

Article

Supplementary Materials: Design, synthesis, and evaluation of novel indole hybrid chalcones and their anticancer and antioxidant activity

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¹H NMR and ¹³C NMR Spectral Data of 11a, 11d-f, 12a-c, 13a-c, 14a-c, 17a-c, 18a-c, 19a-c.

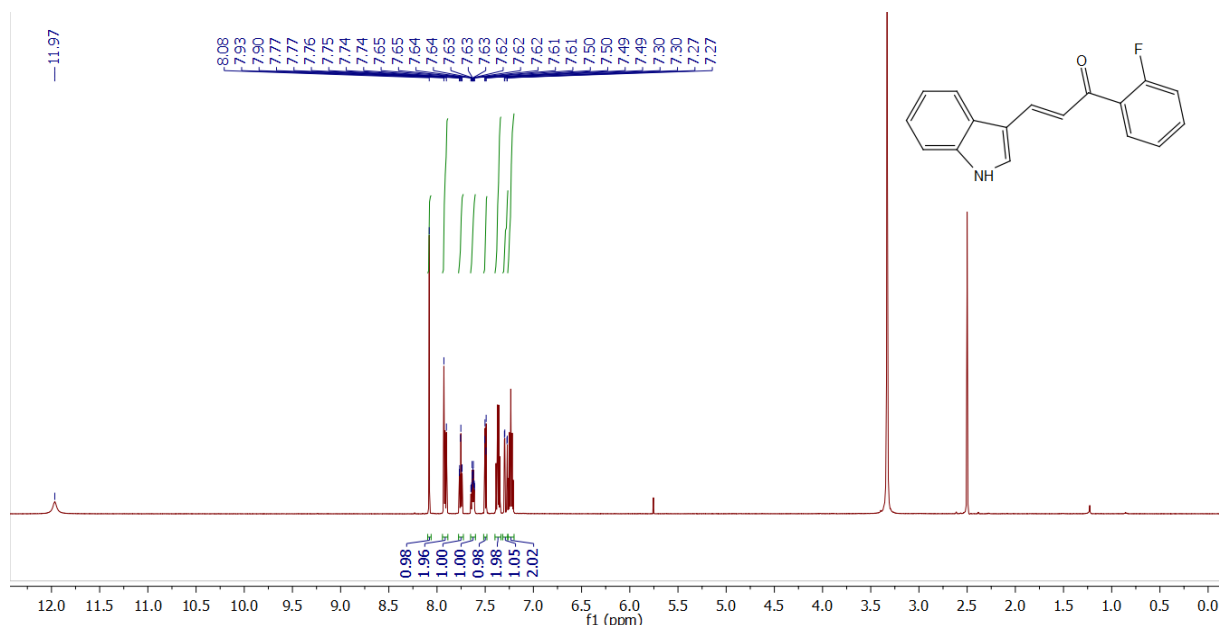
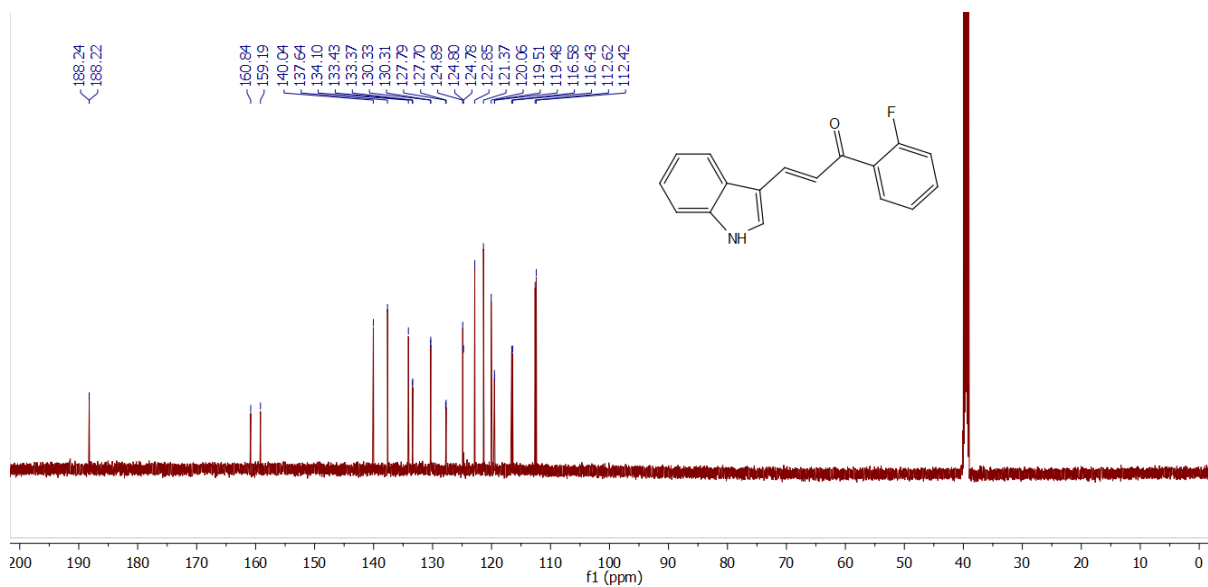
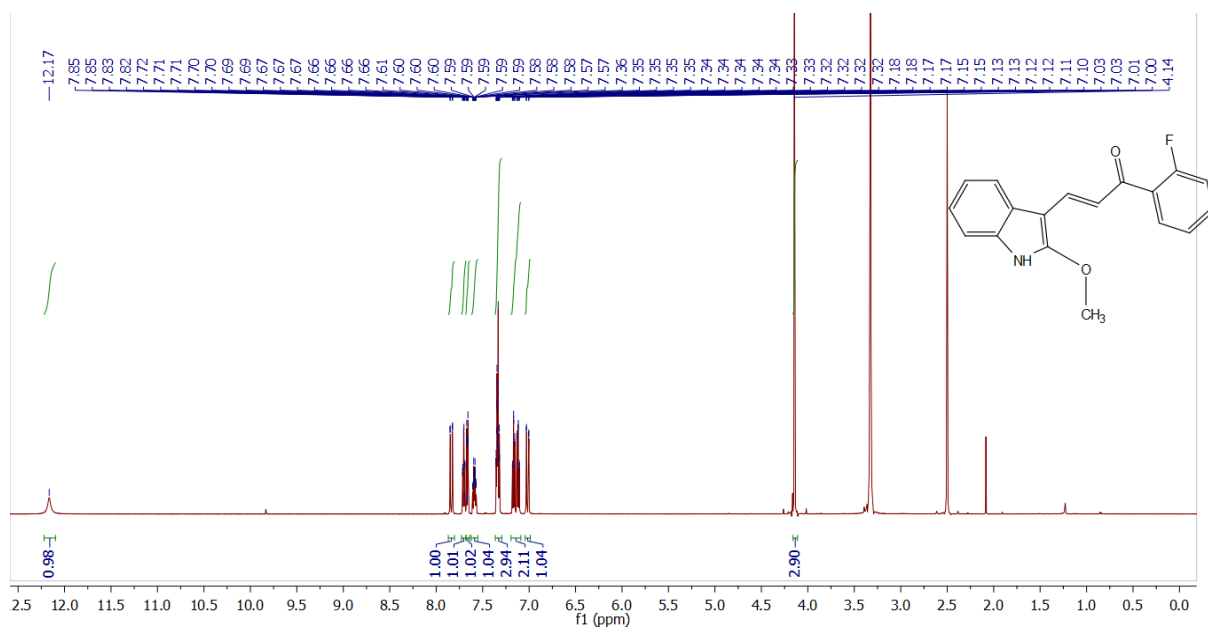
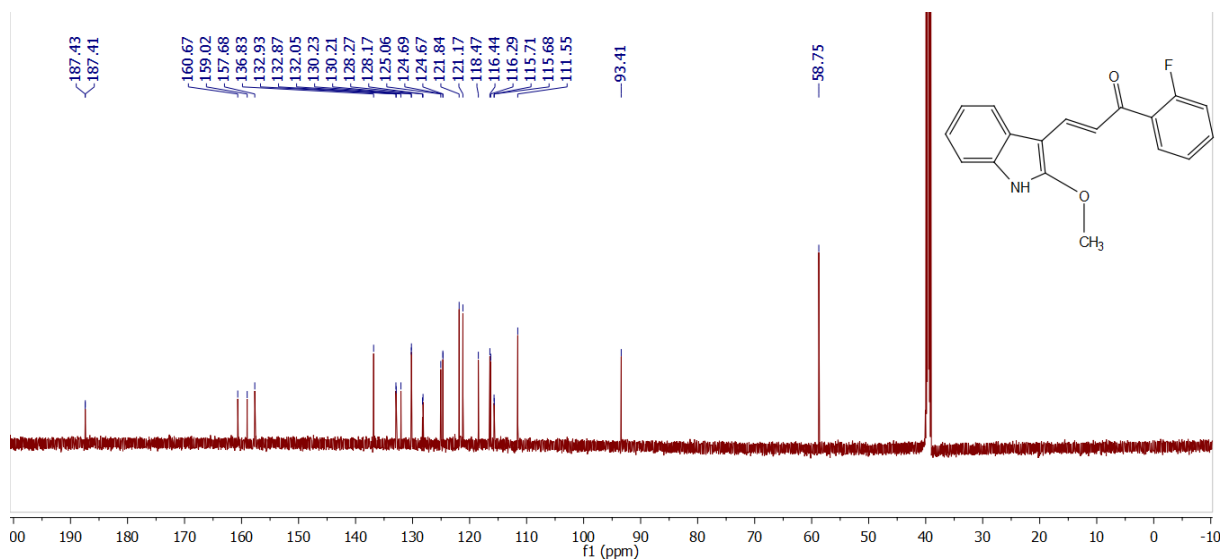
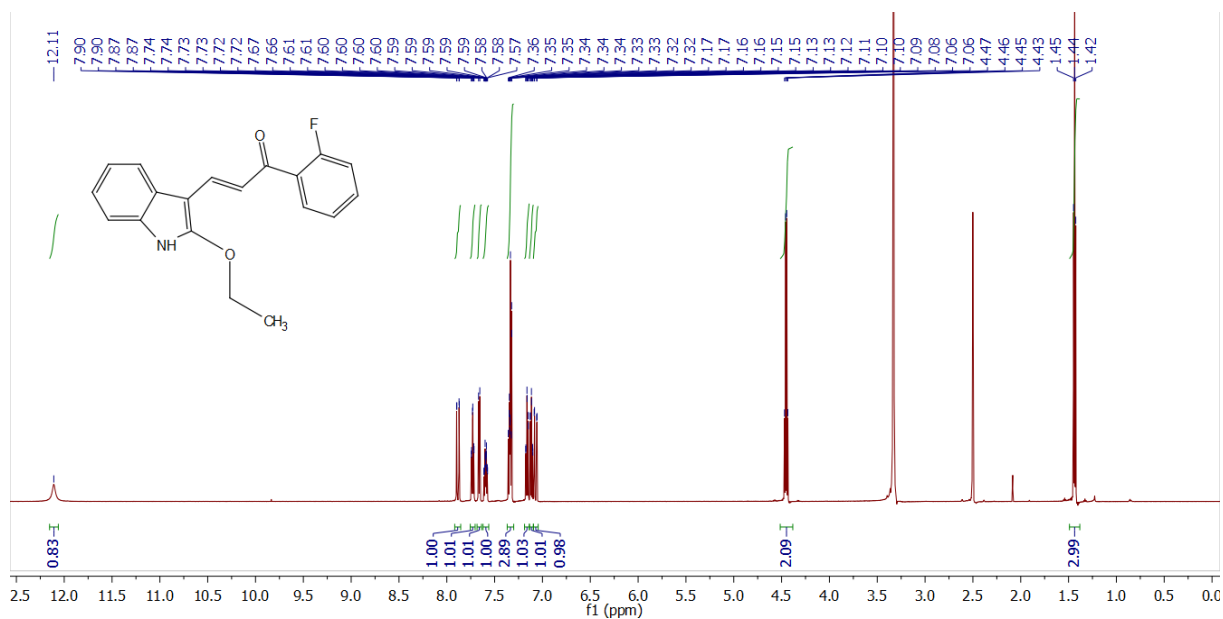


Figure S1: ¹H NMR spectra of compound 11a

Figure S2: ¹³C NMR spectra of compound 11aFigure S3: ¹H NMR spectra of compound 11d

Figure S4: ¹³C NMR spectra of compound 11dFigure S5: ¹H NMR spectra of compound 11e

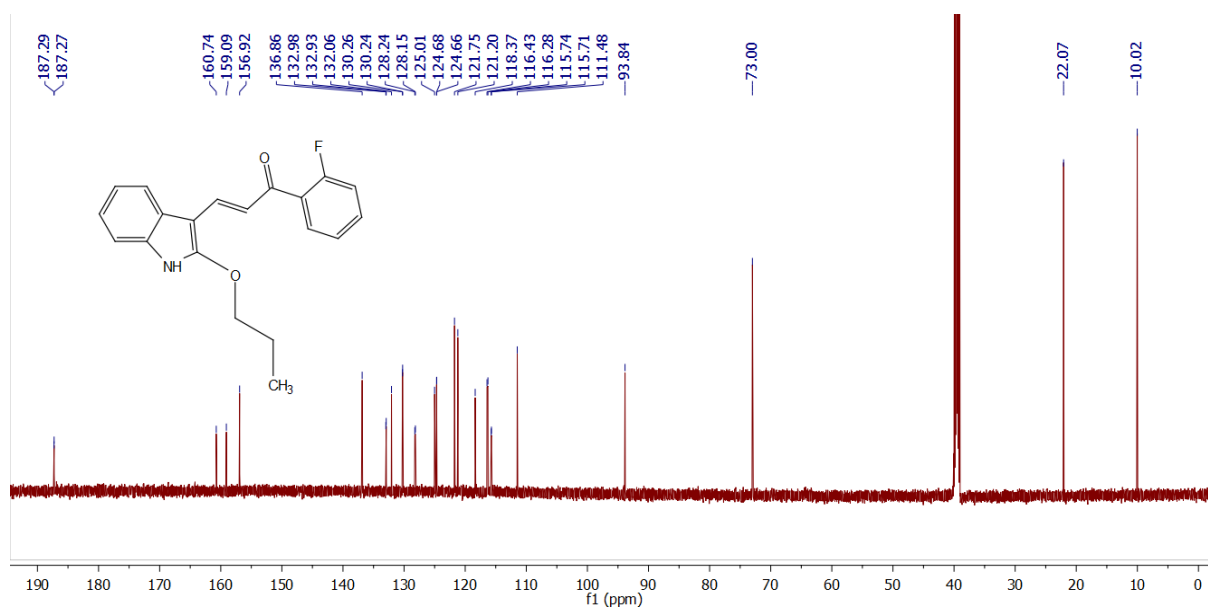
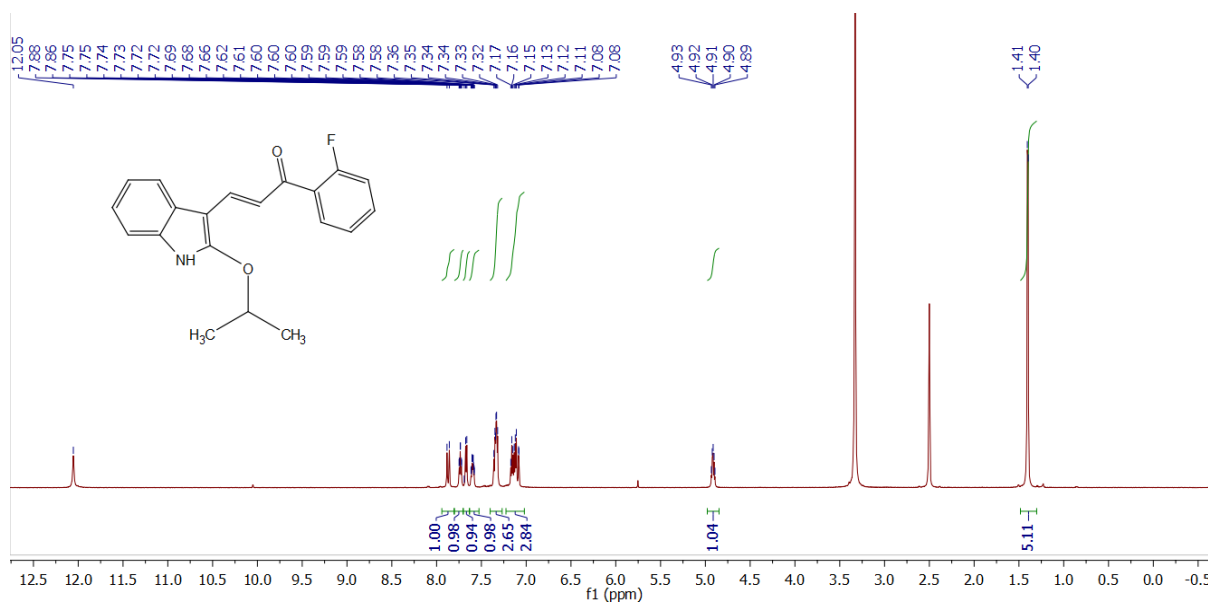


