**Supporting information**

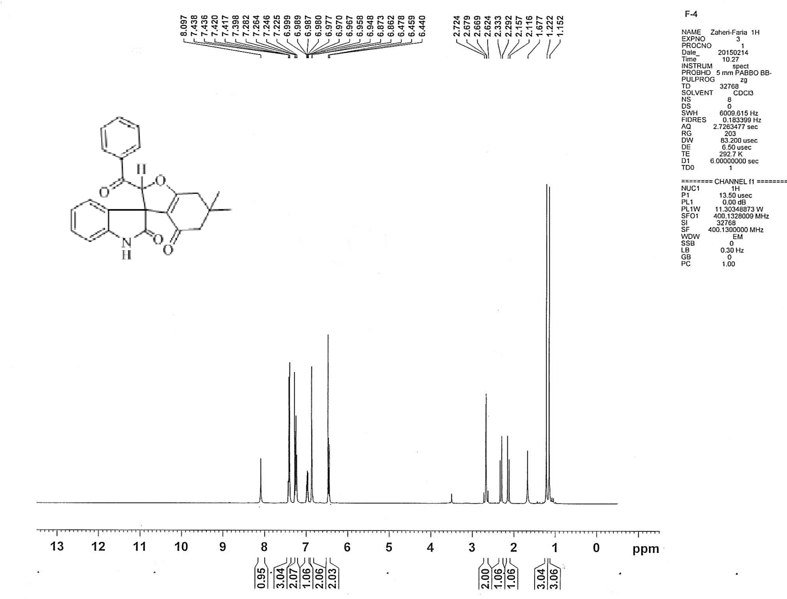
**Three component synthesis of novel spirooxindole-furan derivatives using pyridinium salts**

Robabeh Baharfar\*, Sakineh Asghari, Farya Zaheri, Narges Shariati

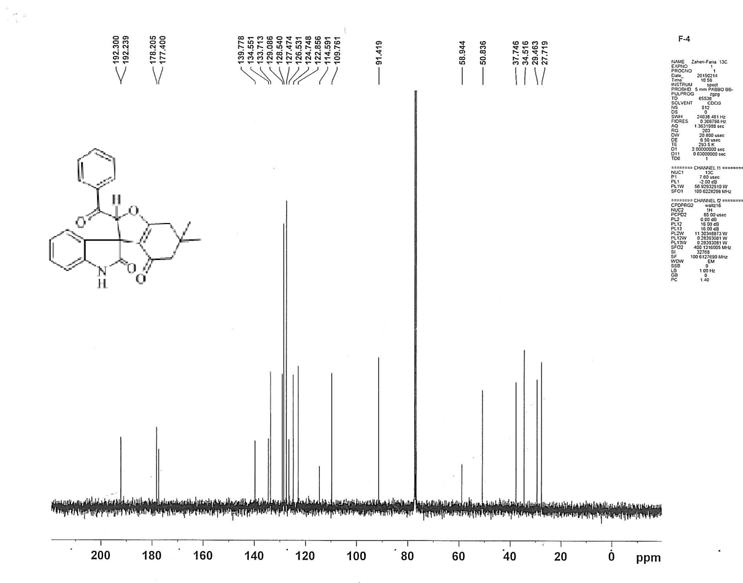
*Department of Chemistry, University of Mazandaran, P. O. Box 47415, Babolsar, Iran*

\*Corresponding author. Email: [baharfar@umz.ac.ir](mailto:baharfar@umz.ac.ir)

