

Supporting Information

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A convenient synthesis of 3-arylideneindolin-2-ones and evaluation of their photoelectrochemical properties

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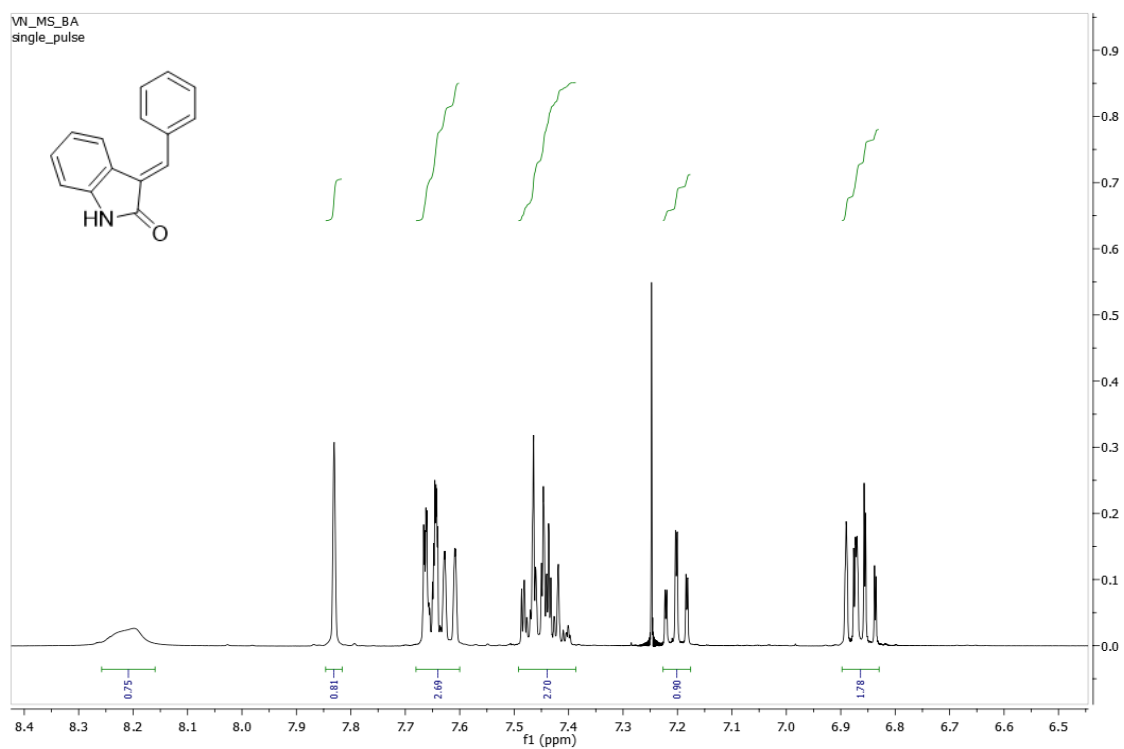
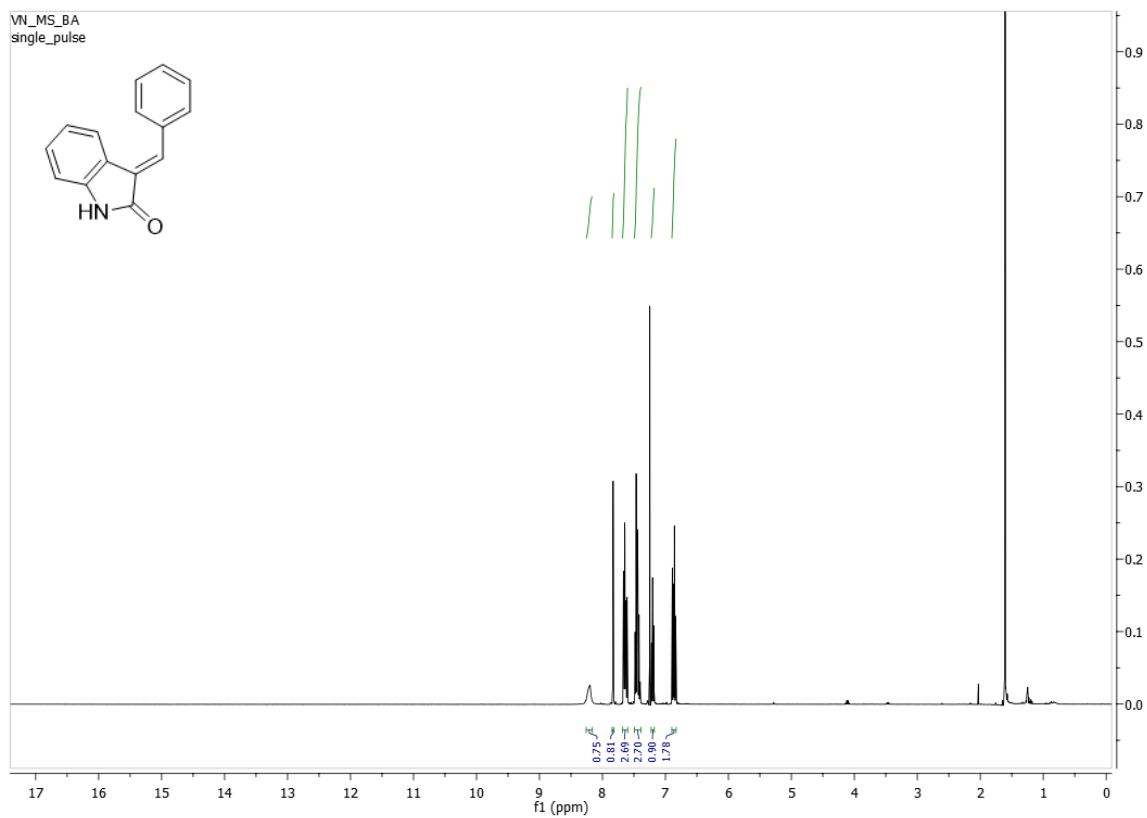