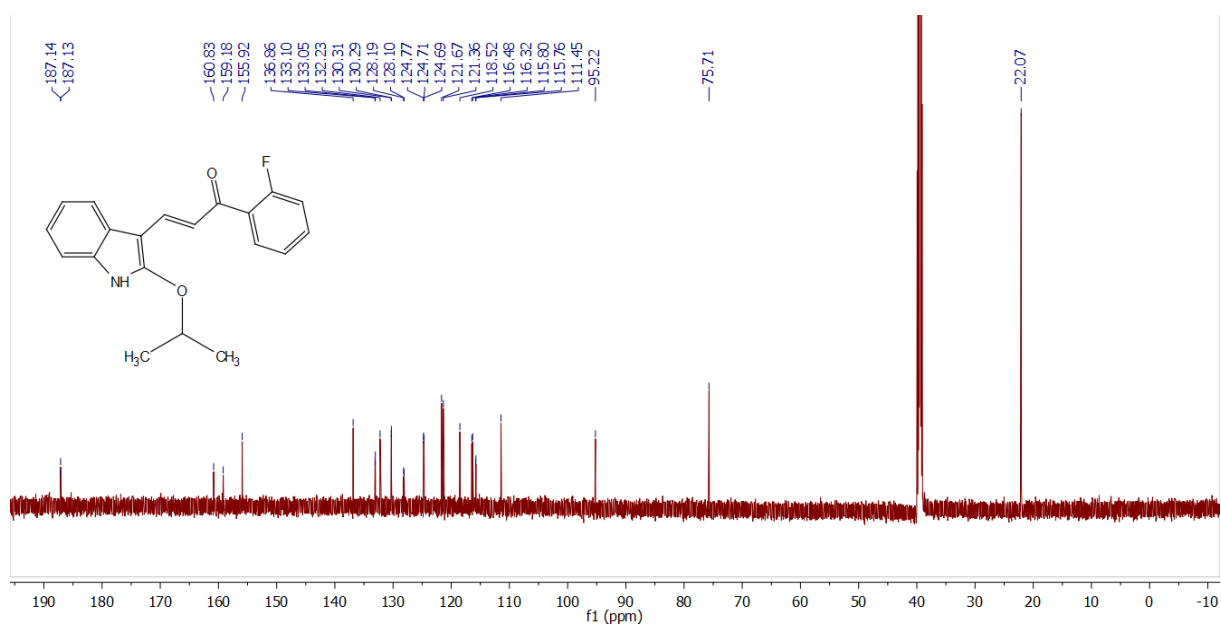
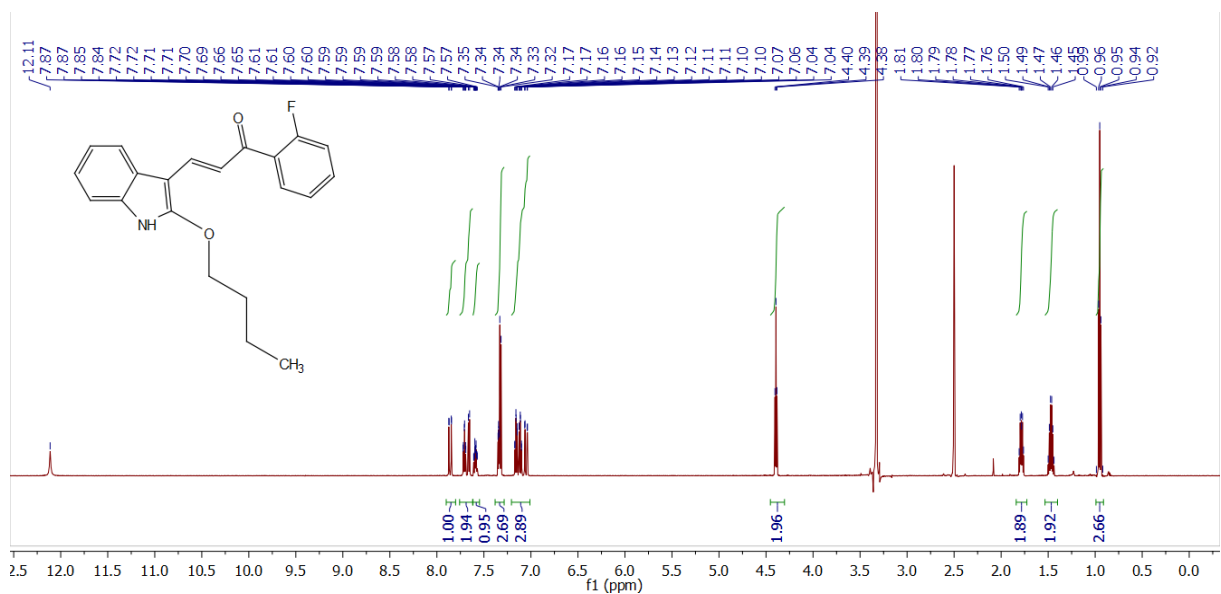
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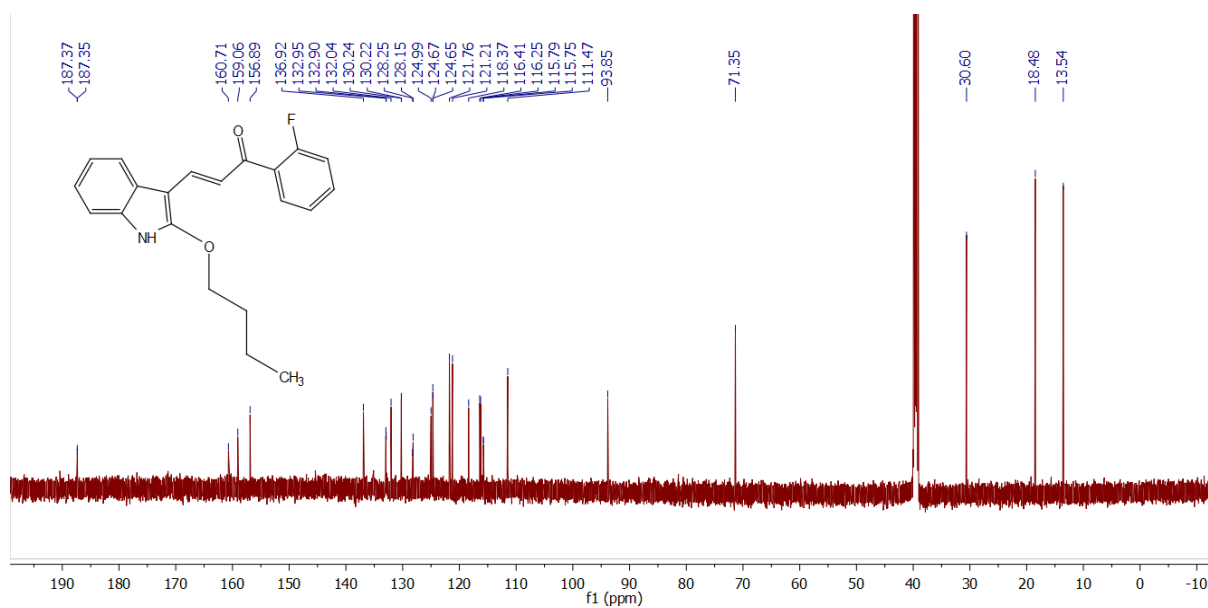
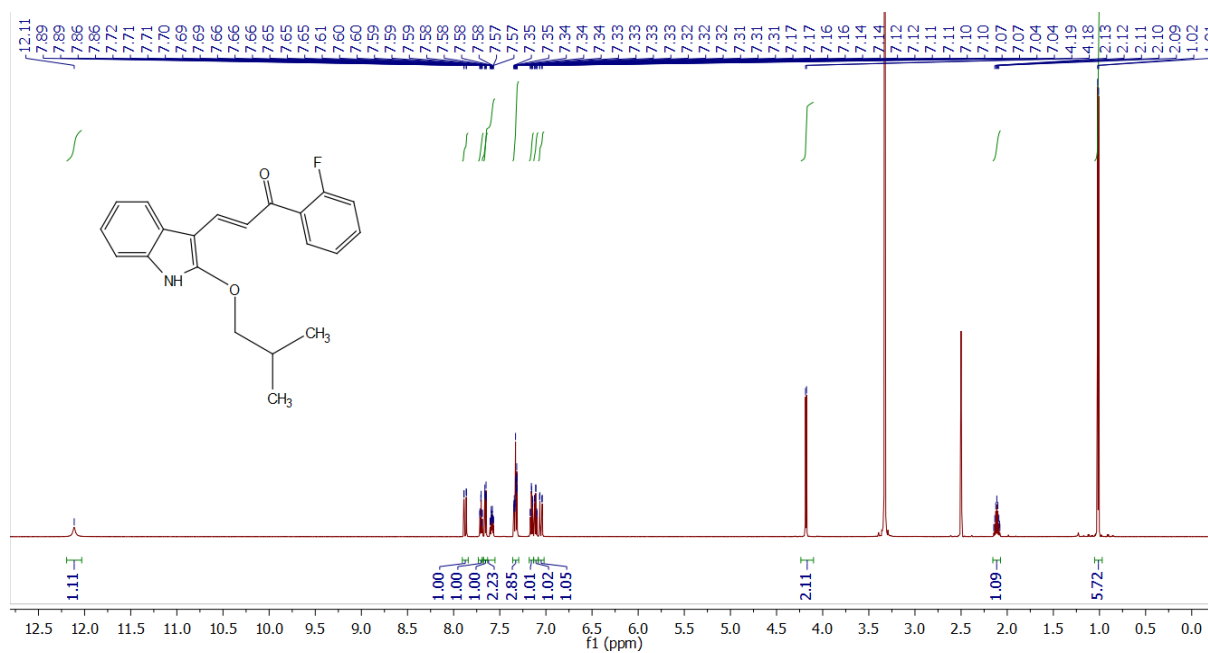


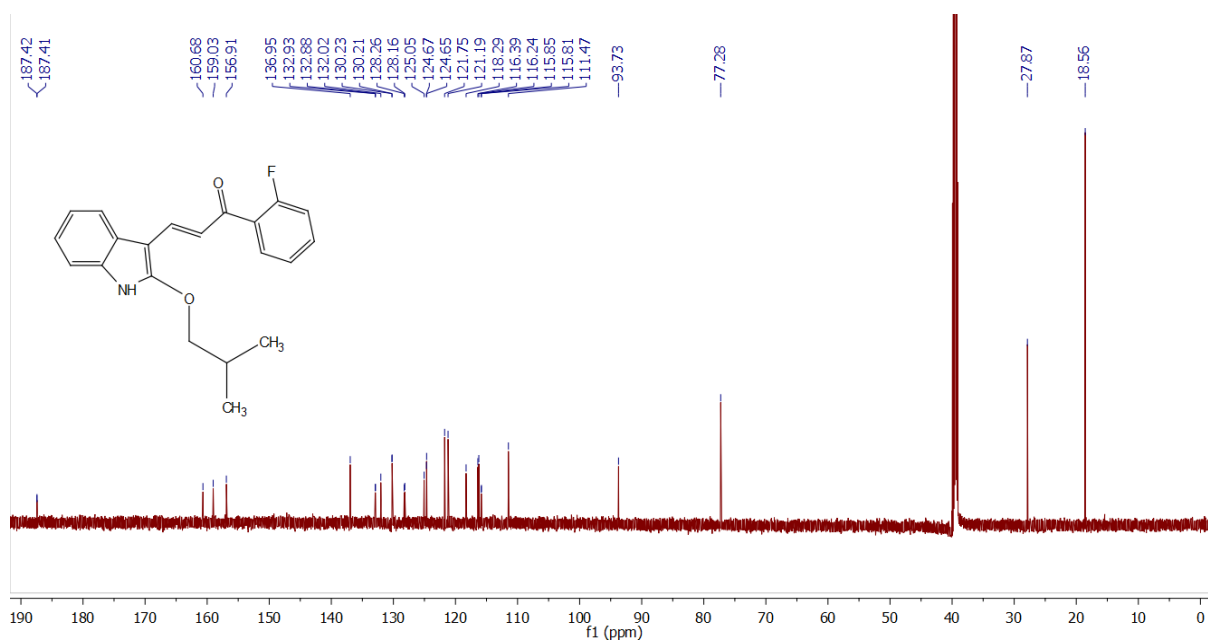
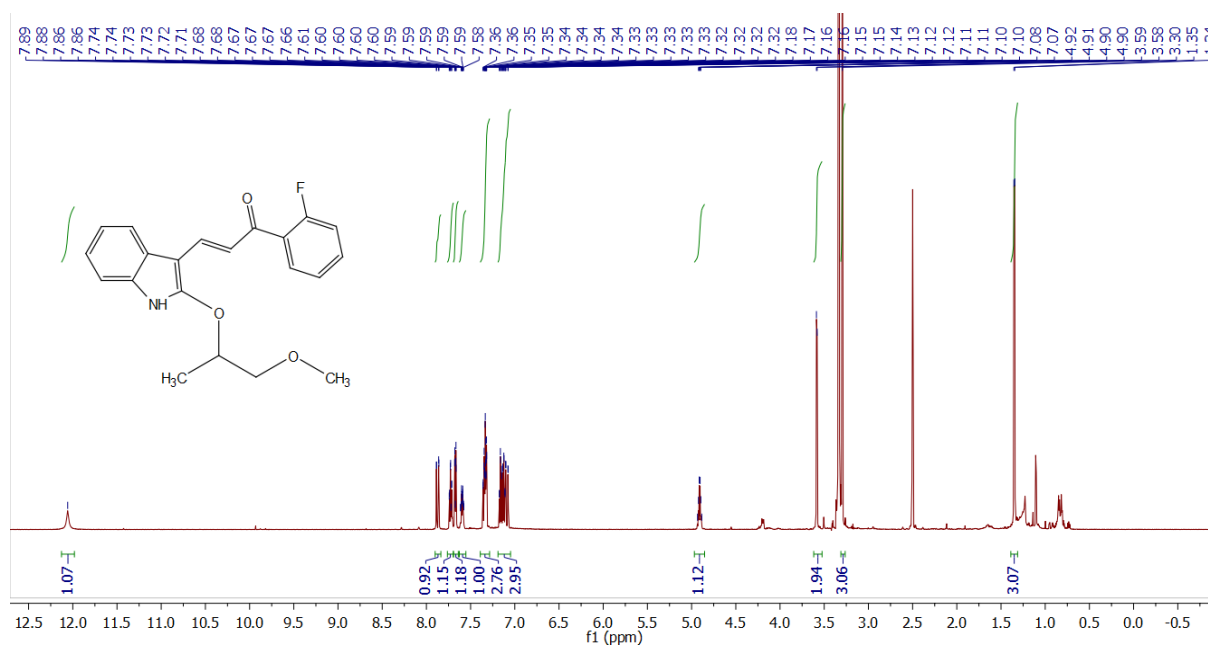
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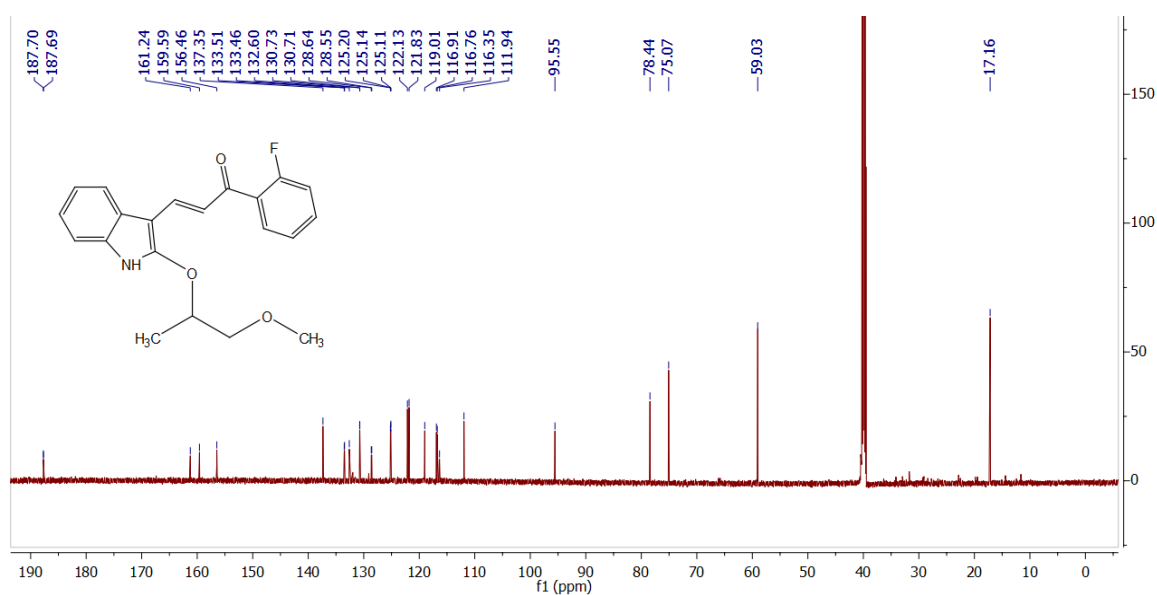
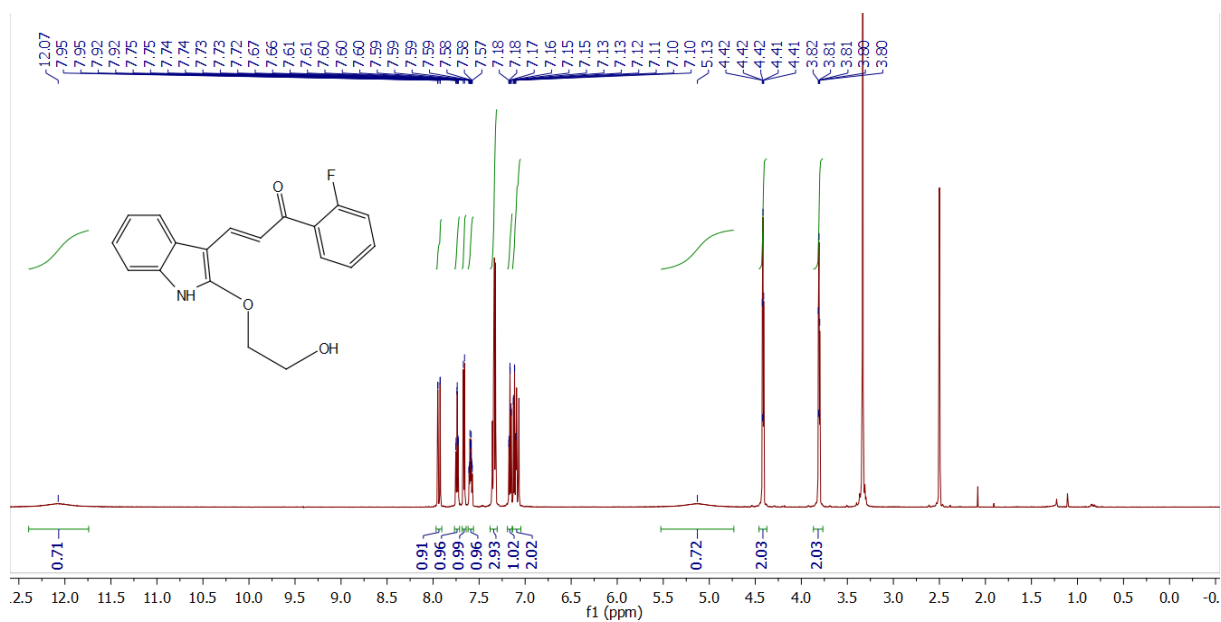
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Figure S8: ¹³C NMR spectra of compound 11fFigure S9: ¹H NMR spectra of compound 11g