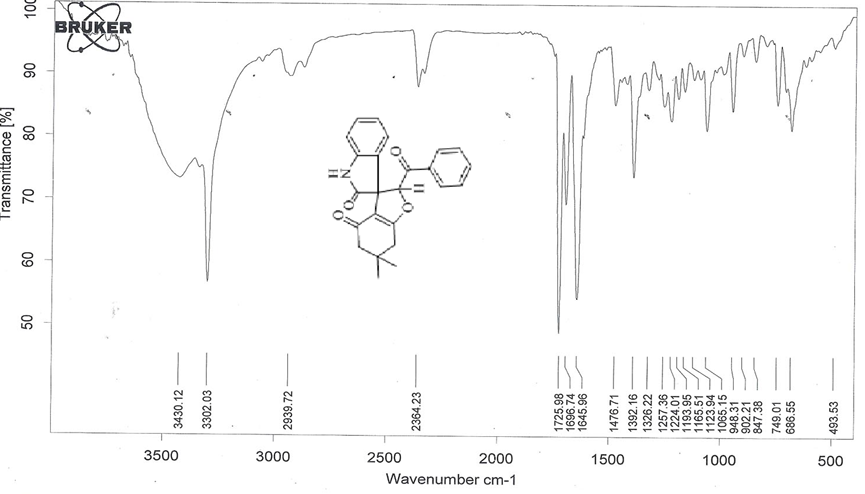
**1H NMR spectra of compound 4a**



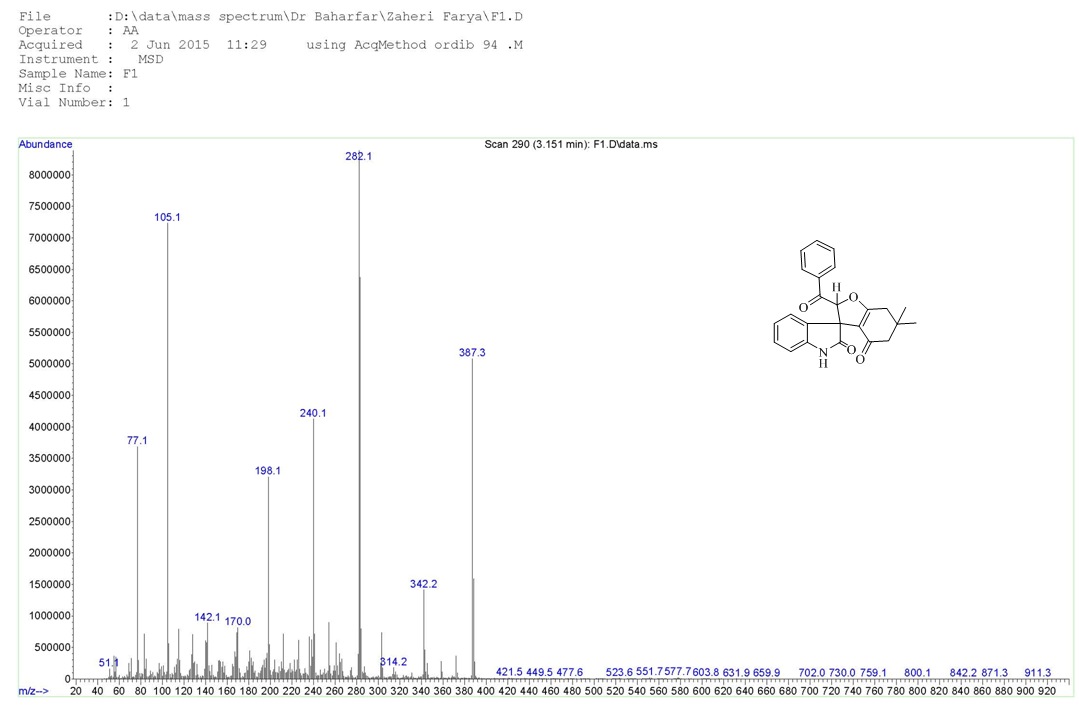
**13C NMR spectra of compound 4a**



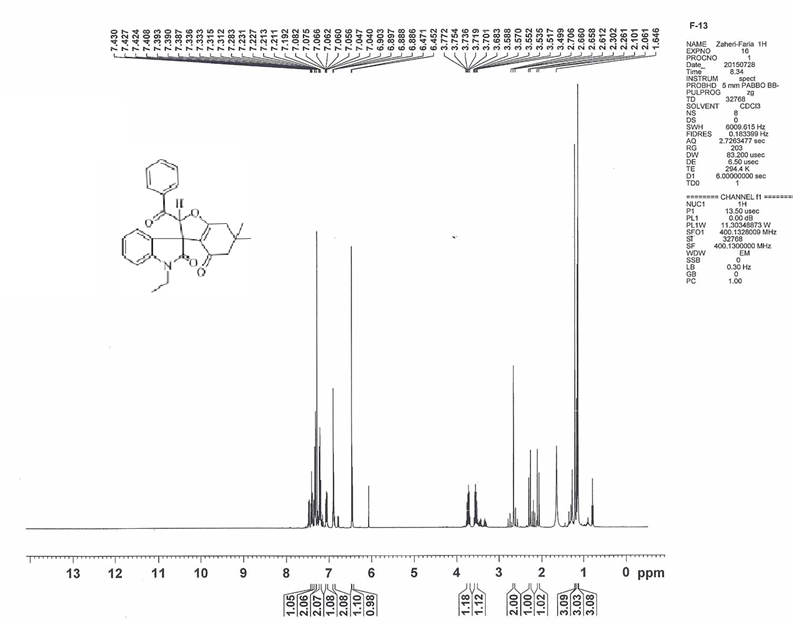
**IR spectra of compound 4a**



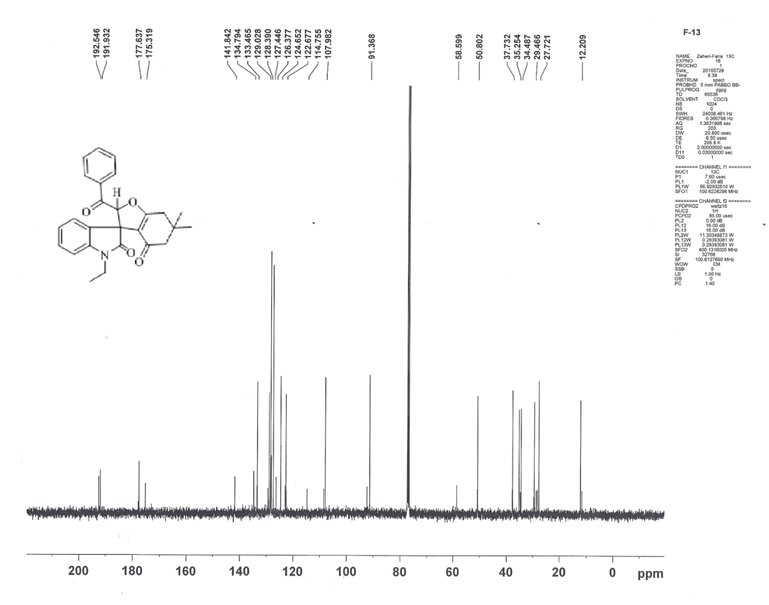
**Mass spectra of compound 4a**



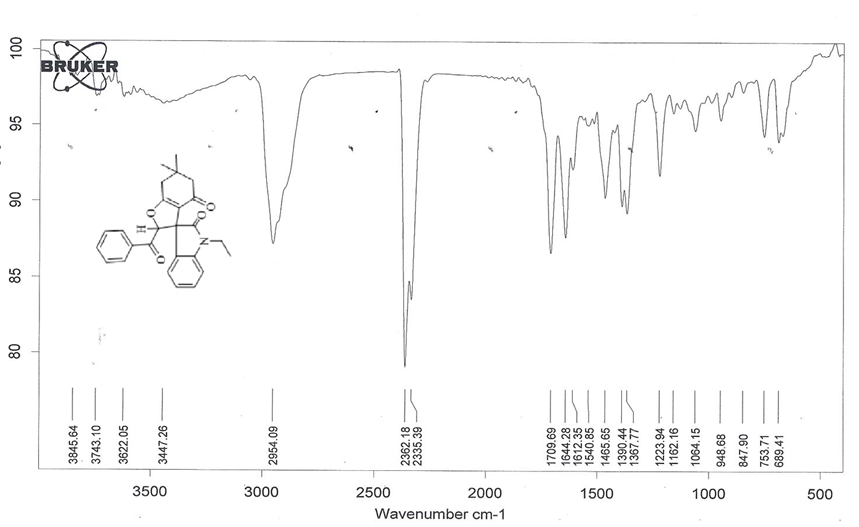
**1H NMR spectra of compound 4b**



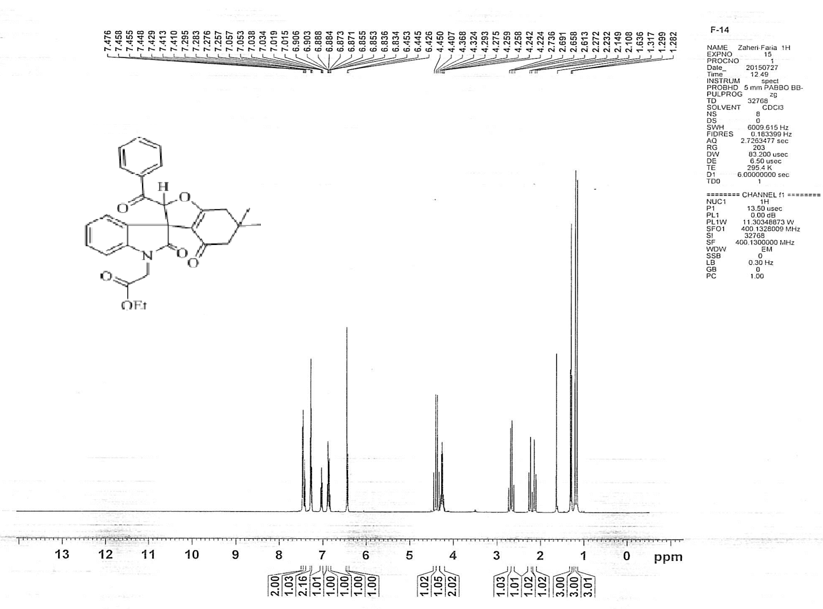
**13C NMR spectra of compound 4b**



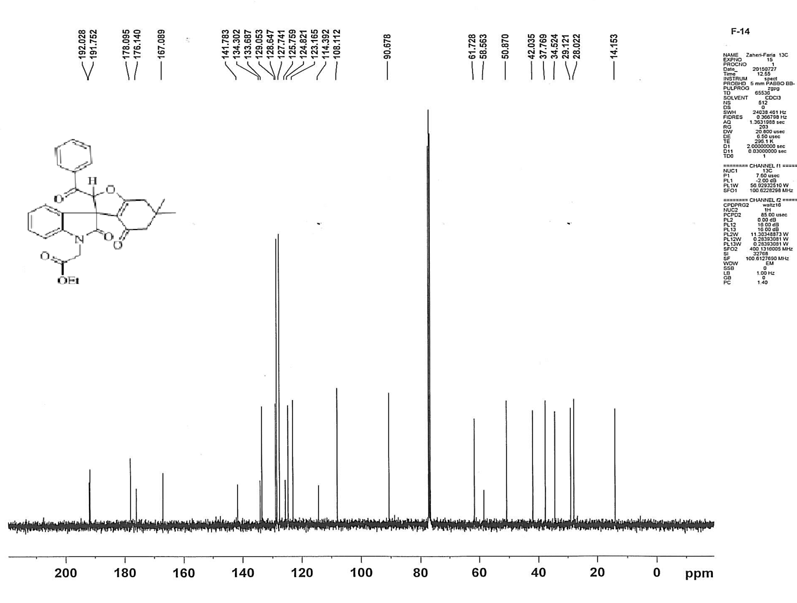