Figure S1: $^1\text{H-NMR}$ spectrum of (*E*)-3-benzylideneindolin-2-one **3a**

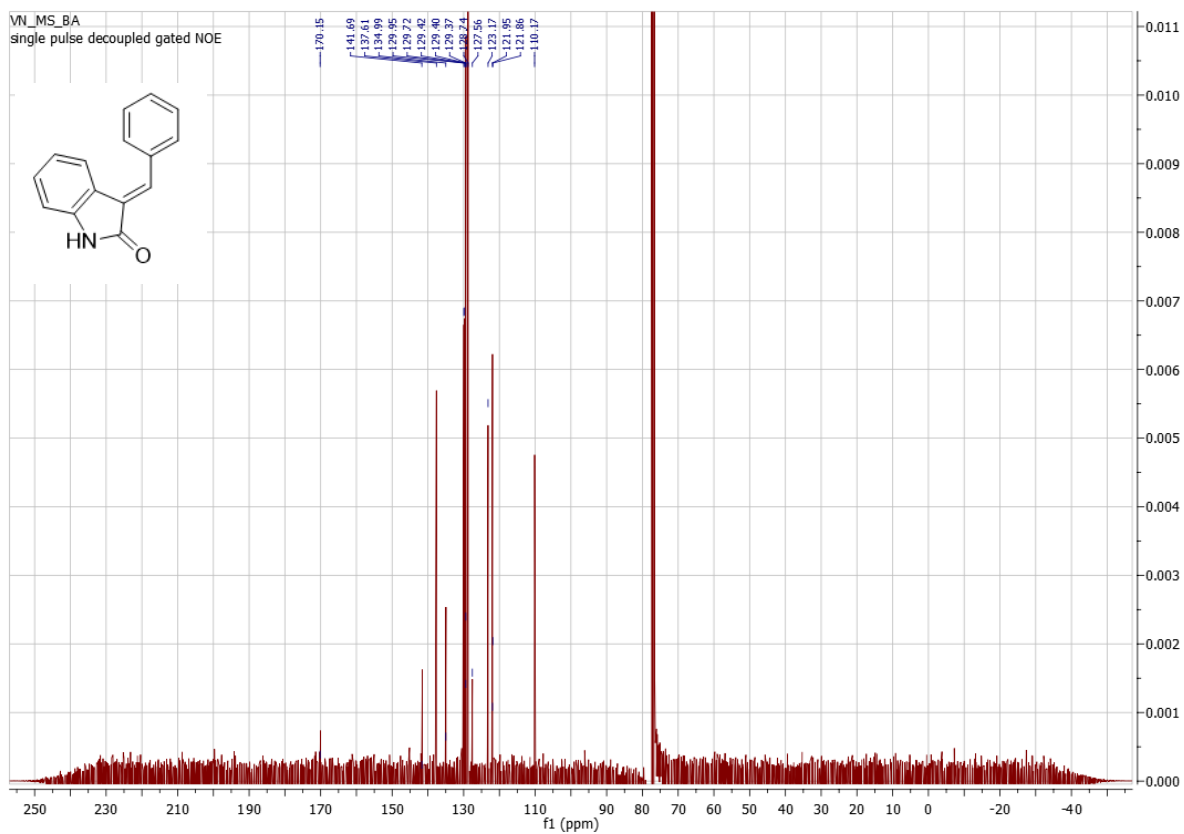


Figure S2: ^{13}C -NMR spectrum of *(E)*-3-benzylideneindolin-2-one **3a**