Figure S10: ¹³C NMR spectra of compound 11gFigure S11: ¹H NMR spectra of compound 11h

Figure S12: ¹³C NMR spectra of compound 11hFigure S13: ¹H NMR spectra of compound 11i

Figure S14: ¹³C NMR spectra of compound 11iFigure S15: ¹H NMR spectra of compound 11j

Figure S16: ¹³C NMR spectra of compound 11jFigure S17: ¹H NMR spectra of compound 11k

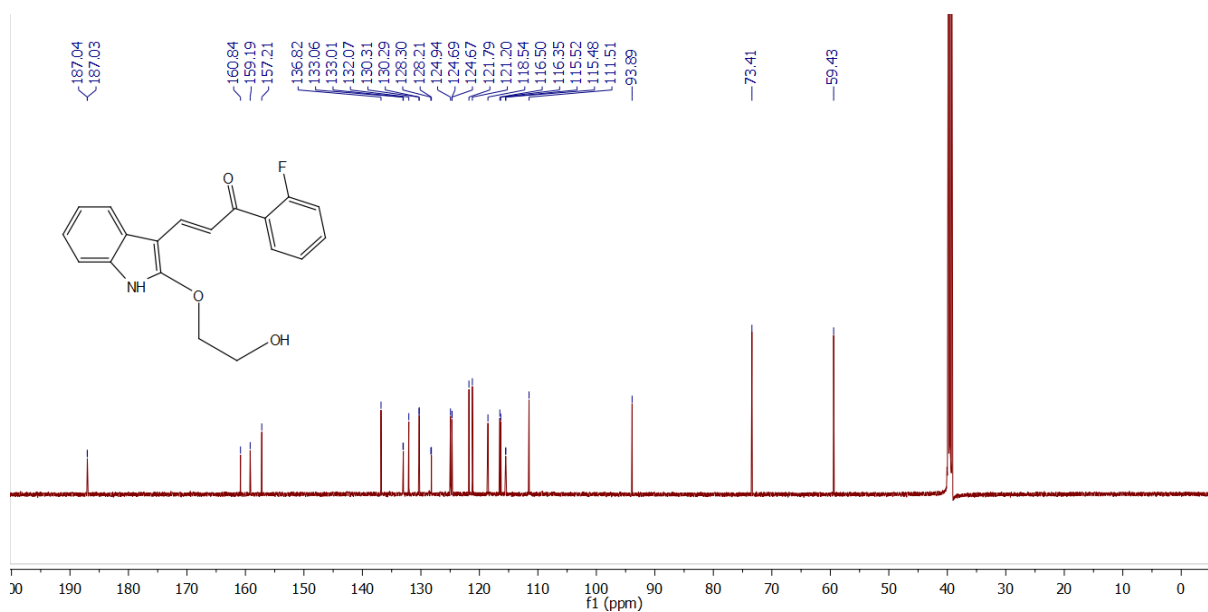


Figure S18: ^{13}C NMR spectra of compound **11k**

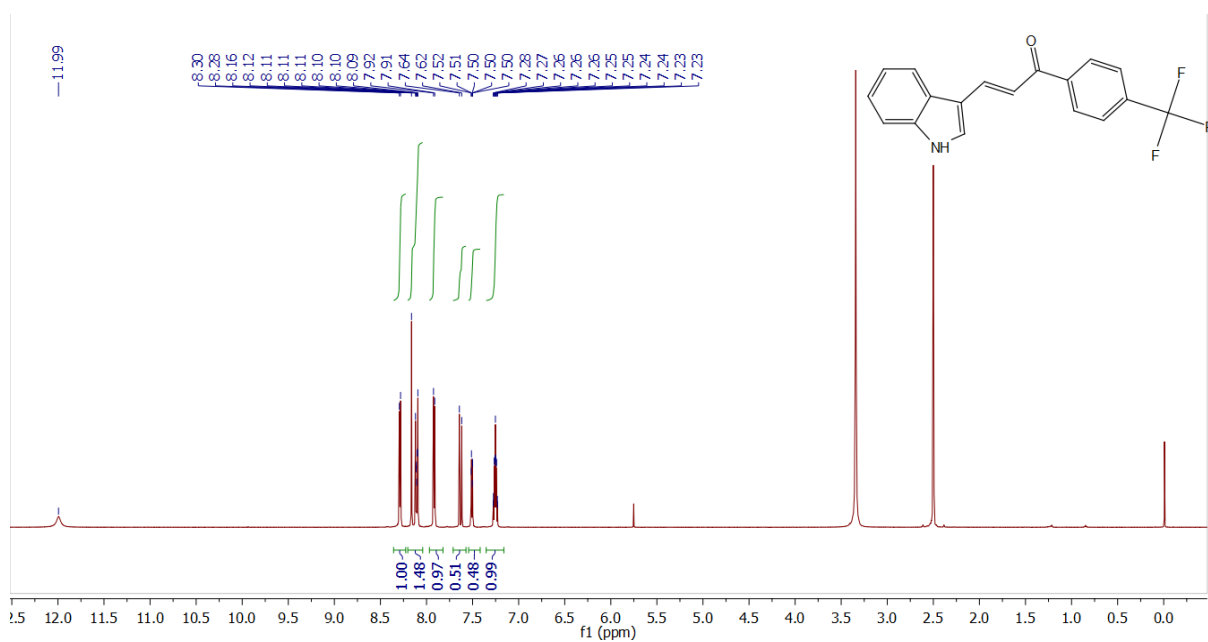