**IR spectra of compound 4b**



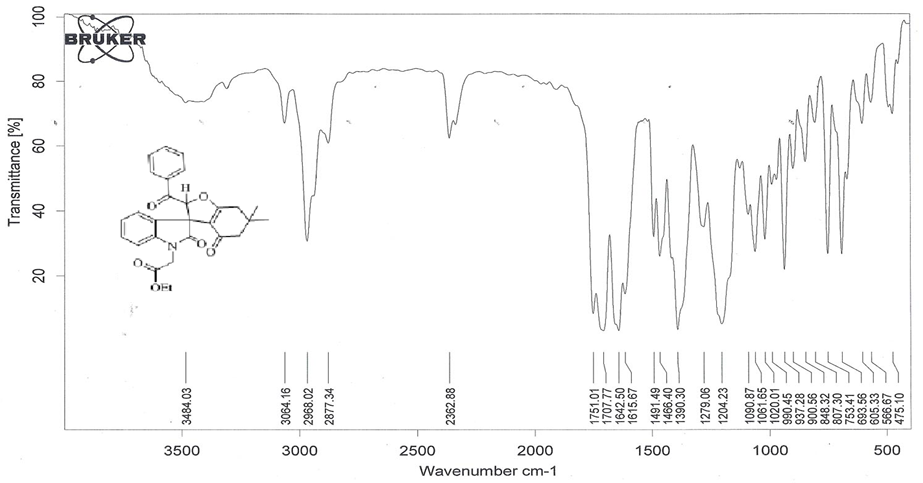
**1H NMR spectra of compound 4c**



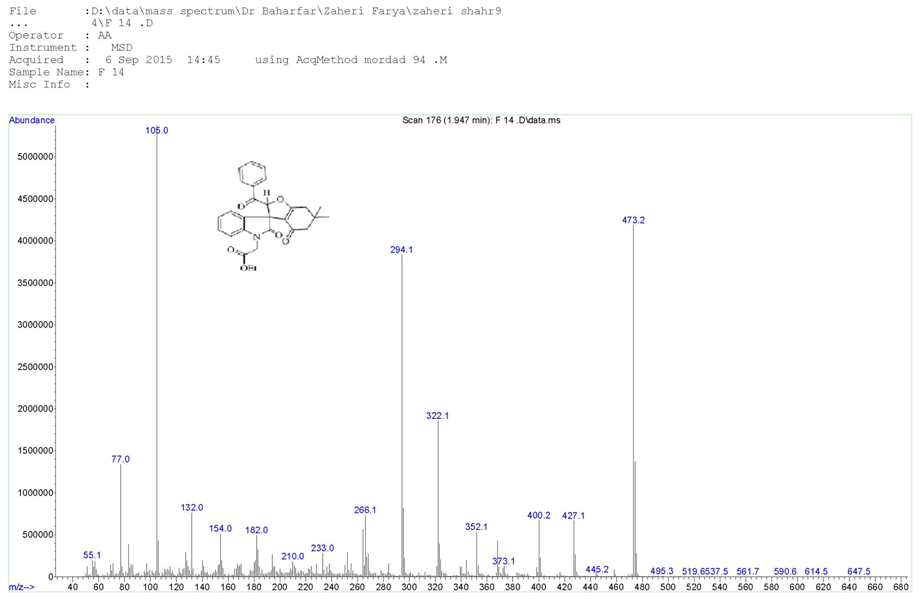
**13C NMR spectra of compound 4c**



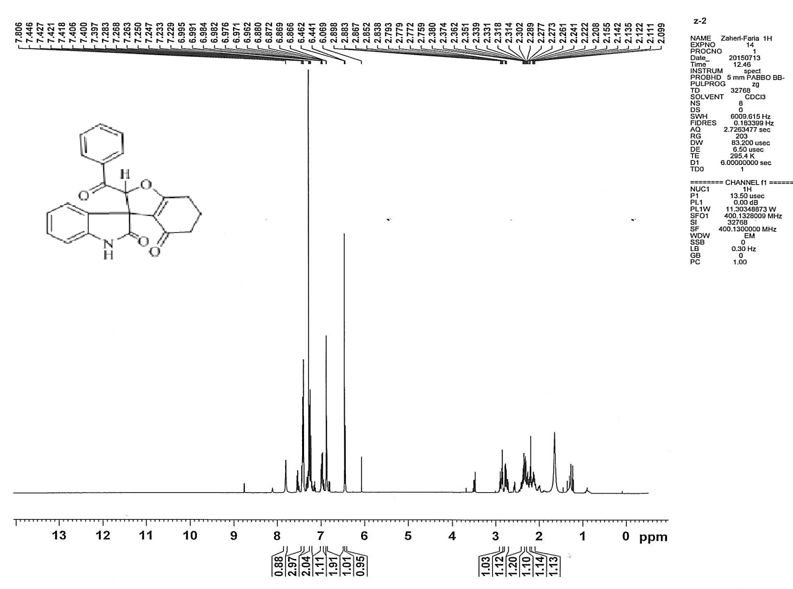
**IR spectra of compound 4c**



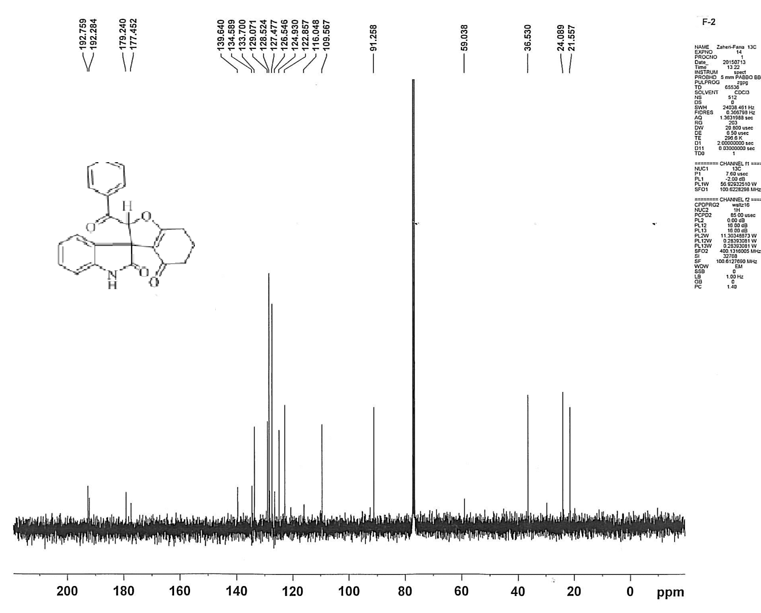
**Mass spectra of compound 4c**



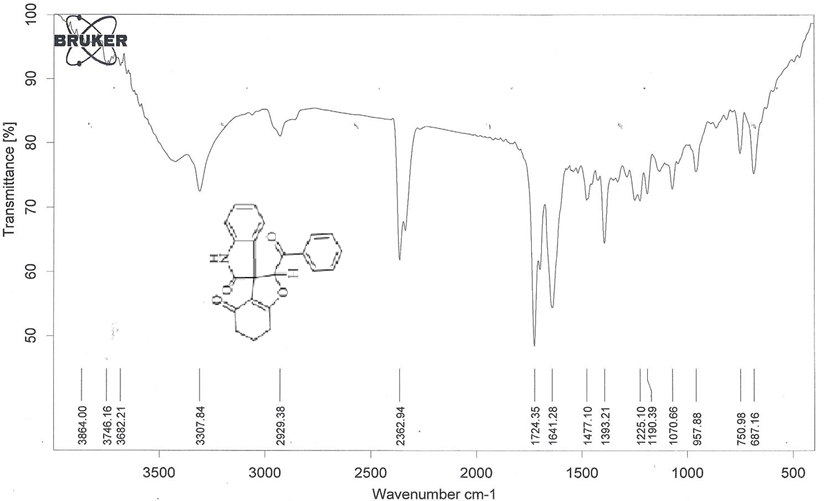
**1H NMR spectra of compound 4d**



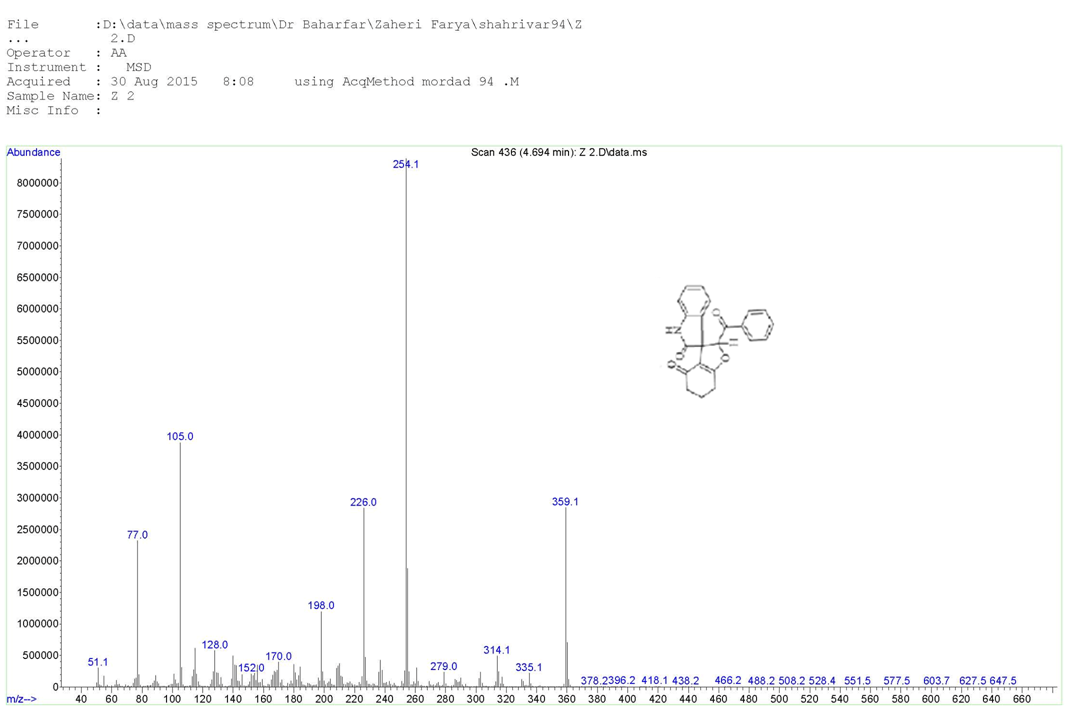