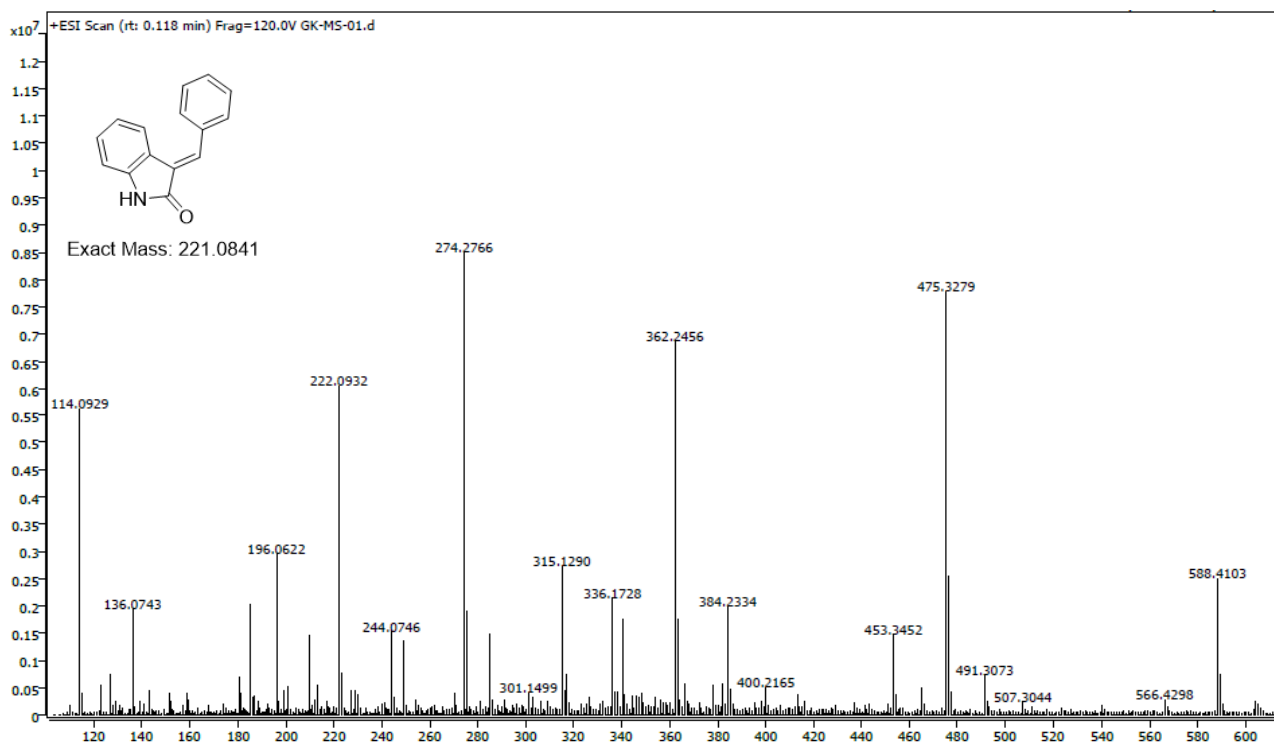


Figure S3: MS spectrum of *(E)*-3-benzylideneindolin-2-one **3a**

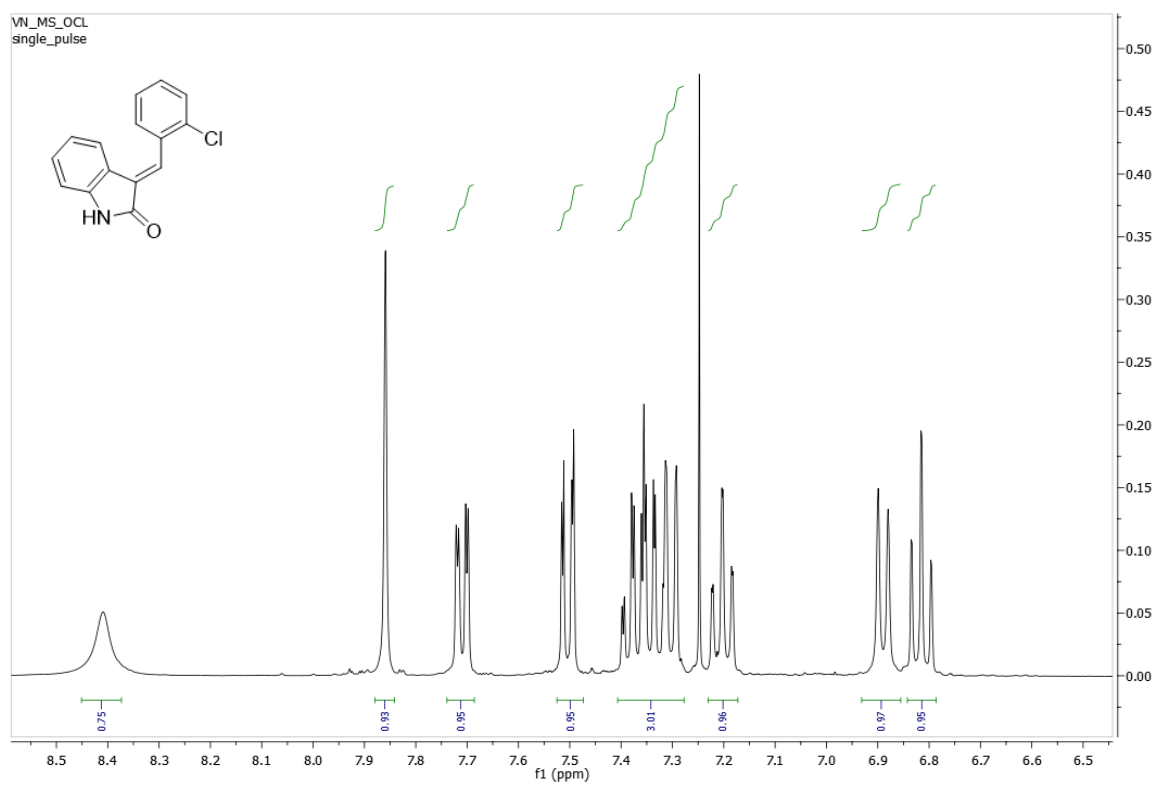
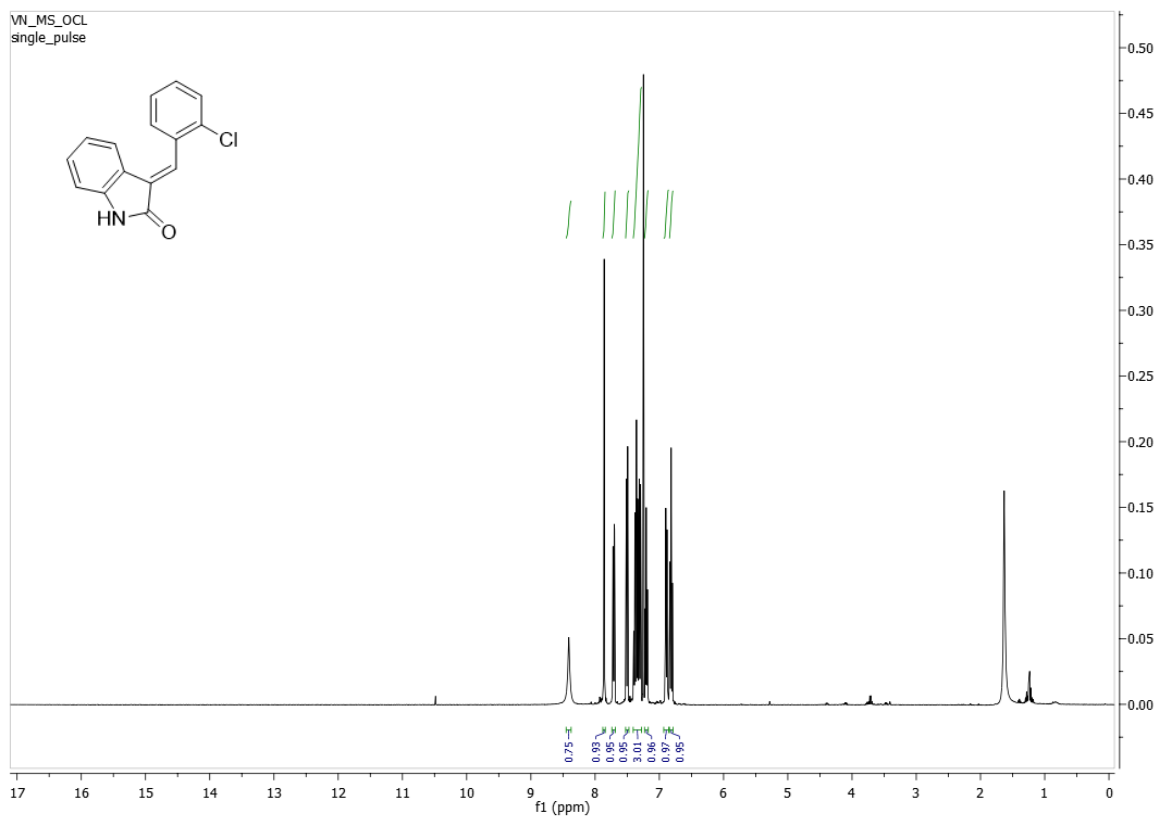


