

Supplementary Information

Synthesis of novel indole substituted heterocyclics

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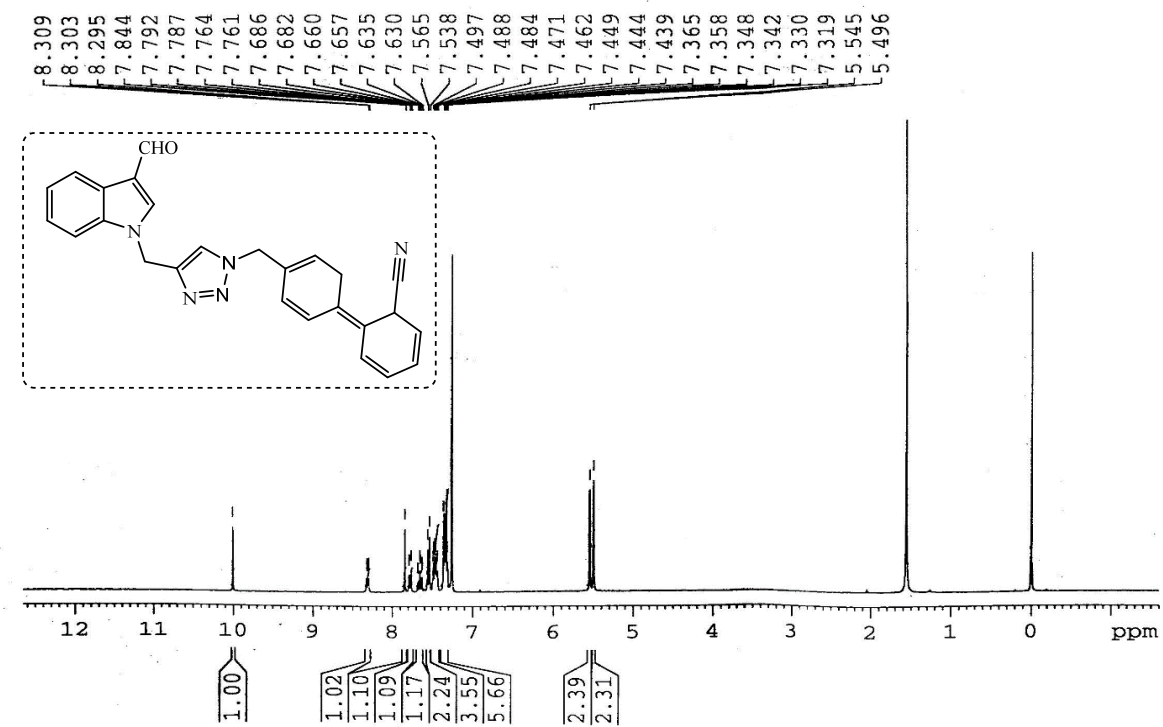


Fig. S1 - $^1\text{H NMR}$ spectra of **3a** (300 MHz, CDCl_3)

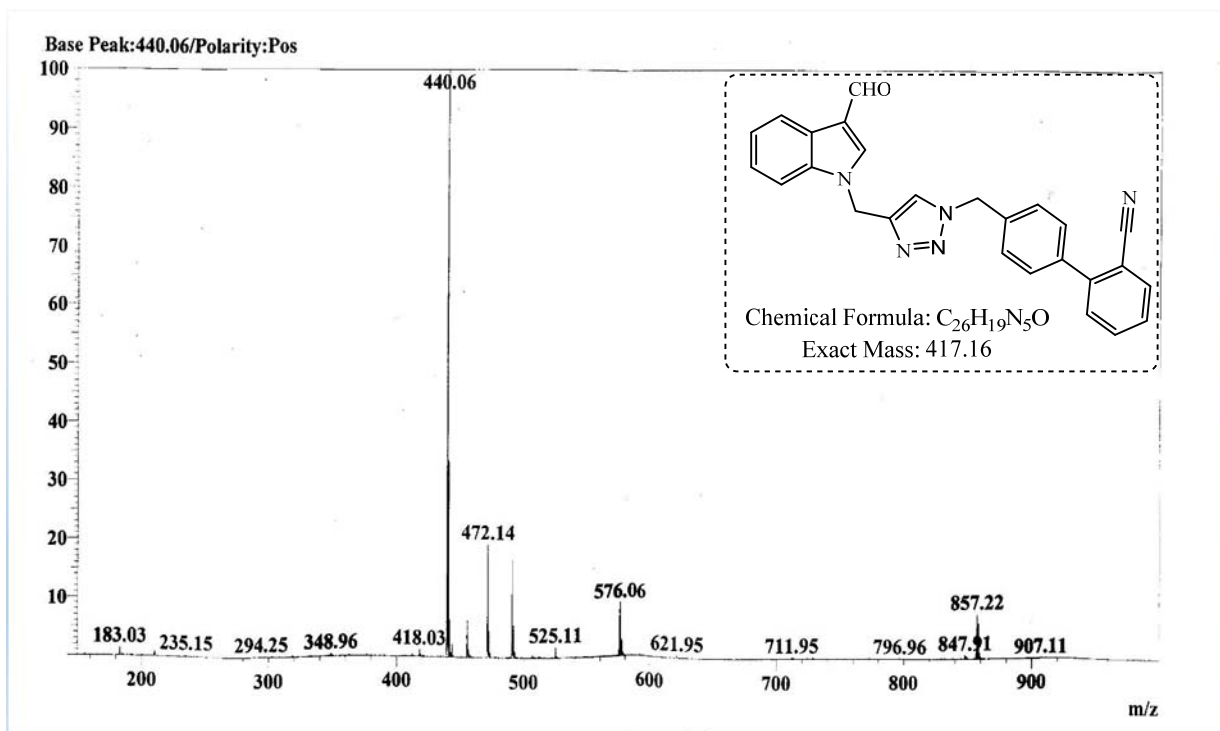


Fig. S2 - Mass spectra of **3a** (ESI-MS, positive)

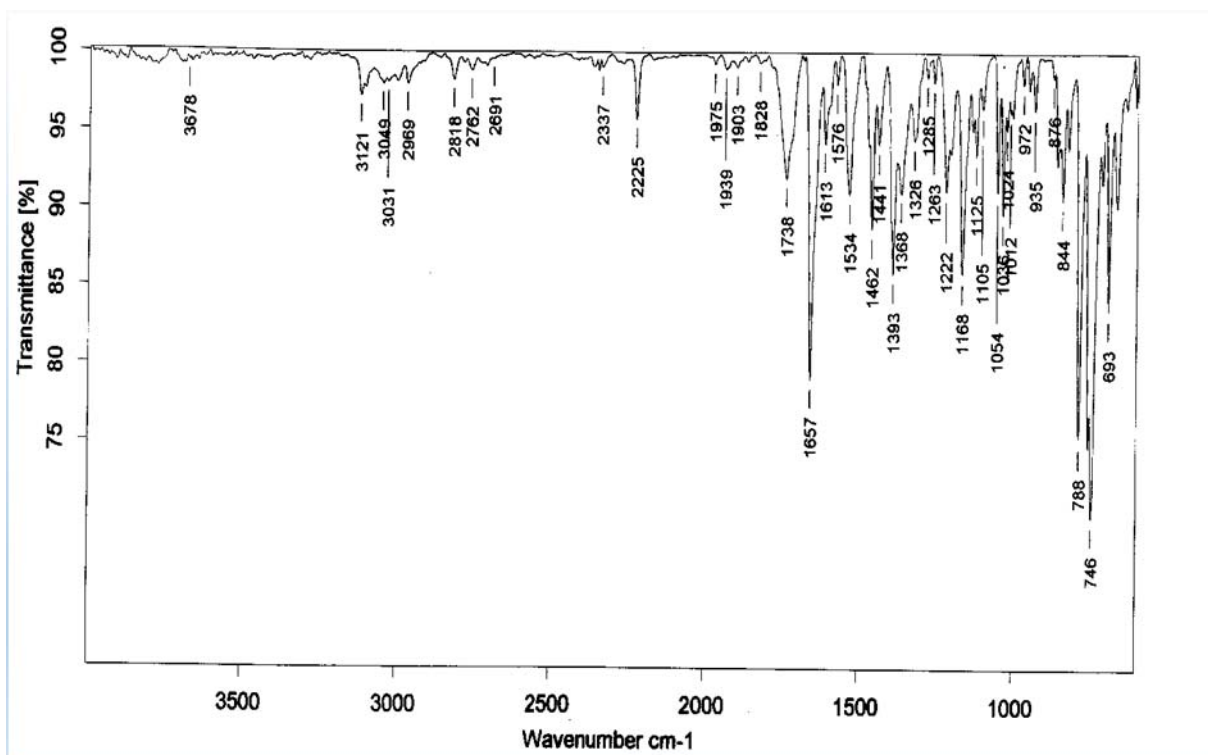


Fig. S3- IR (KBr) spectra of **3a**

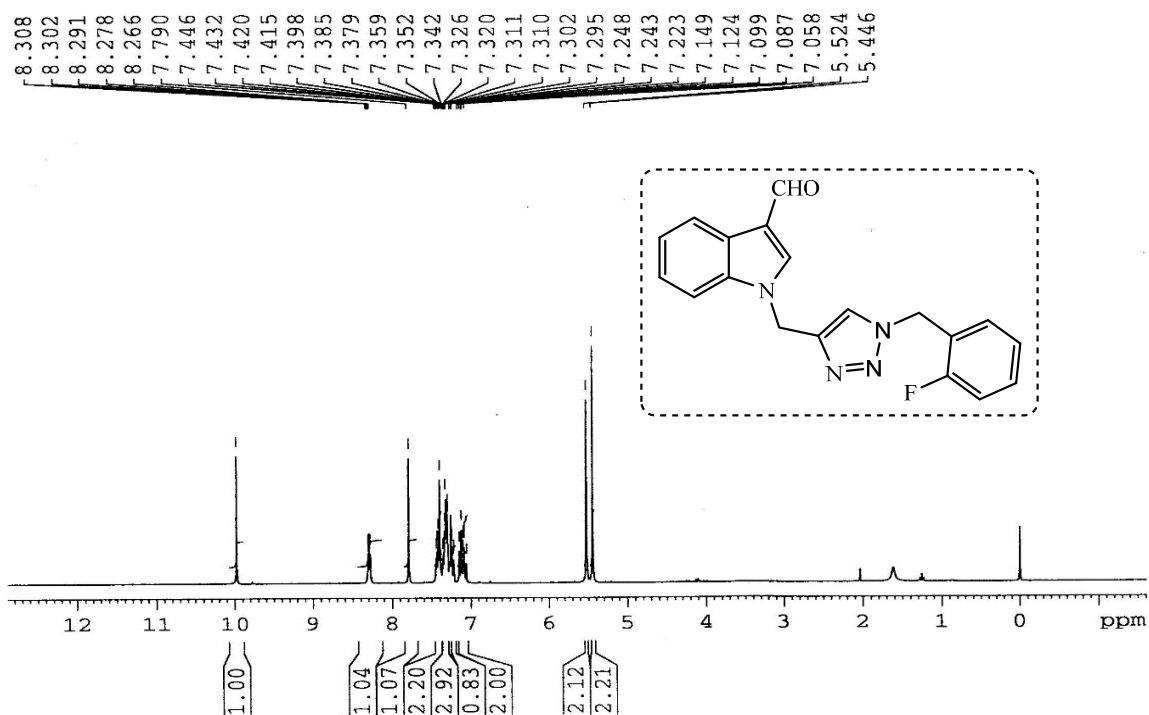


Fig. S4 - ¹H NMR spectra of **3b** (300 MHz, CDCl₃)

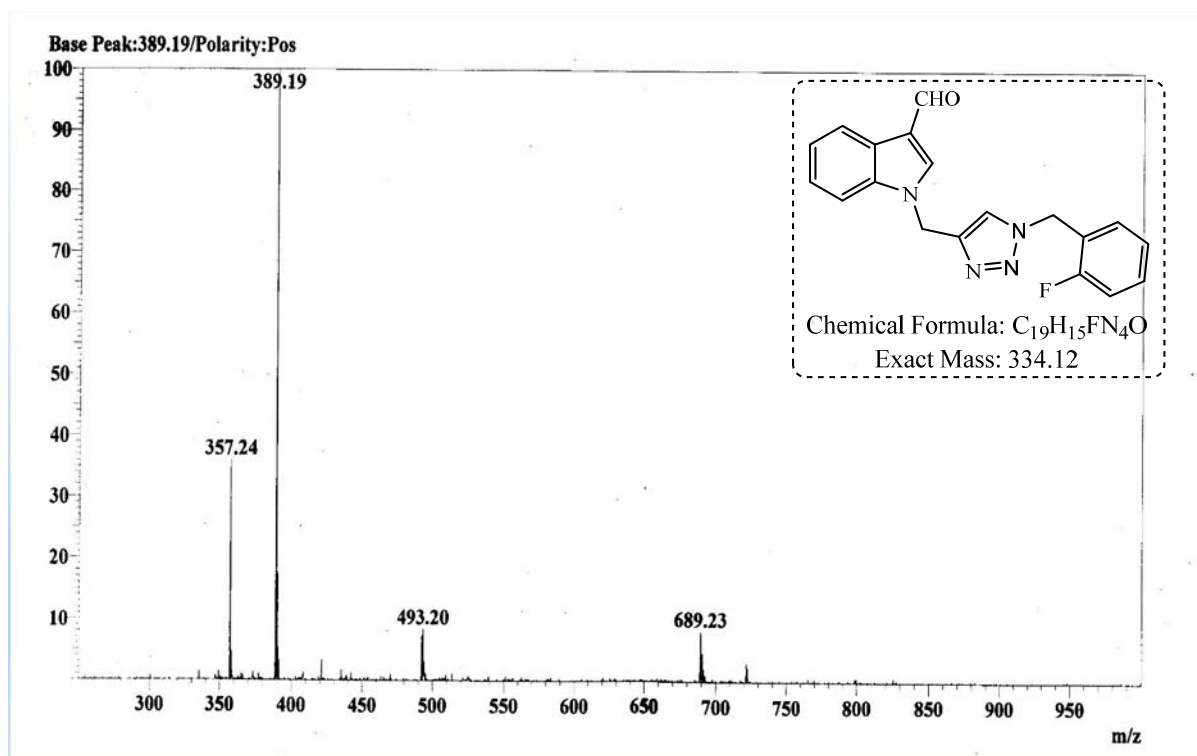


Fig. S5 - Mass spectra of **3b** (ESI-MS, positive)

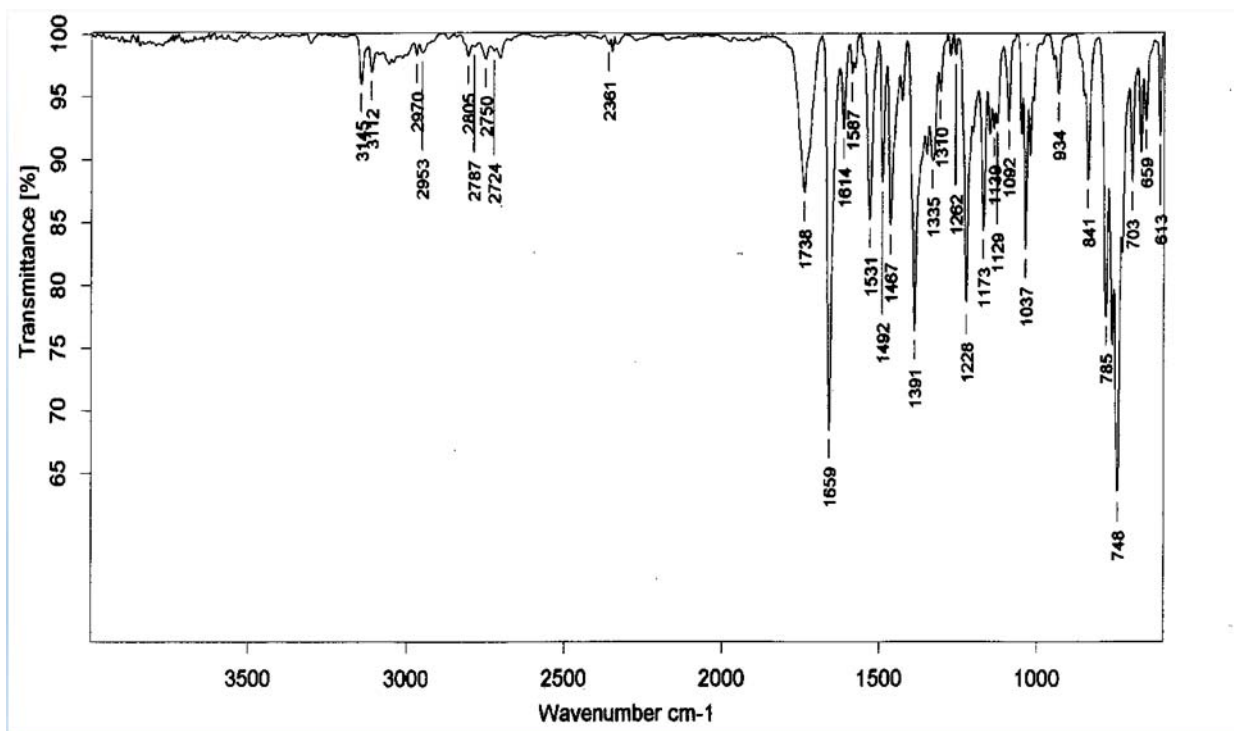


Fig. S6 - IR (KBr) spectra of **3b**

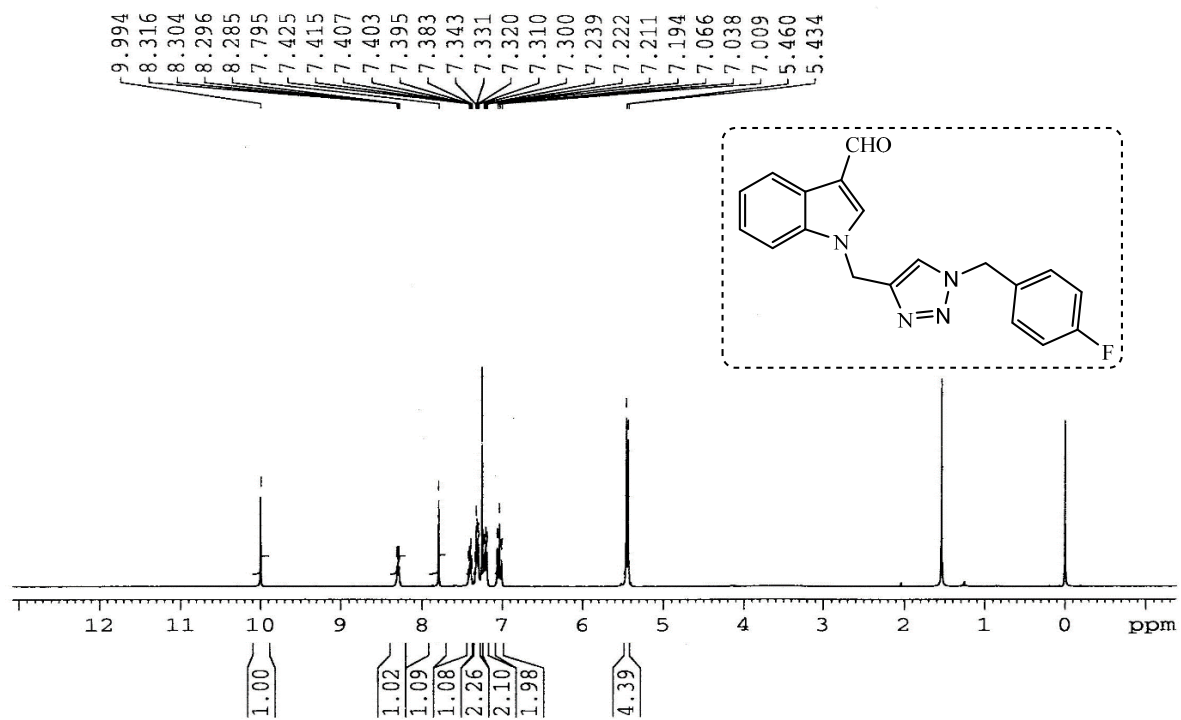


Fig. S7 - ¹H NMR spectra of **3c** (300 MHz, CDCl₃)