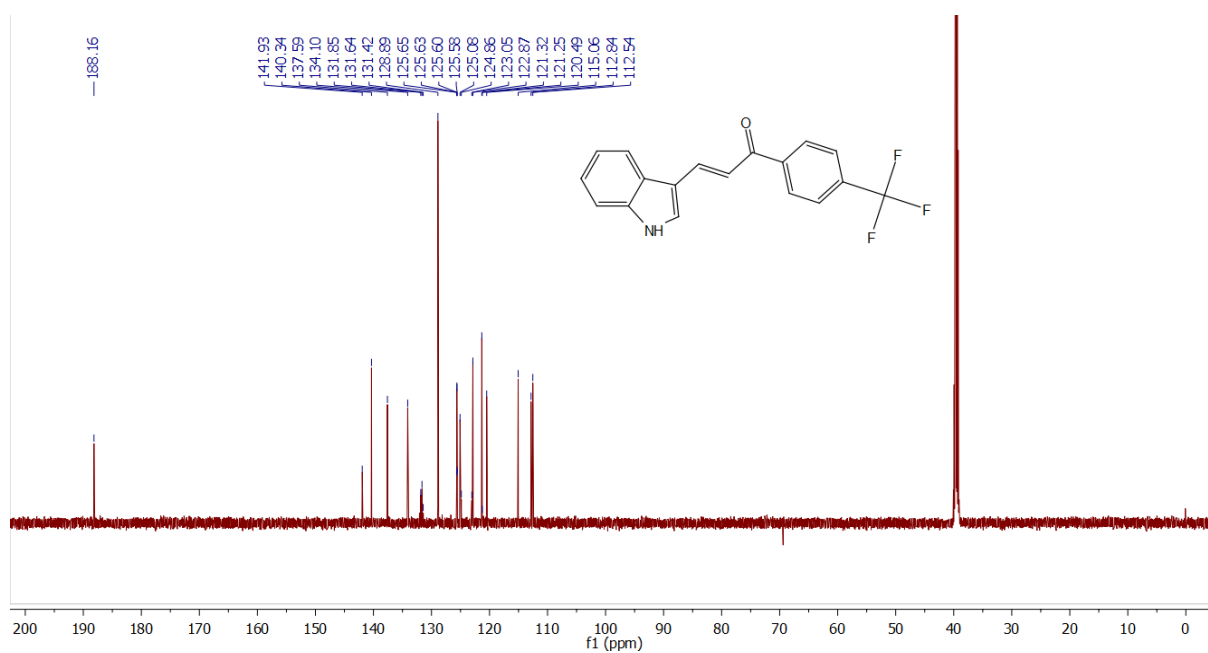
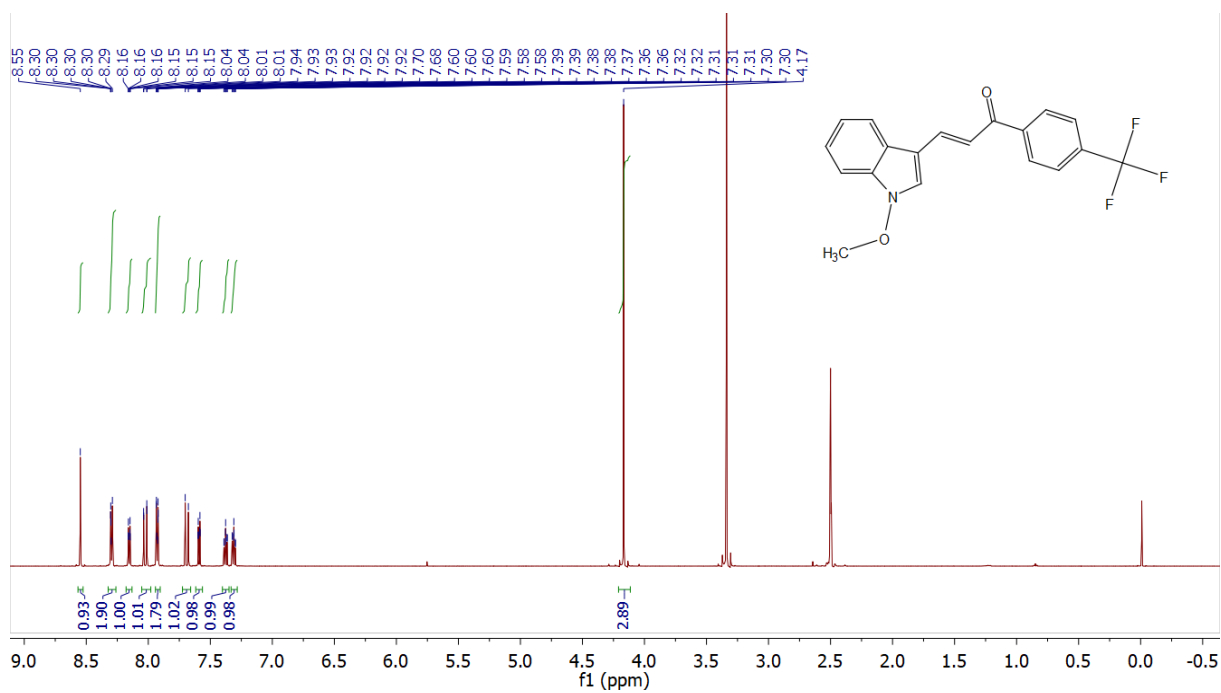
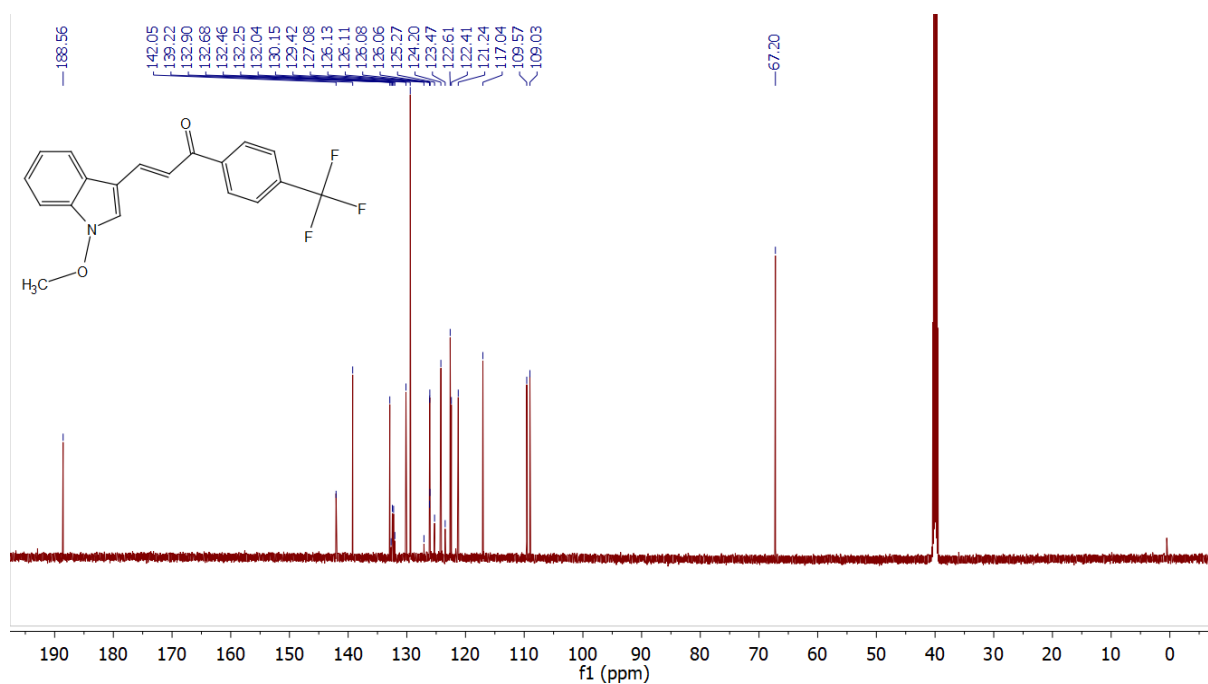
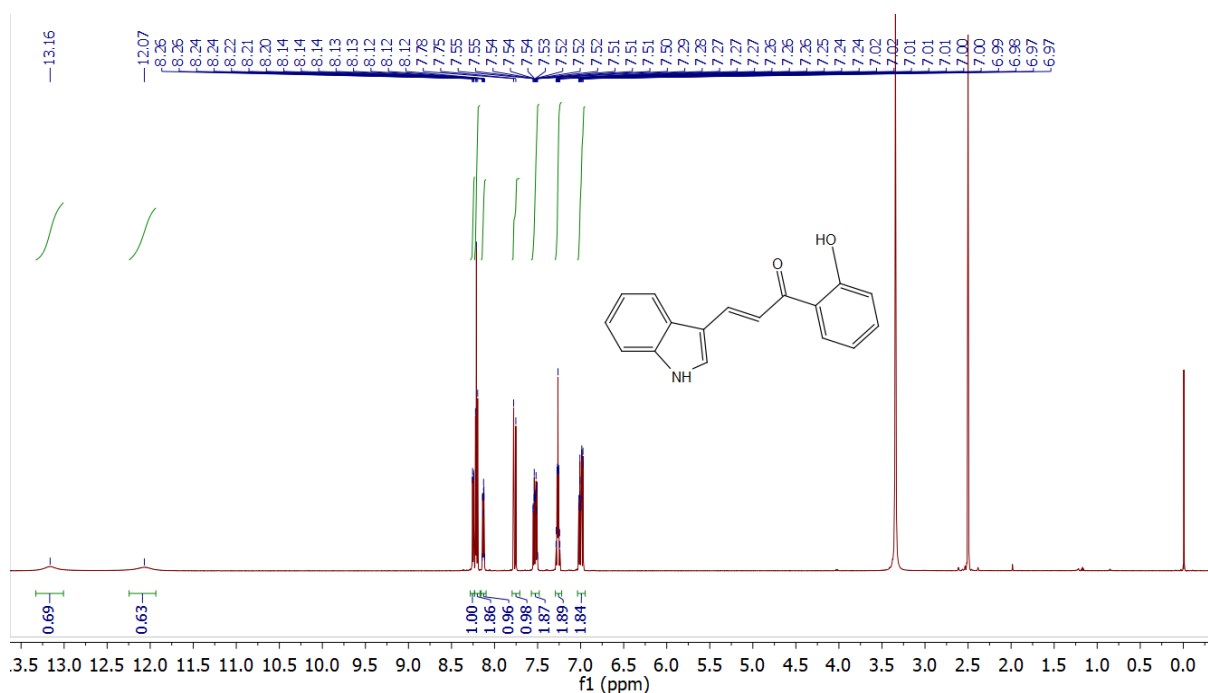
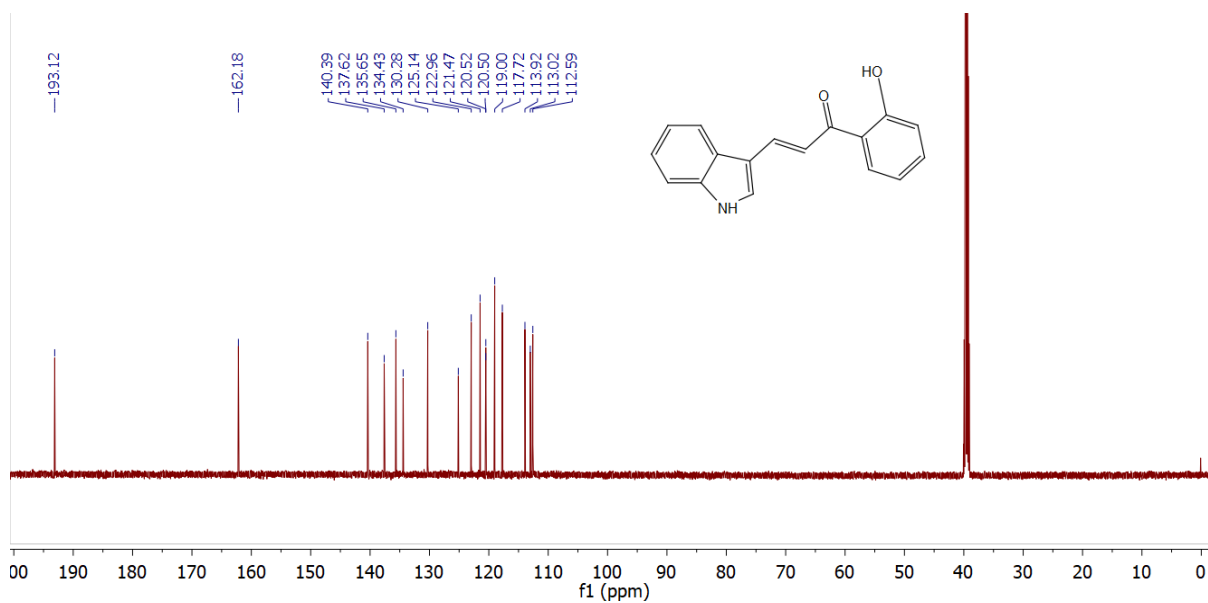
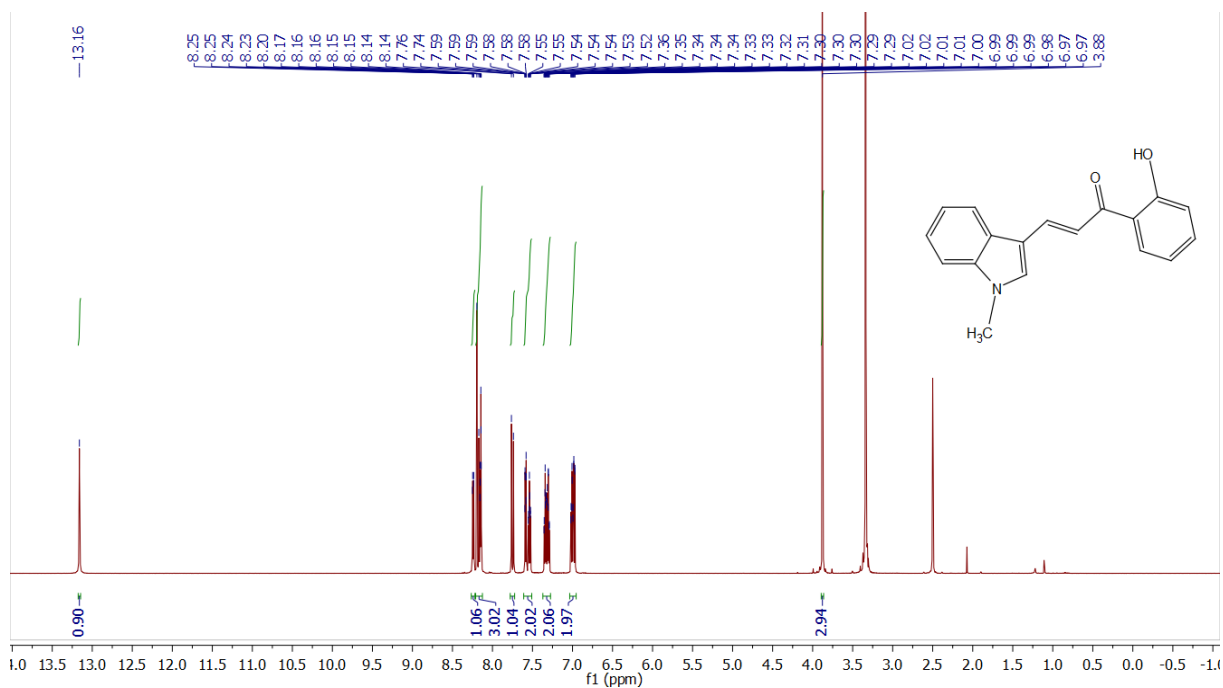
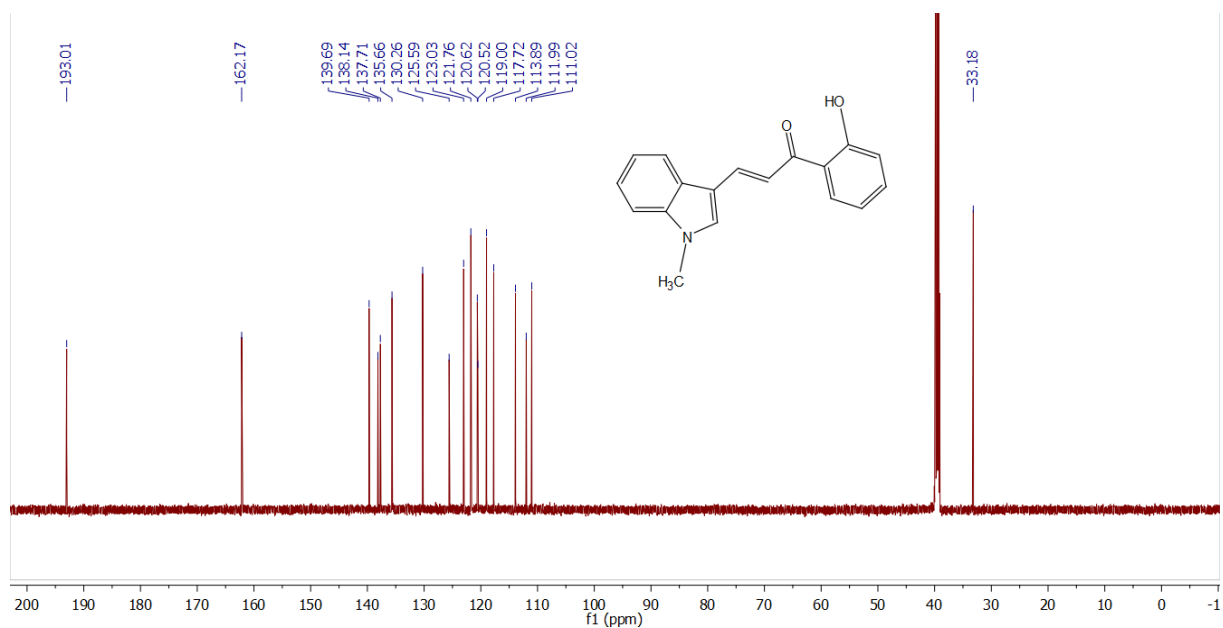
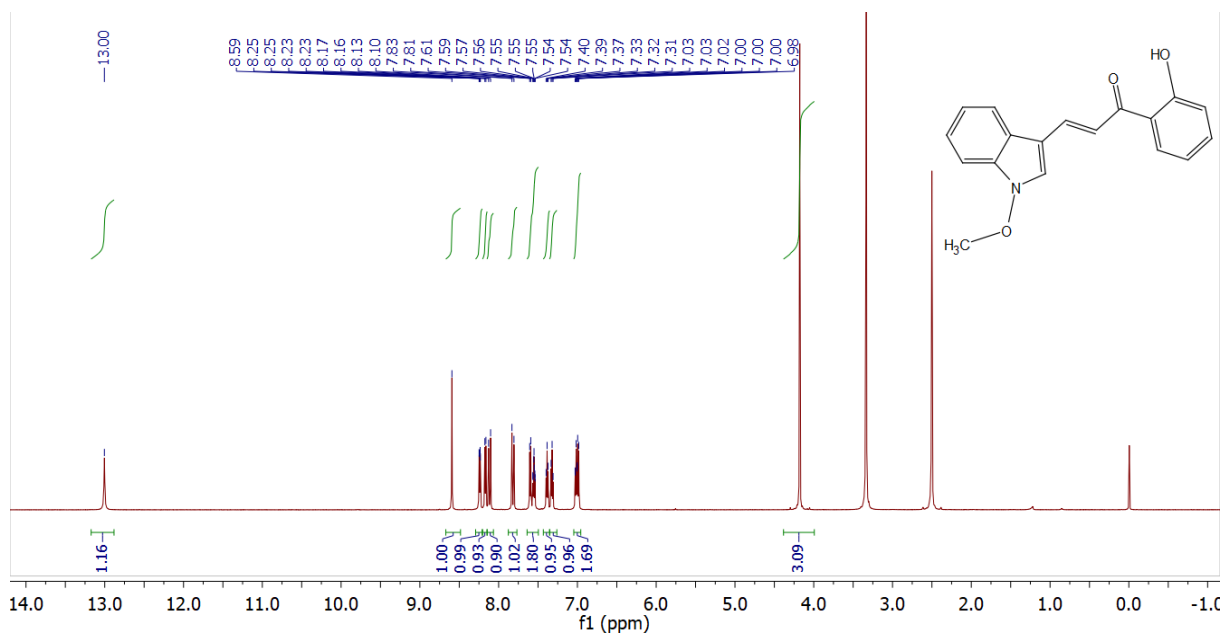


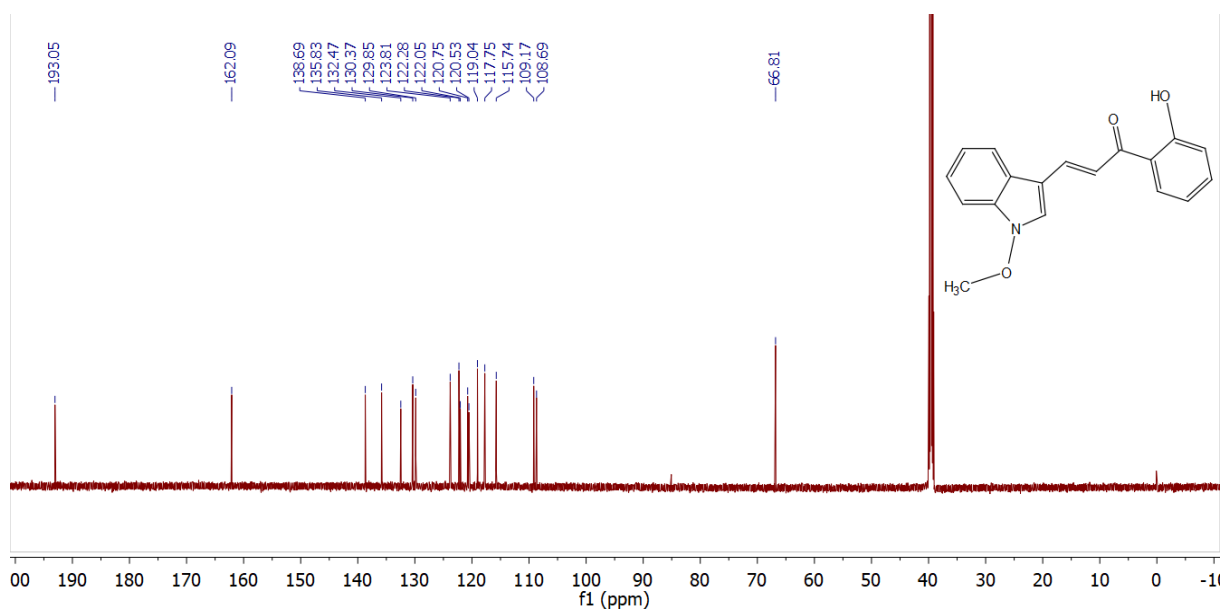
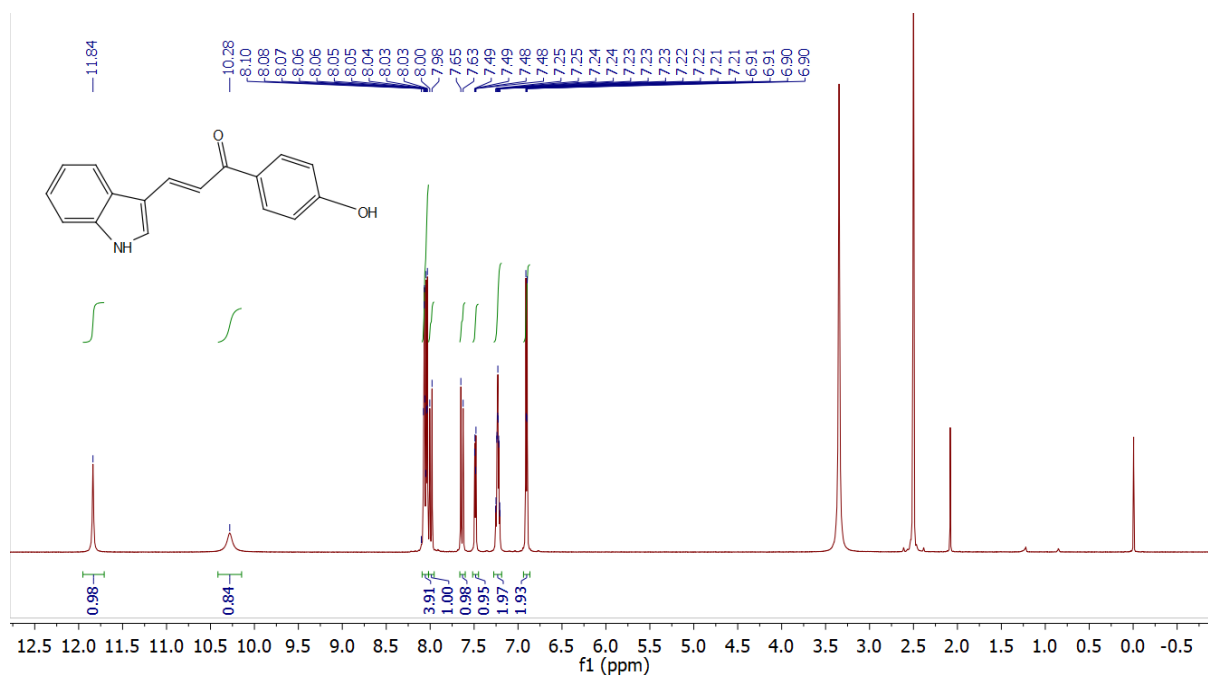
Figure S19: ^1H NMR spectra of compound **12a**