Figure S4: $^1\text{H-NMR}$ spectrum of (*E*)-3-(2-chlorobenzylidene)indolin-2-one **3b**

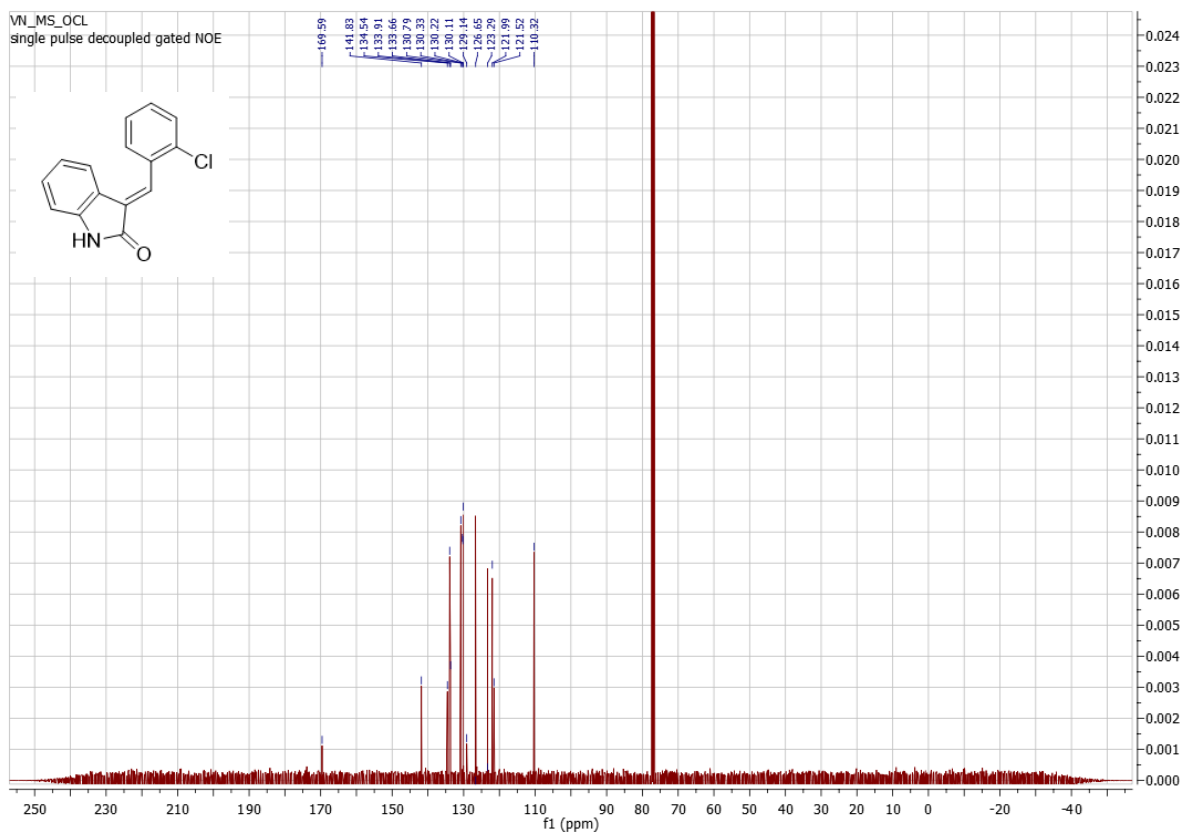


Figure S5: ^{13}C -NMR spectrum of *(E)*-3-(2-chlorobenzylidene)indolin-2-one **3b**

