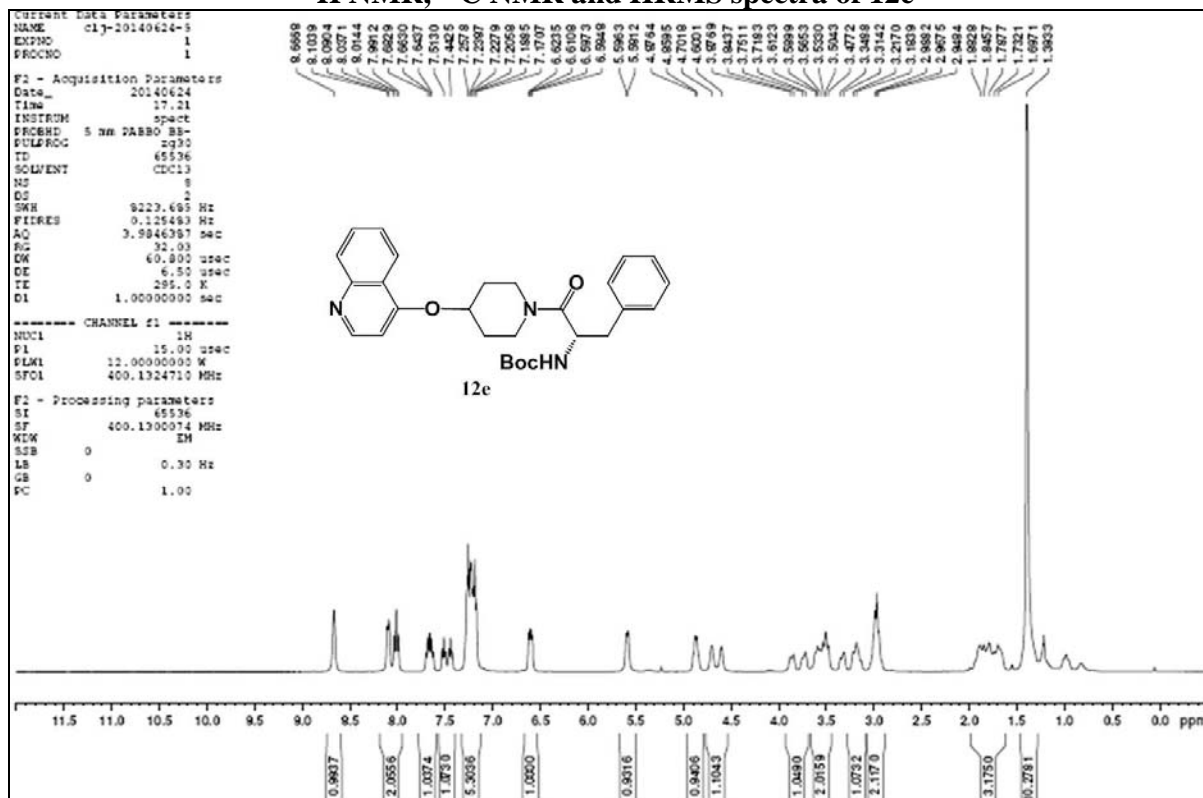


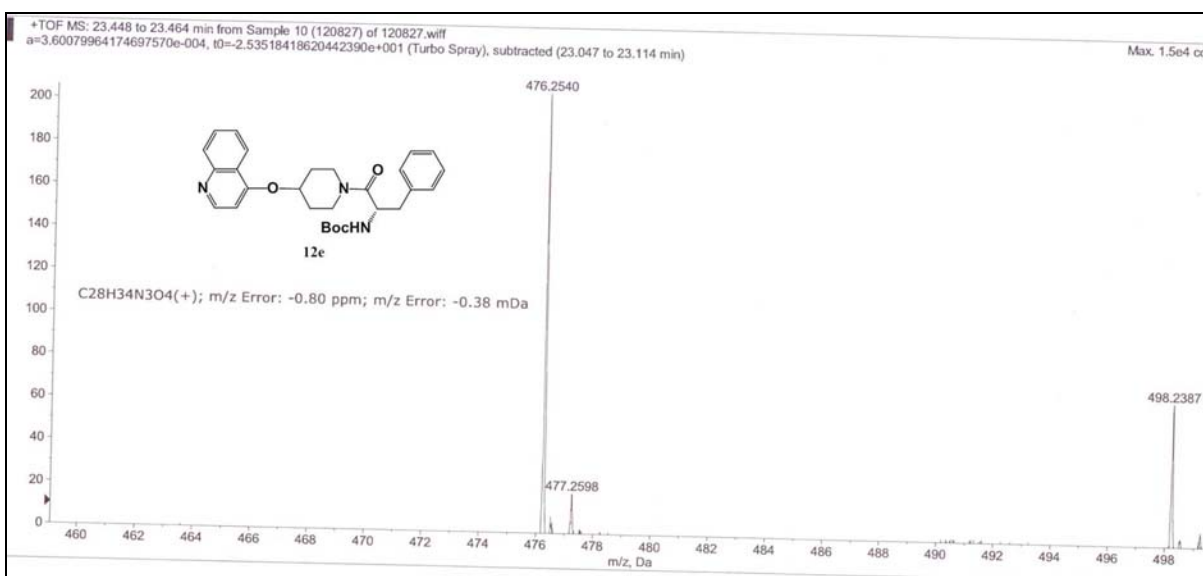
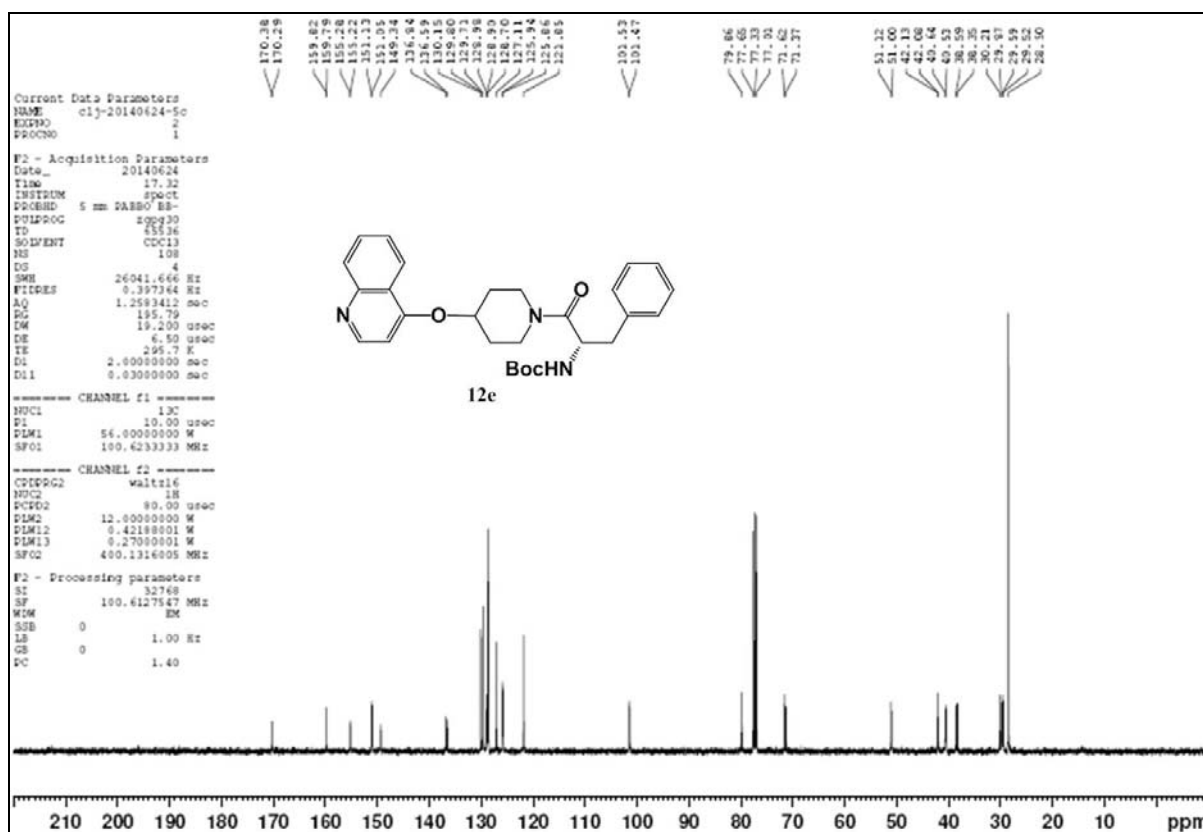