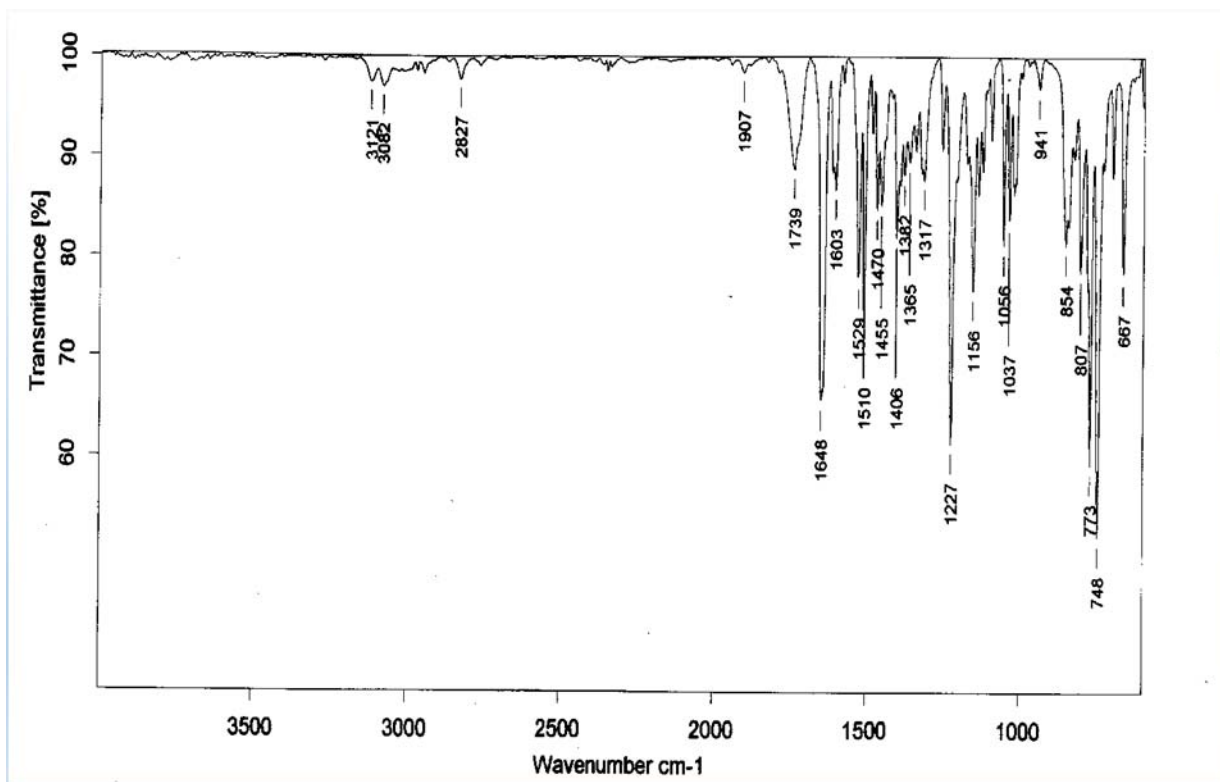


Fig. S8 - IR (KBr) spectra of **3c**

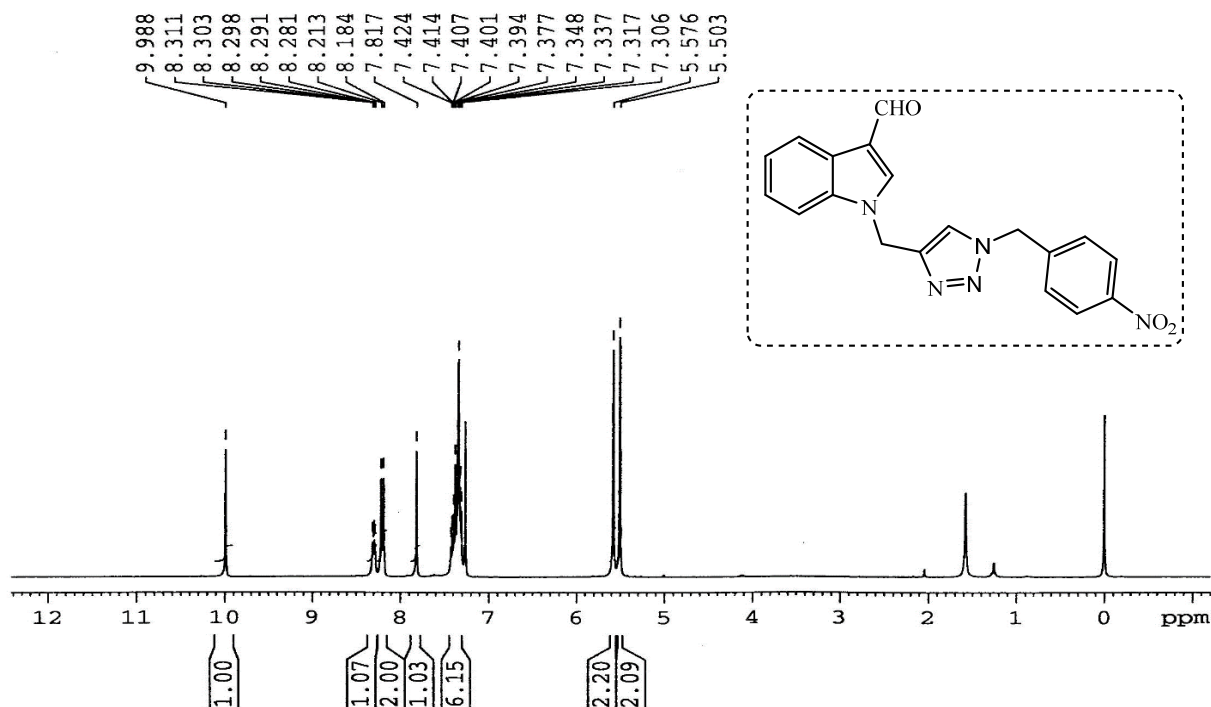


Fig. S9 - ^1H NMR spectra of **3d** (300 MHz, CDCl_3)

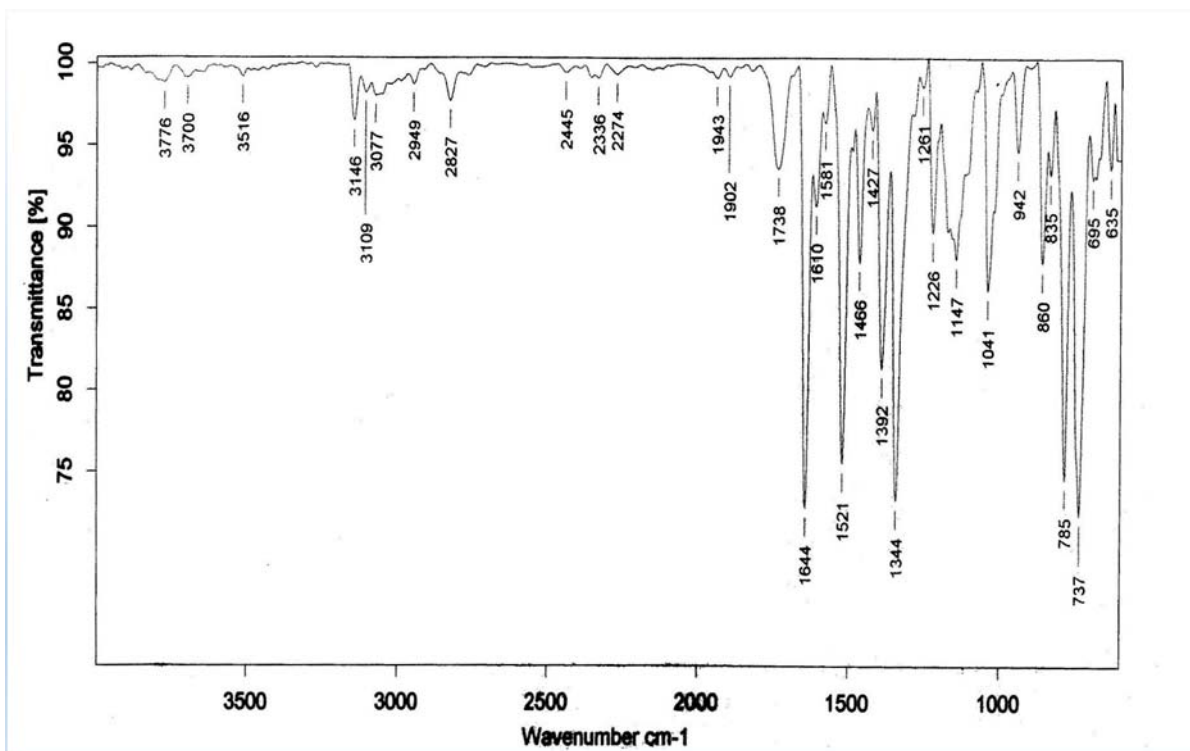


Fig. S10 - IR (KBr) spectra of **3d**

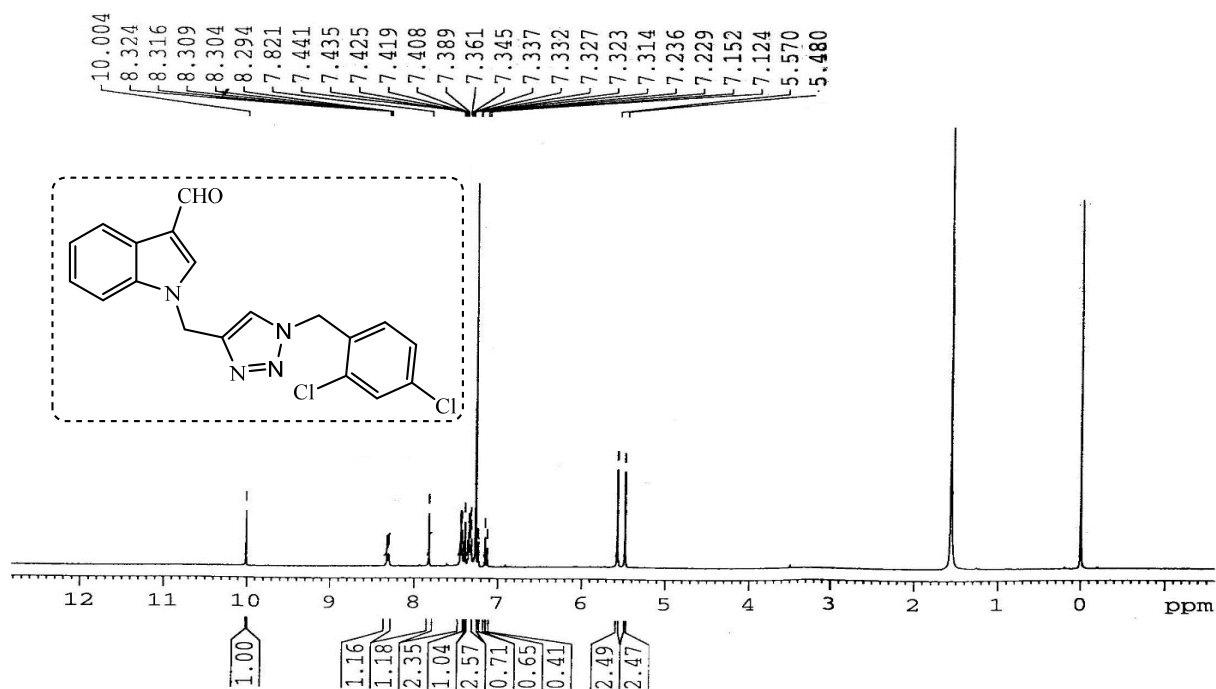


Fig. S11 - ^1H NMR spectra of **3e** (300 MHz, CDCl_3)

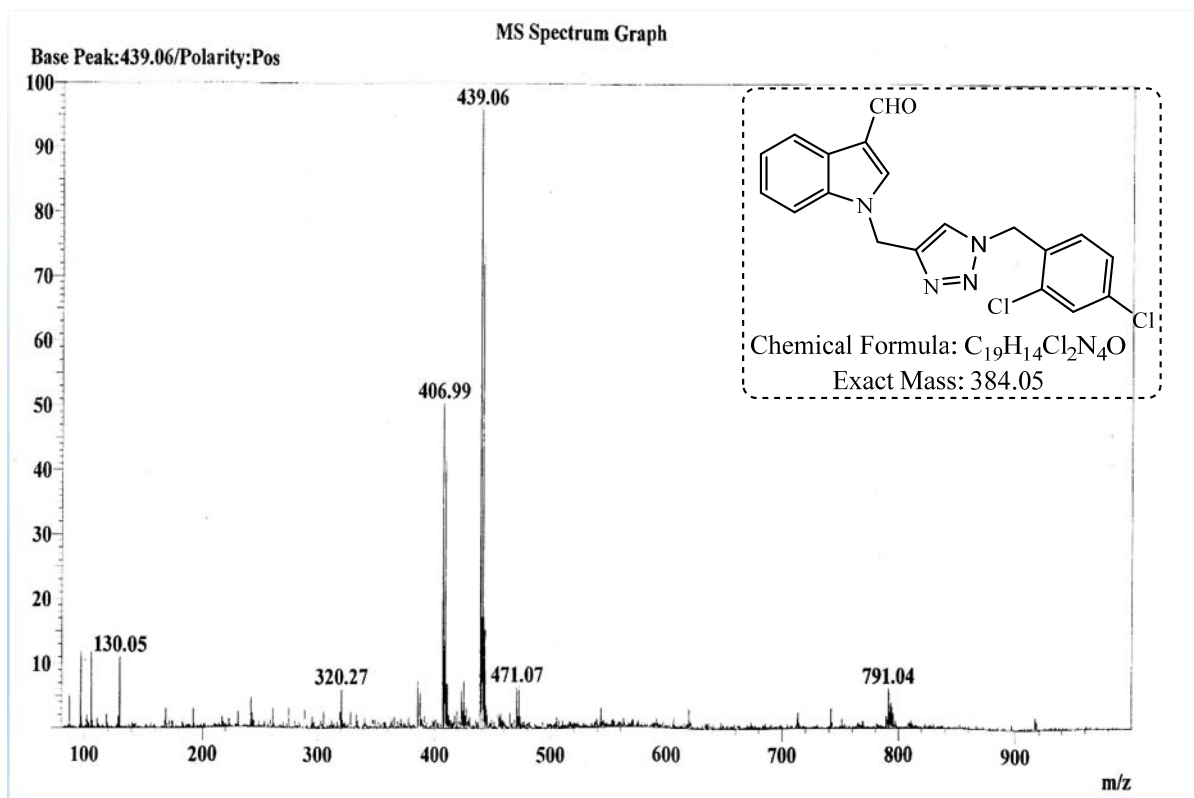


Fig. S12 - Mass spectra of **3e** (ESI-MS, positive)

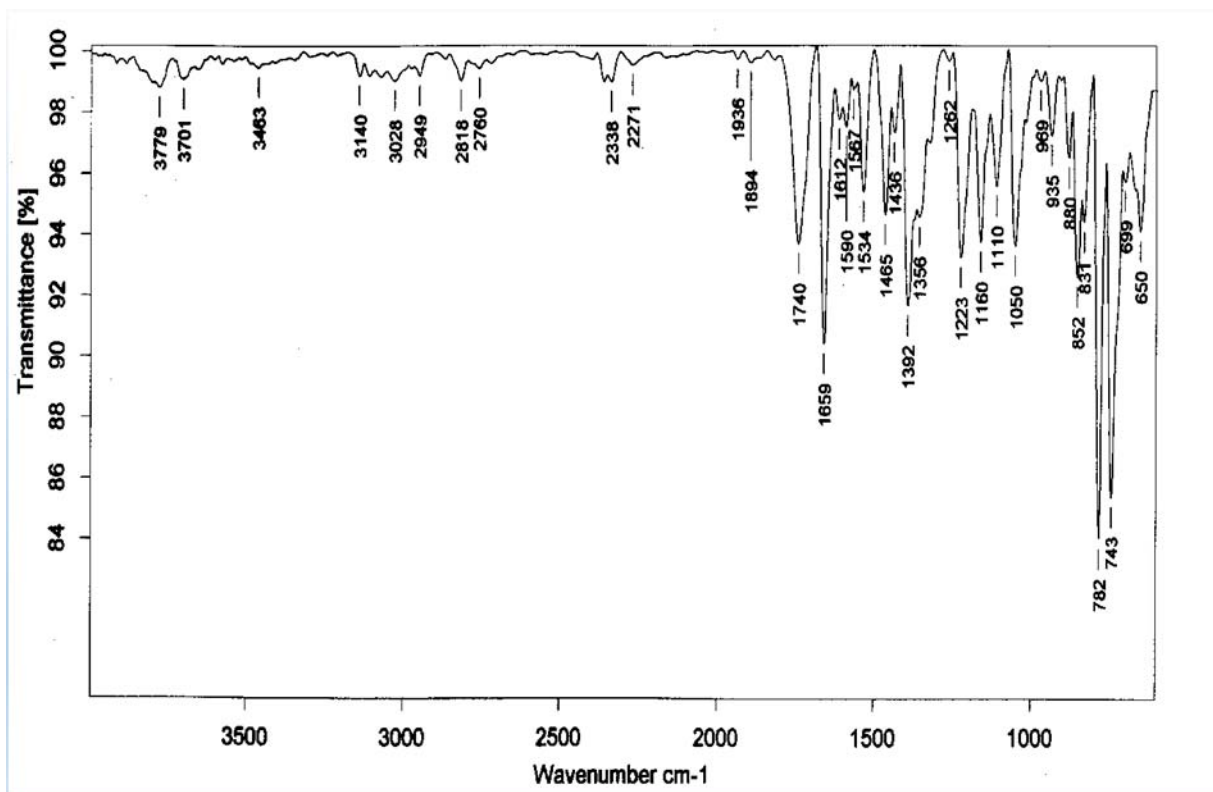


Fig. S13 - IR (KBr) spectra of **3e**

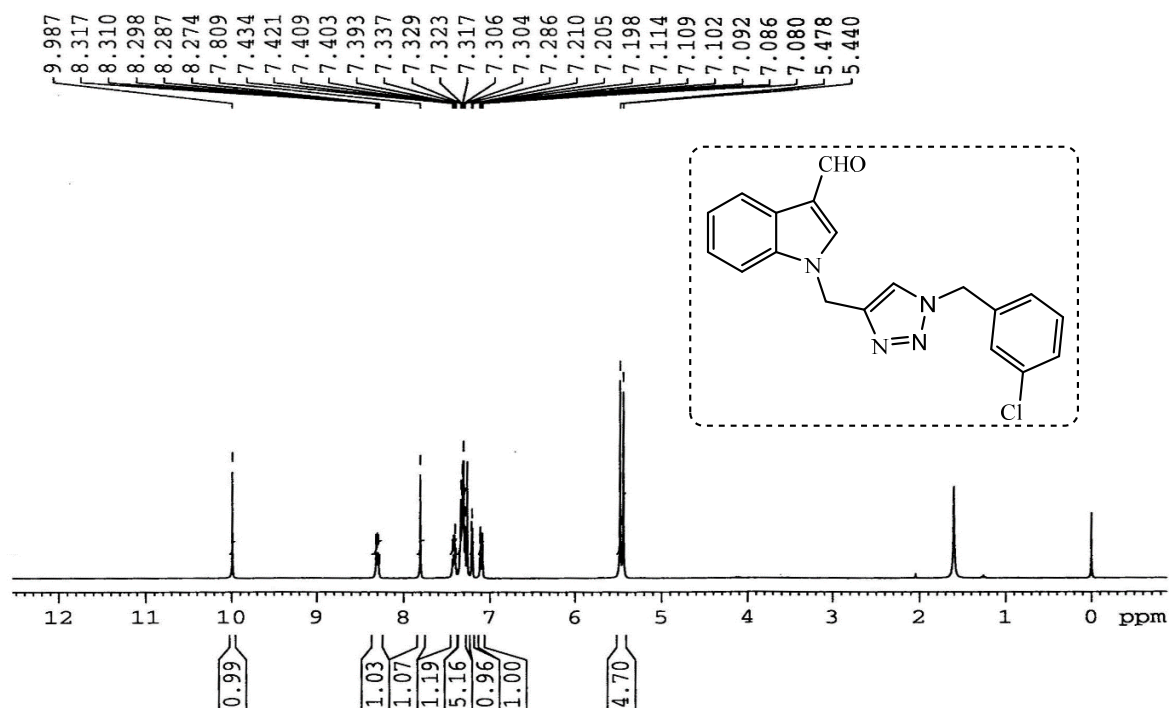


Fig. S14 - ^1H NMR spectra of **3f** (300 MHz, CDCl_3)