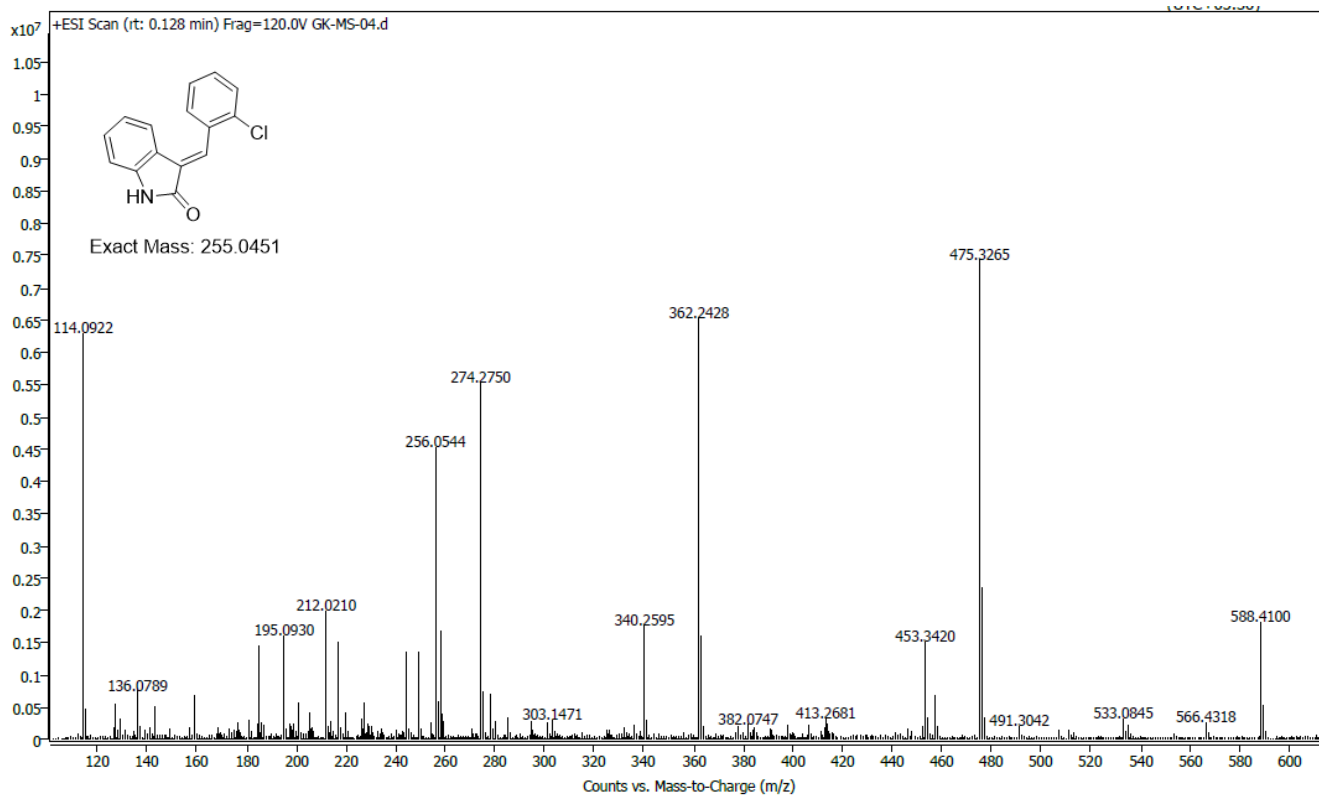


Figure S6: MS spectrum of (*E*)-3-(2-chlorobenzylidene)indolin-2-one **3b**

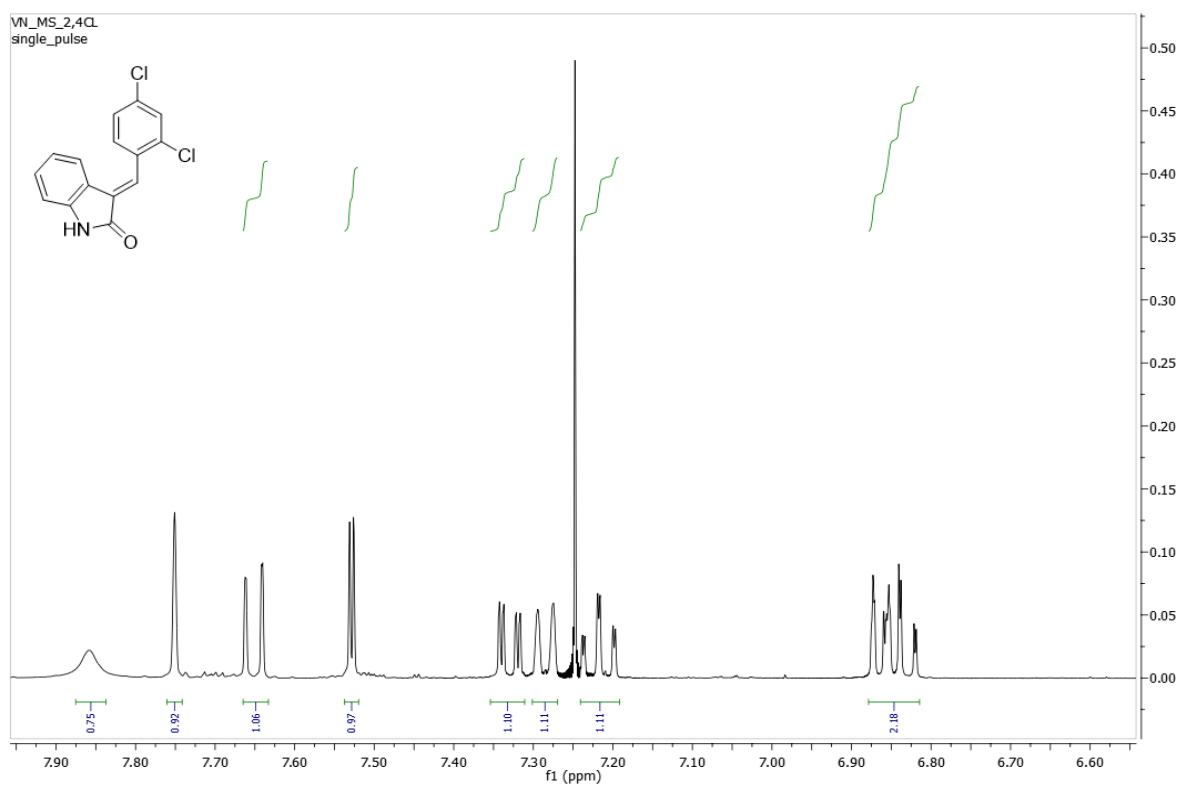
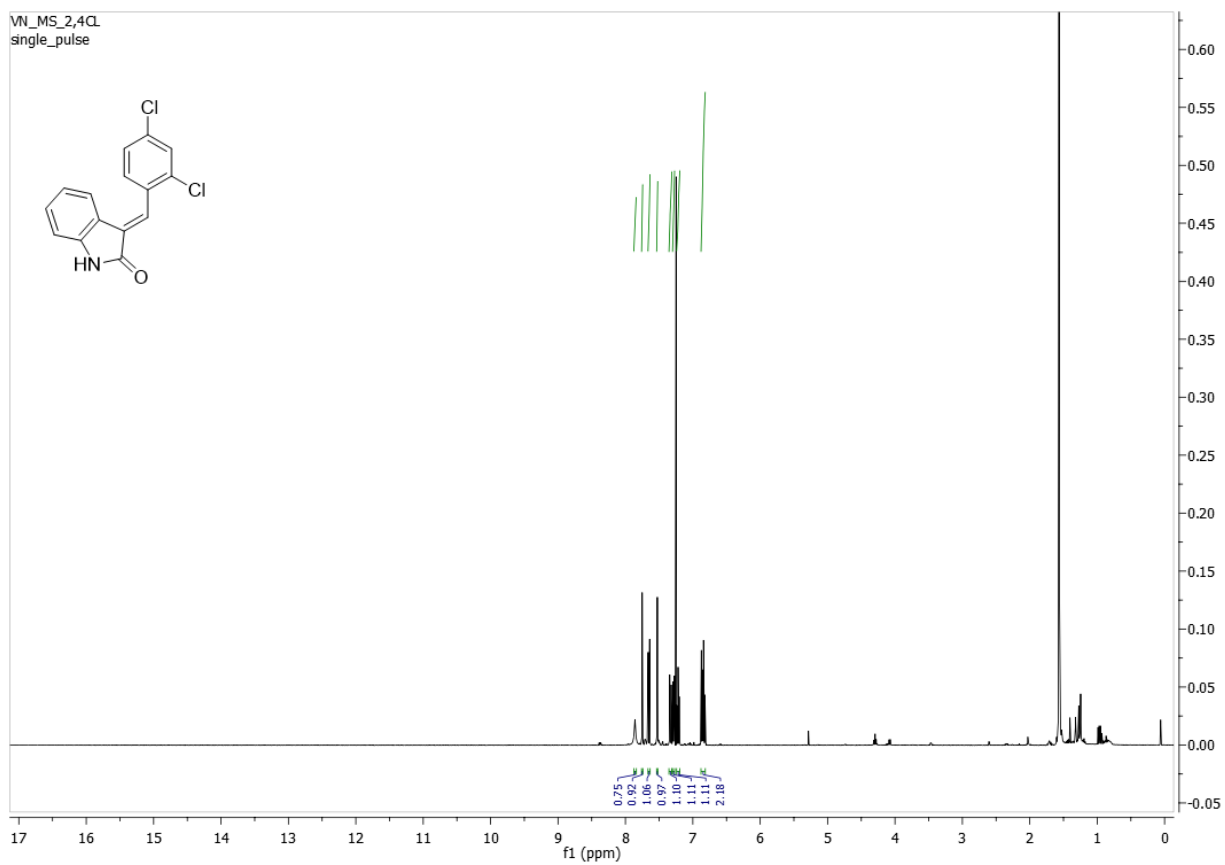