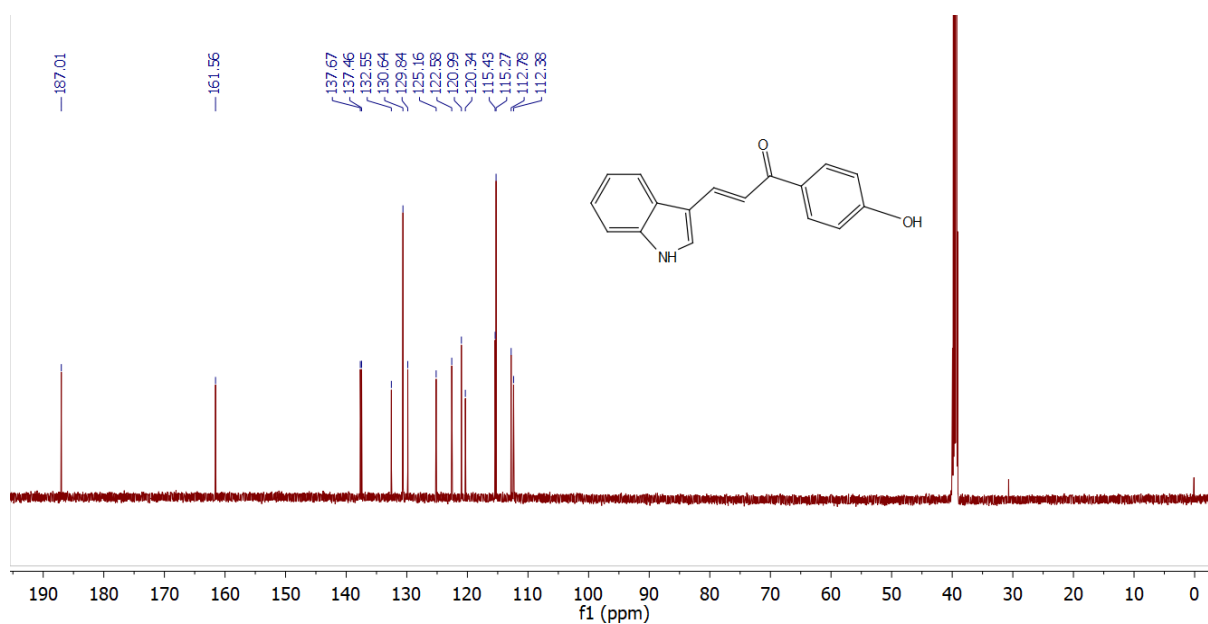
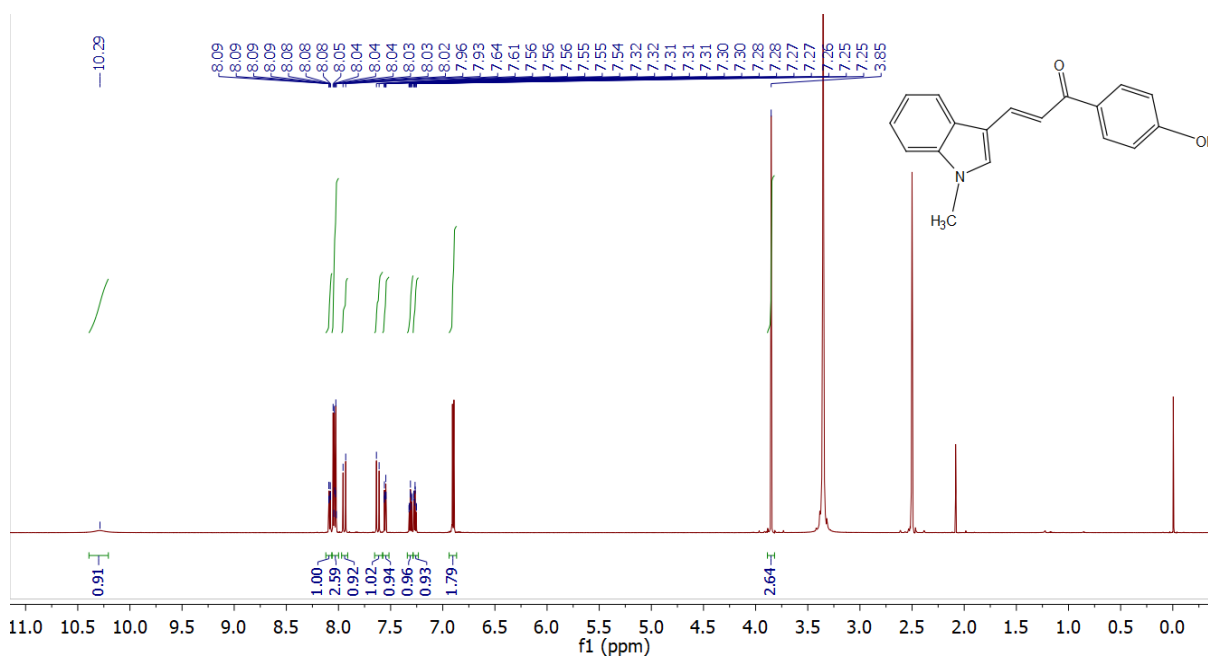
Figure S20: ¹³C NMR spectra of compound 12aFigure S21: ¹H NMR spectra of compound 12c

Figure S22: ¹³C NMR spectra of compound 12cFigure S23: ¹H NMR spectra of compound 13a

Figure S23: ¹³C NMR spectra of compound 13aFigure S25: ¹H NMR spectra of compound 13b

Figure S26: ¹³C NMR spectra of compound 13bFigure S27: ¹H NMR spectra of compound 13c

Figure S28: ¹³C NMR spectra of compound 13cFigure S29: ¹H NMR spectra of compound 14a

Figure S30: ¹³C NMR spectra of compound 14aFigure S31: ¹H NMR spectra of compound 14b