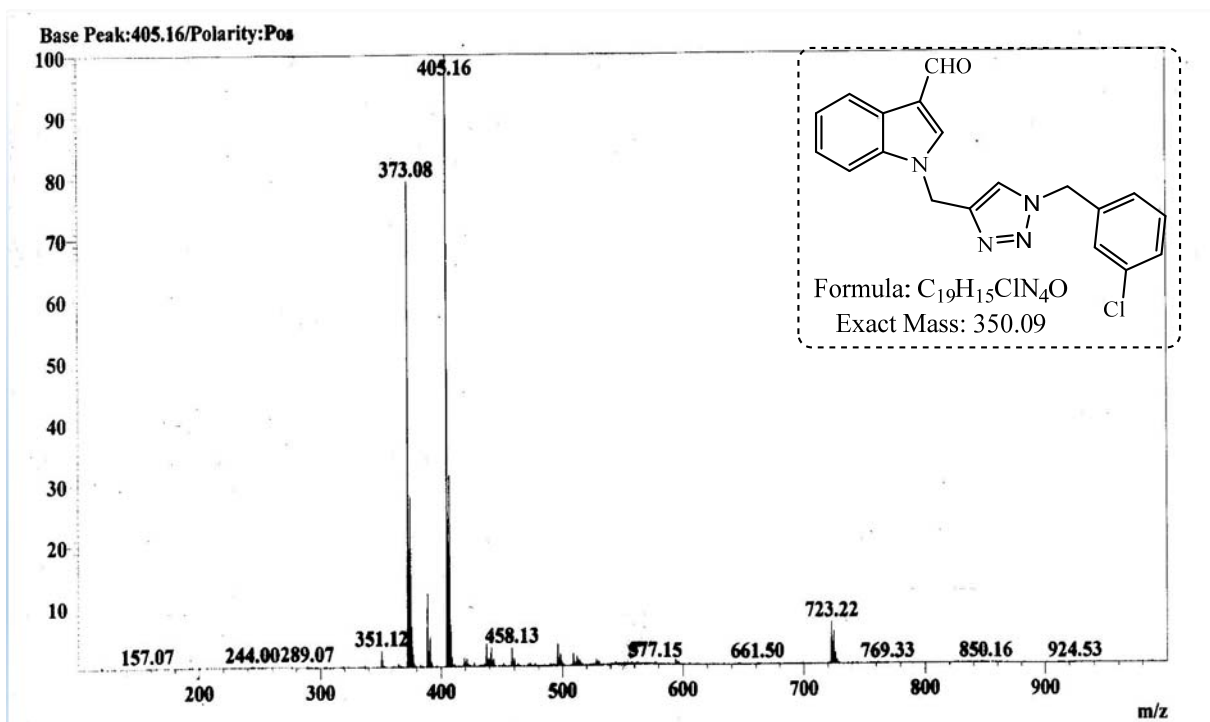


Fig. S15 - Mass spectra of **3f** (ESI-MS, positive)

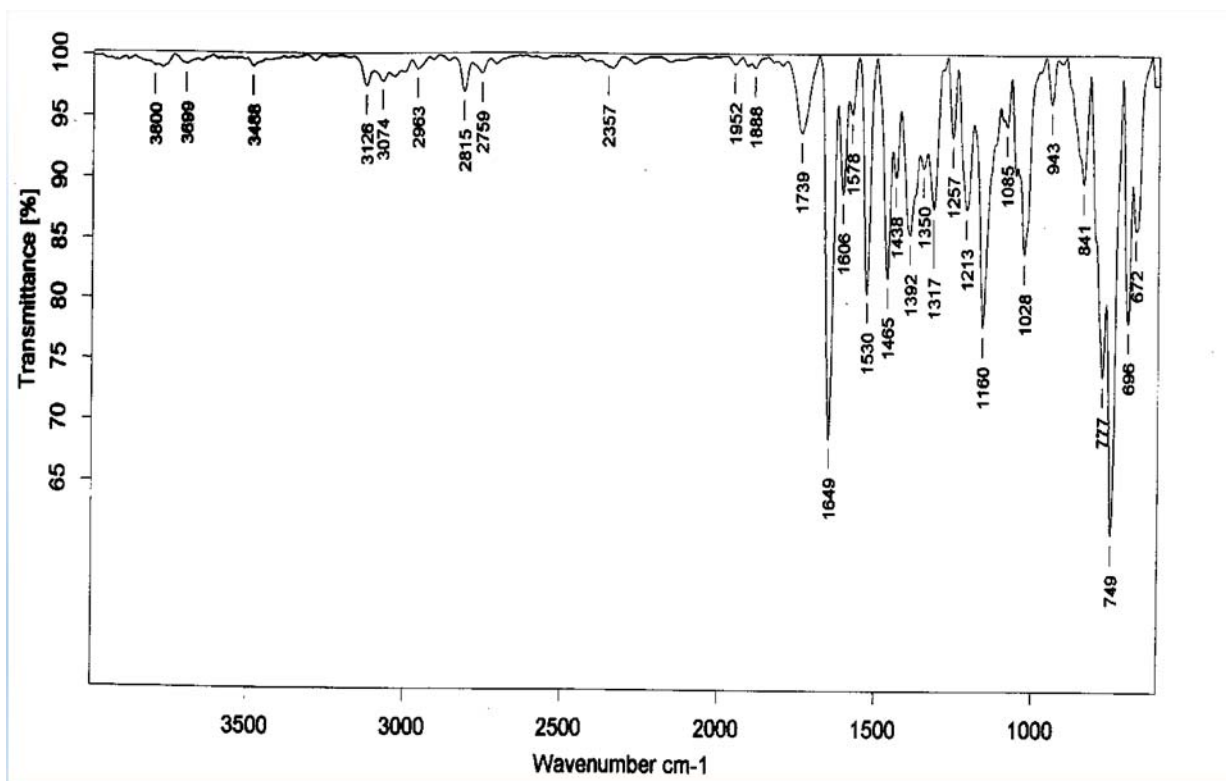


Fig. S16 - IR (KBr) spectra of **3f**

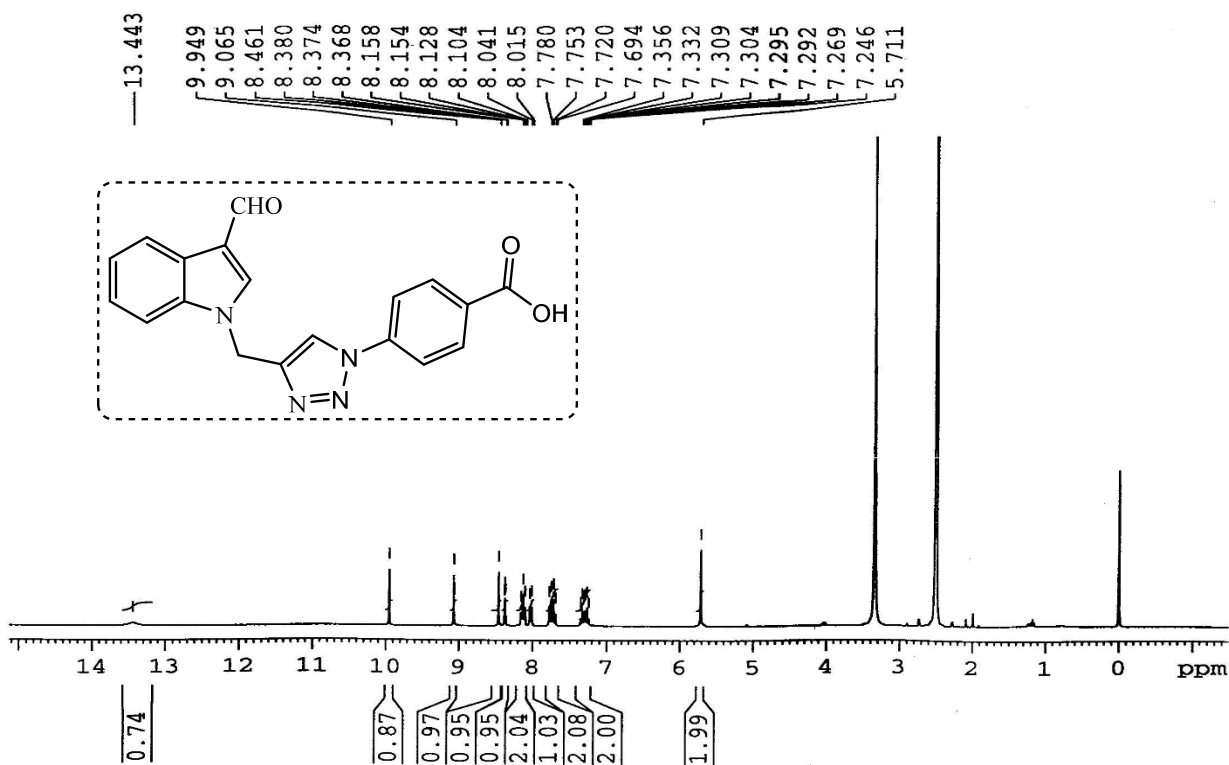


Fig. S17 - ^1H NMR spectra of **3g** (300 MHz, CDCl_3)

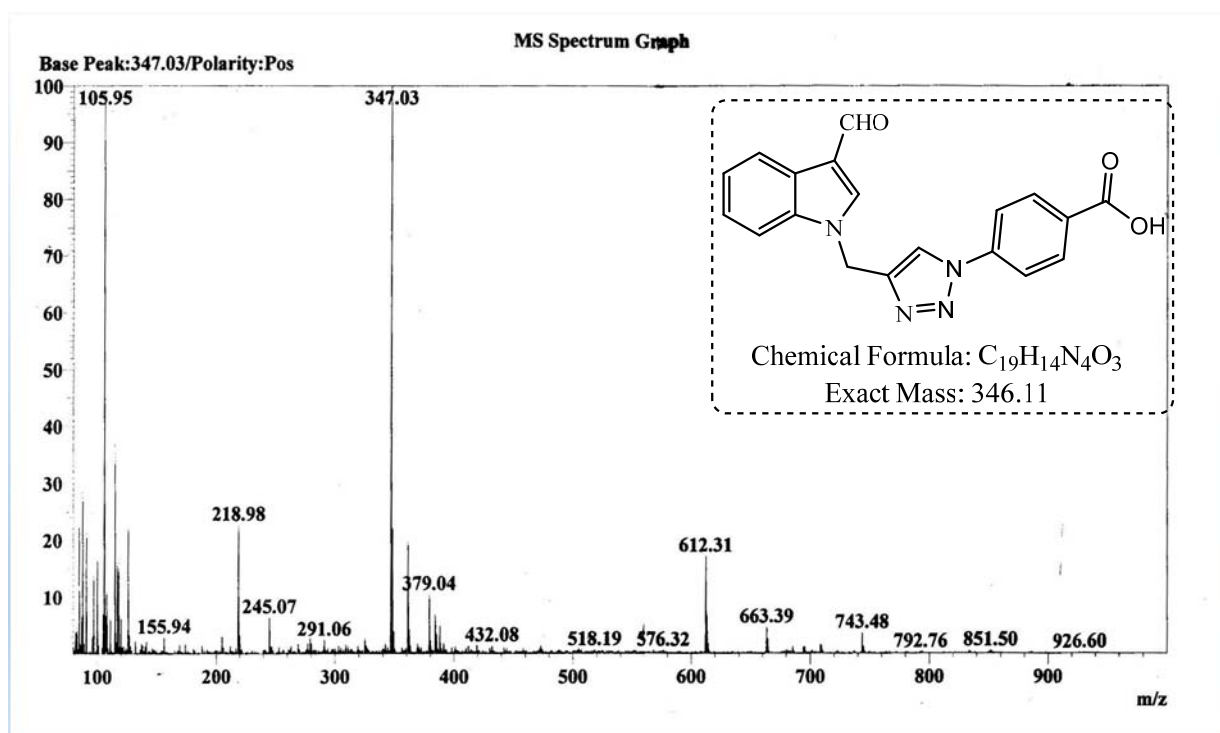


Fig. S18 - Mass spectra of **3g** (ESI-MS, positive)

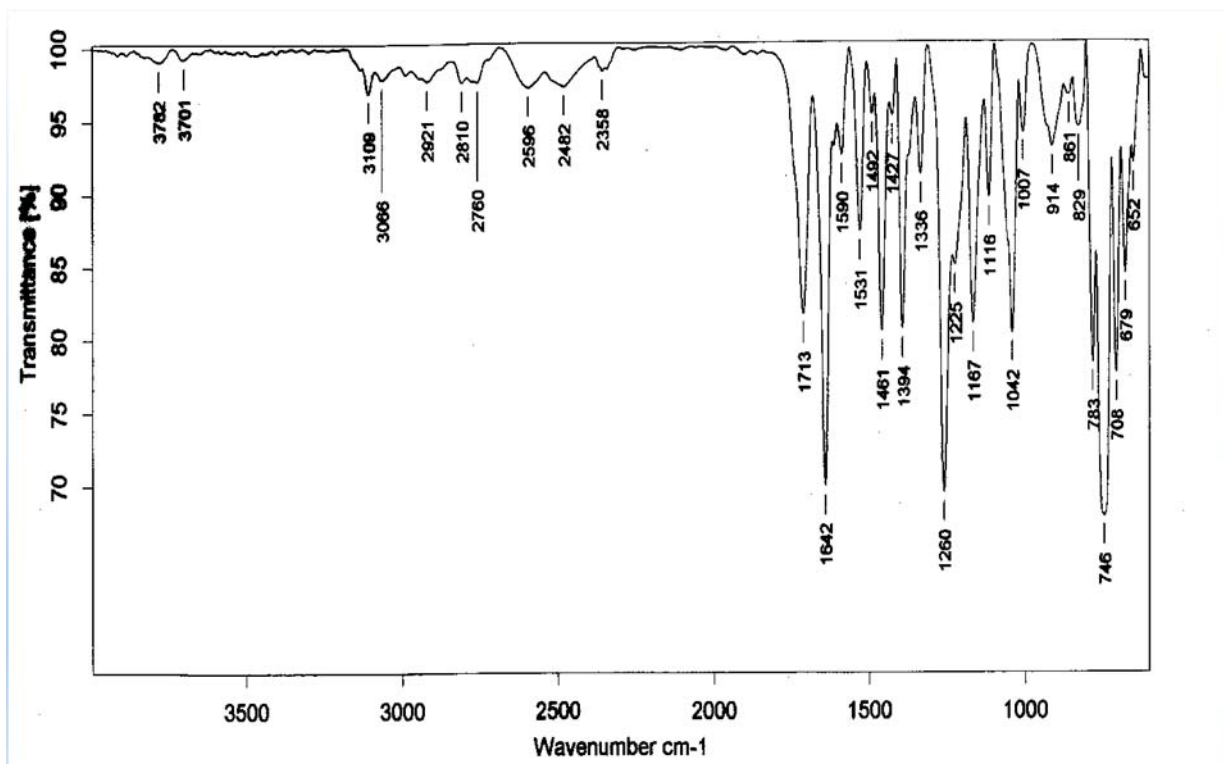


Fig. S19 - IR (KBr) spectra of **3g**

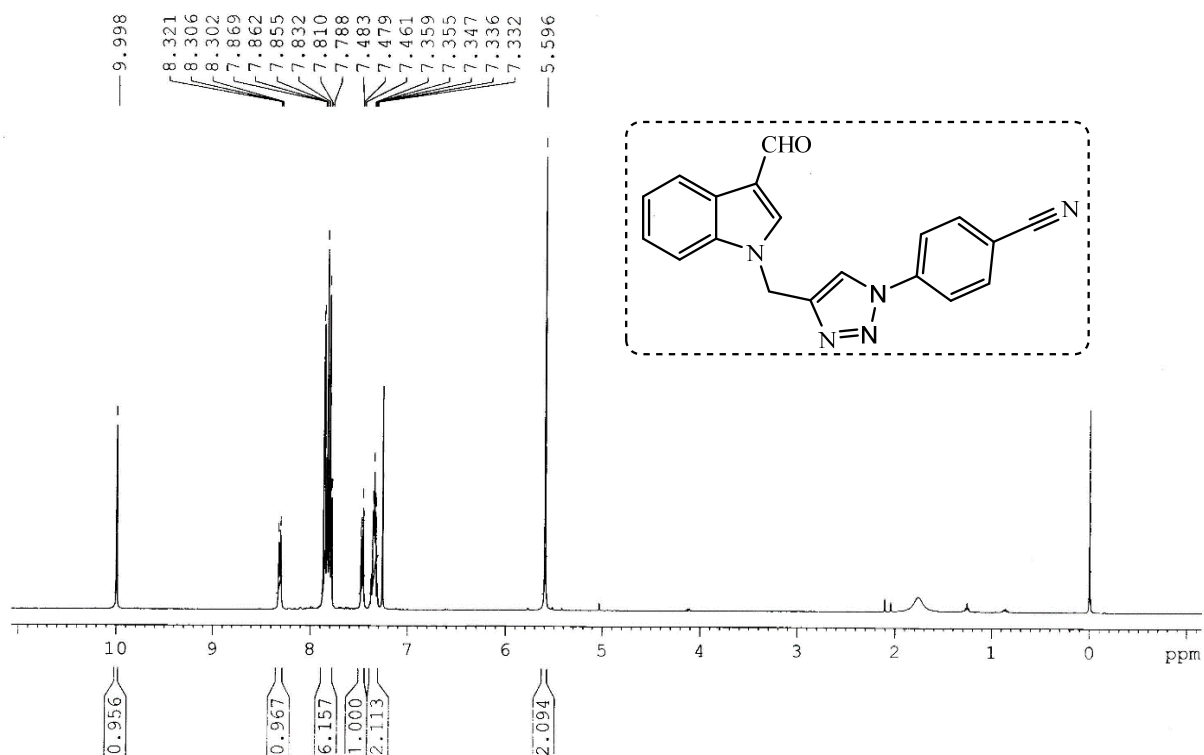


Fig. S20 - ¹H NMR spectra of **3h** (300 MHz, CDCl₃)

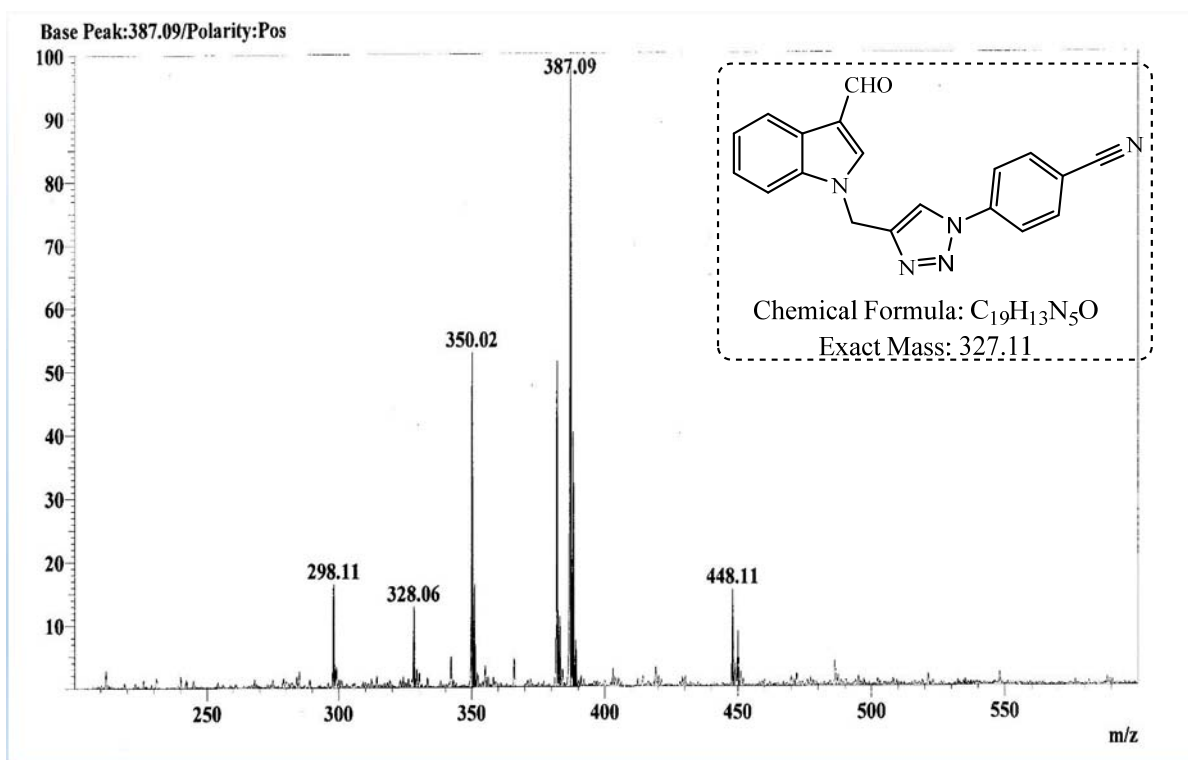


Fig. S21 - Mass spectra of **3h** (ESI-MS, positive)