Figure S7: $^1\text{H-NMR}$ spectrum of (*E*)-3-(2,4-dichlorobenzylidene)indolin-2-one **3c**

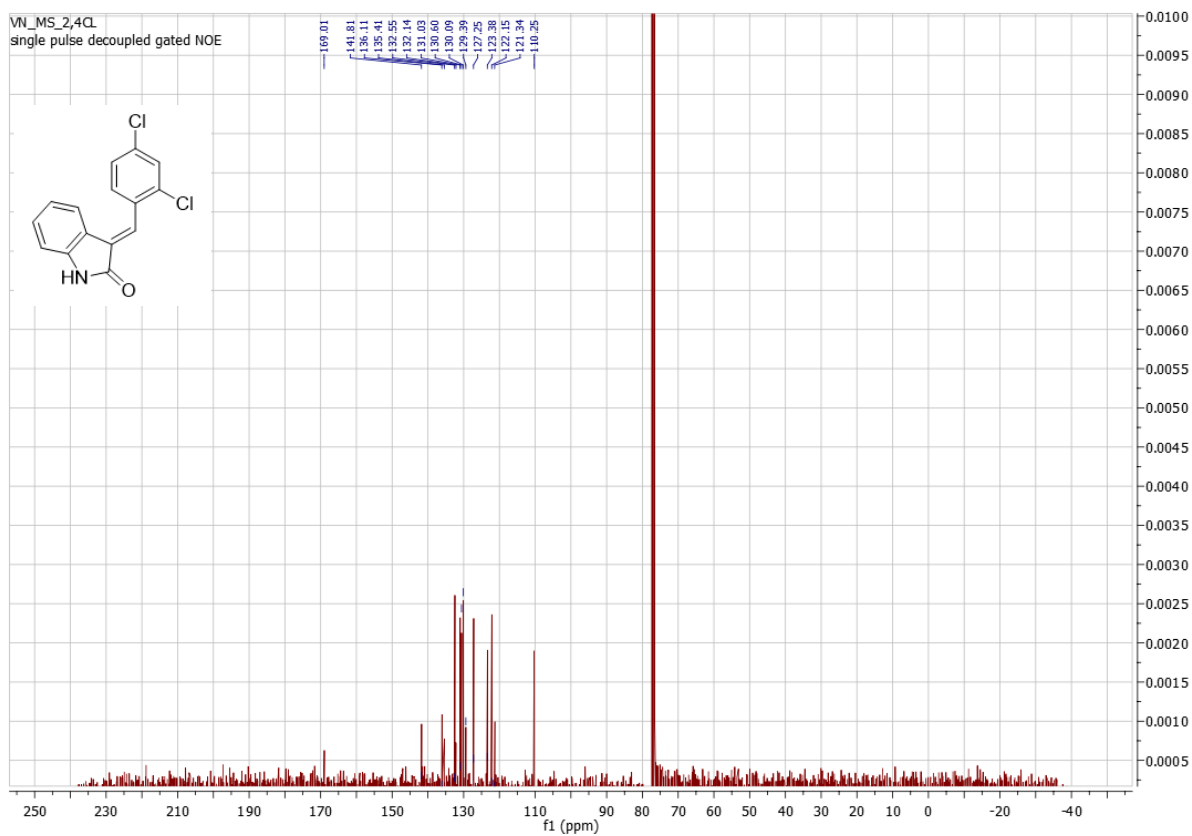


Figure S8: ^{13}C -NMR spectrum of (*E*)-3-(2,4-dichlorobenzylidene)indolin-2-one **3c**