**13C NMR spectra of compound 4d**



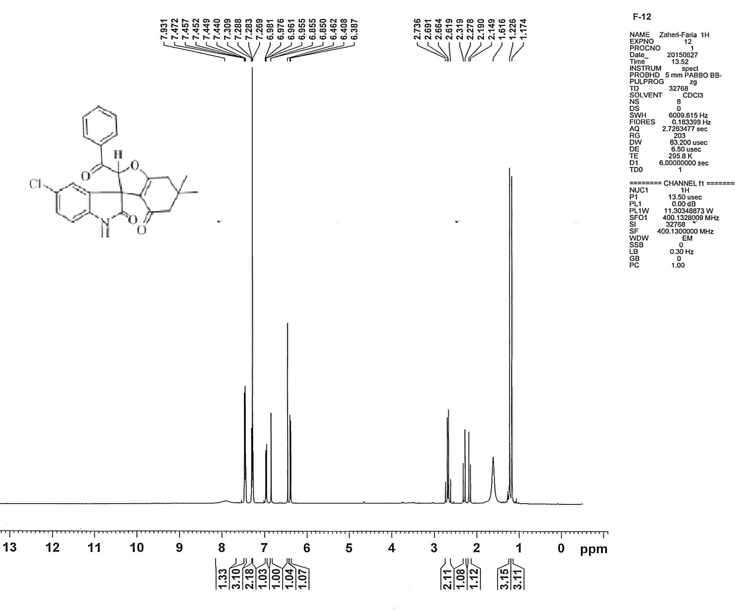
**IR spectra of compound 4d**



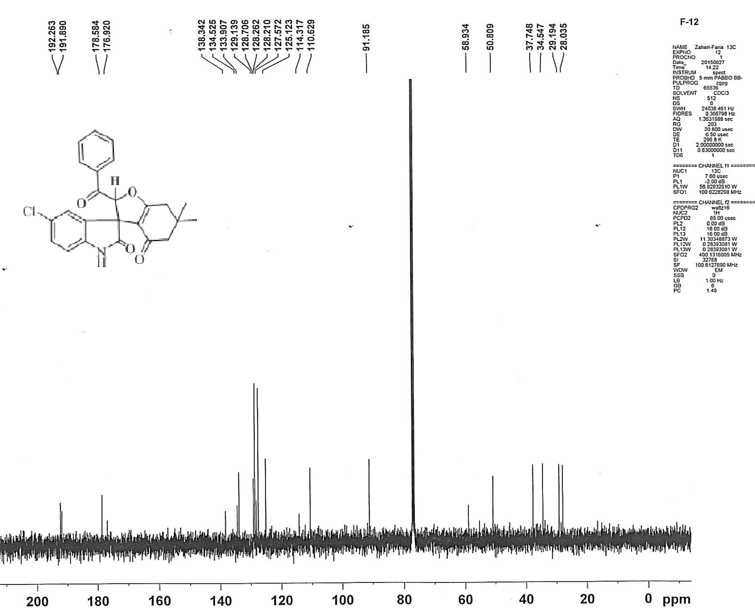
**Mass spectra of compound 4d**



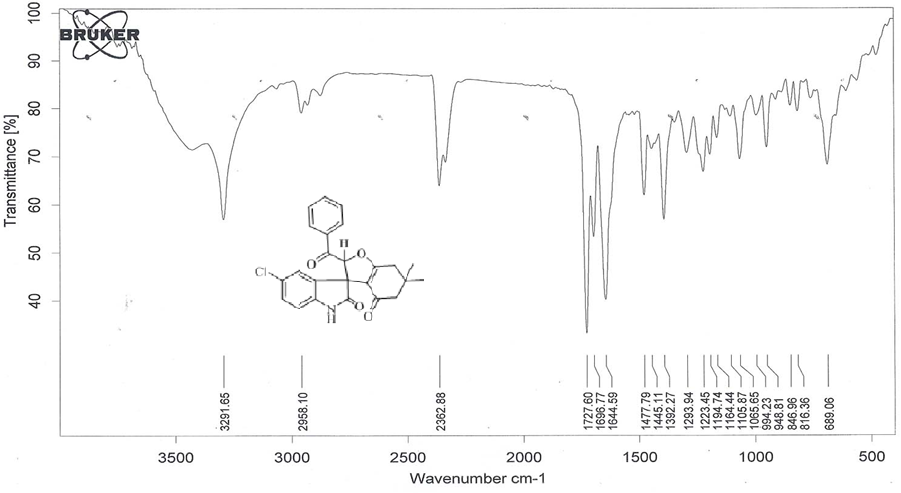
**1H NMR spectra of compound 4e**



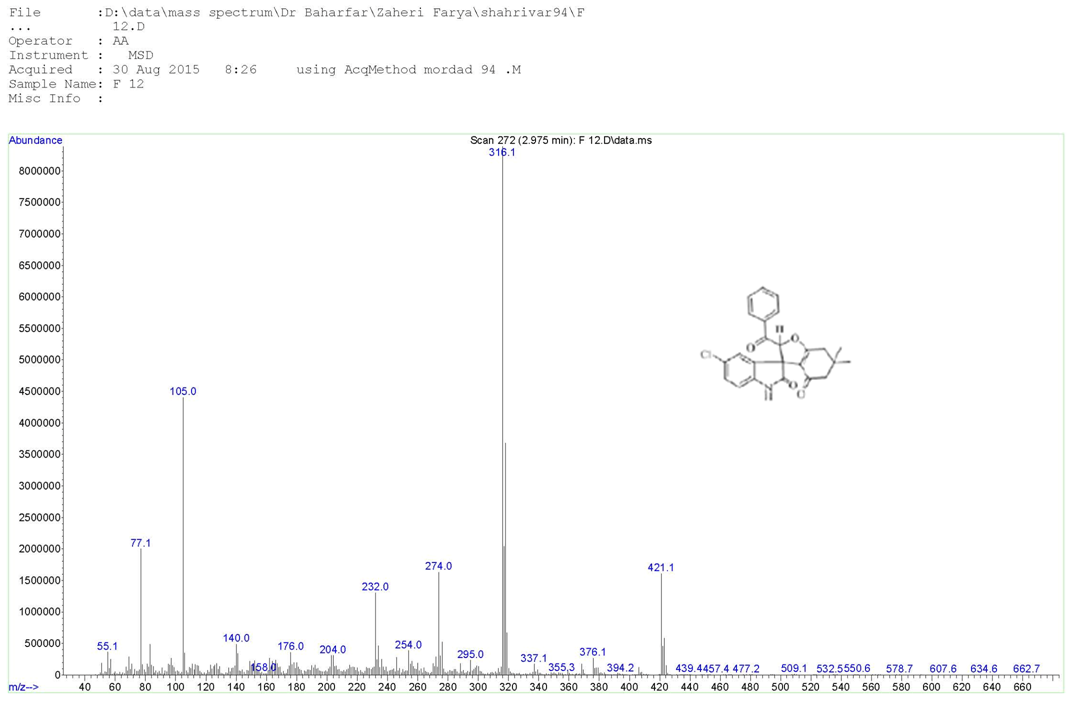
**13C NMR spectra of compound 4e**



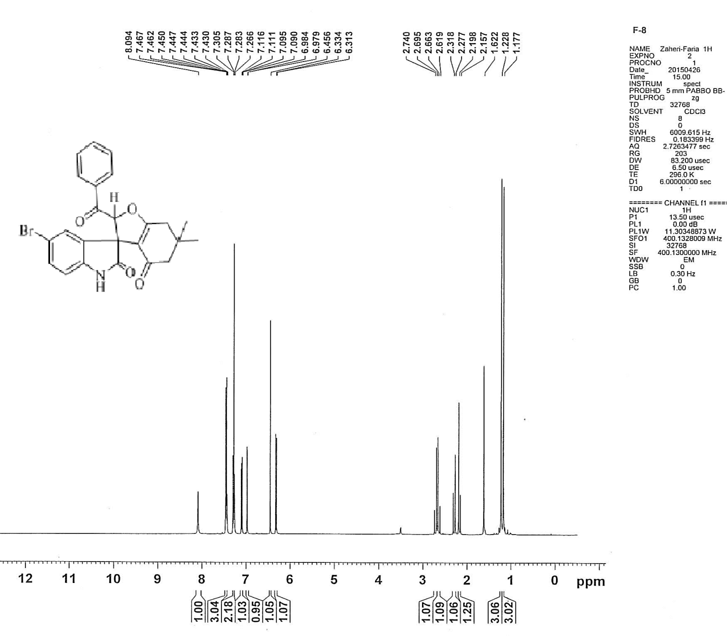
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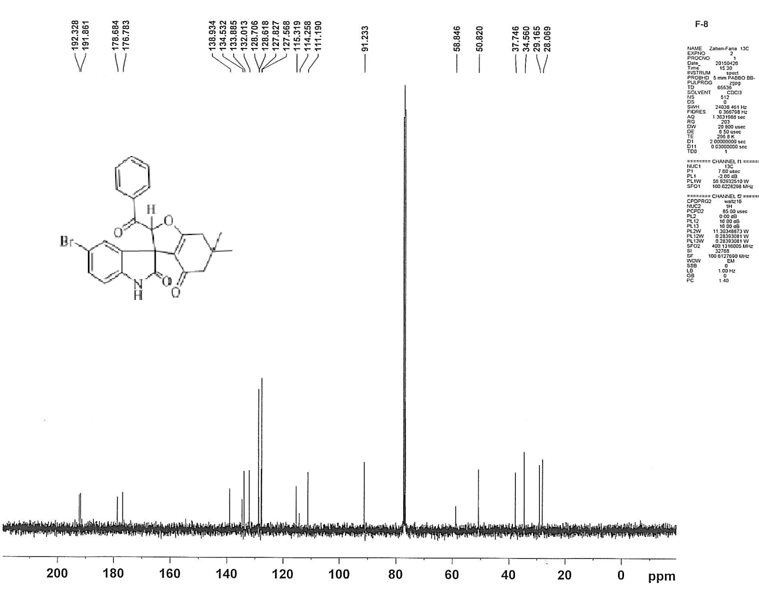
**Mass spectra of compound 4e**