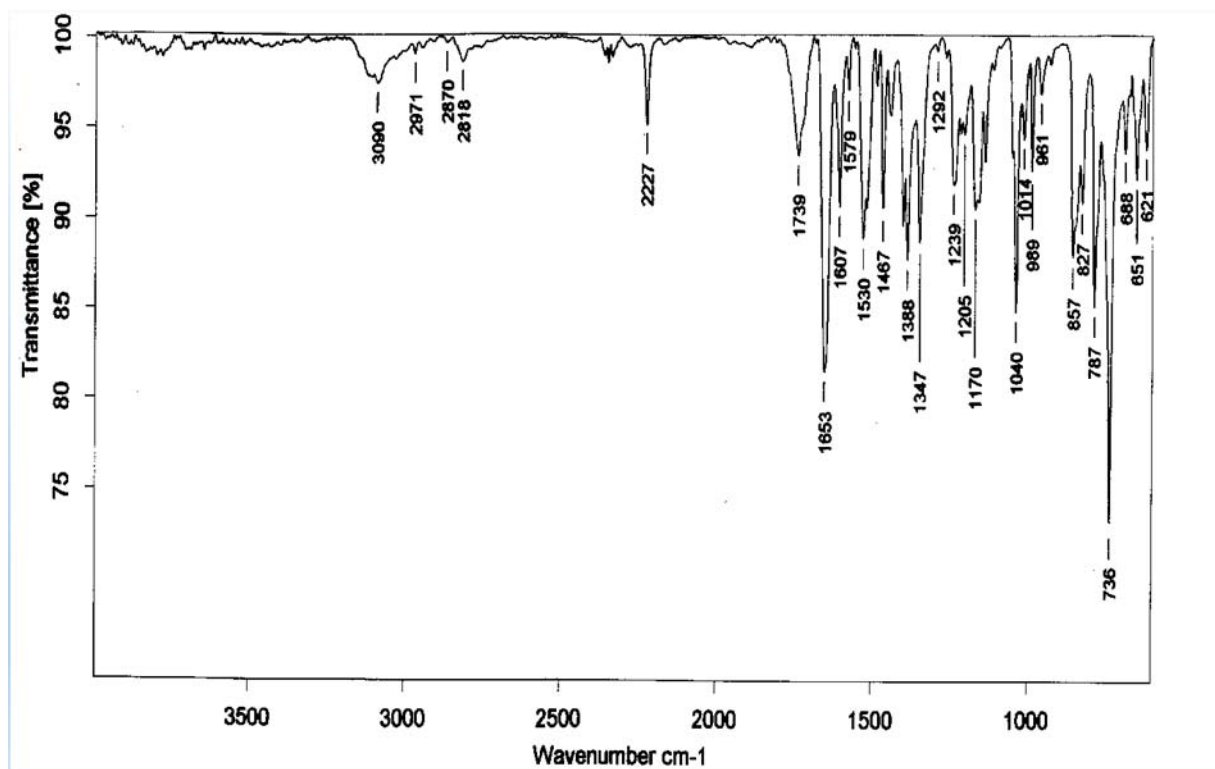


Fig. S22- IR (KBr) spectra of **3h**



Fig. S23 - ¹H NMR spectra of **3i** (300 MHz, CDCl₃)

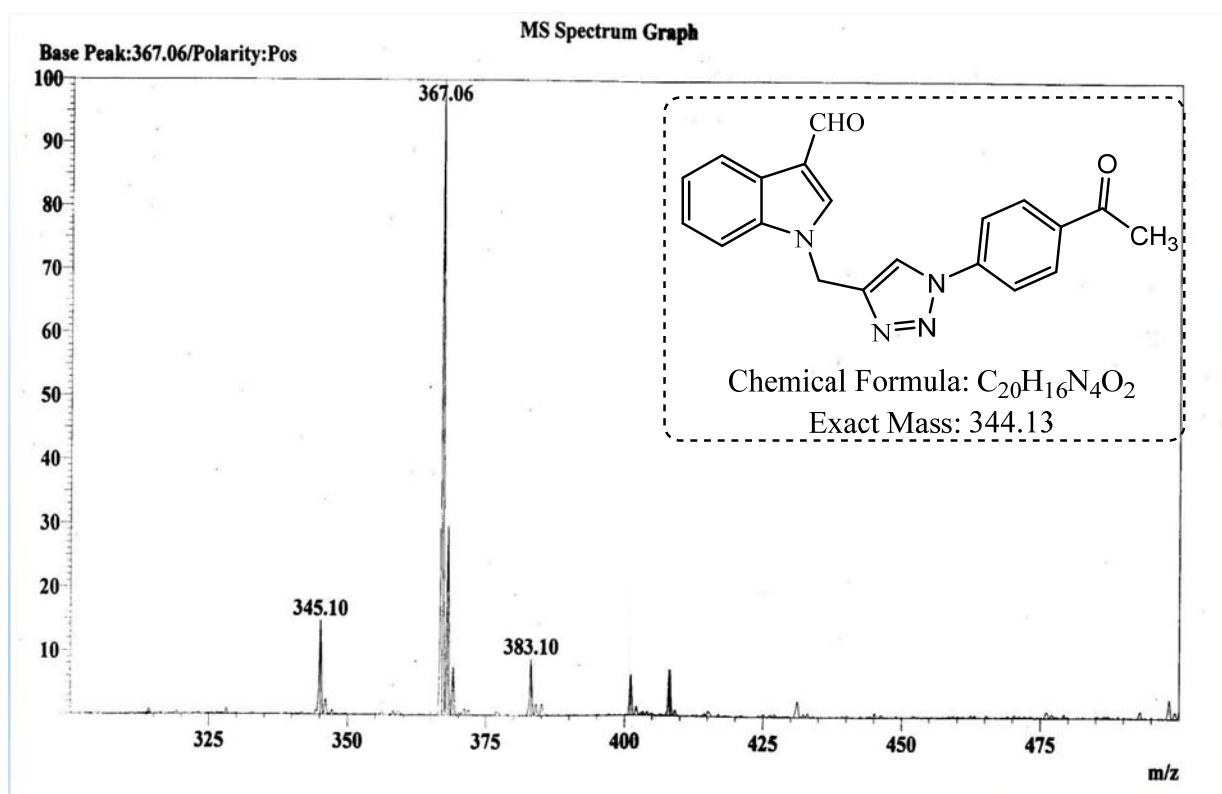


Fig. S24 - Mass spectra of **3i** (ESI-MS, positive)

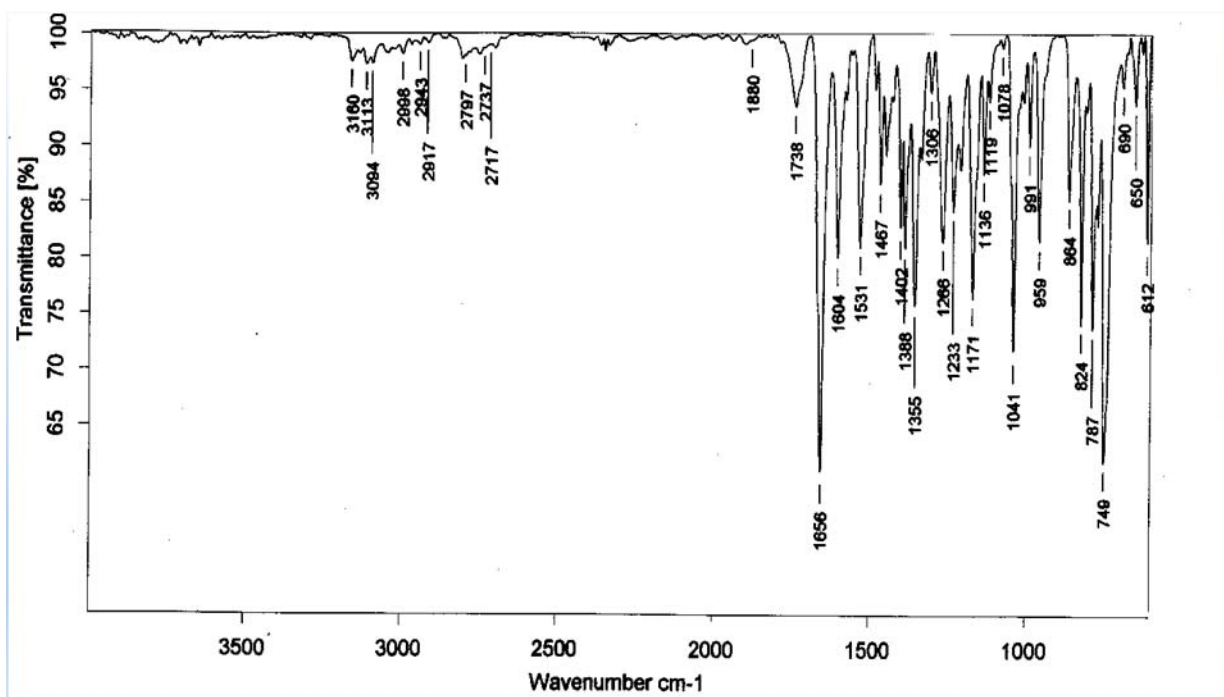


Fig. S25 - IR (KBr) spectra of 3i

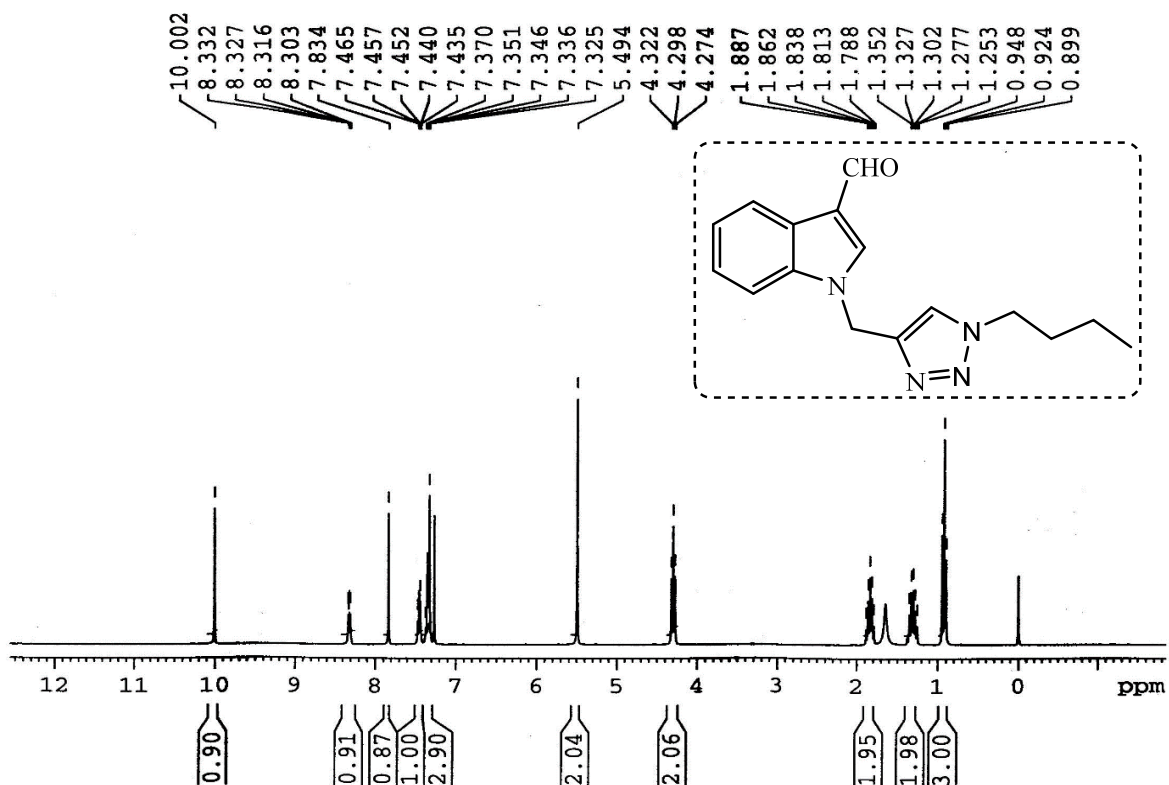


Fig. S26 - ¹H NMR spectra of 3j (300 MHz, CDCl₃)

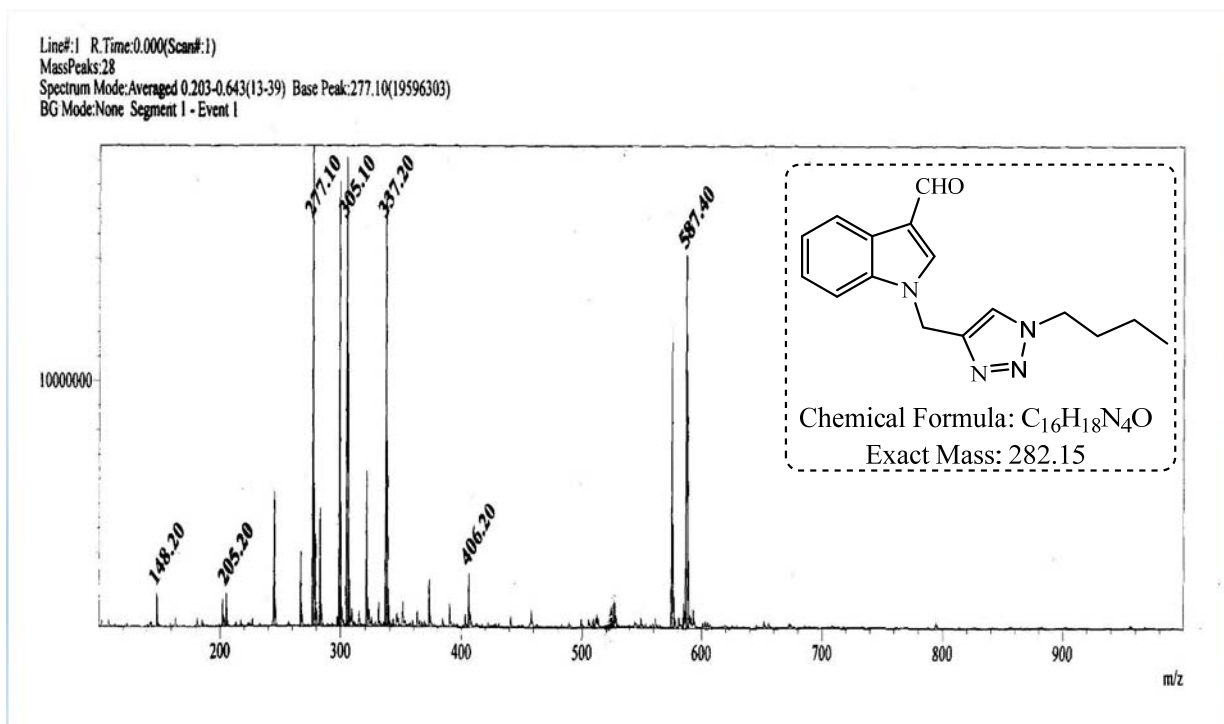


Fig. S27 - Mass spectra of **3j** (ESI-MS, positive)

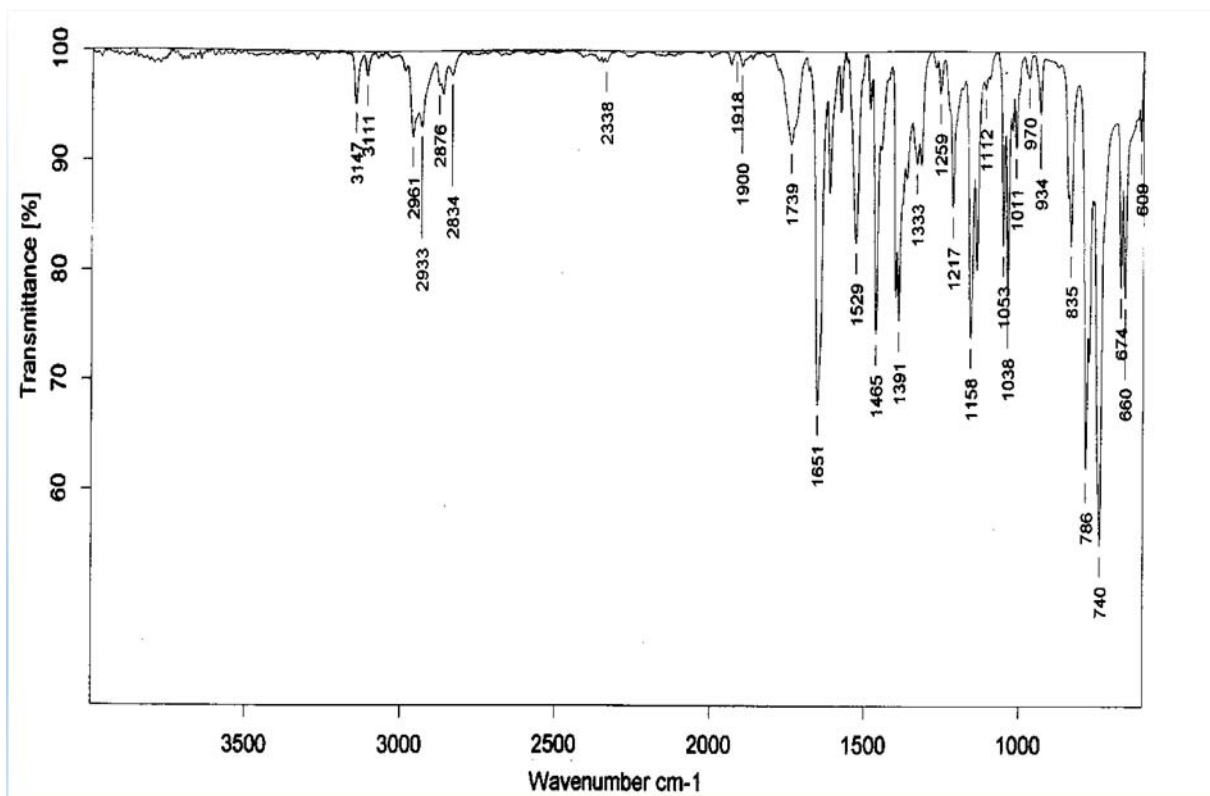


Fig. S28 - IR (KBr) spectra of **3j**

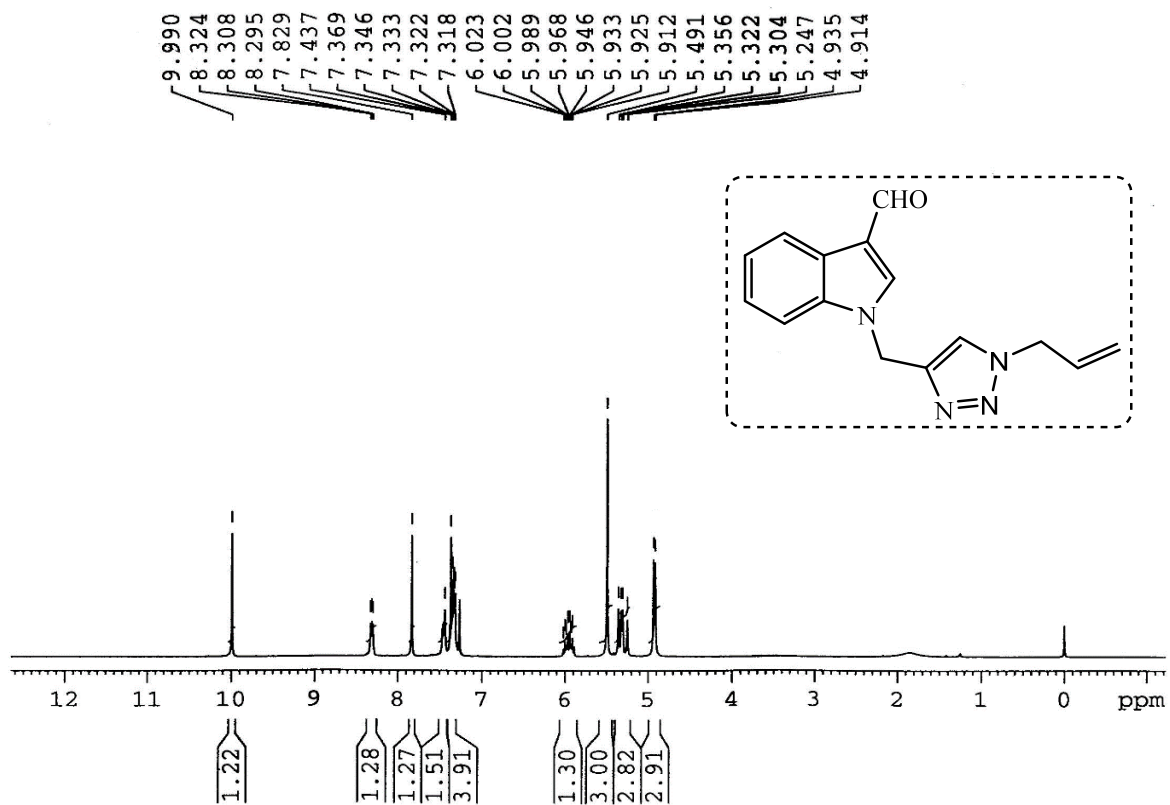


Fig. S29 - ¹H NMR spectra of **3k** (300 MHz, CDCl₃)