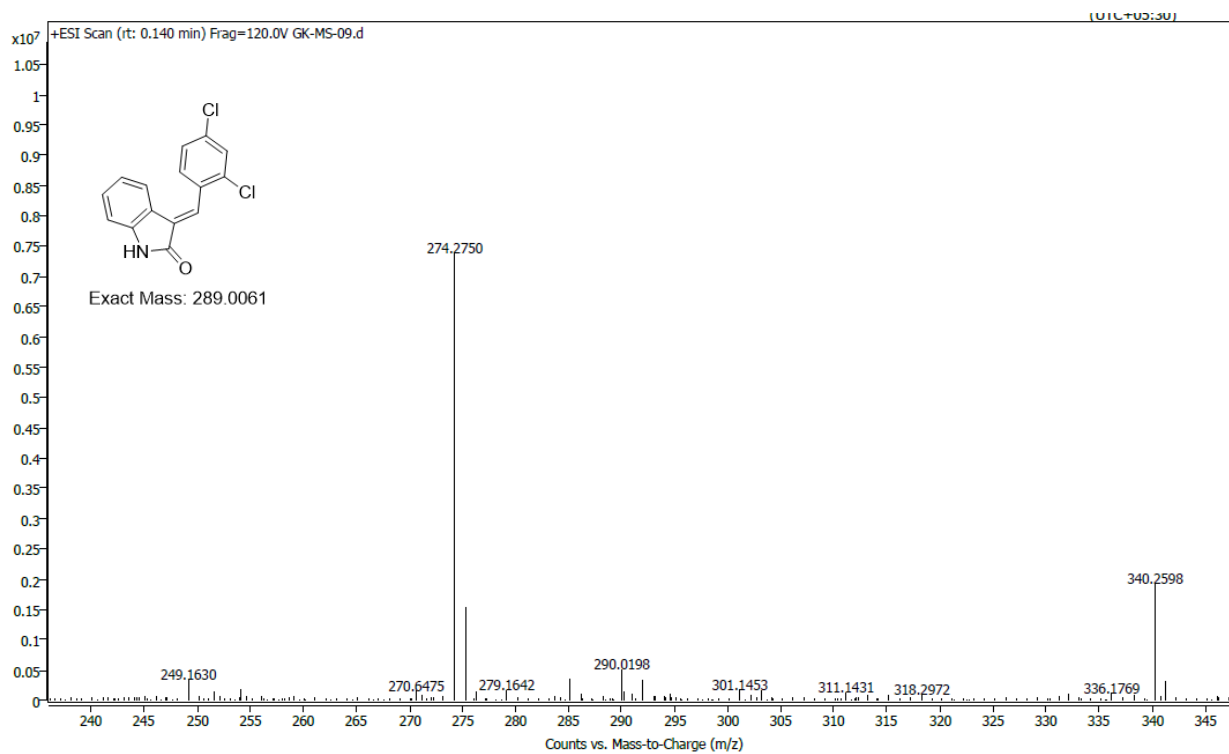


Figure S9: MS spectrum of (*E*)-3-(2,4-dichlorobenzylidene)indolin-2-one **3c**

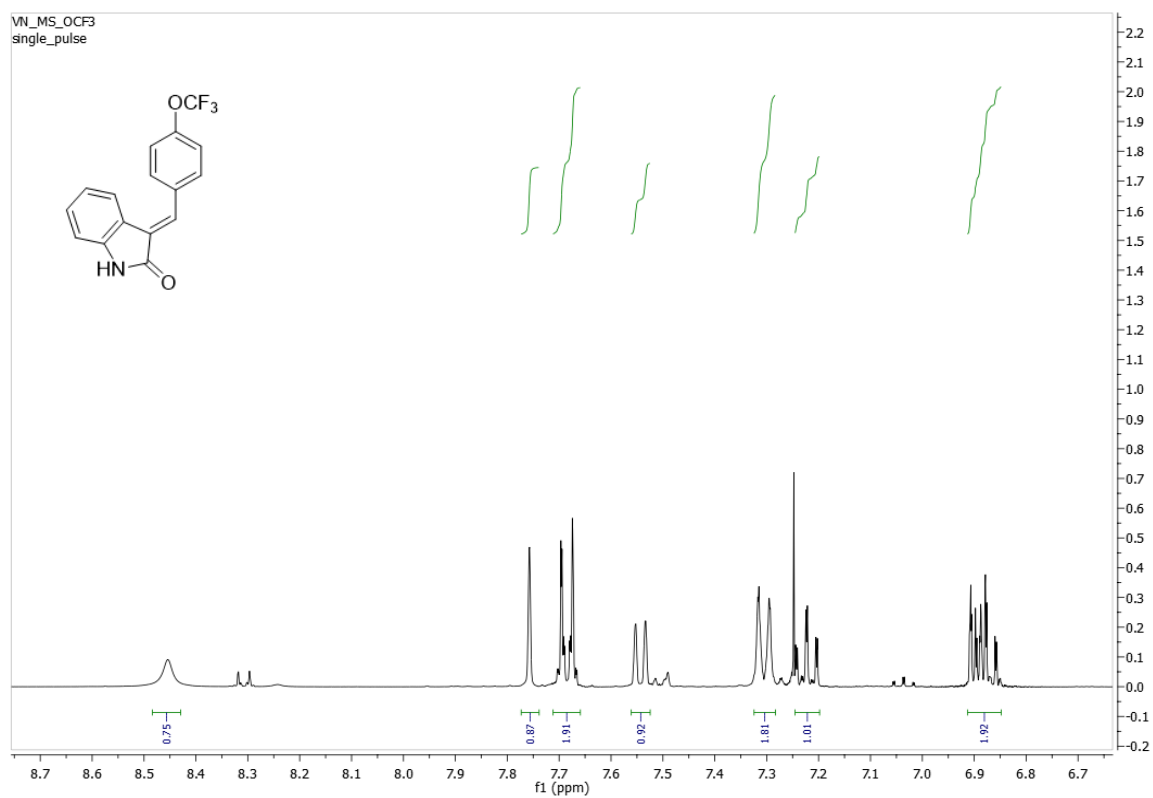
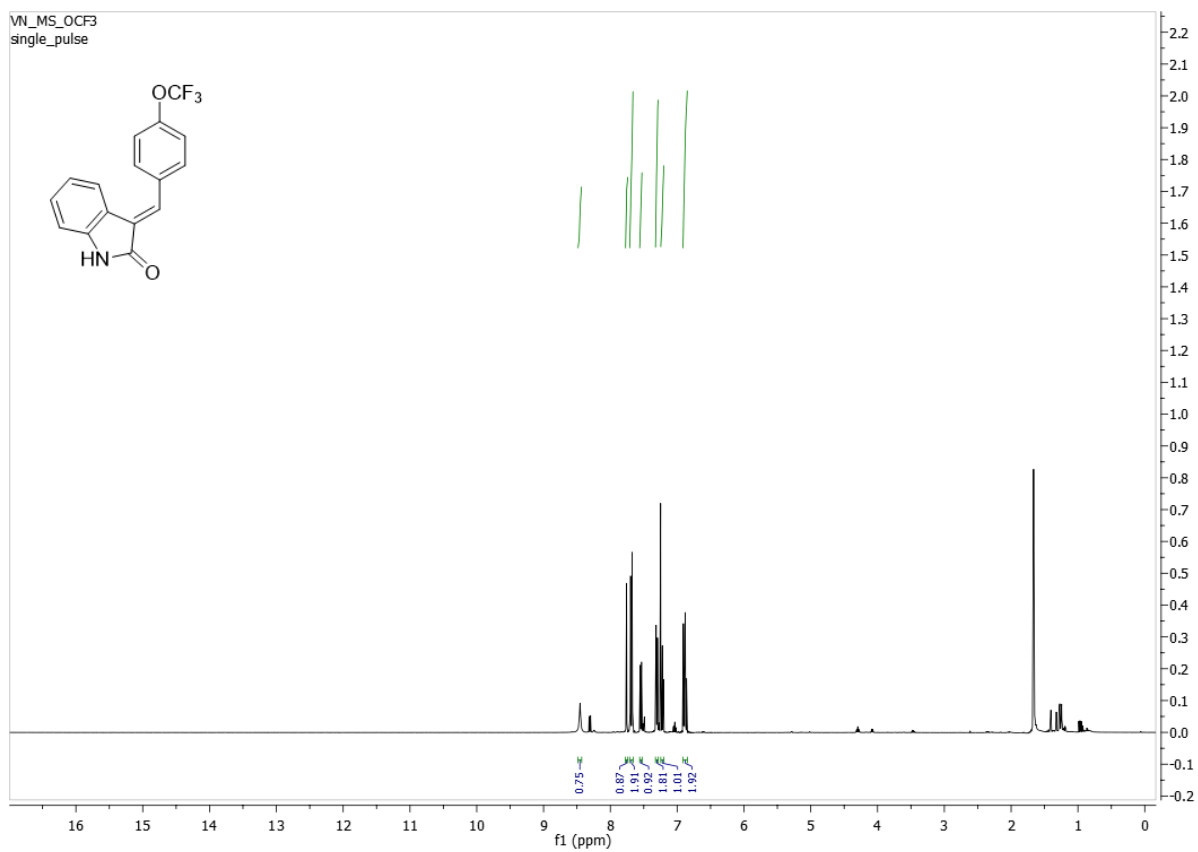