¹H NMR, ¹³C NMR and HRMS spectra of 12d



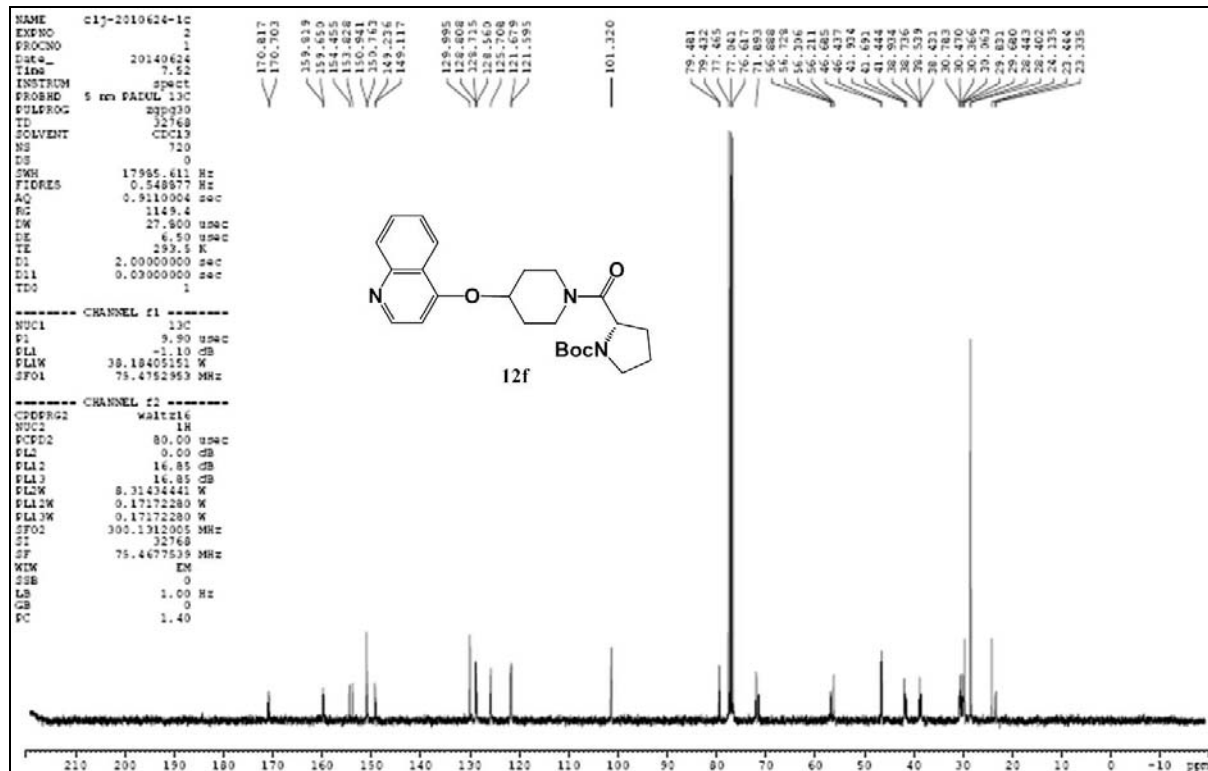