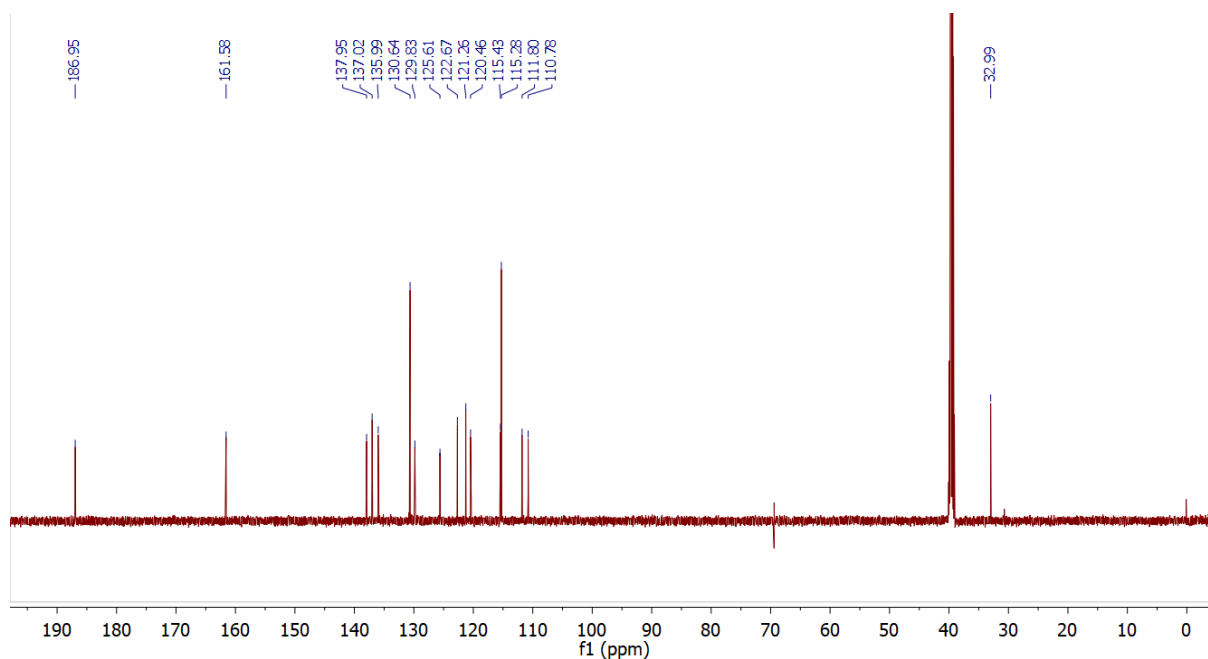


Figure S32: ¹³C NMR spectra of compound 14b

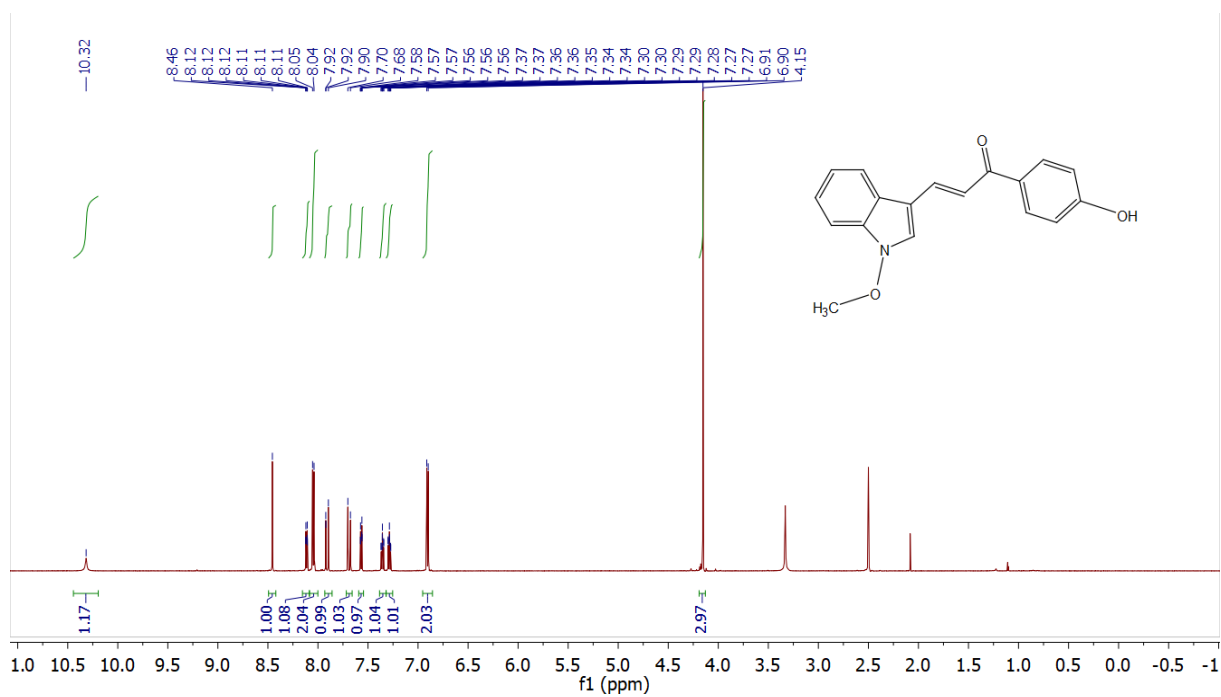
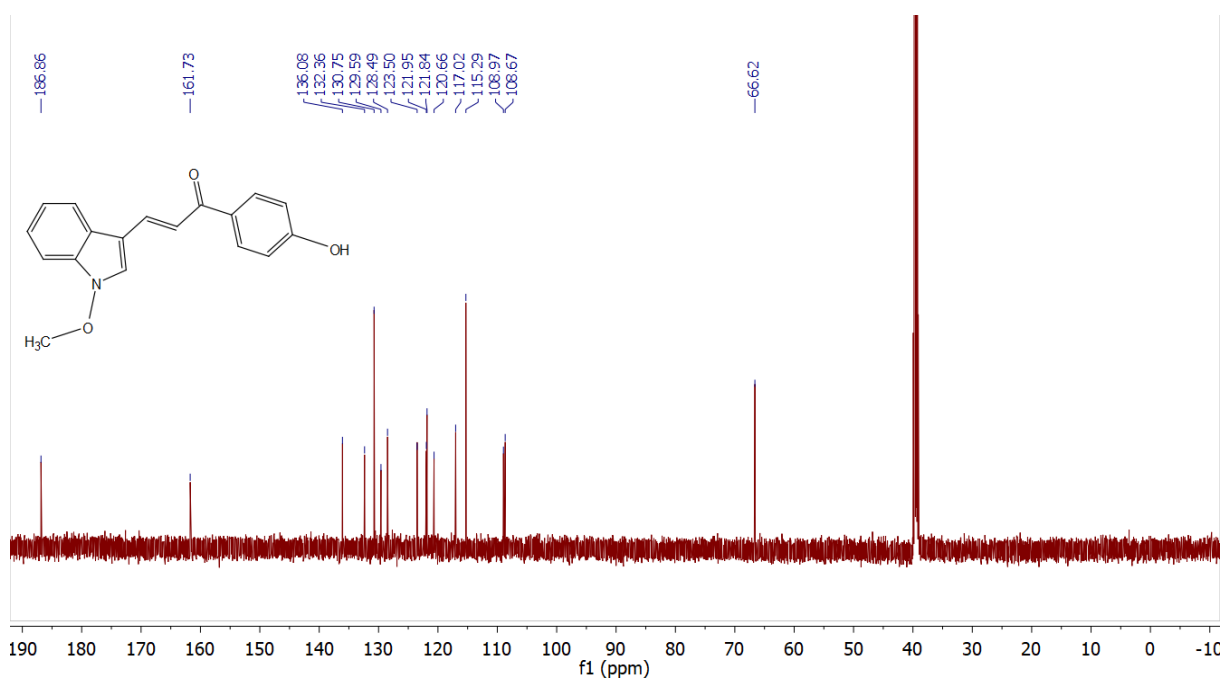
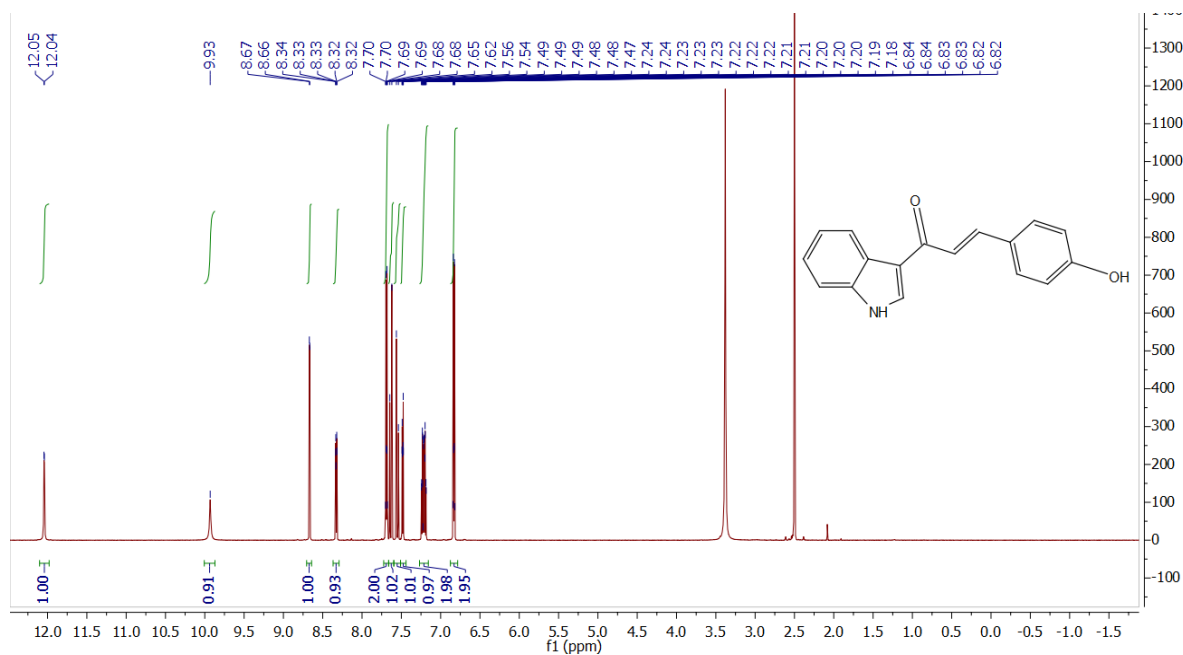
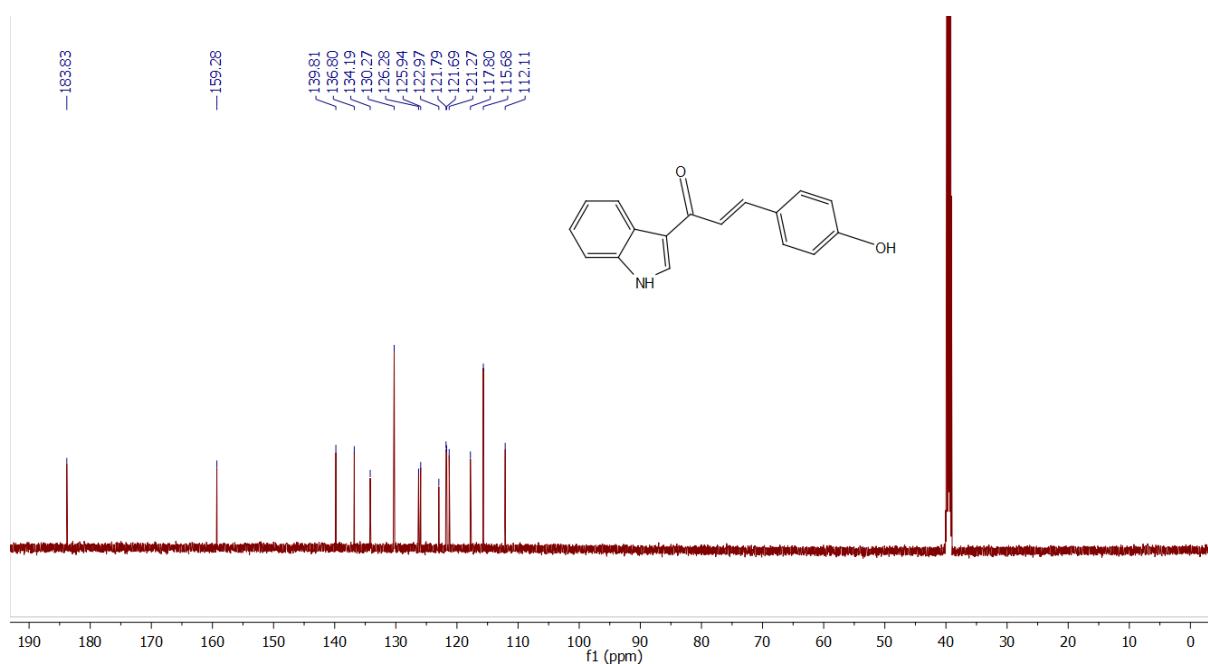
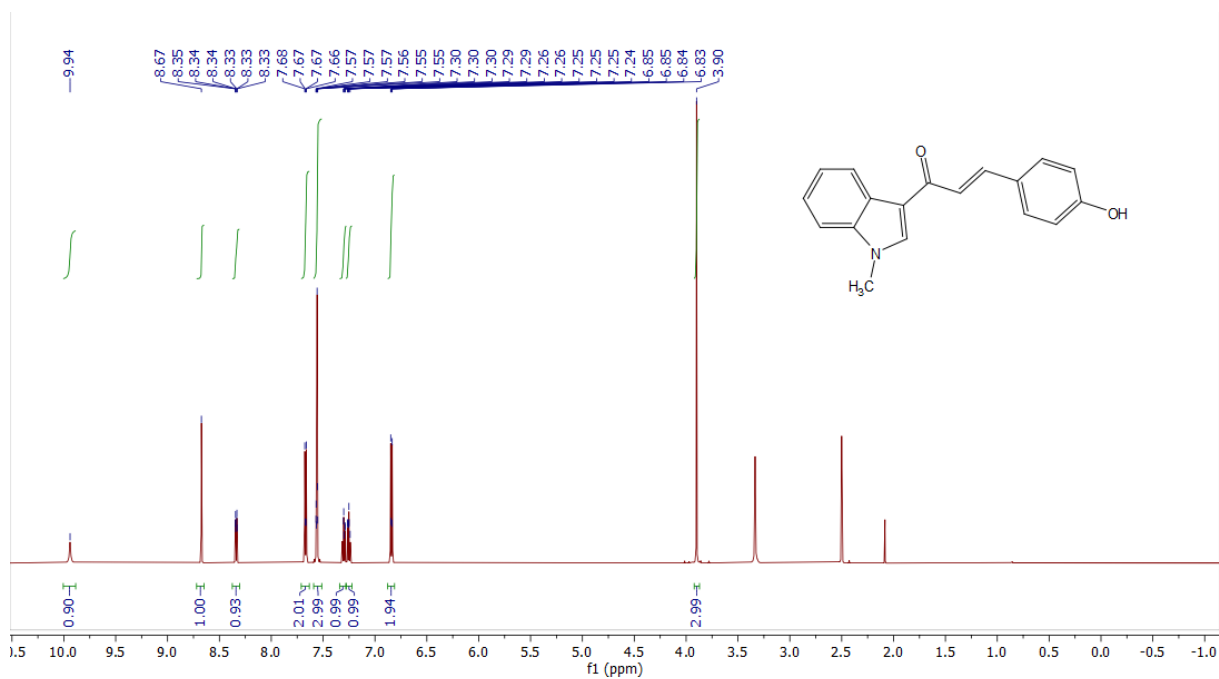
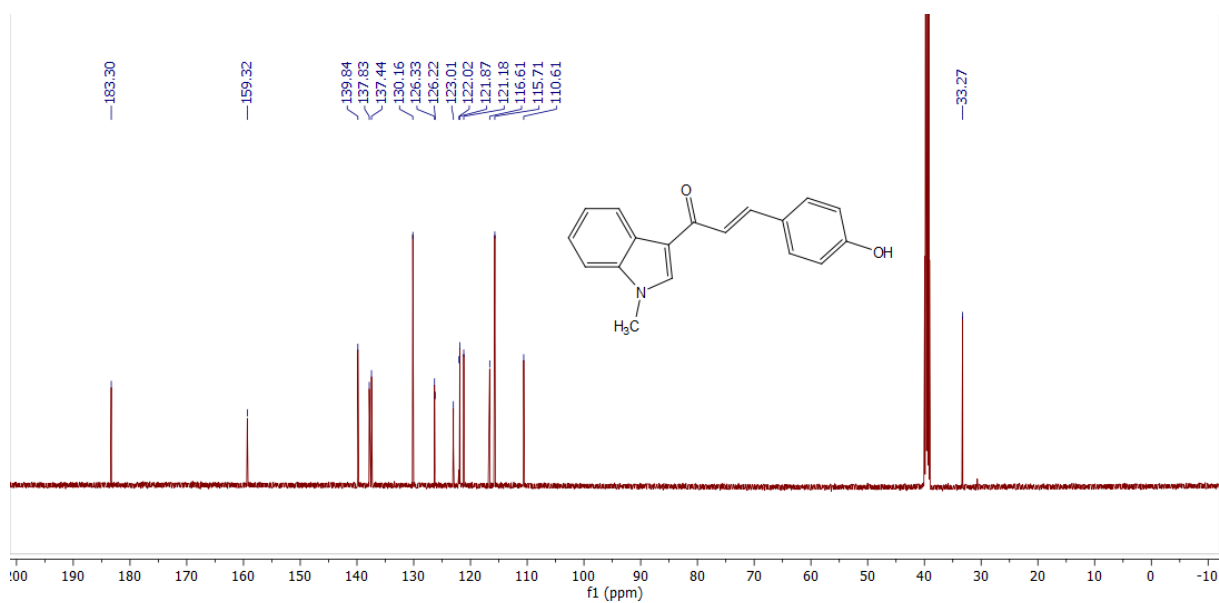
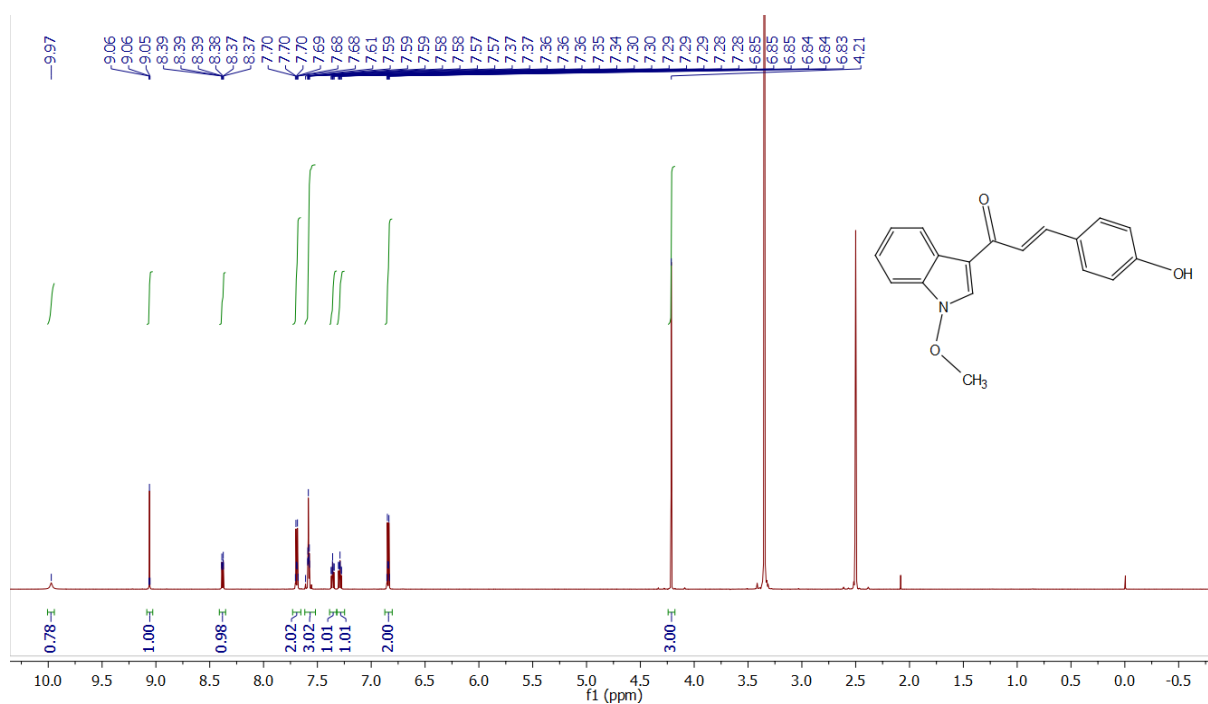
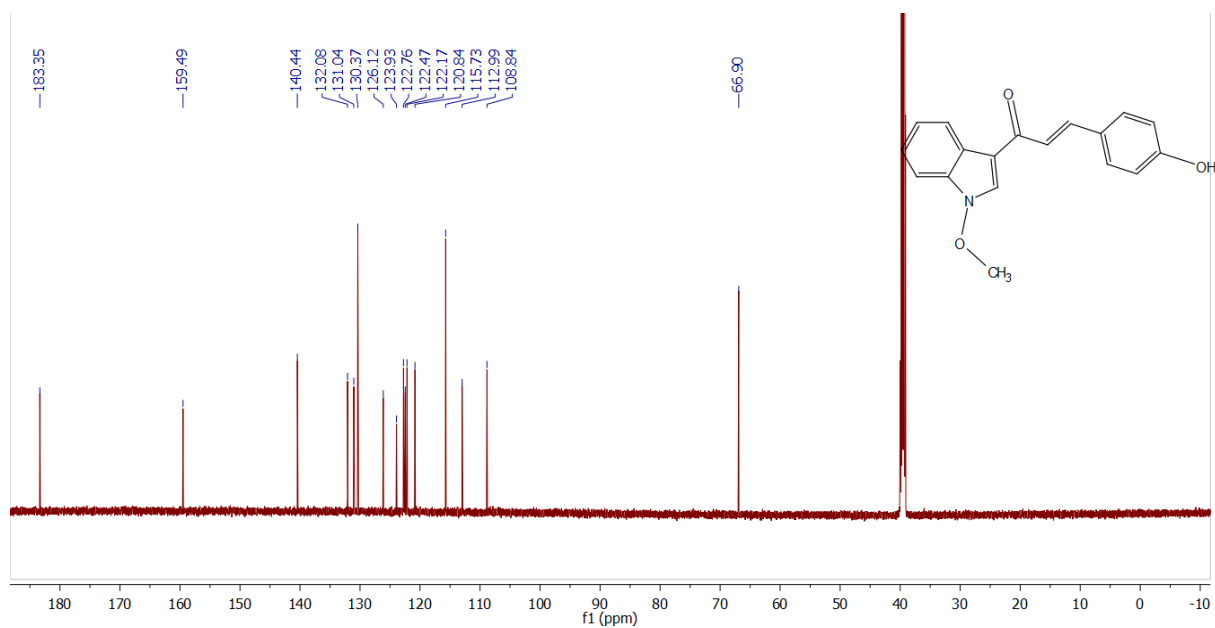
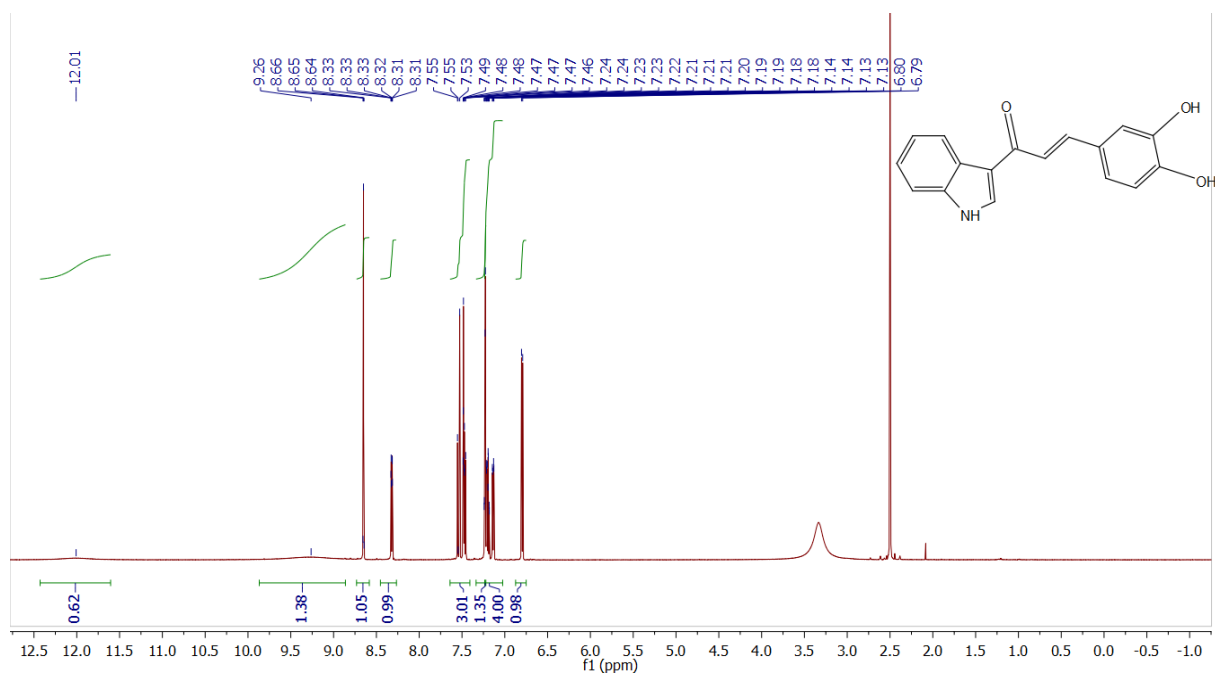