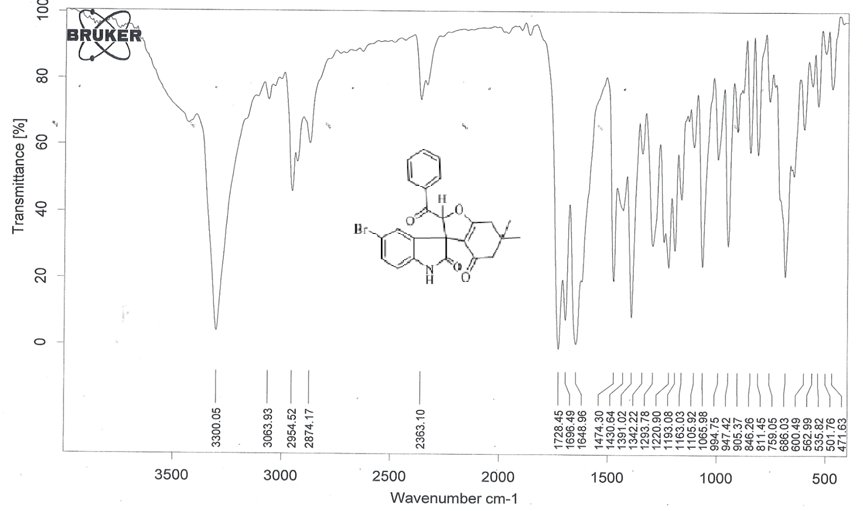
**1H NMR spectra of compound 4f**



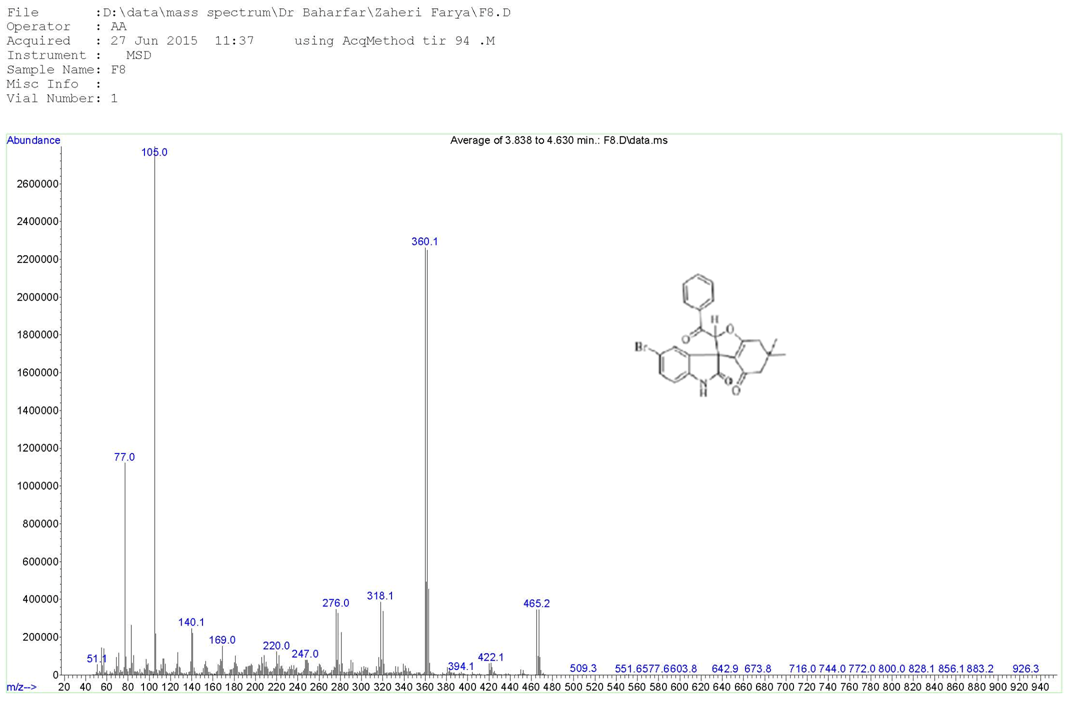
**13C NMR spectra of compound 4f**



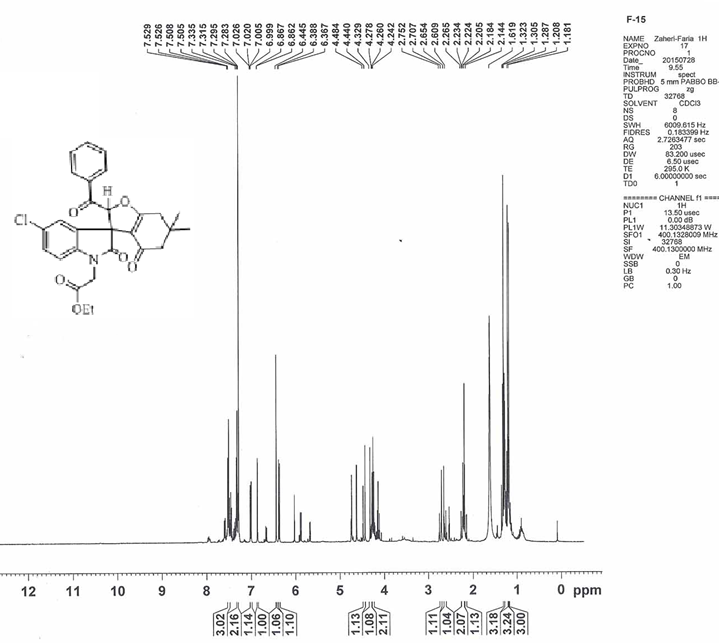
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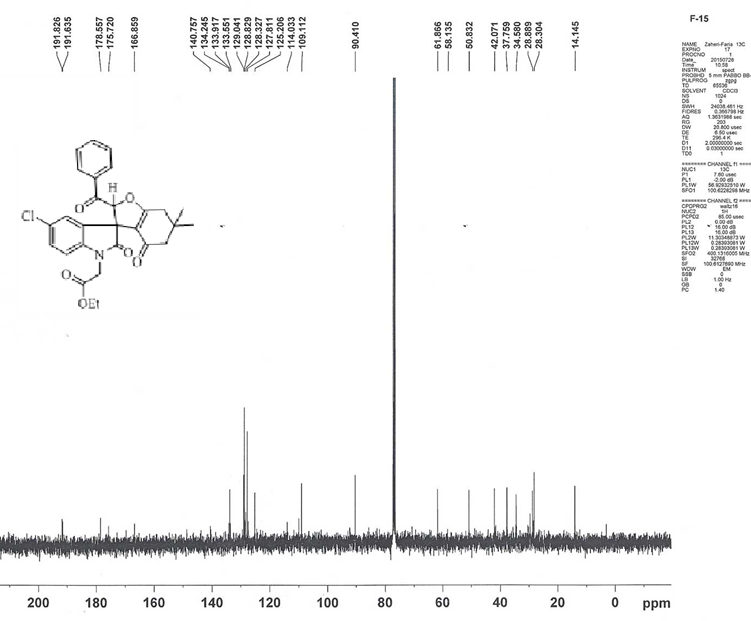
**Mass spectra of compound 4f**



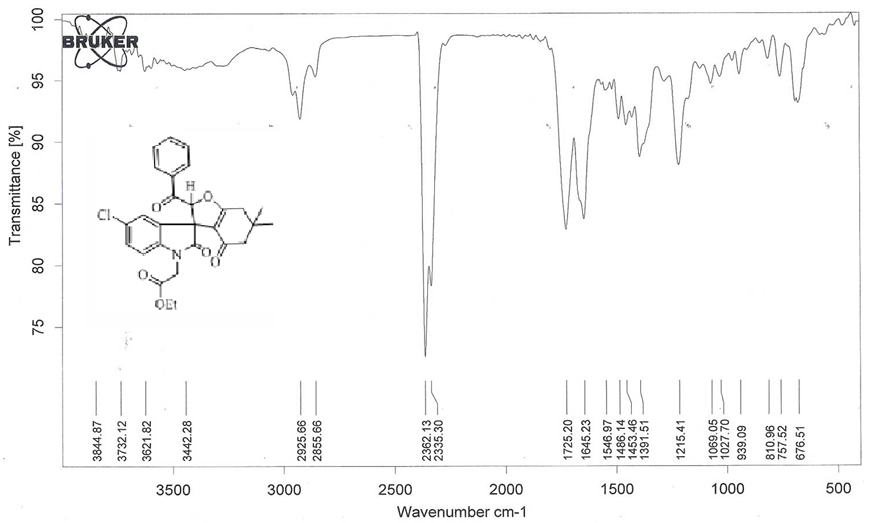
**1H NMR spectra of compound 4g**



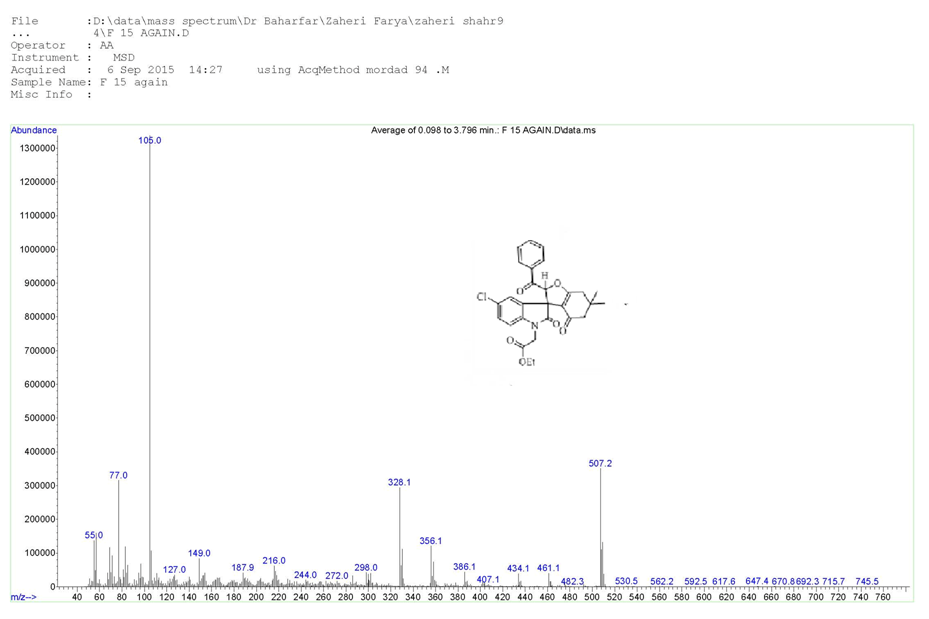
**13C NMR spectra of compound 4g**



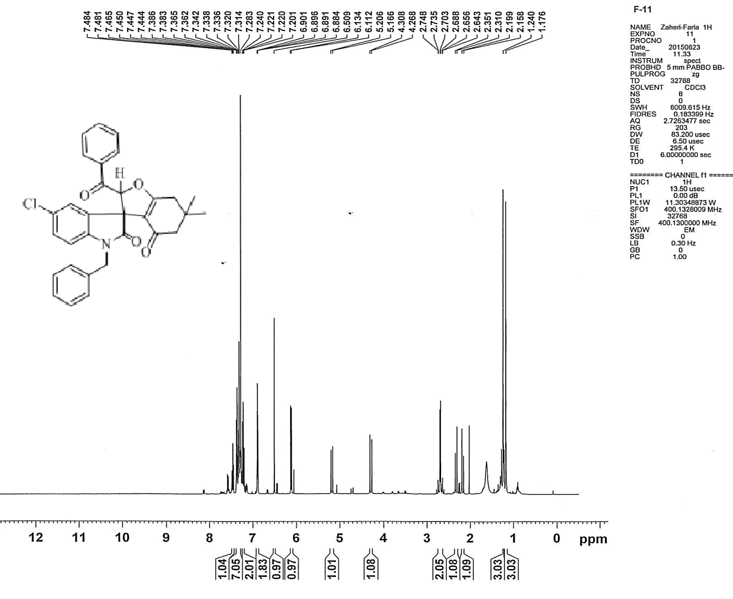
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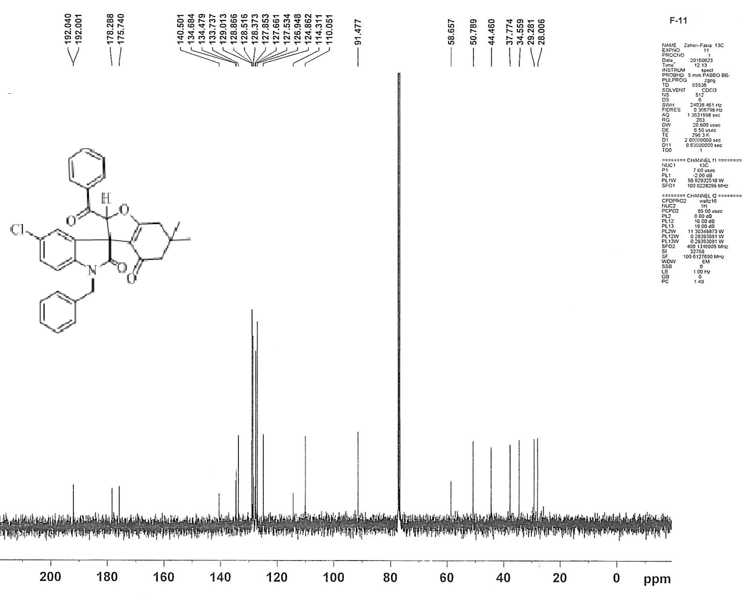
**Mass spectra of compound 4g**