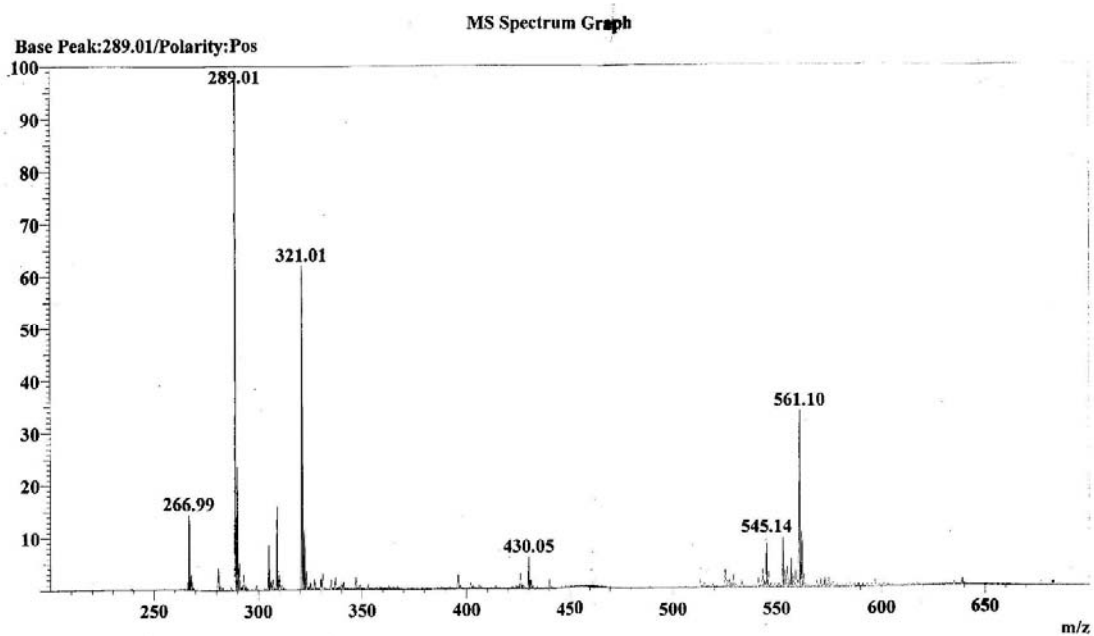


Fig. S30 - Mass spectra of **3k** (ESI-MS, positive)

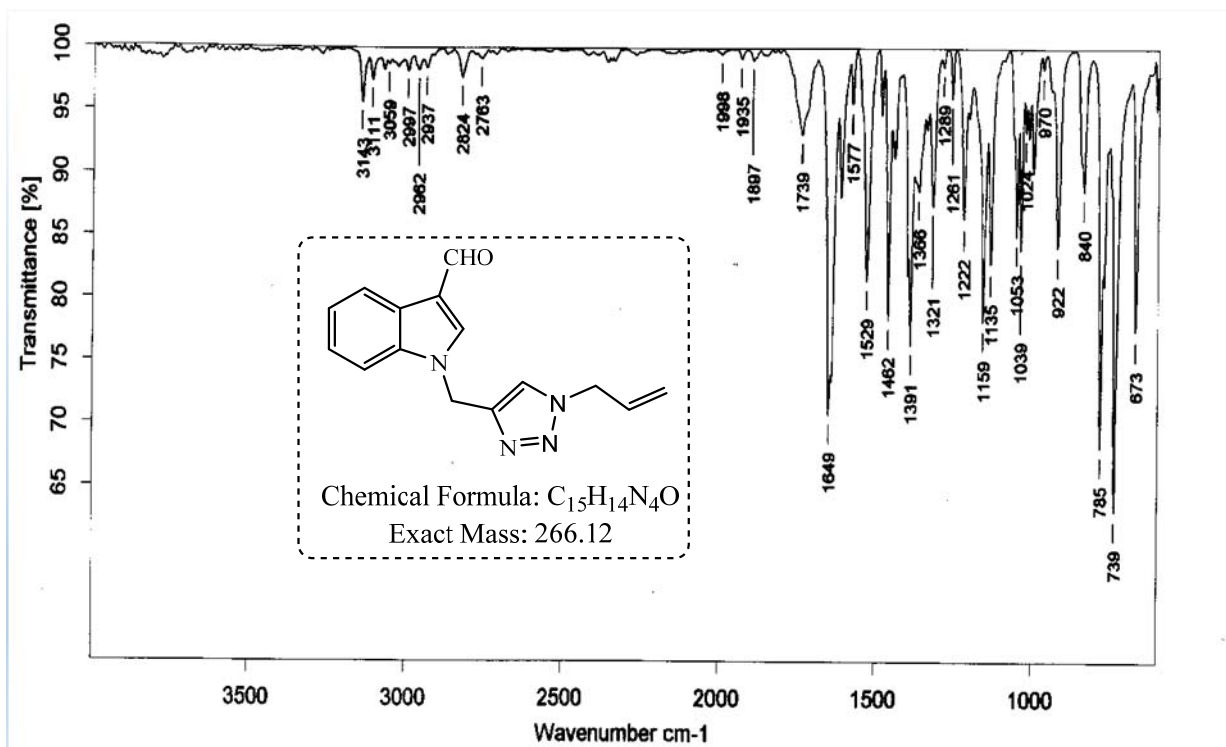


Fig. S31 - IR (KBr) spectra of **3k**

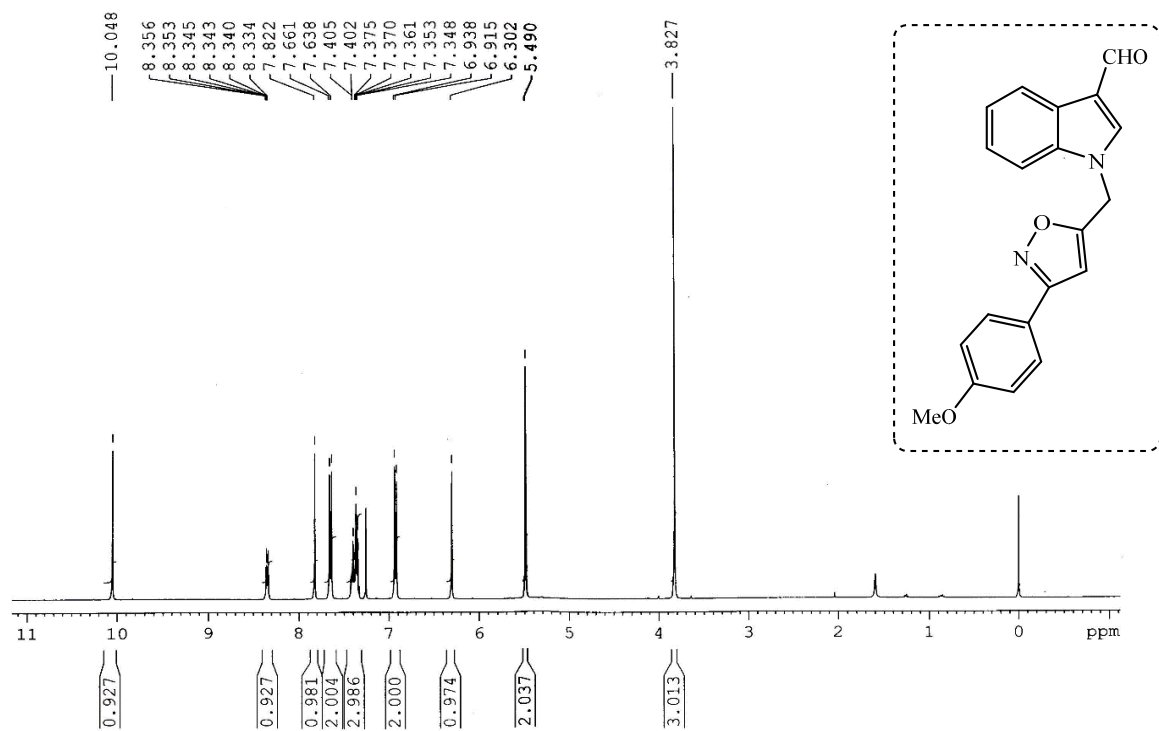


Fig. S32 - 1H NMR spectra of **4l** (300 MHz, $CDCl_3$)

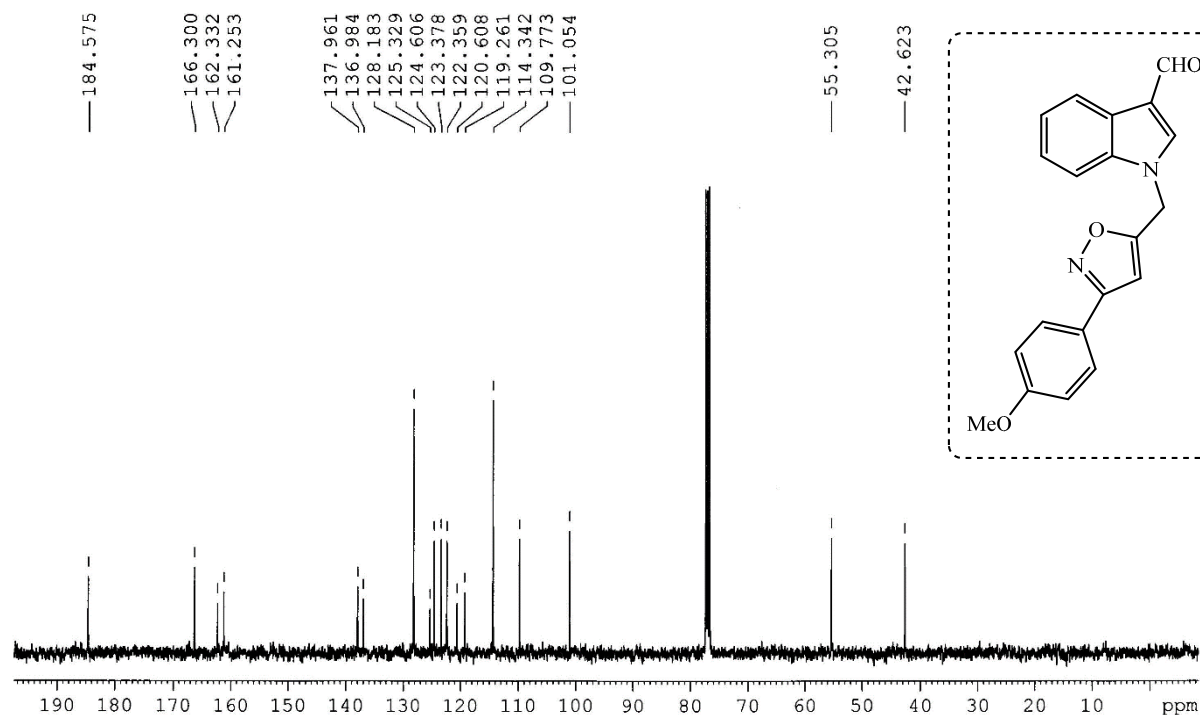


Fig. S33 - ¹³C NMR spectra of **4I** (75 MHz, CDCl₃)

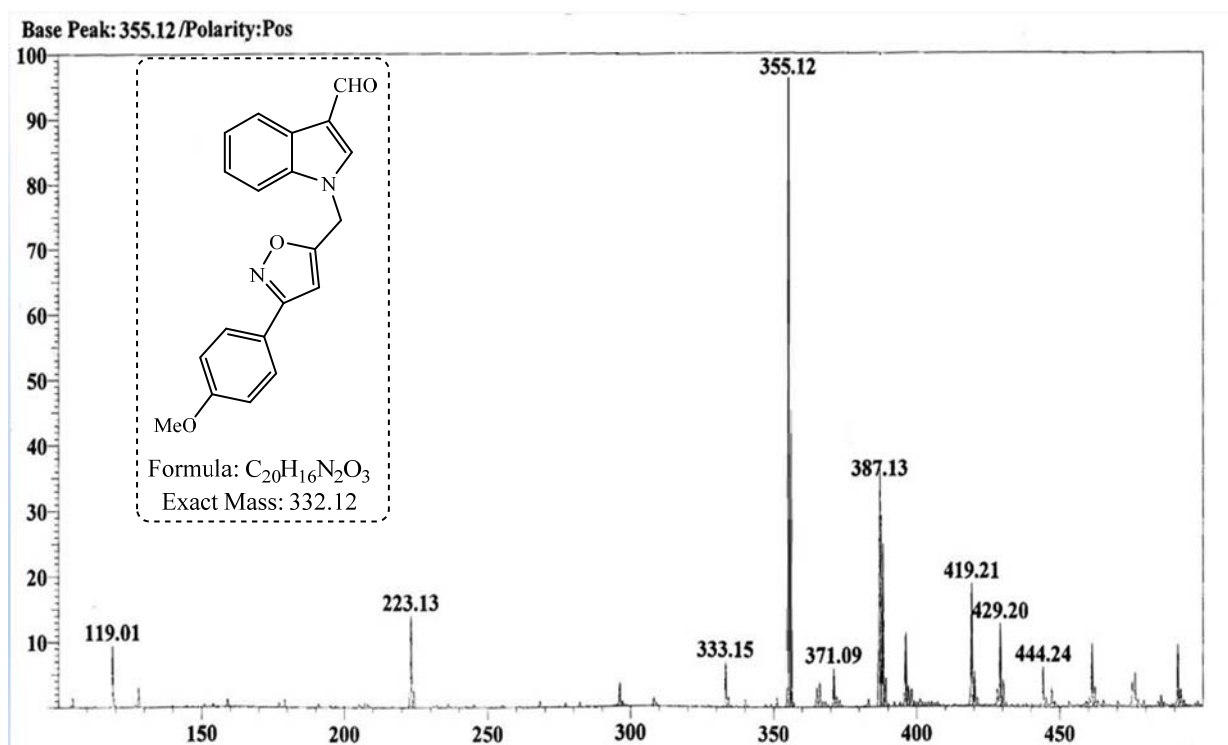


Fig. S34 - Mass spectra of **4I** (ESI-MS, positive)

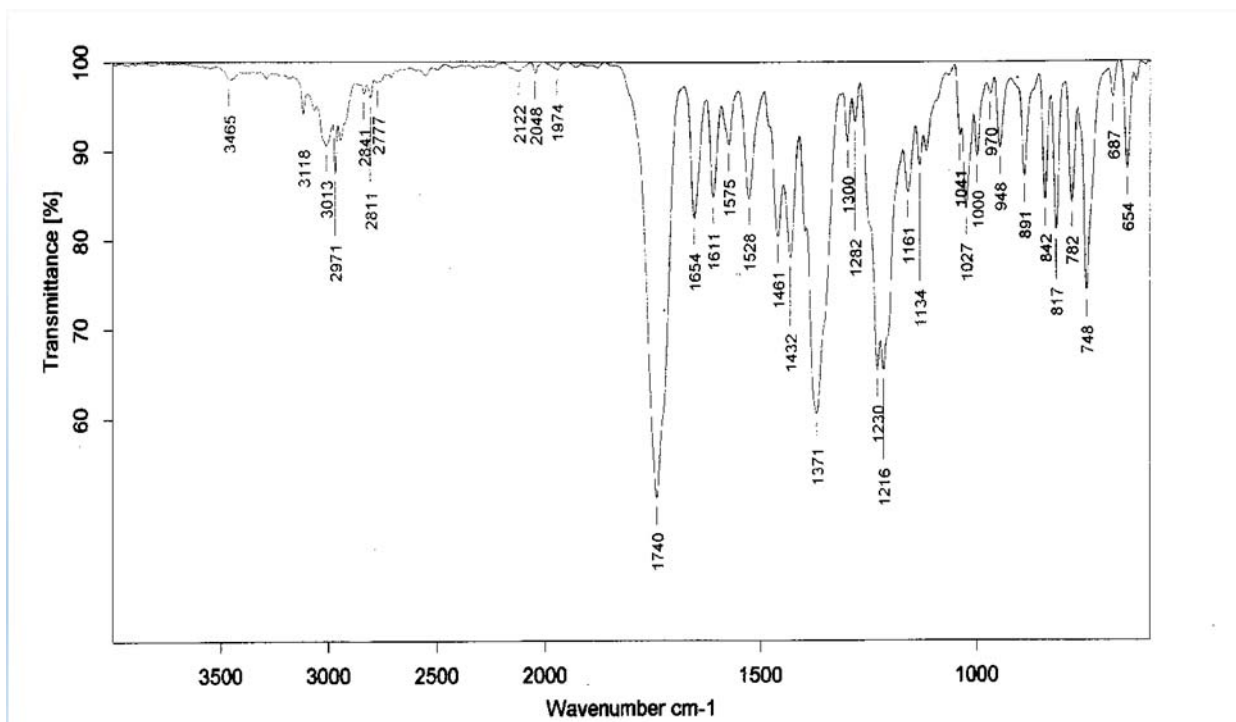


Fig. S35 - IR (KBr) spectra of **4l**

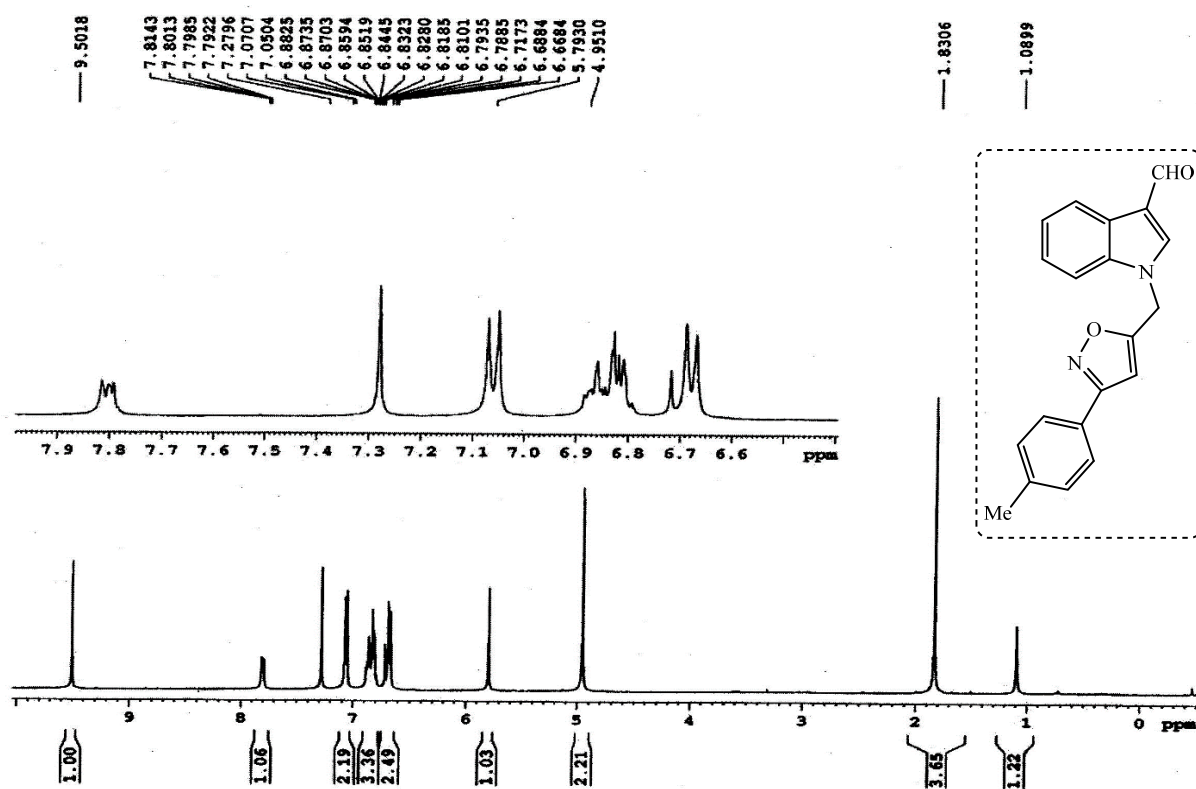


Fig. S36 - ^1H NMR spectra of **4m** (400 MHz, CDCl_3)