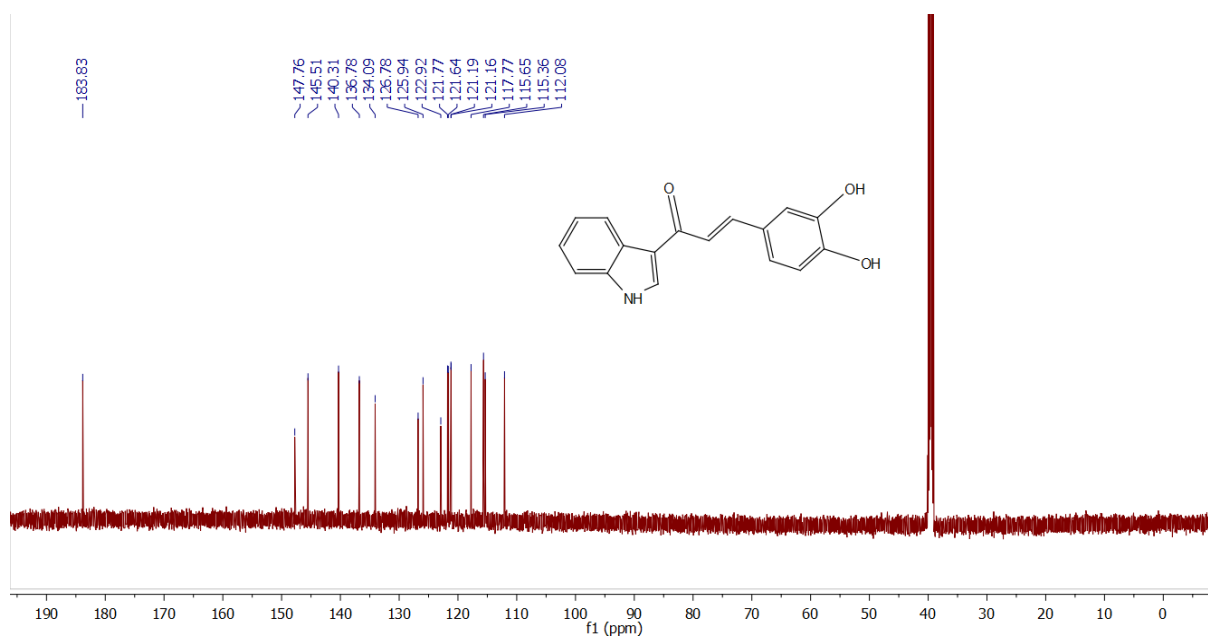
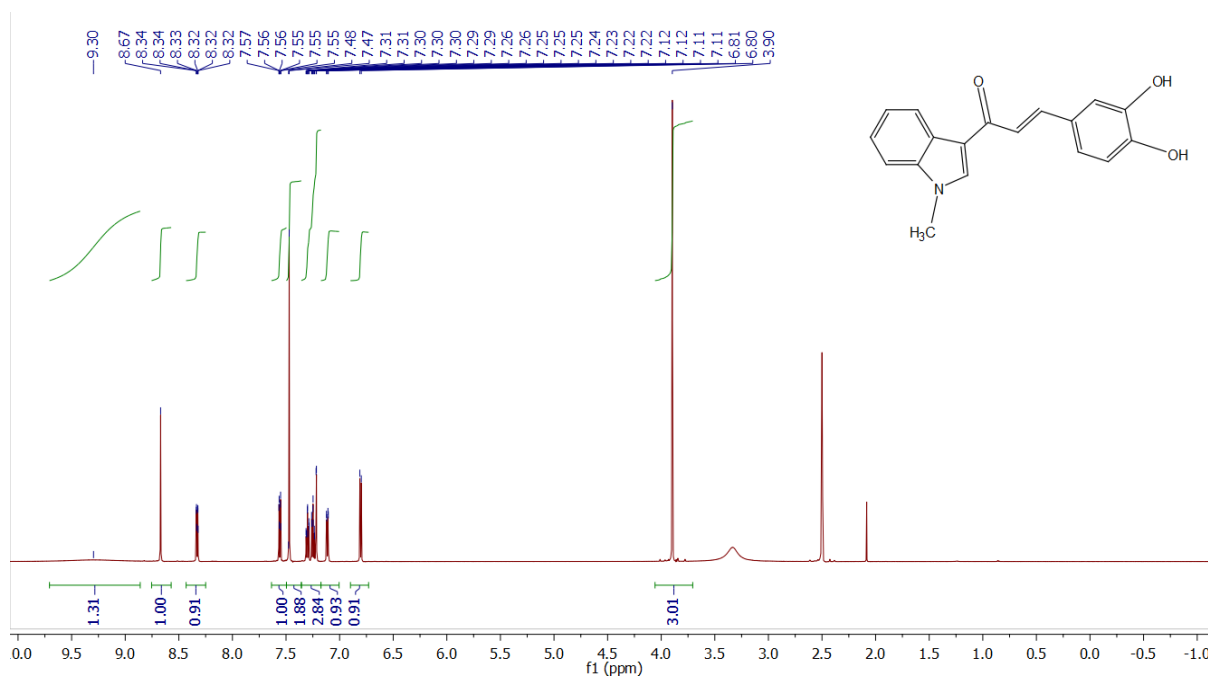
Figure S33: ¹H NMR spectra of compound 14c

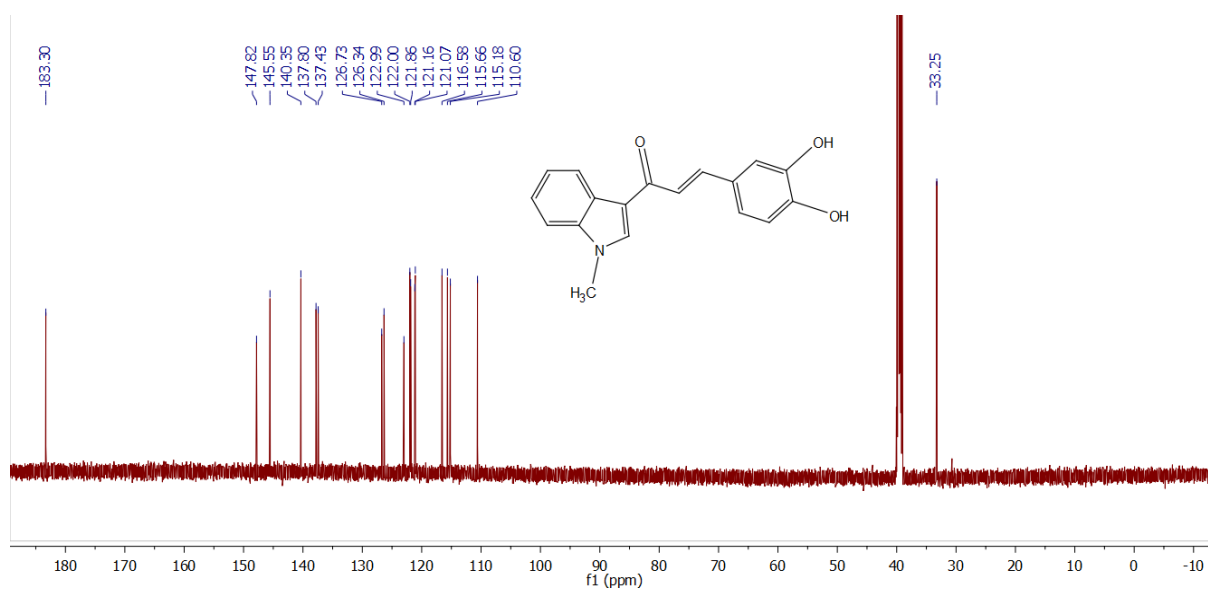
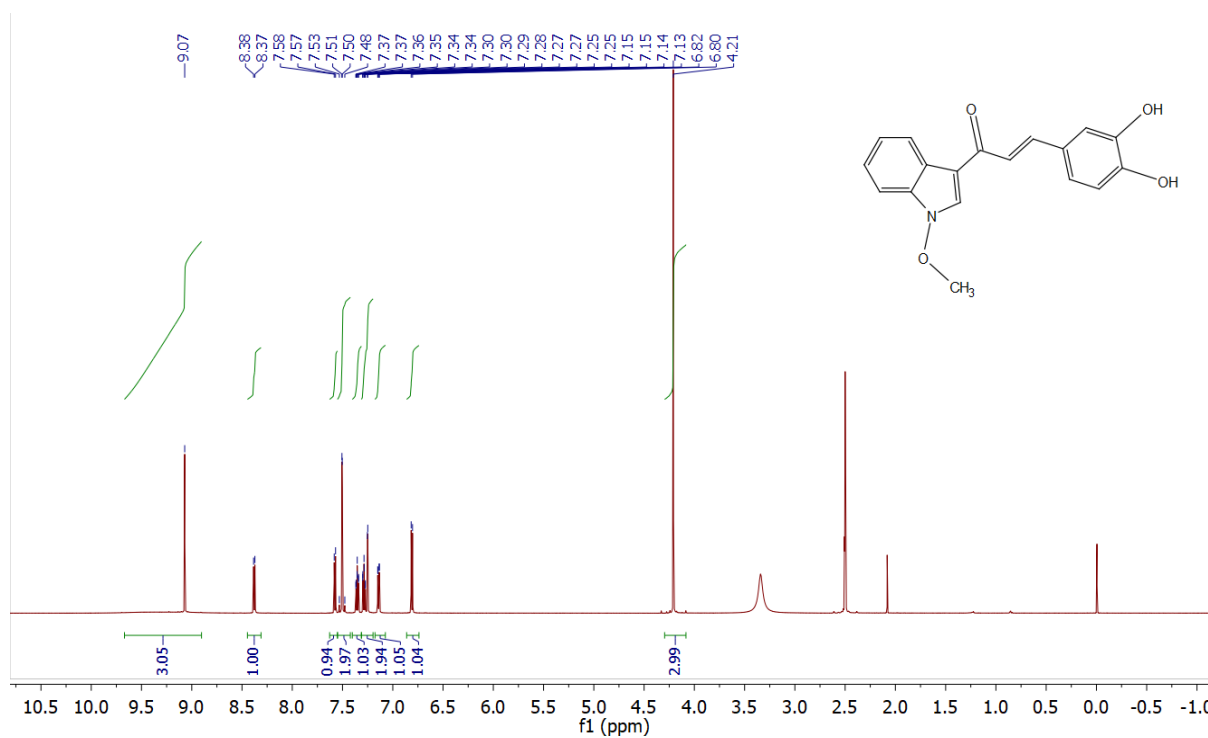
Figure S34: ¹³C NMR spectra of compound 14cFigure S35: ¹H NMR spectra of compound 17a

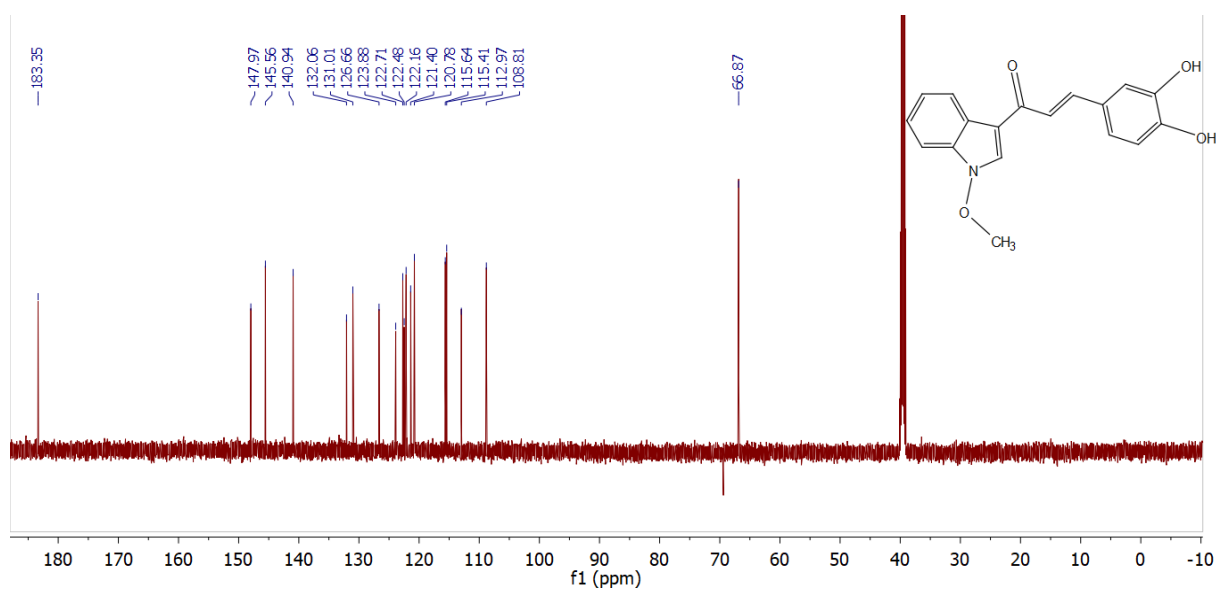
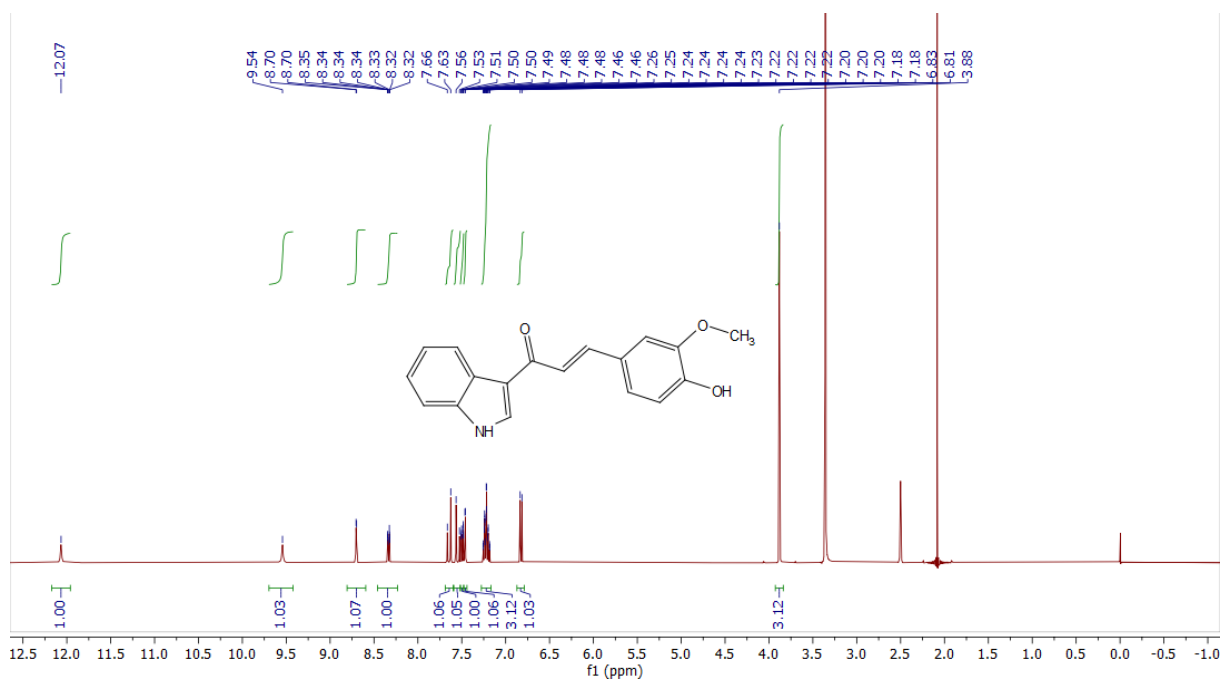
Figure S36: ¹³C NMR spectra of compound 17aFigure S37: ¹H NMR spectra of compound 17b