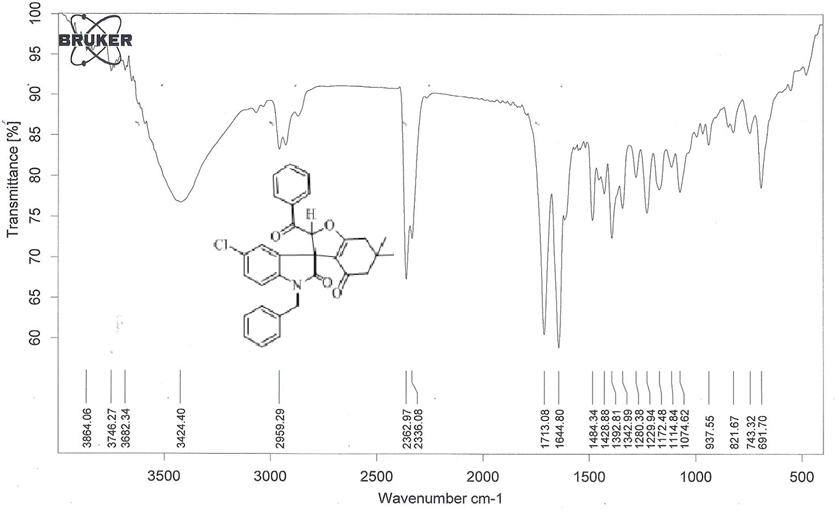
**1H NMR spectra of compound 4h**



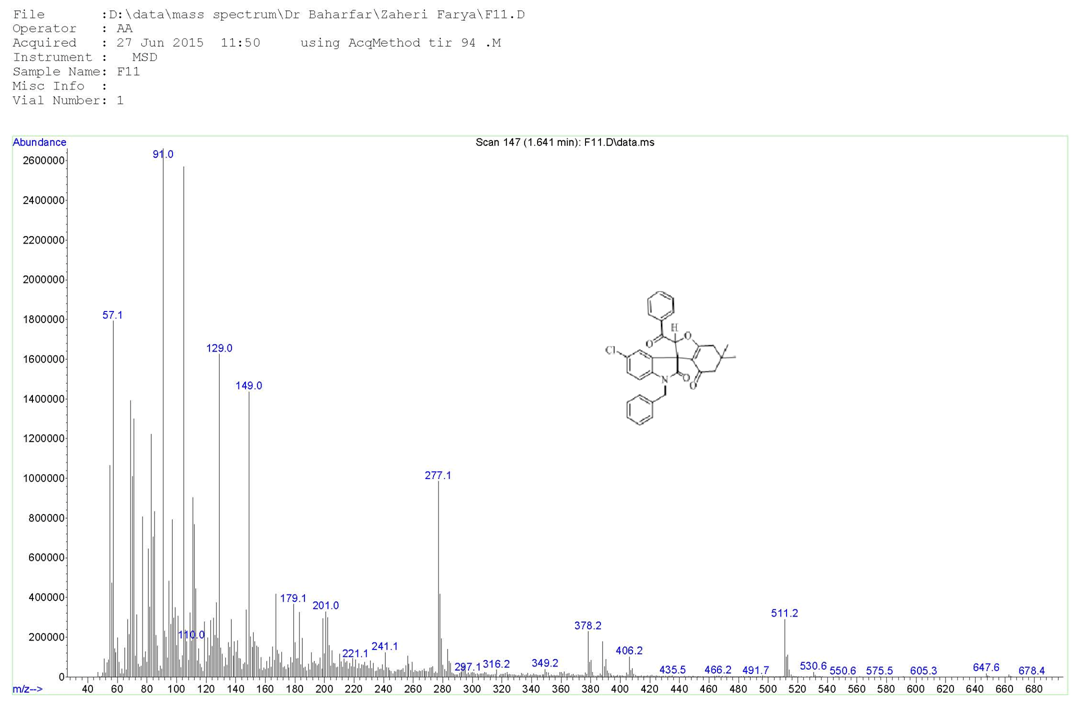
**13C NMR spectra of compound 4h**



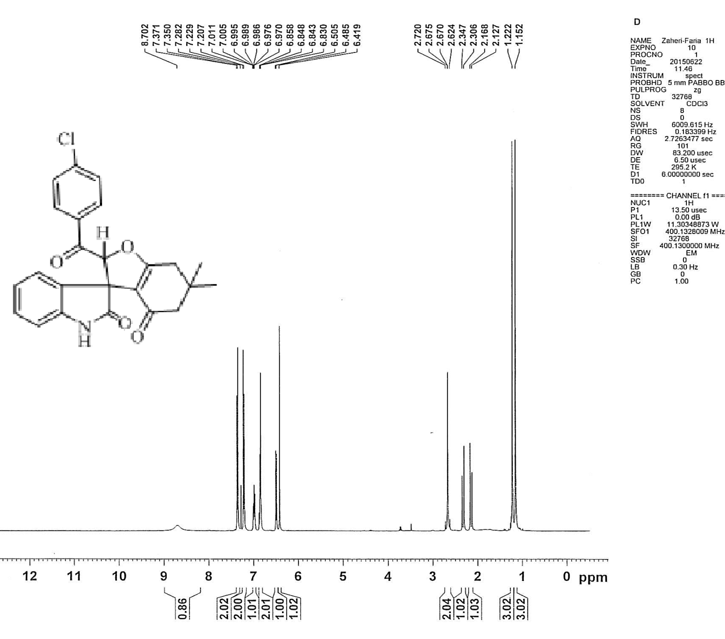
**IR spectra of compound 4h**



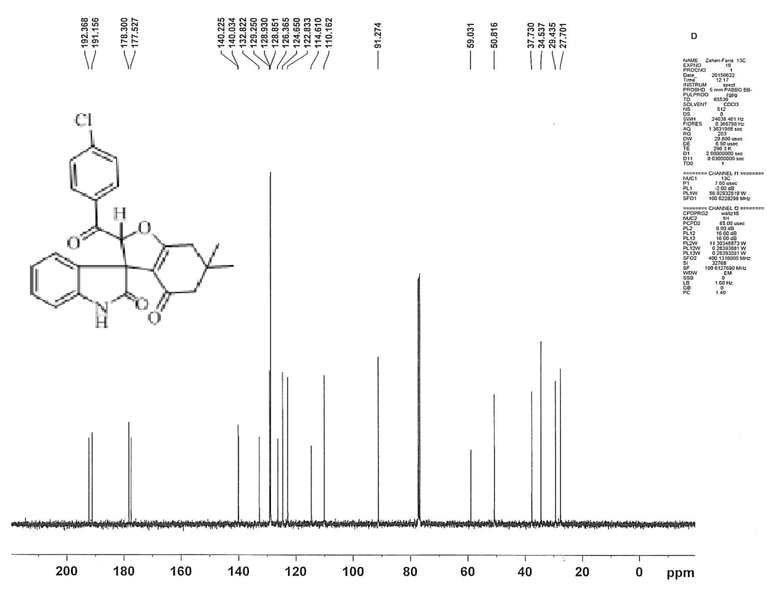
**Mass spectra of compound 4h**



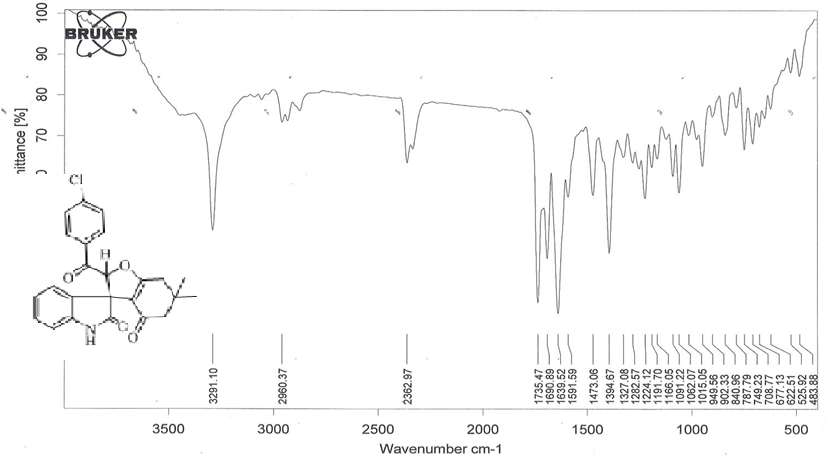