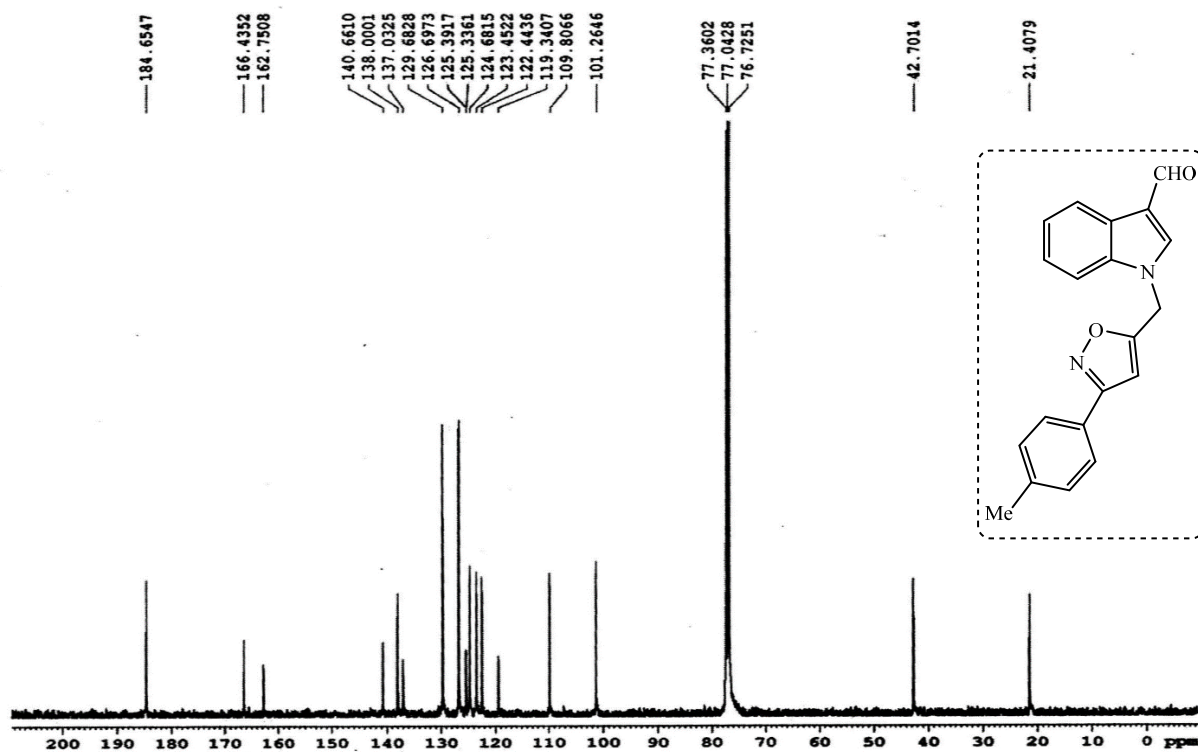


Fig. S37 - ^{13}C NMR spectra of **4m** (100 MHz, CDCl_3)

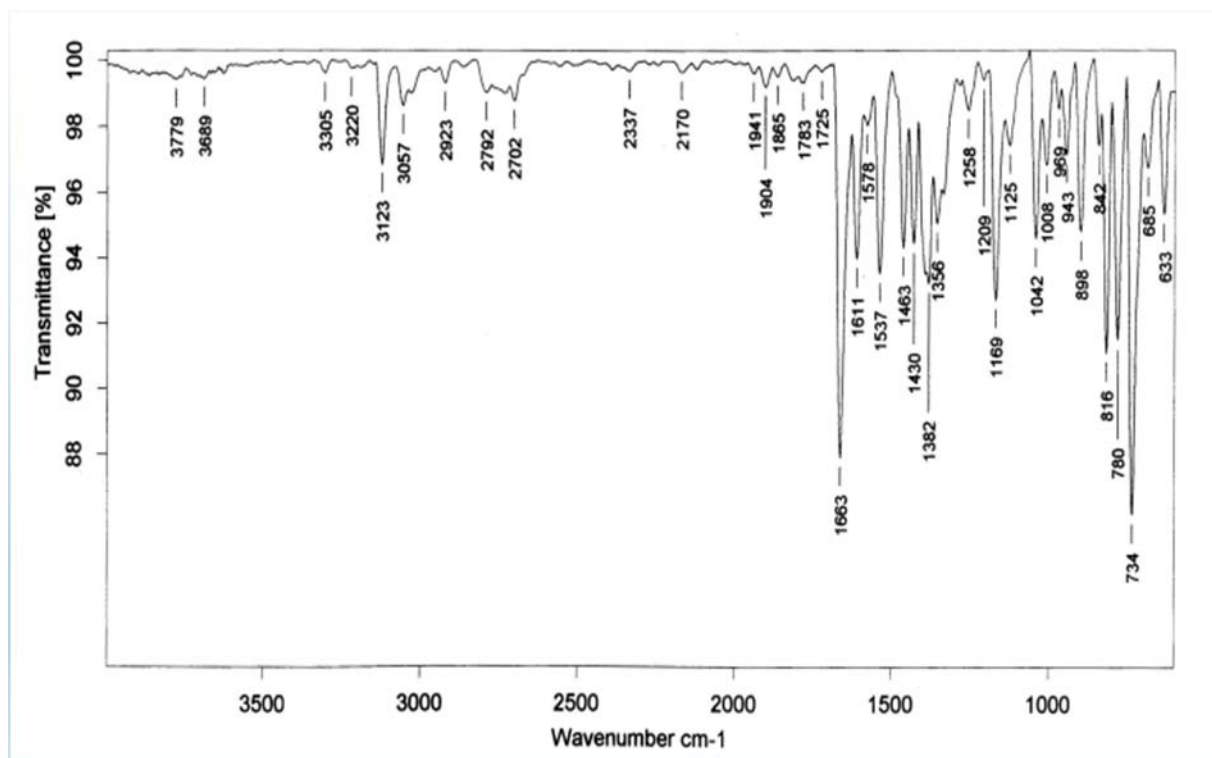


Fig. S38 - IR (KBr) spectra of **4m**

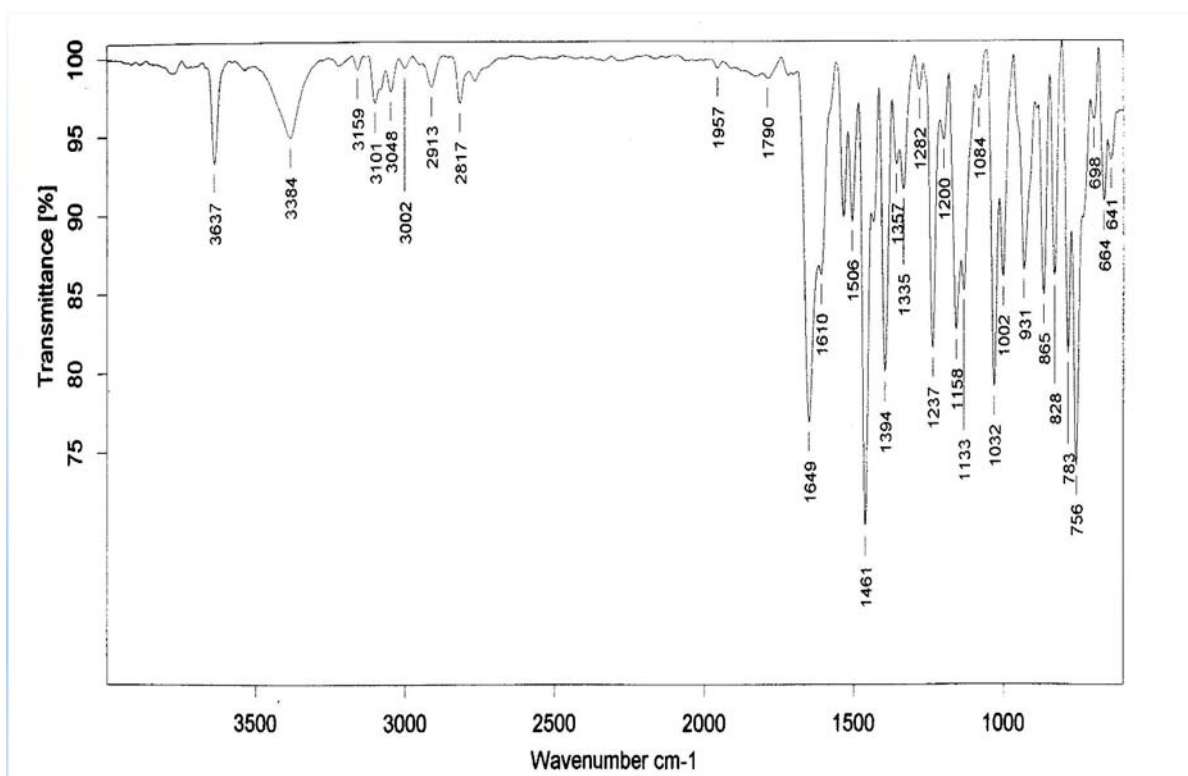


Fig. S41 - IR (KBr) spectra of 4n

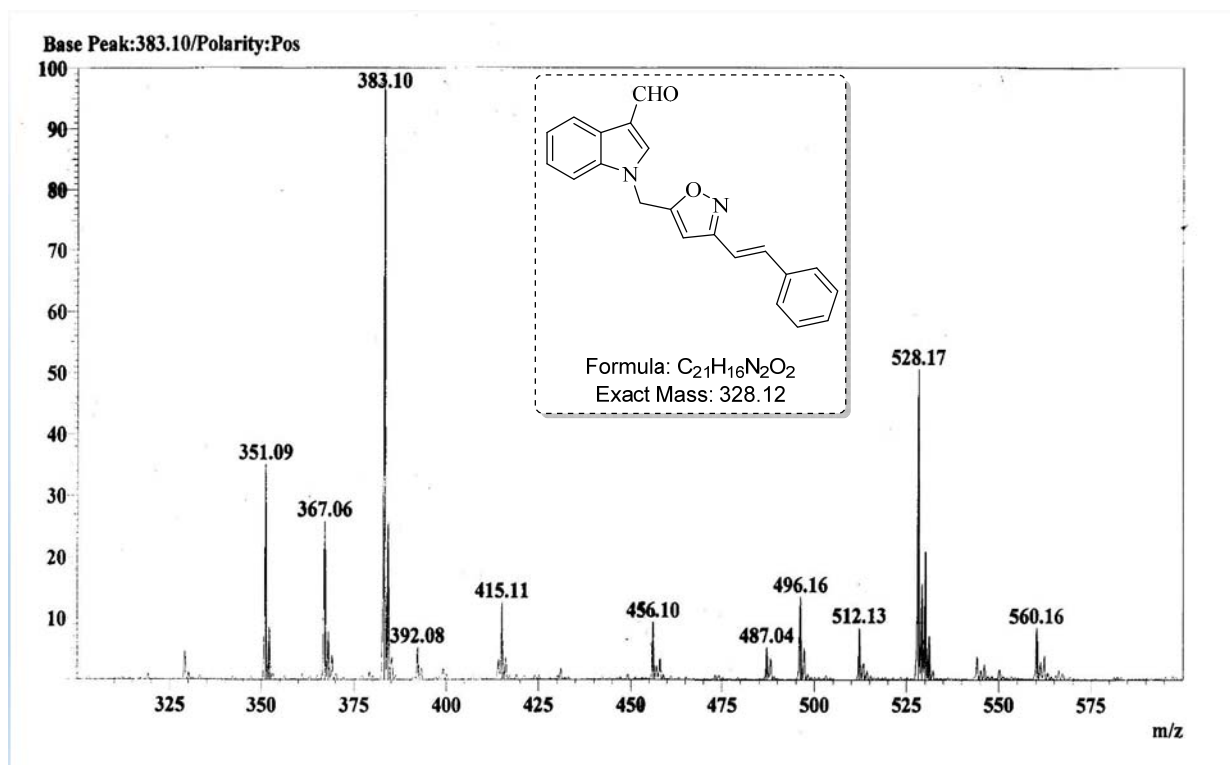


Fig. S42- Mass spectra of 4o (ESI-MS, positive)

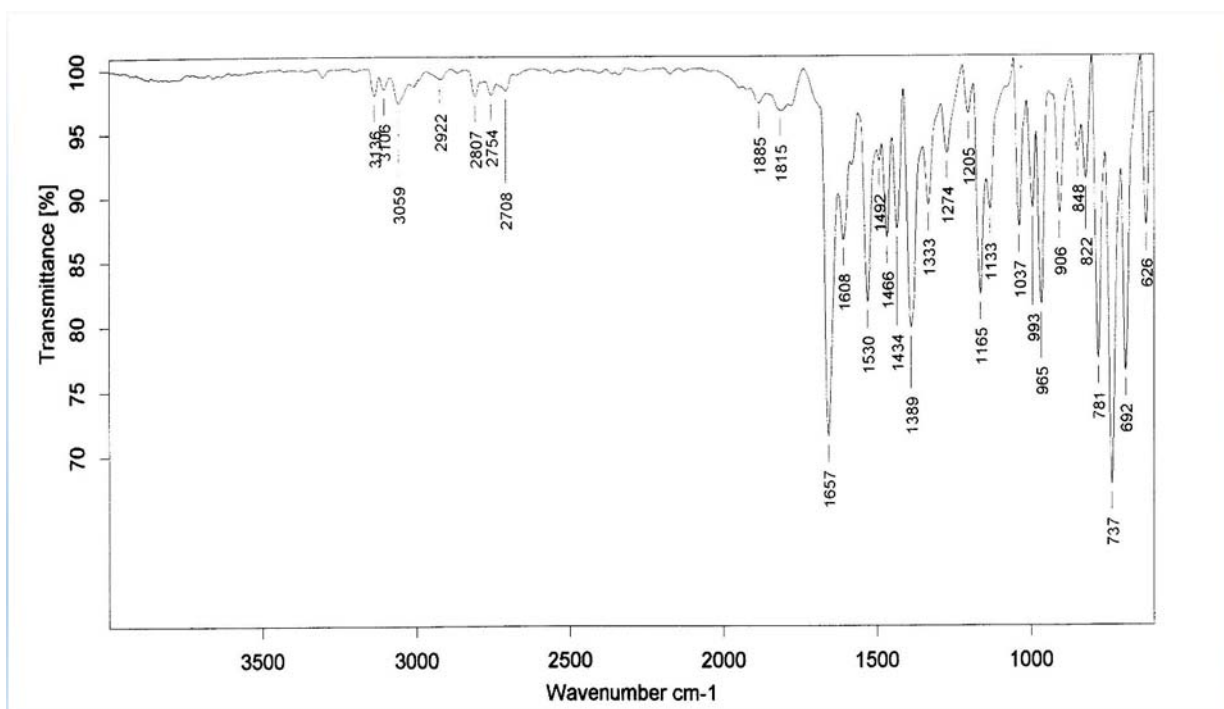


Fig. S43- IR spectra of **4o** (KBr)

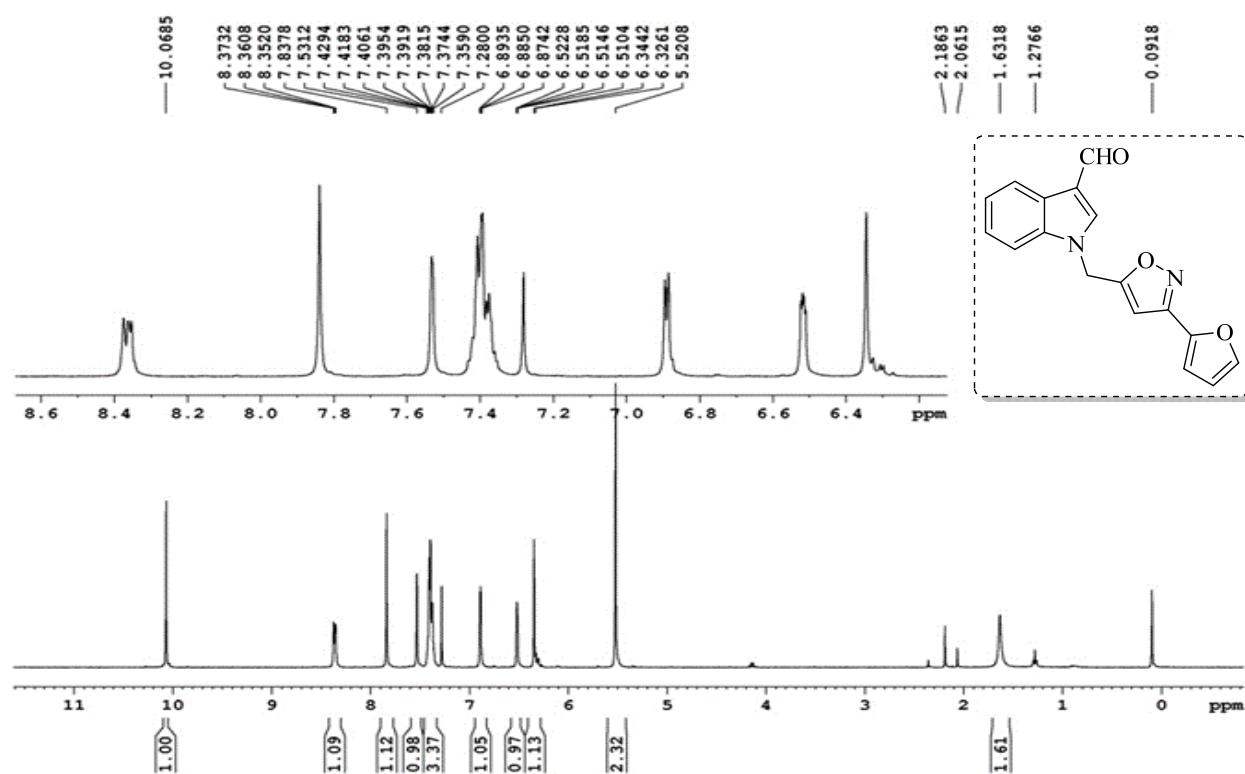


Fig. S44- ¹H NMR spectra of **4p** (400 MHz, CDCl₃)

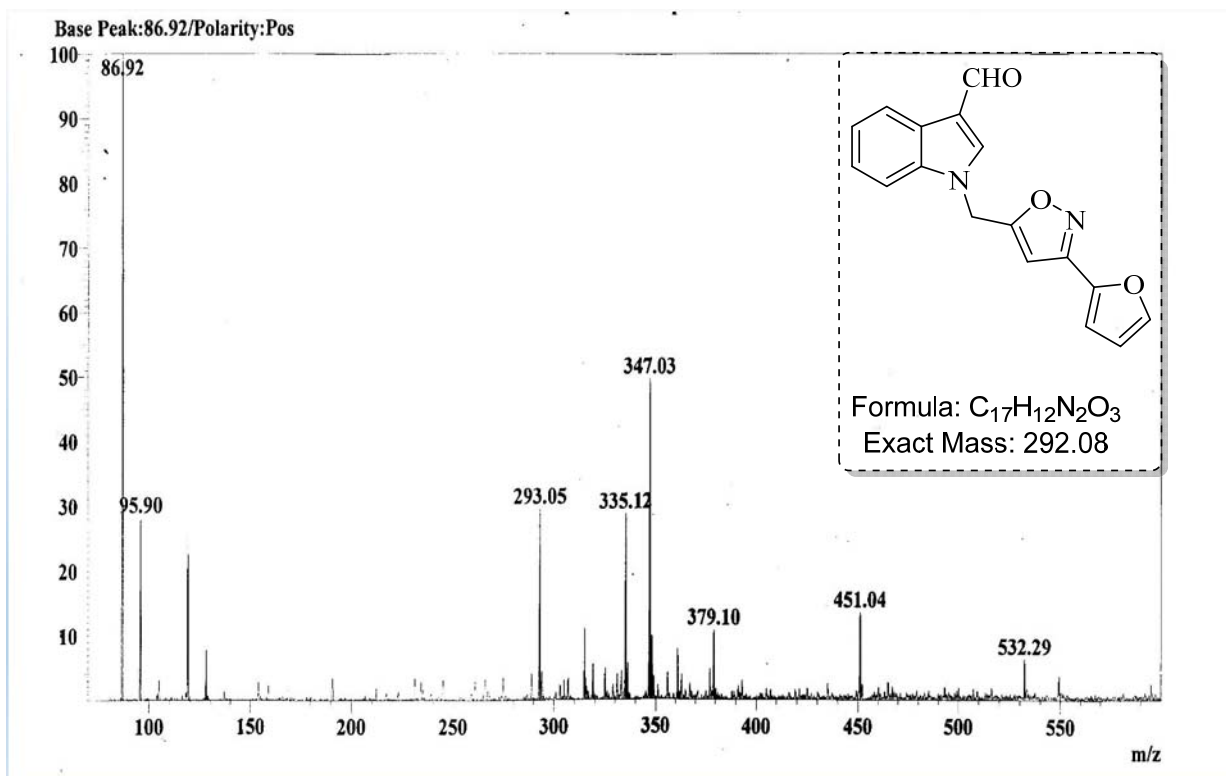


Fig. S45- Mass spectra of **4p** (ESI-MS, positive)