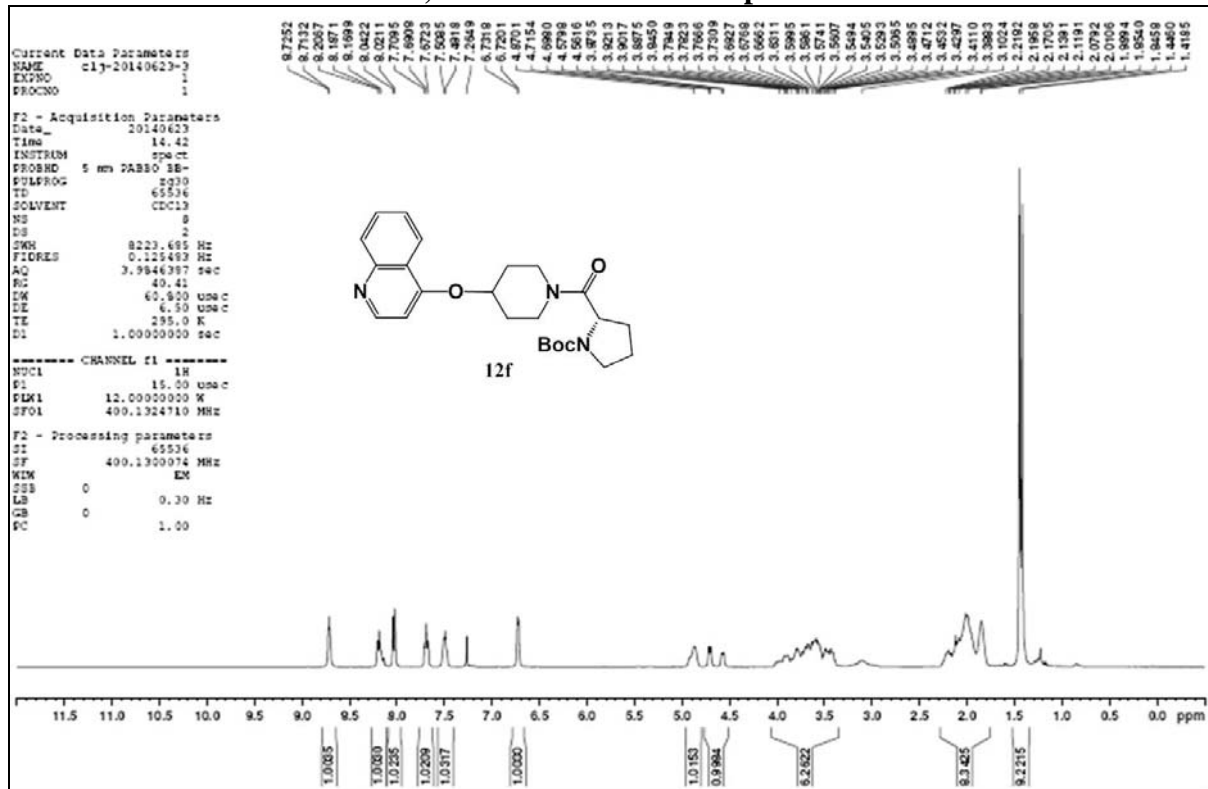


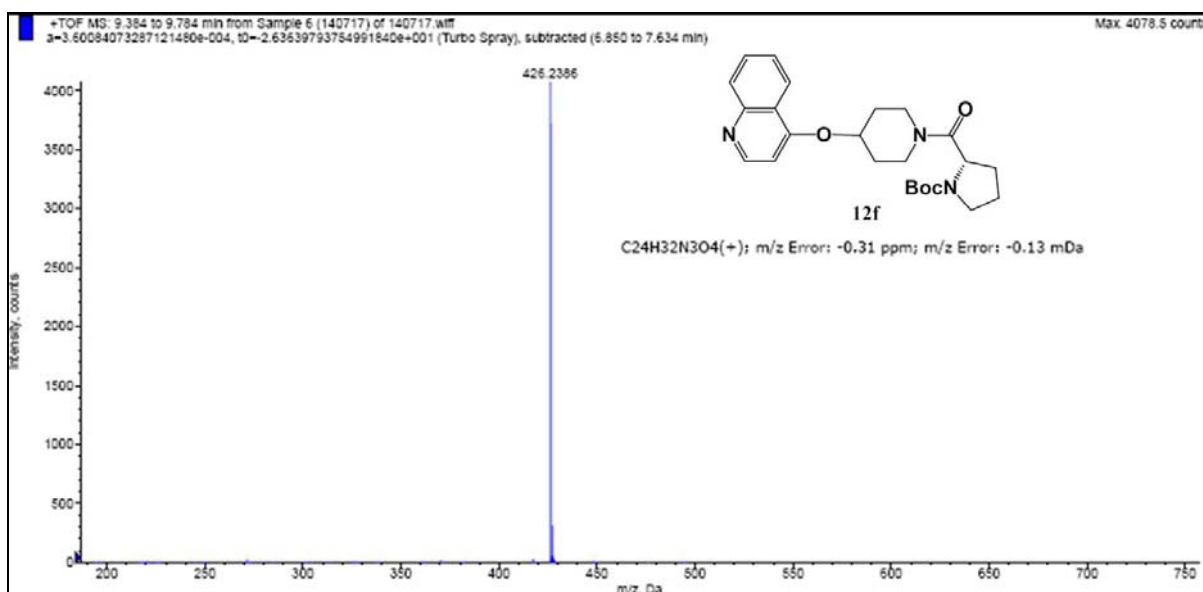
¹H NMR, ¹³C NMR and HRMS spectra of 12e





¹H NMR, ¹³C NMR and HRMS spectra of 12f





¹H NMR, ¹³C NMR and HRMS spectra of 12g