**1H NMR spectra of compound 4i**



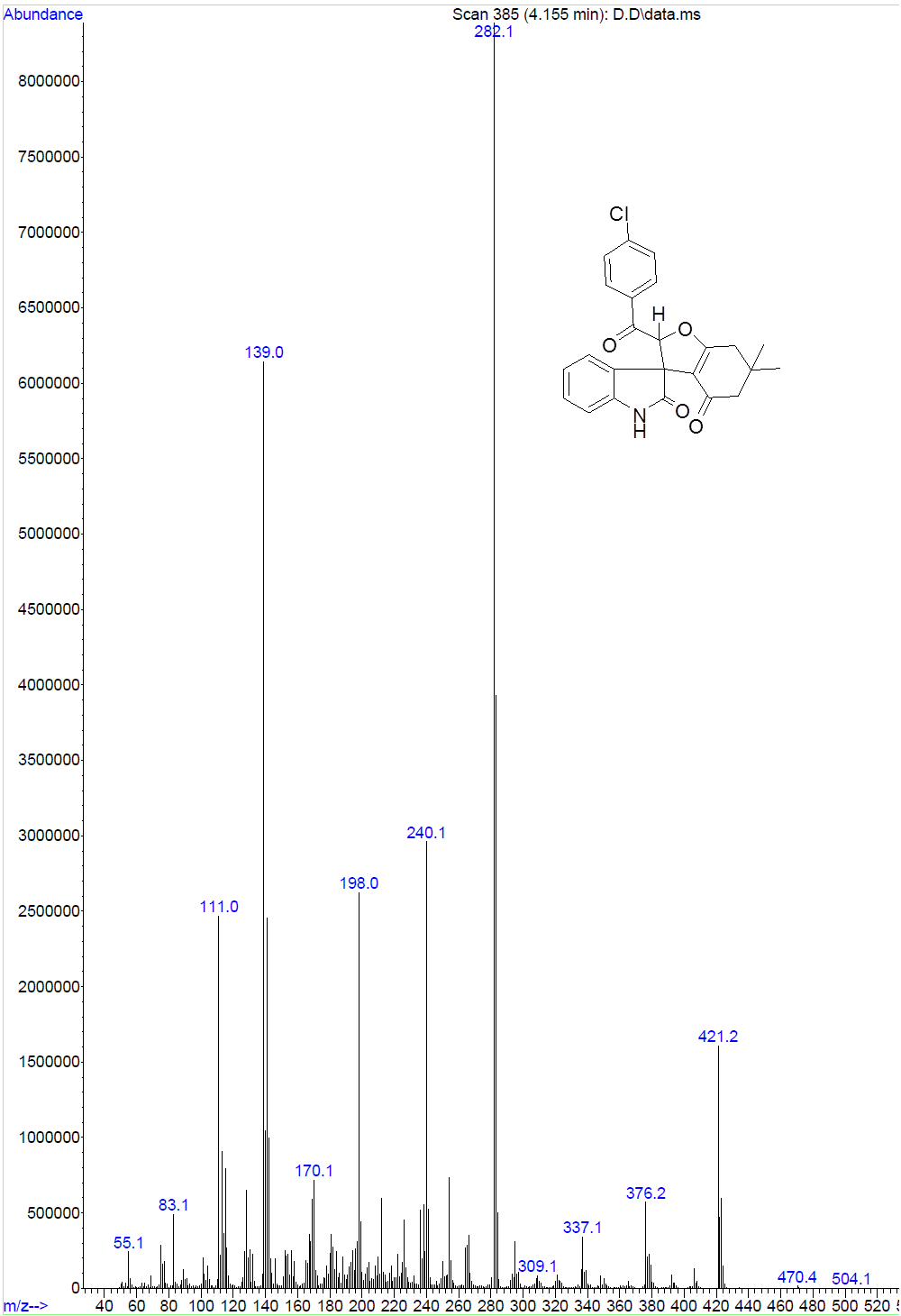
**13C NMR spectra of compound 4i**



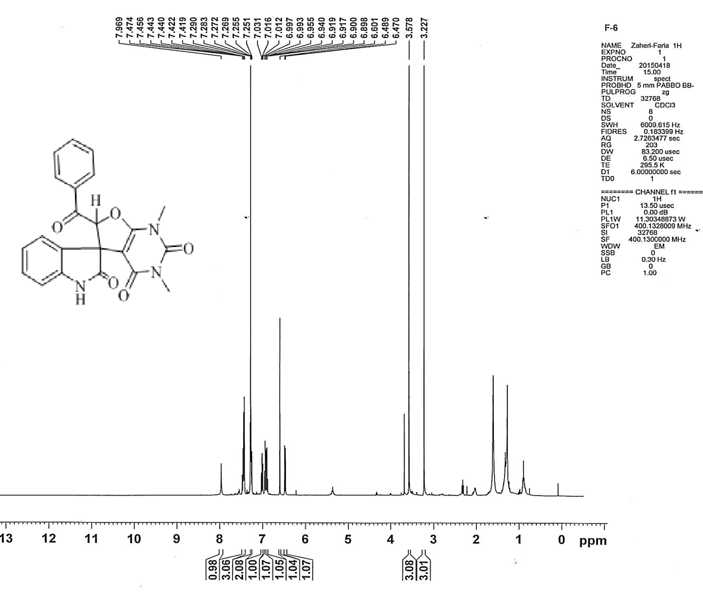
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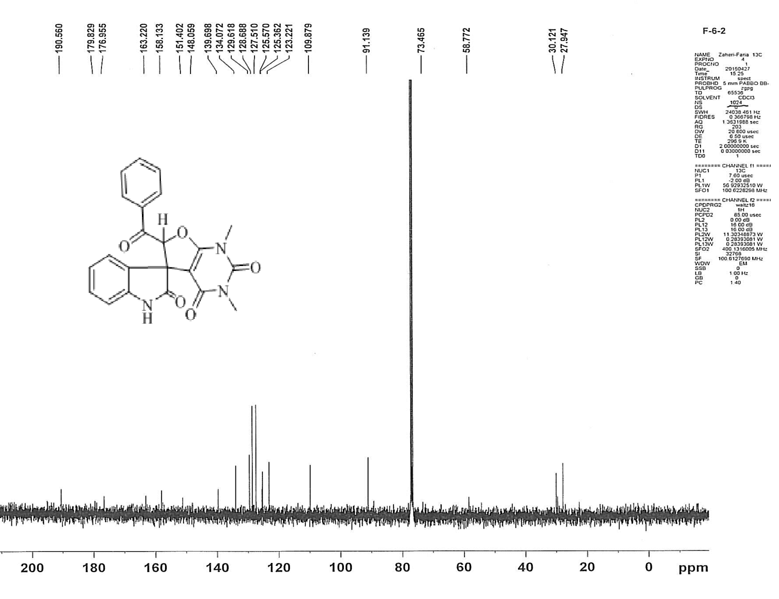
**Mass spectra of compound 4i**

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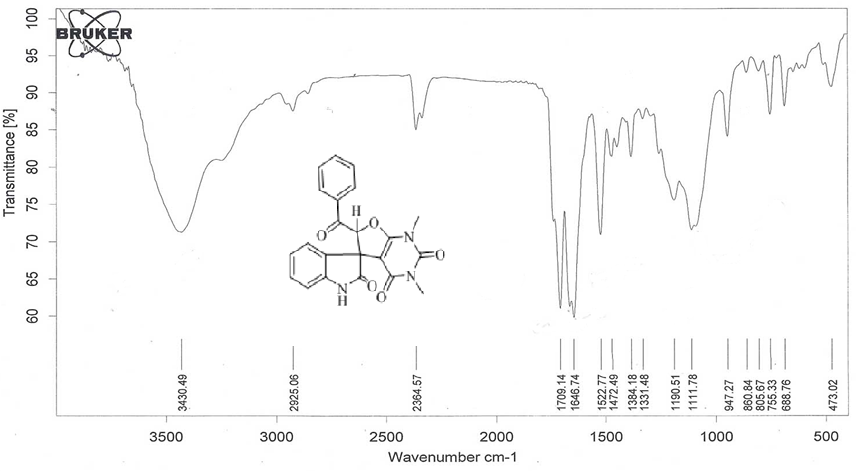
**1H NMR spectra of compound 4j**