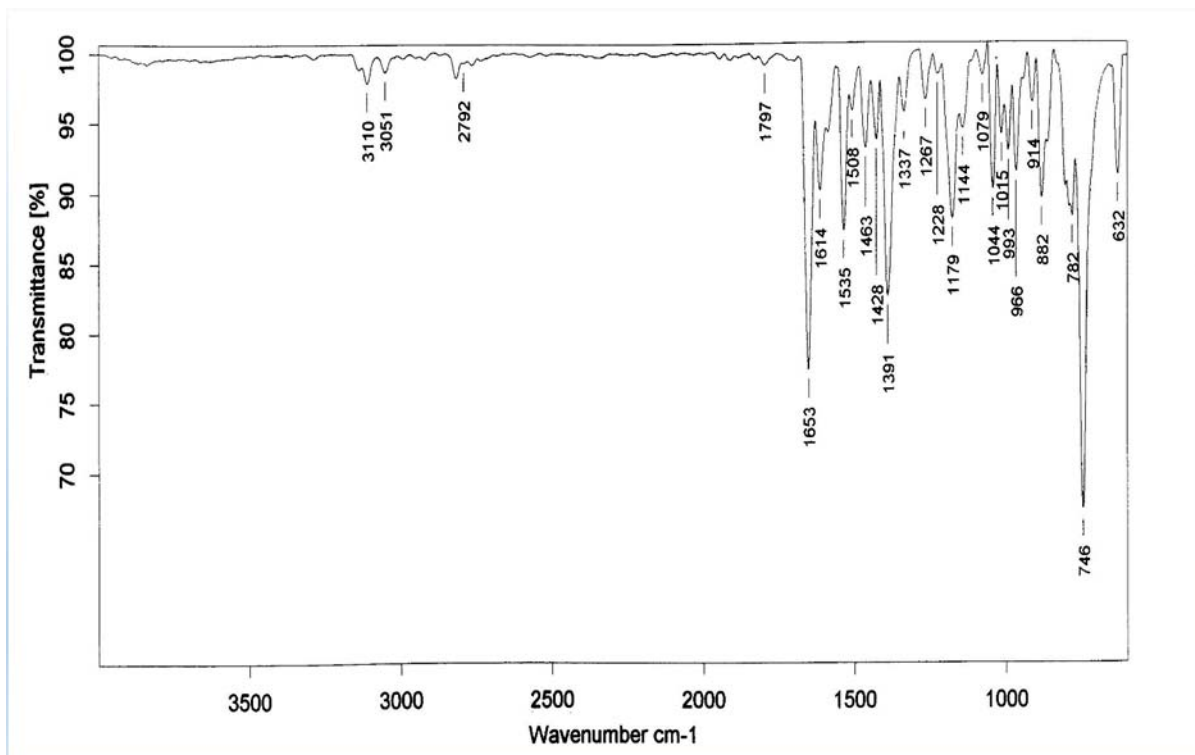


Fig. S46- IR (KBr) spectra of **4p**

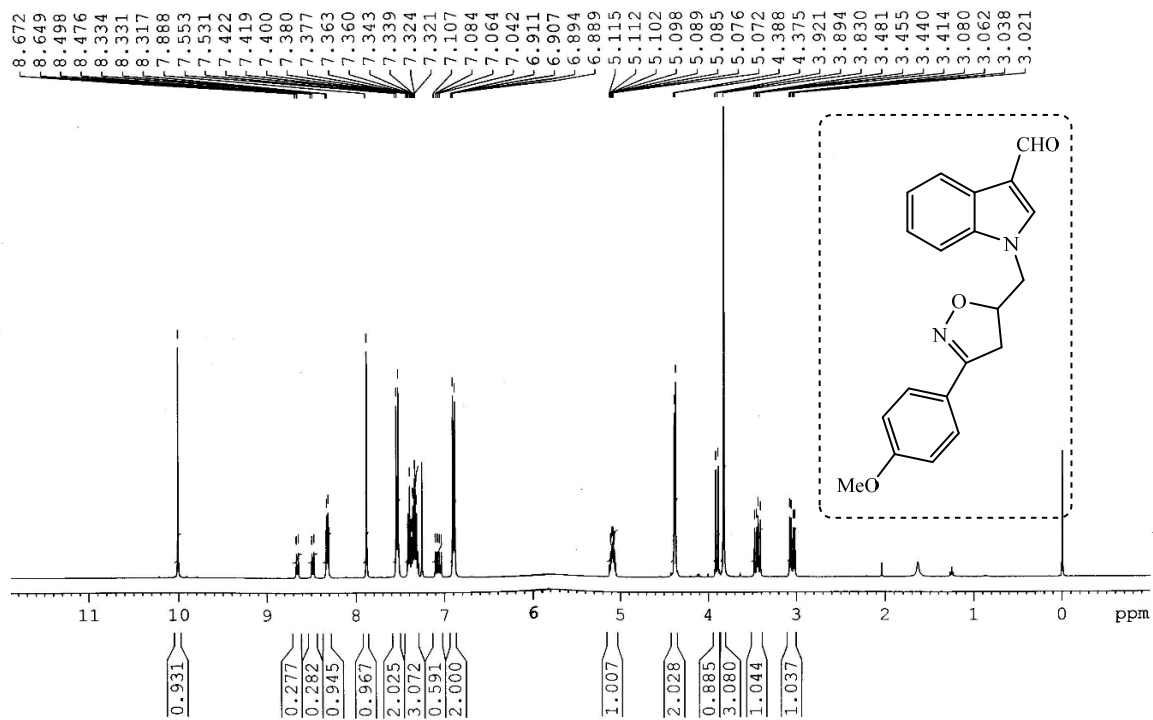


Fig. S47- ^1H NMR spectra of **6l** (400 MHz, CDCl_3)

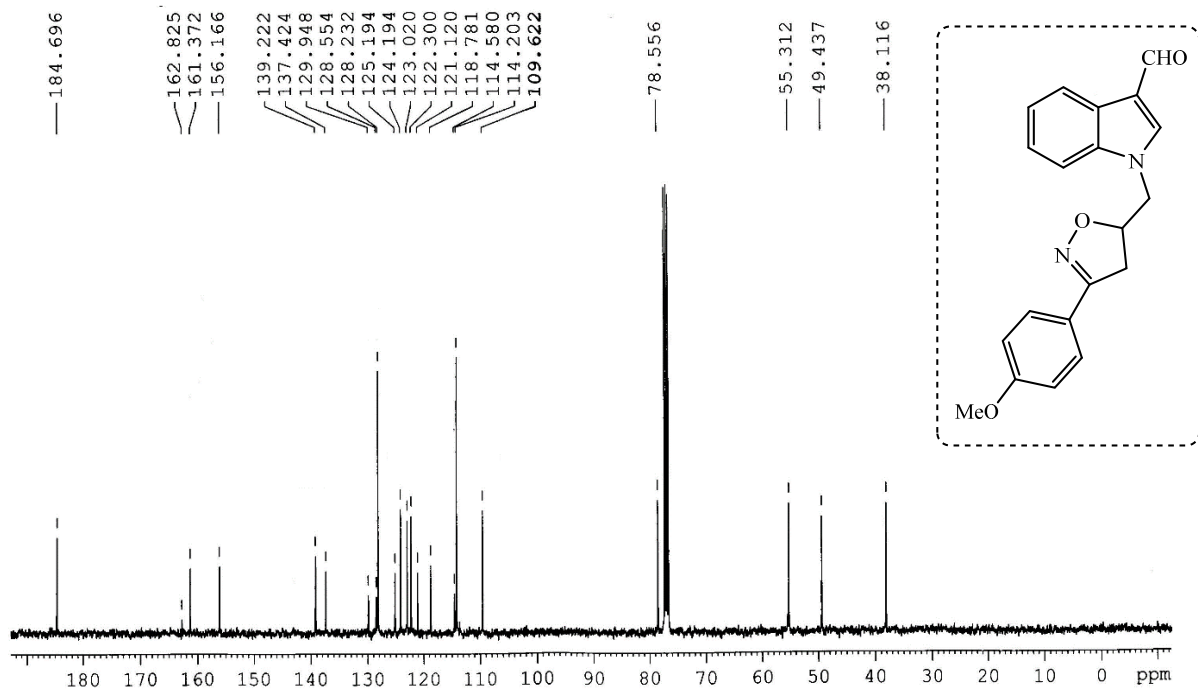


Fig. S48- ^{13}C NMR spectra of **6l** (75 MHz, CDCl_3)

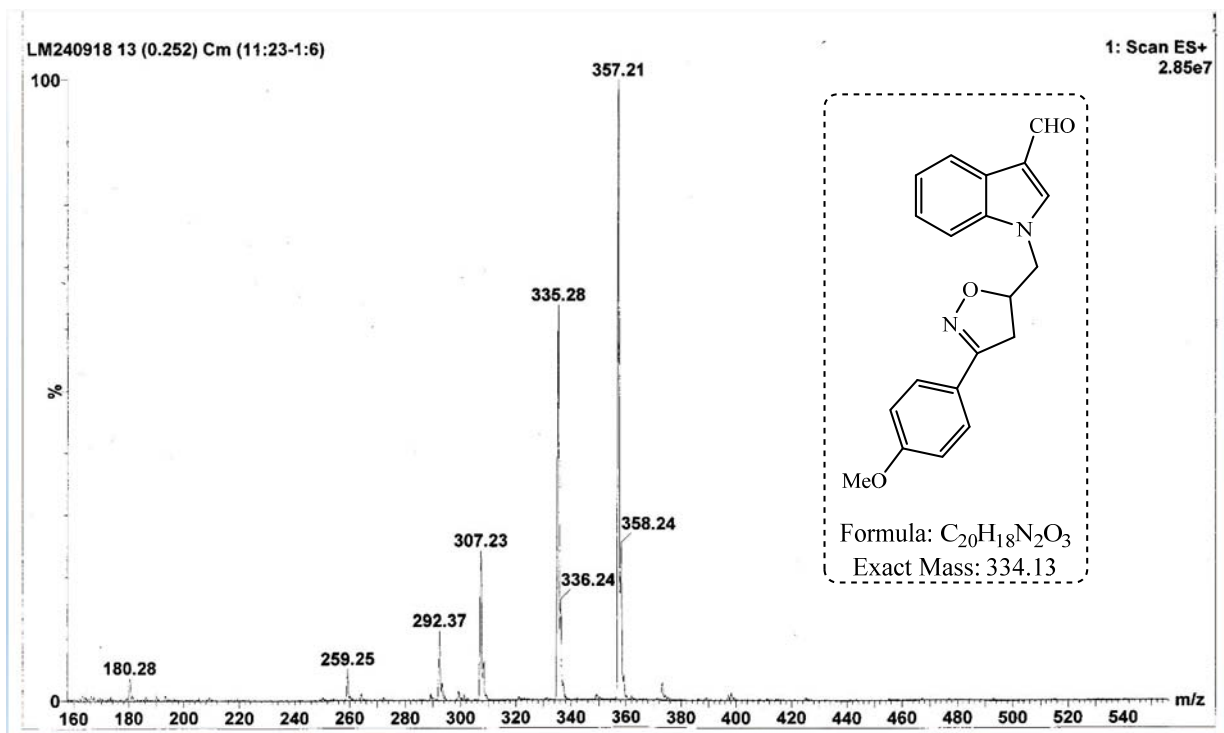


Fig. S49- Mass spectra of **6l** (ESI-MS, positive)

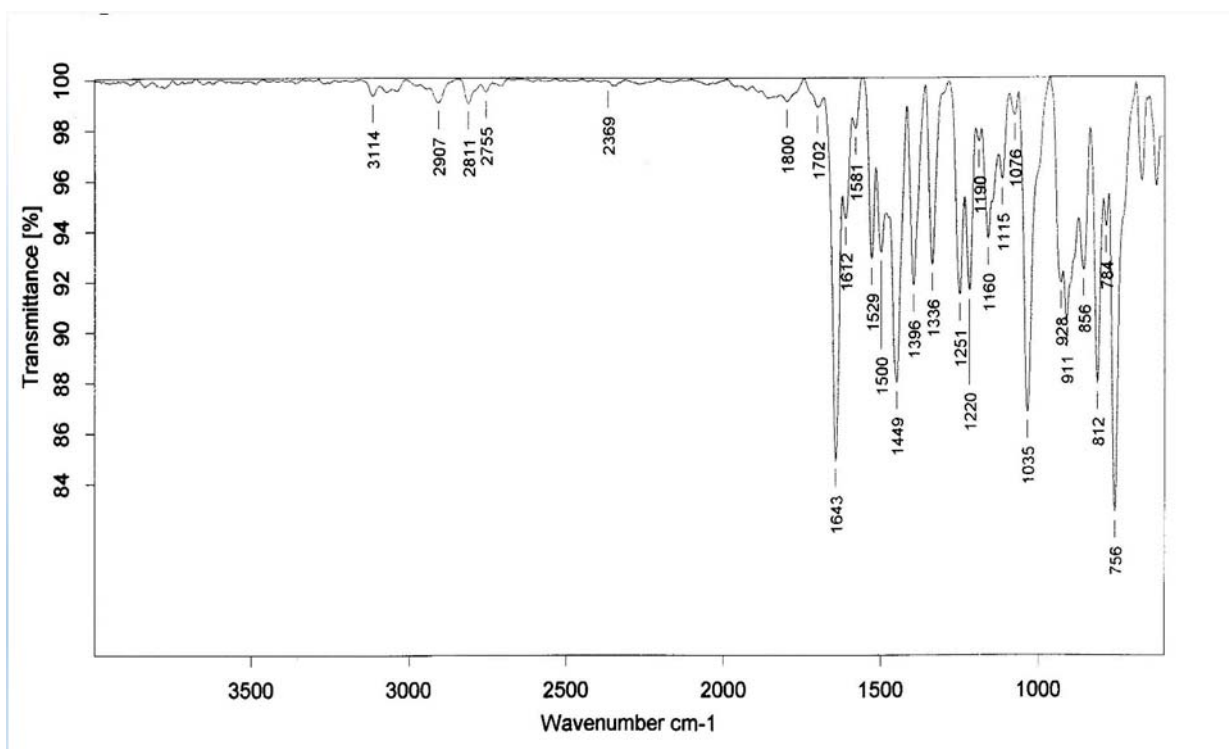


Fig. S50- IR (KBr) spectra of **6l**

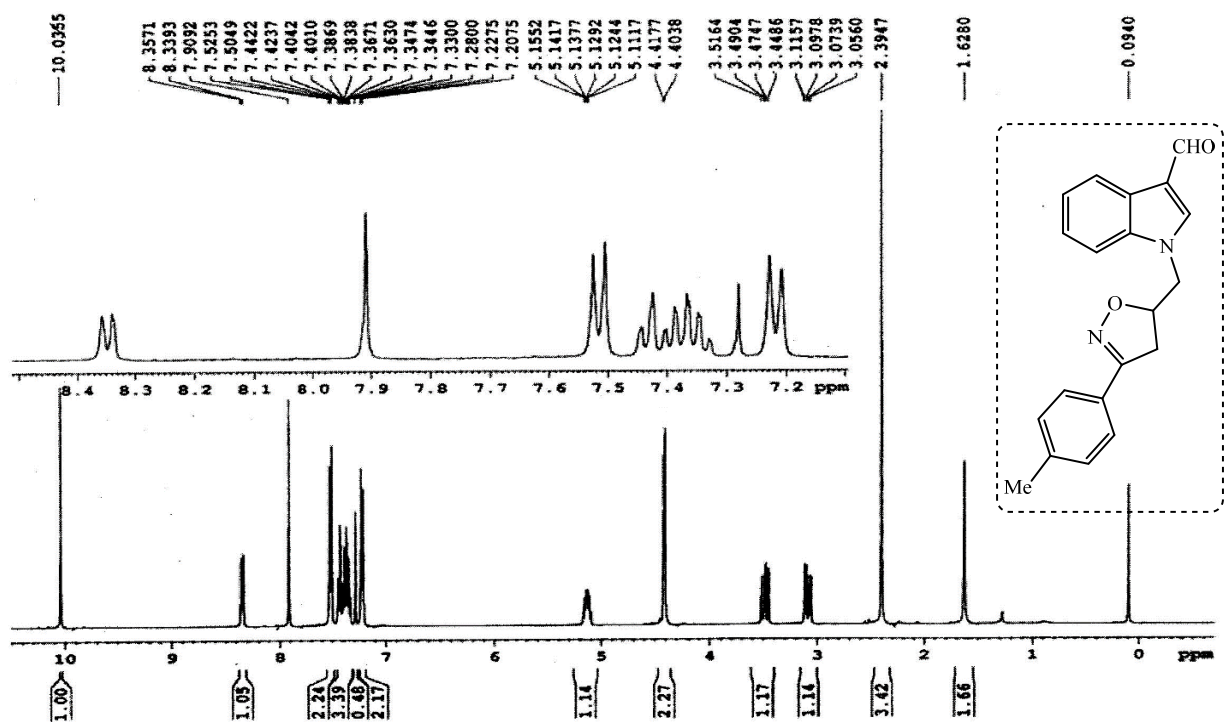


Fig. S51- ^1H NMR spectra of **6m** (400 MHz, CDCl_3)

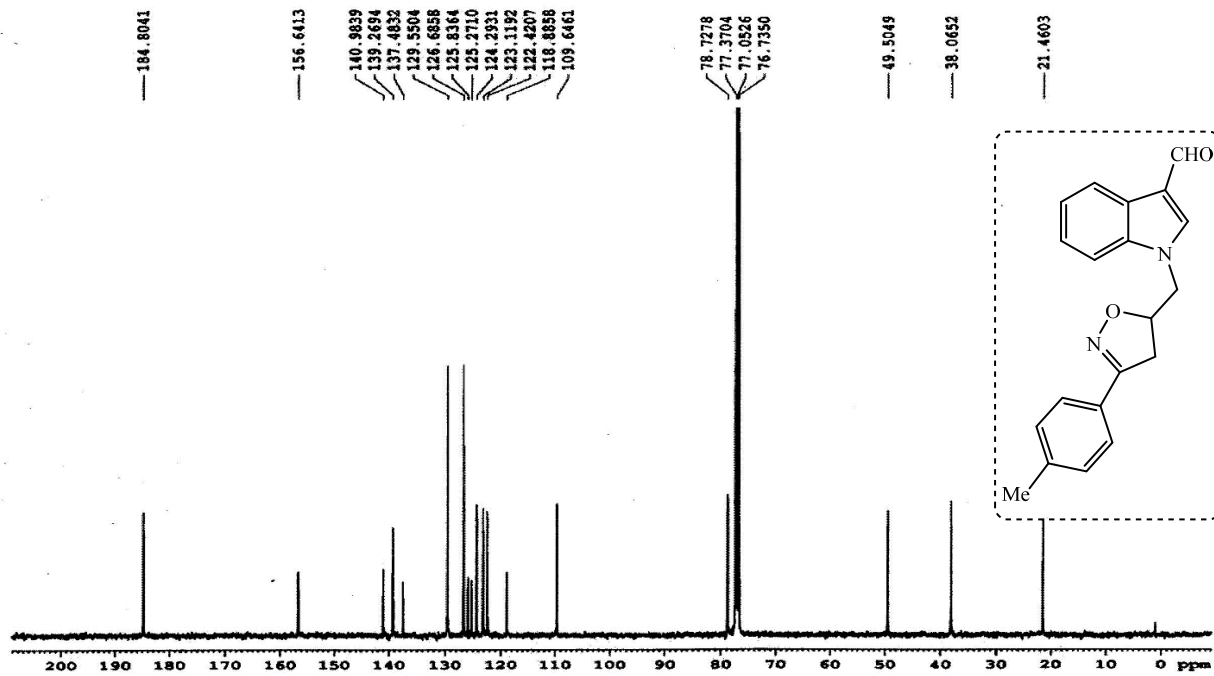


Fig. S52- ^{13}C NMR spectra of **6m** (100 MHz, CDCl_3)