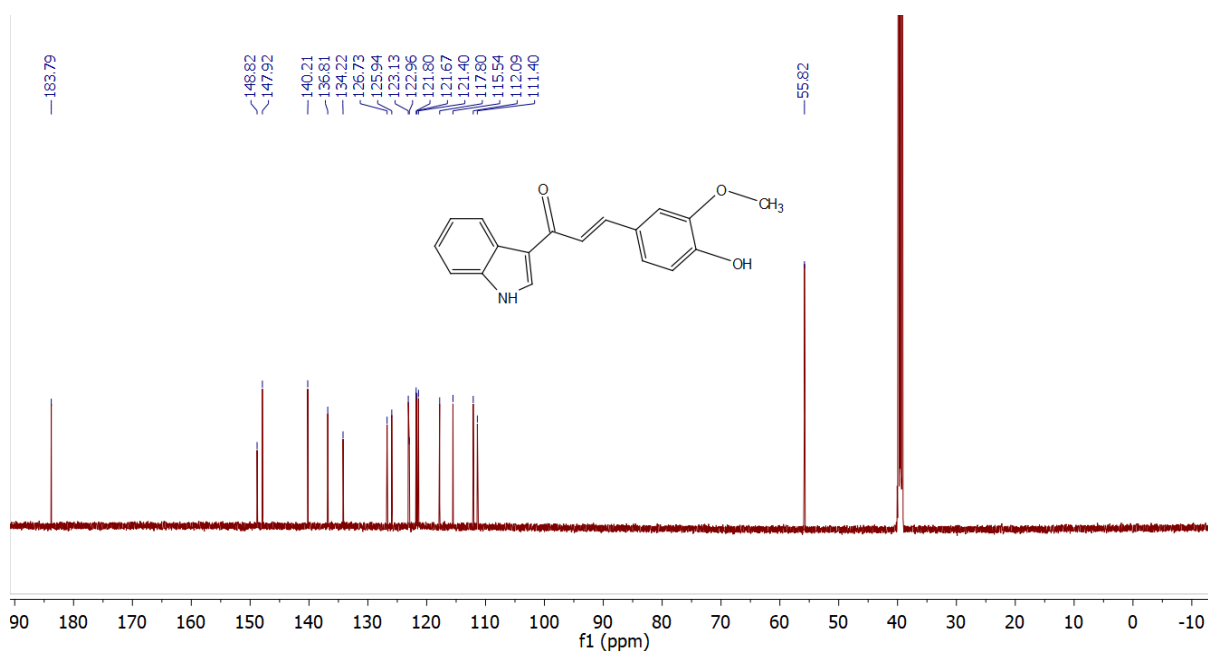
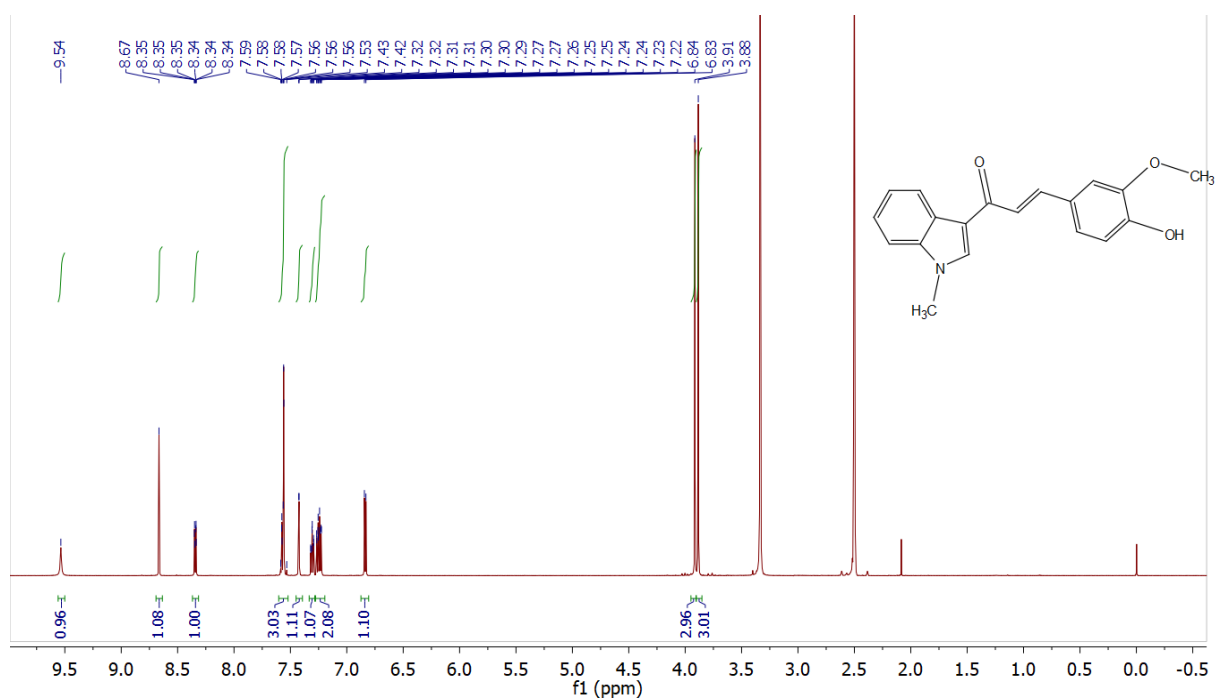
Figure S38: ¹³C NMR spectra of compound 17bFigure S39: ¹H NMR spectra of compound 17c

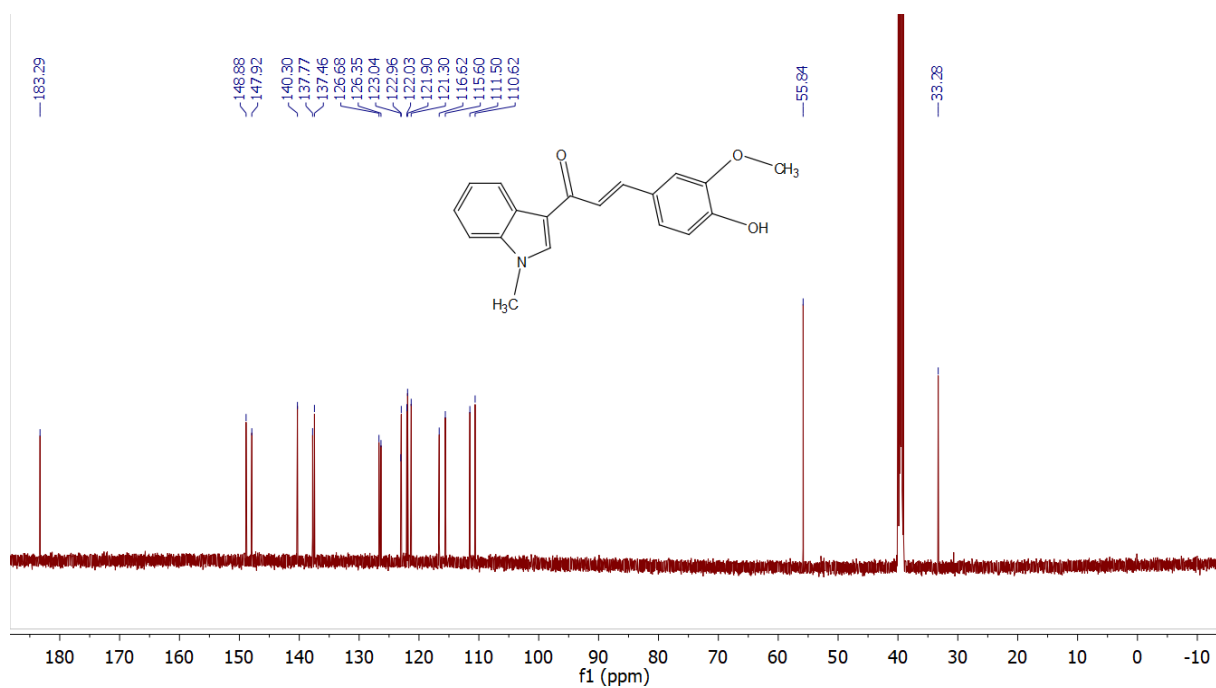
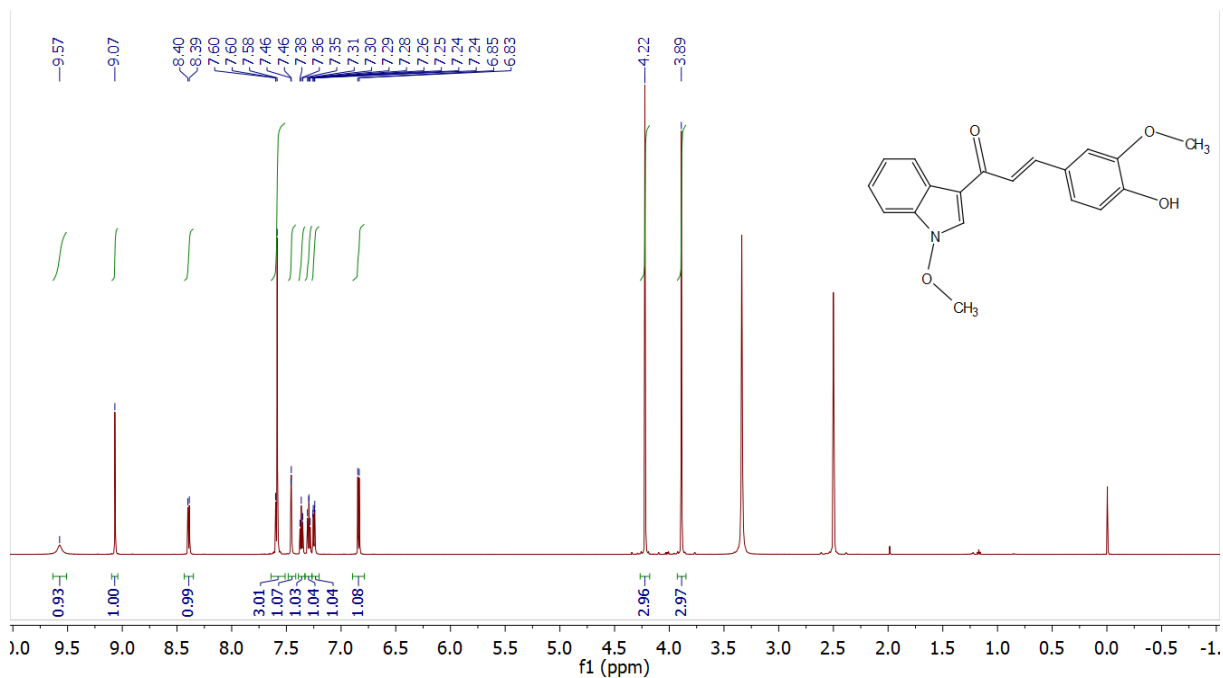
Figure S40: ¹³C NMR spectra of compound 17cFigure S41: ¹H NMR spectra of compound 18a

Figure S42: ¹³C NMR spectra of compound 18aFigure S43: ¹H NMR spectra of compound 18b

Figure S44: ¹³C NMR spectra of compound 18bFigure S45: ¹H NMR spectra of compound 18c

Figure S46: ¹³C NMR spectra of compound 18cFigure S47: ¹H NMR spectra of compound 19a

Figure S48: ¹³C NMR spectra of compound 19aFigure S49: ¹H NMR spectra of compound 19b

Figure S50: ¹³C NMR spectra of compound 19bFigure S51: ¹H NMR spectra of compound 19c

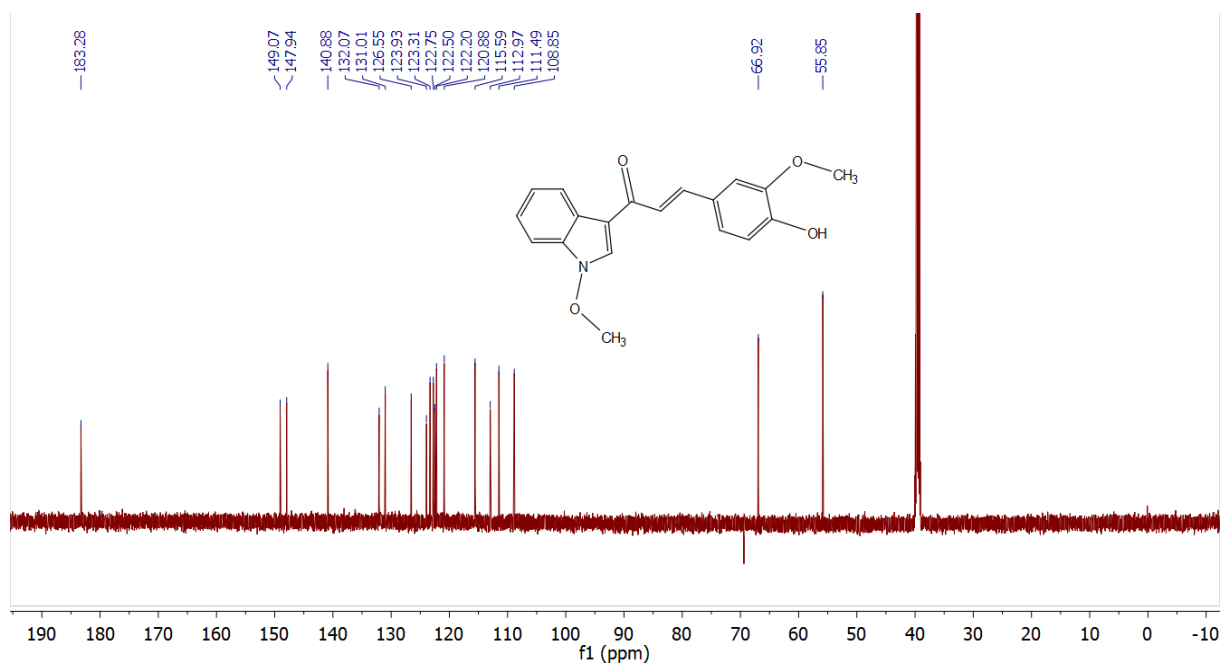
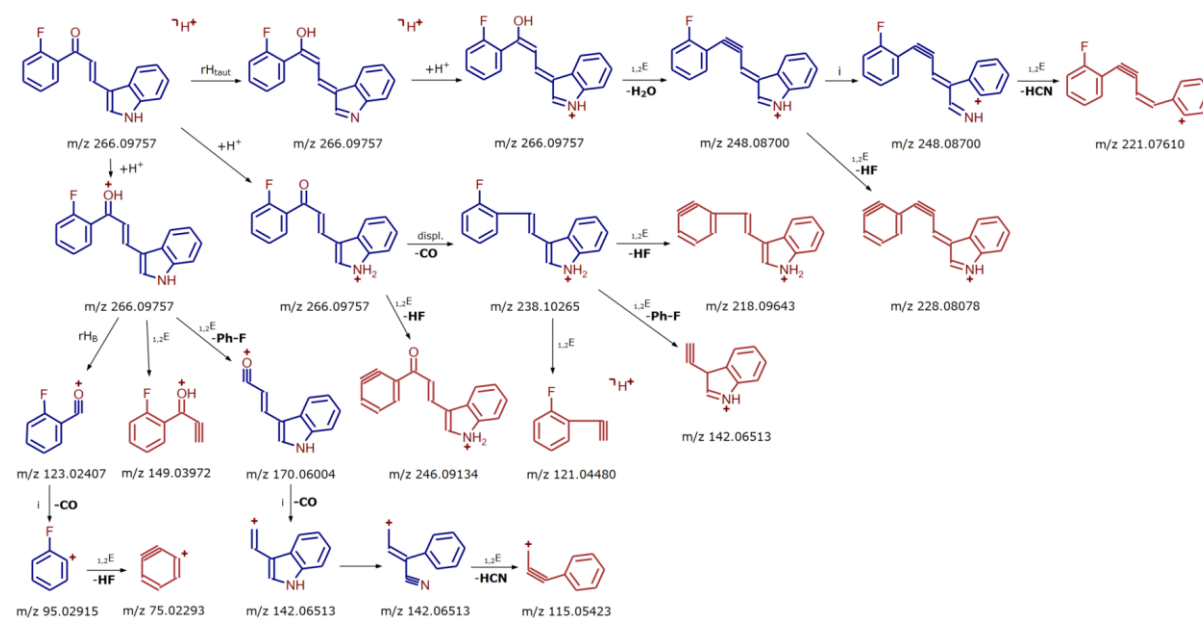
Figure S52: ^{13}C NMR spectra of compound 19c

Figure S53: HR-MS fragmentation spectra for compound 11a