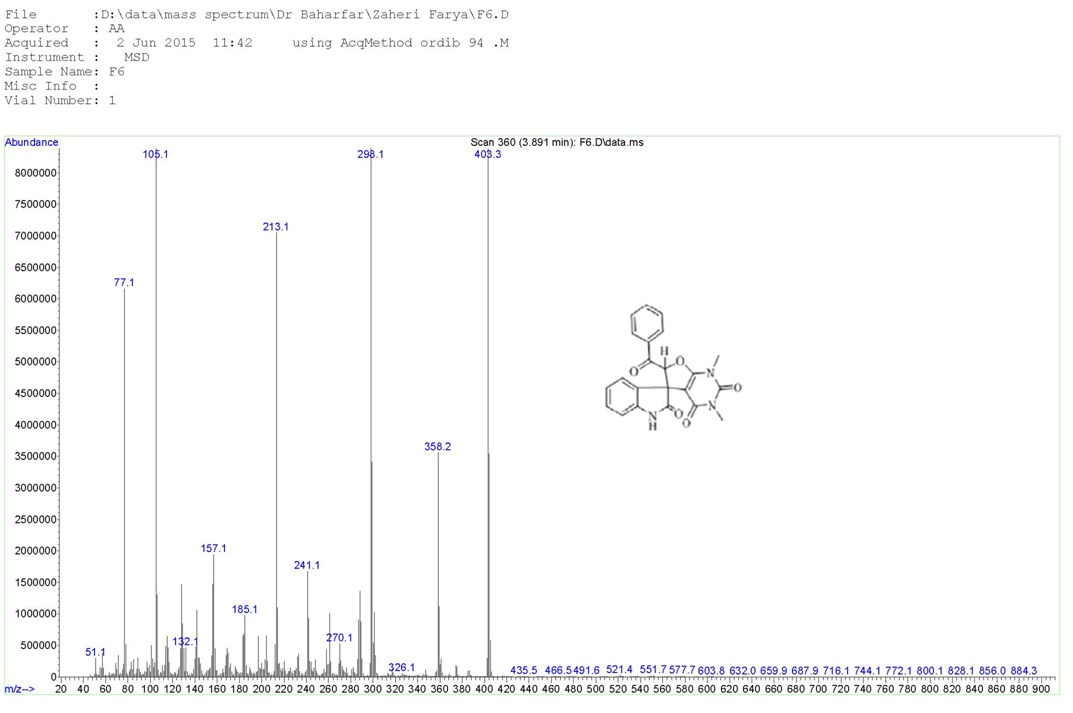
**13C NMR spectra of compound 4j**



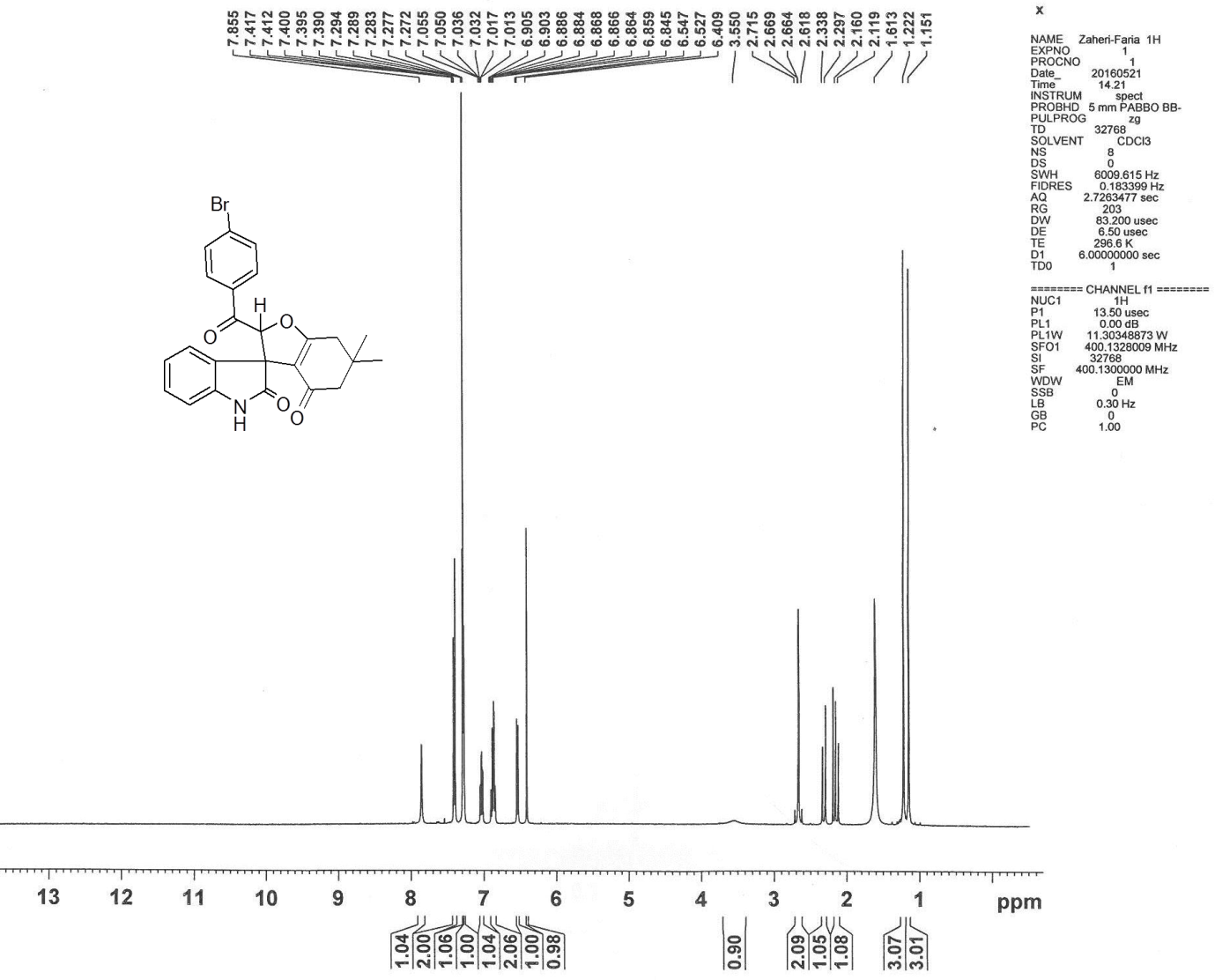
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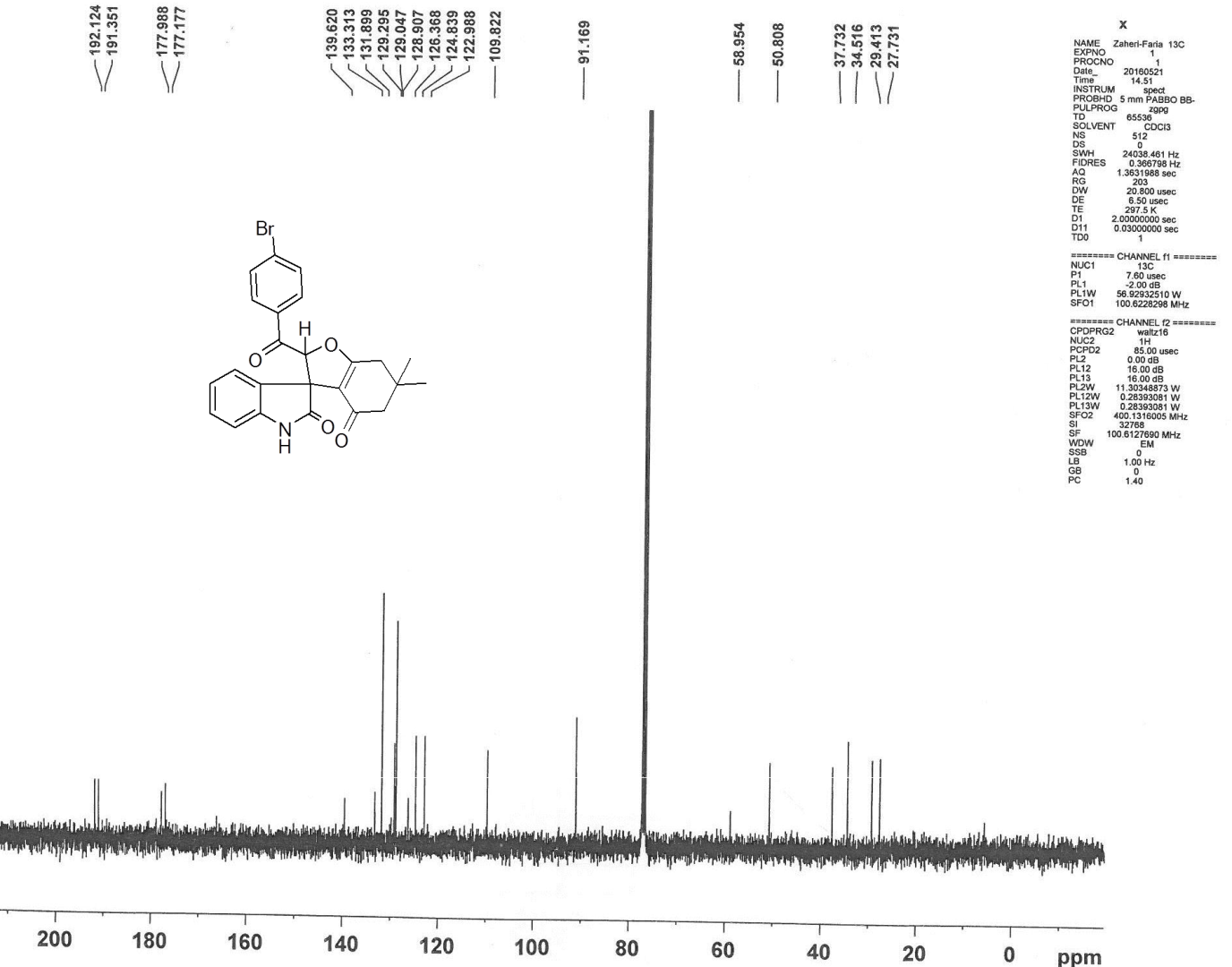
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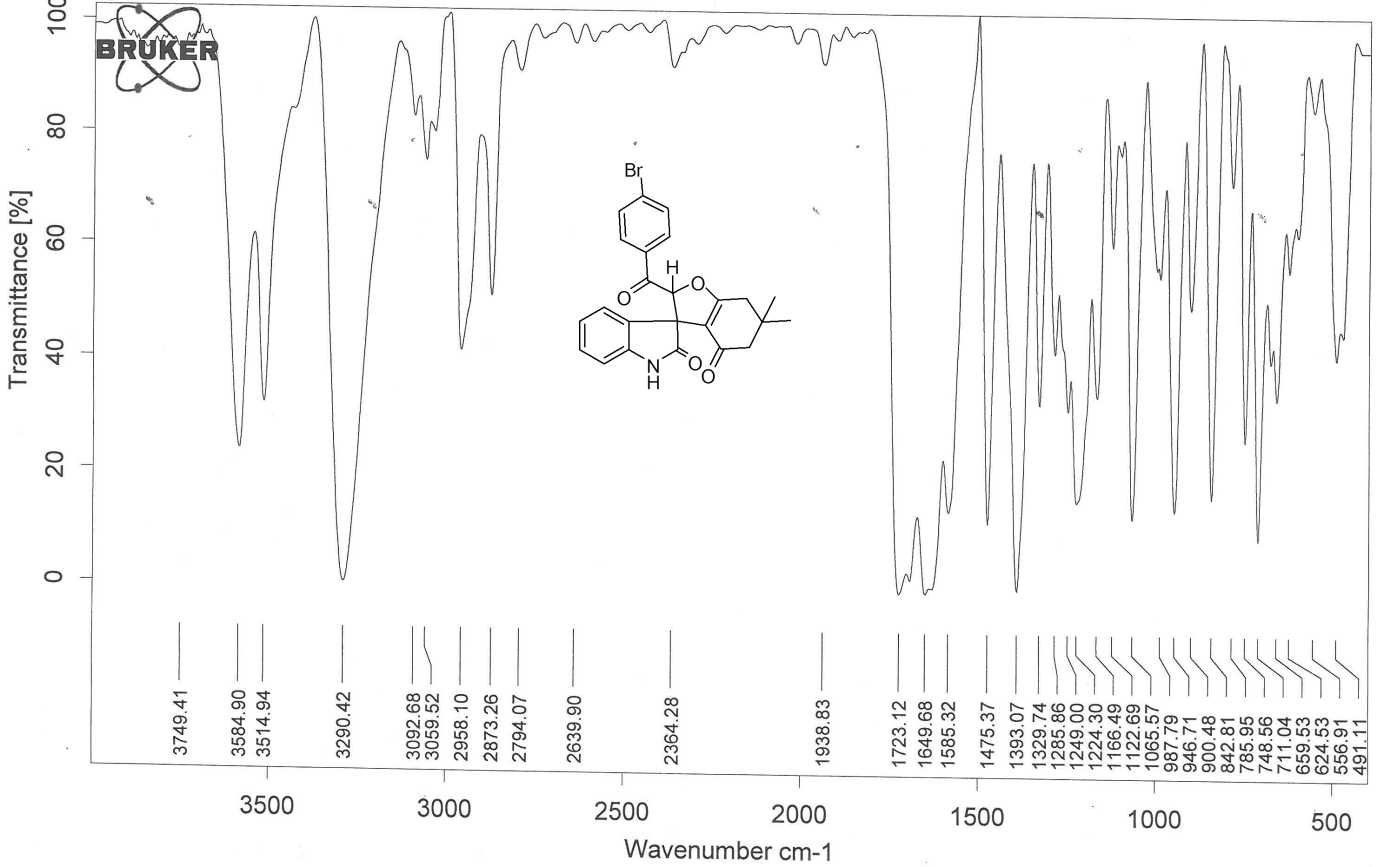
**1H NMR spectra of compound 4k**

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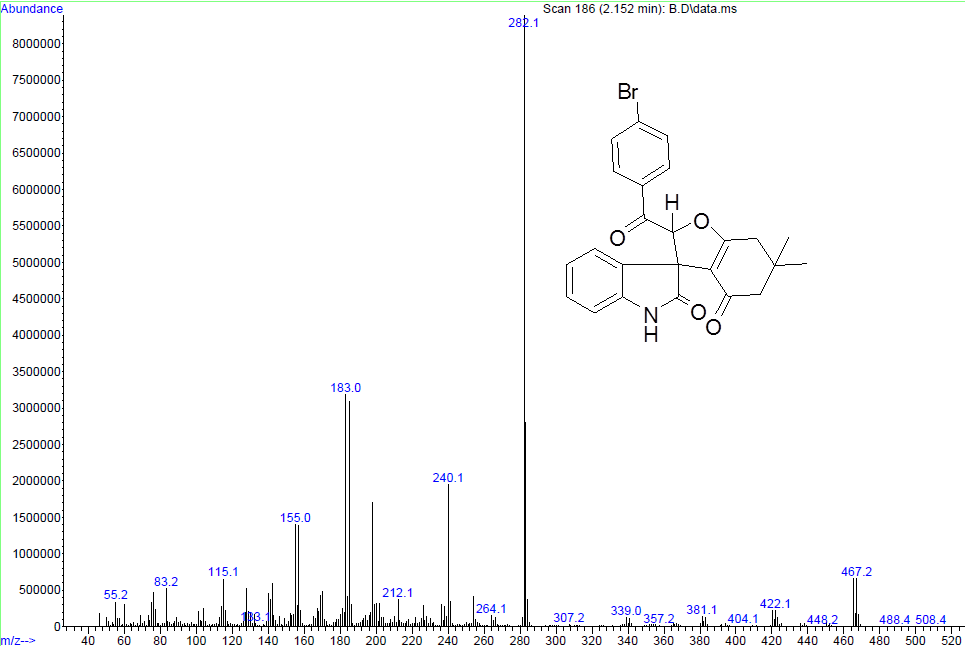
**13C NMR spectra of compound 4k**

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**IR spectra of compound 4k**

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**Mass spectra of compound 4k**

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