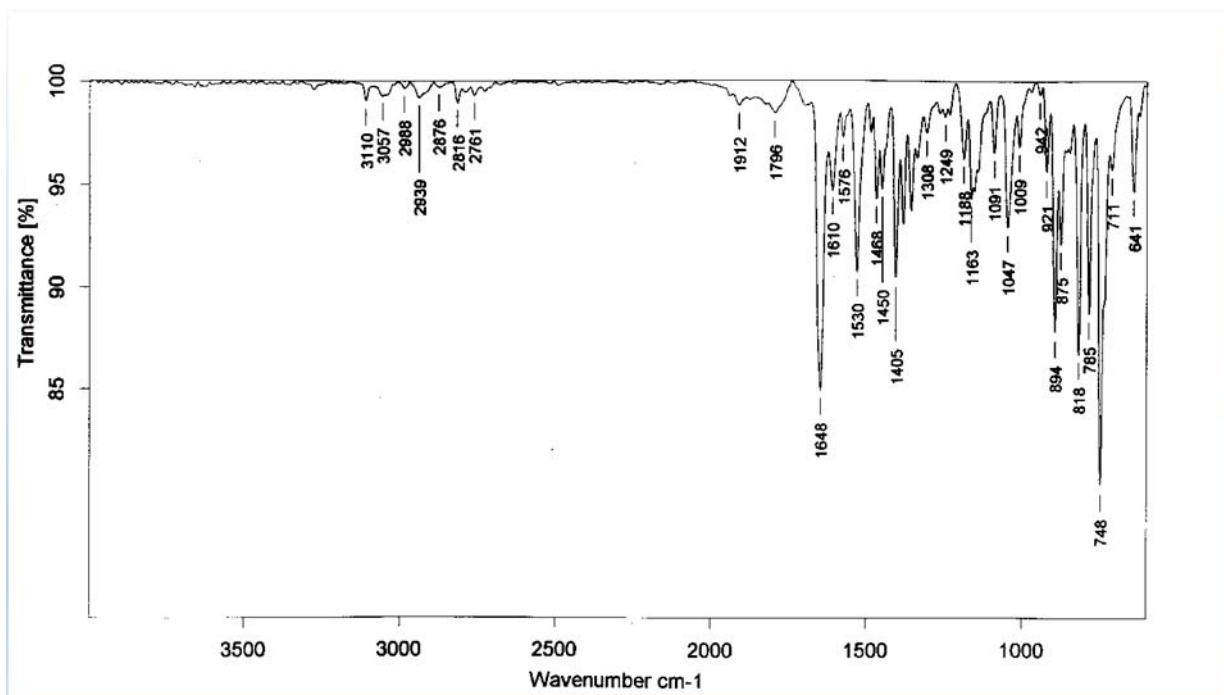


Fig. S53- IR (KBr) spectra of **6m**

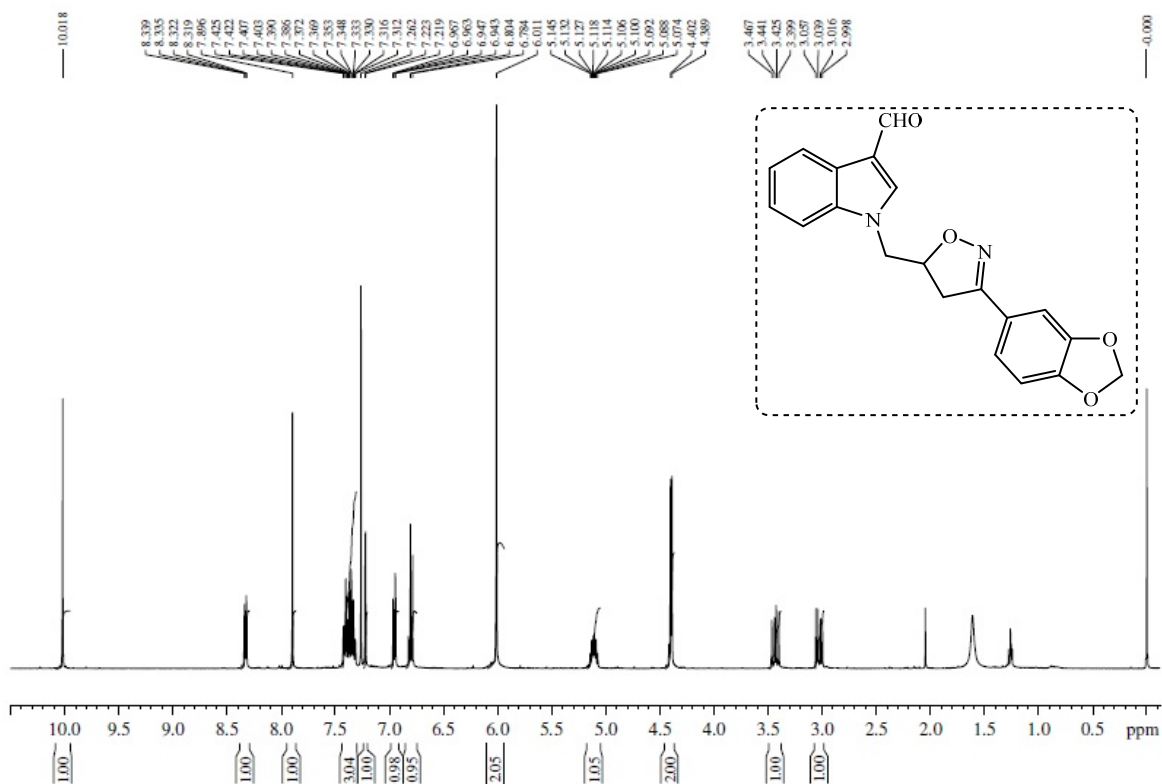


Fig. S54- ^1H NMR spectra of **6m** (400 MHz, CDCl_3)

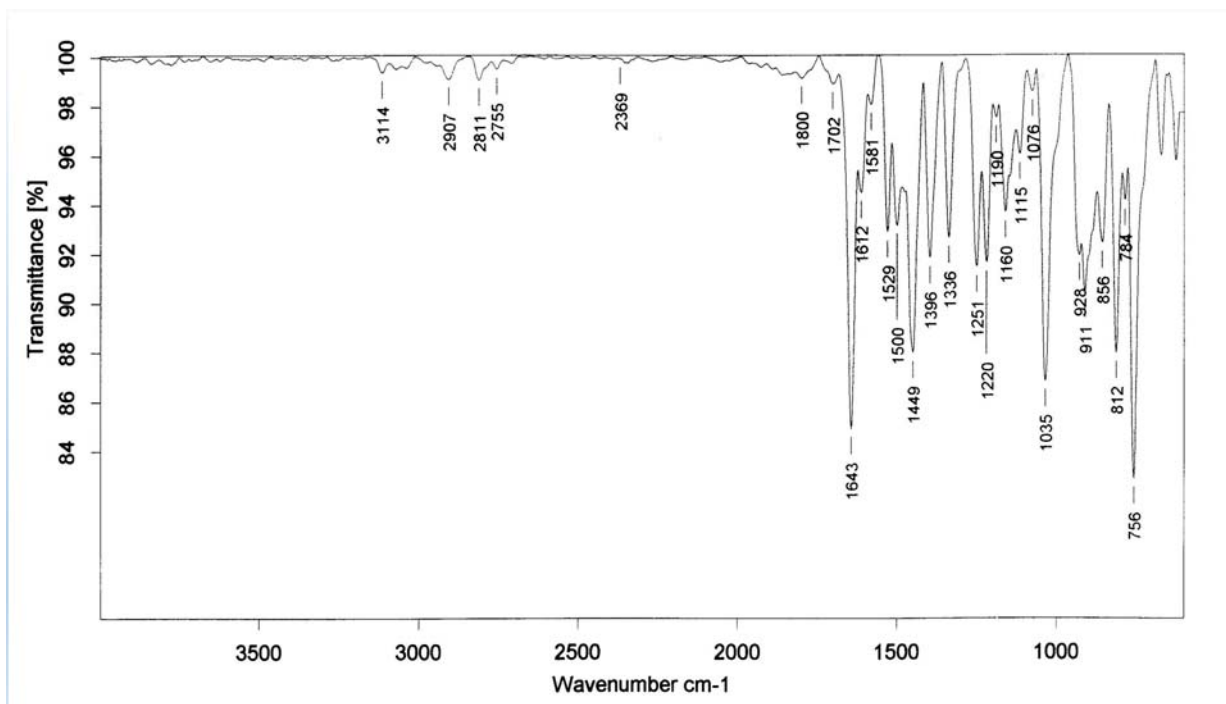


Fig. S55- IR (KBr) spectra of **6n**

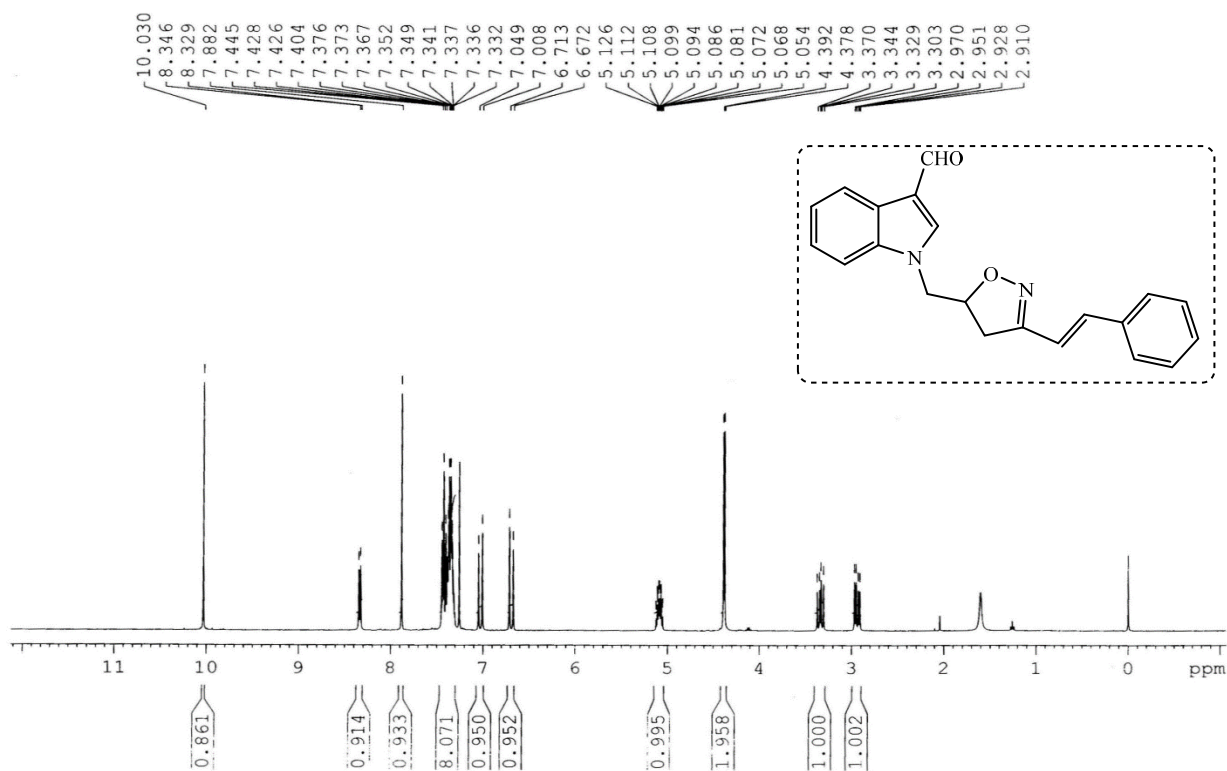


Fig. S56- ^1H NMR spectra of **6o**(400 MHz, CDCl_3)

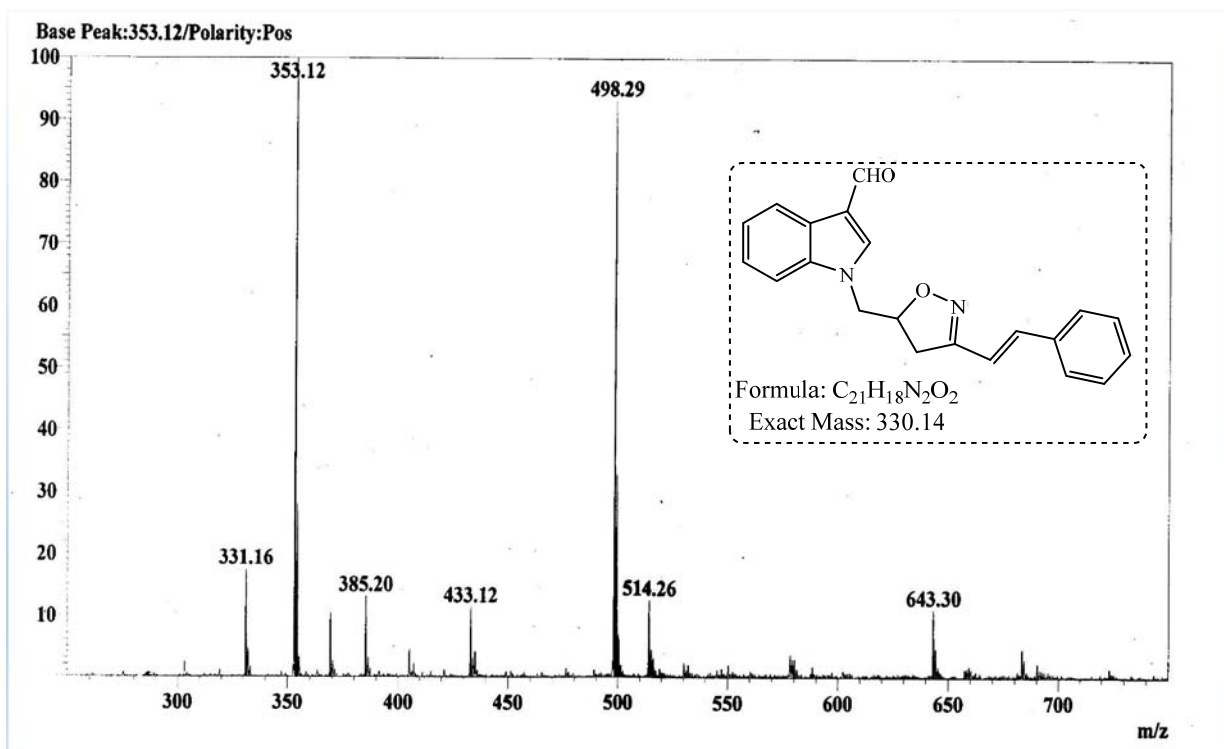


Fig. S57- Mass spectra of **60** (ESI-MS, positive)

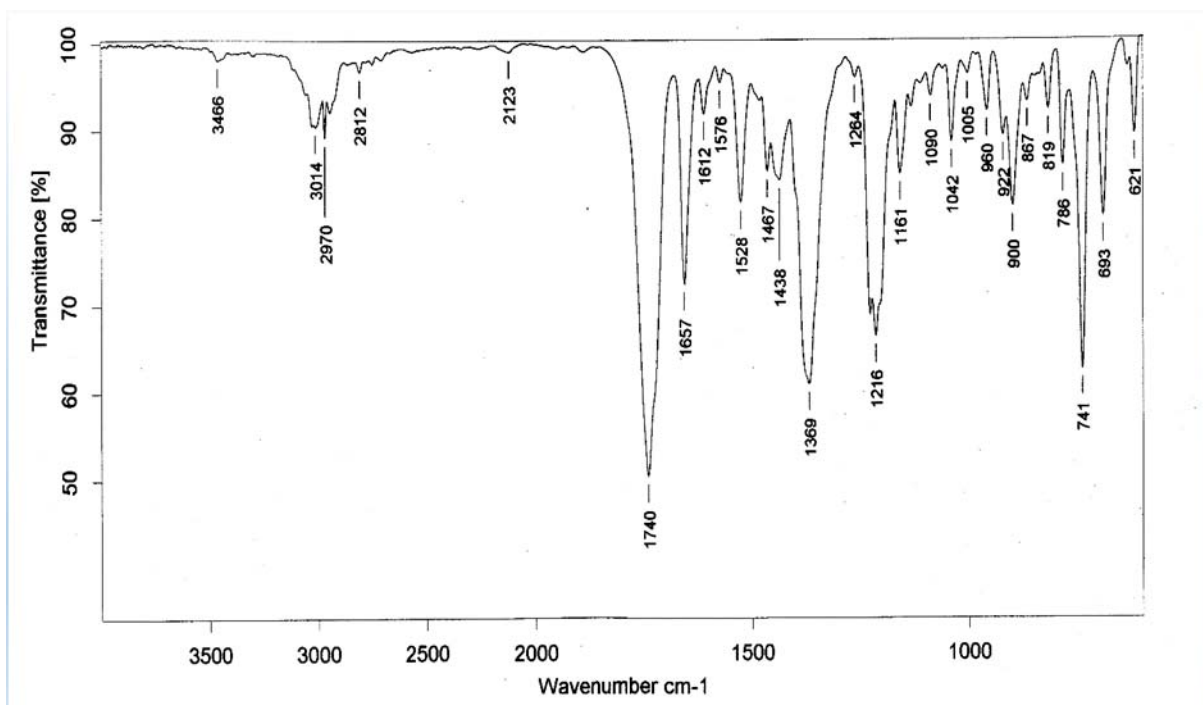


Fig. S58- IR (KBr) spectra of **60**

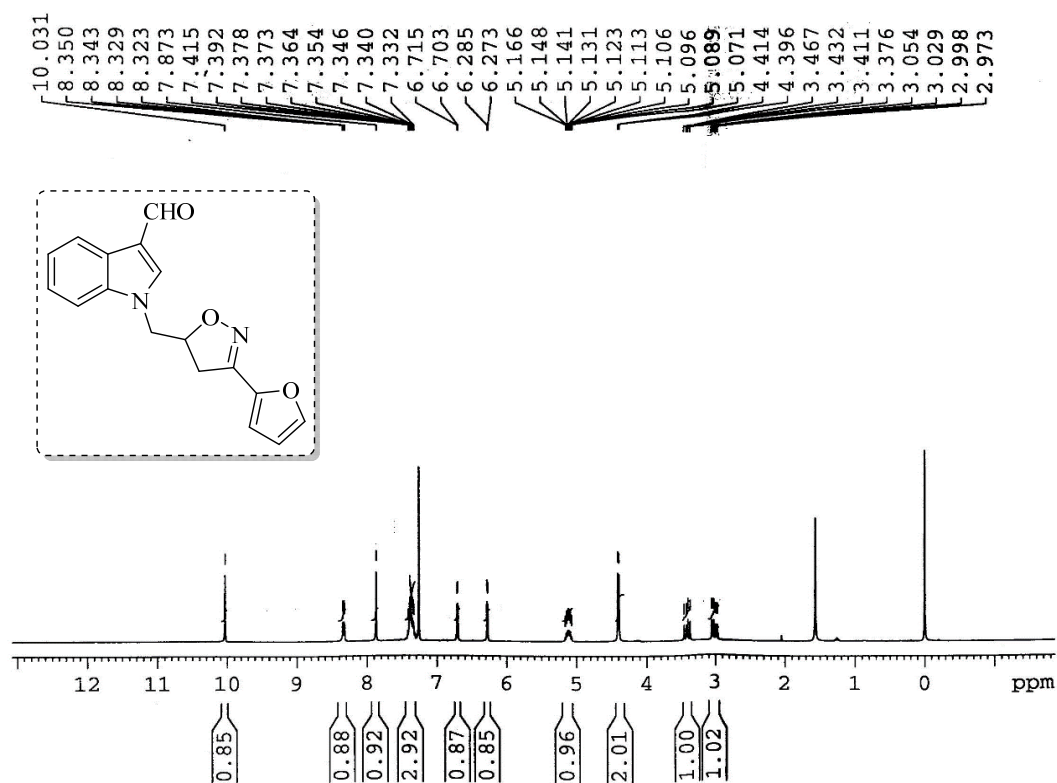


Fig. S59- ¹H NMR spectra of **6p** (300 MHz, CDCl₃)

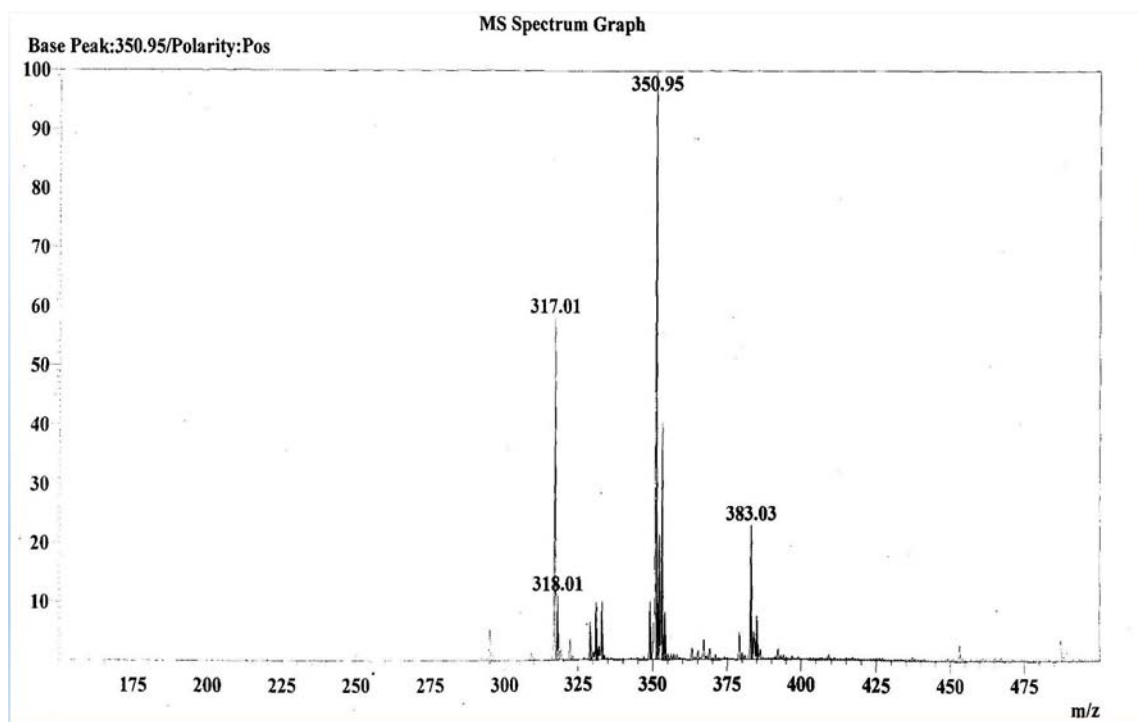


Fig. S60- Mass spectra of **6p** (ESI-MS, positive)