Figure S10: $^1\text{H-NMR}$ spectrum of *(E)*-3-(4-(trifluoromethoxy)benzylidene)indolin-2-one **3d**

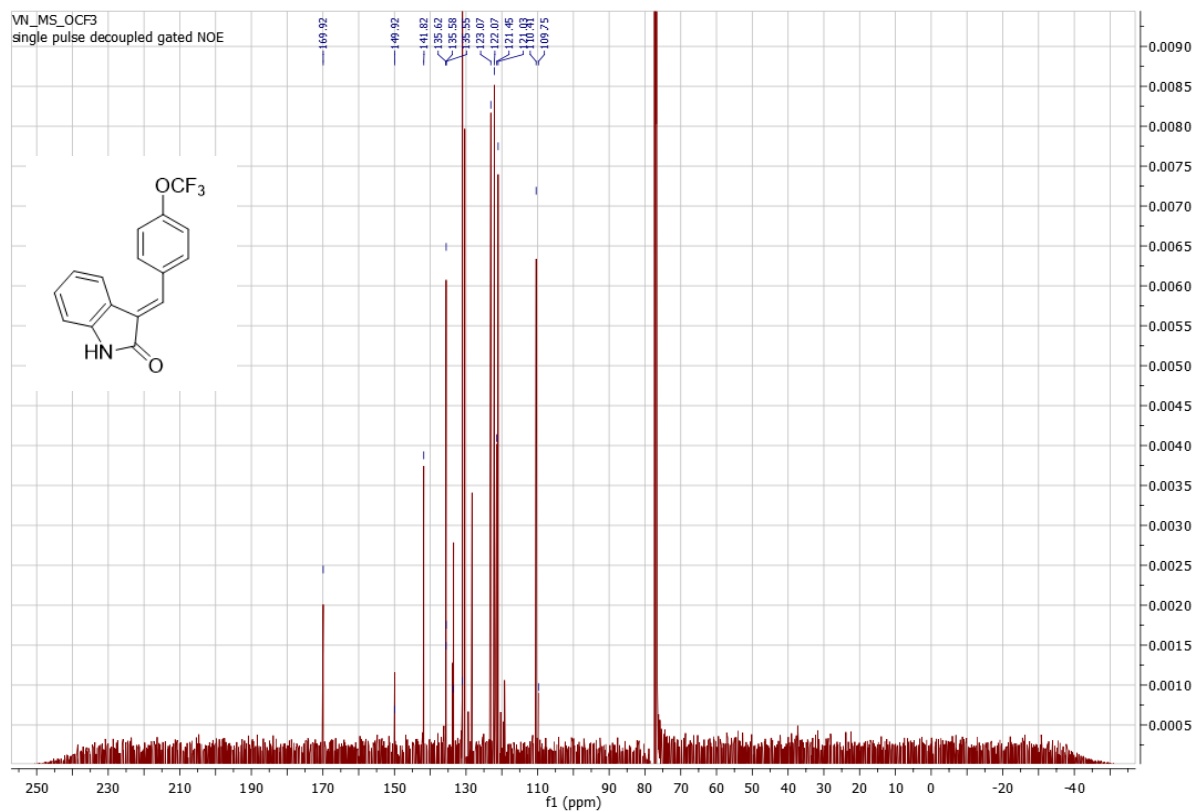


Figure S11: ^{13}C -NMR spectrum of (*E*)-3-(4-(trifluoromethoxy)benzylidene)indolin-2-one **3d**

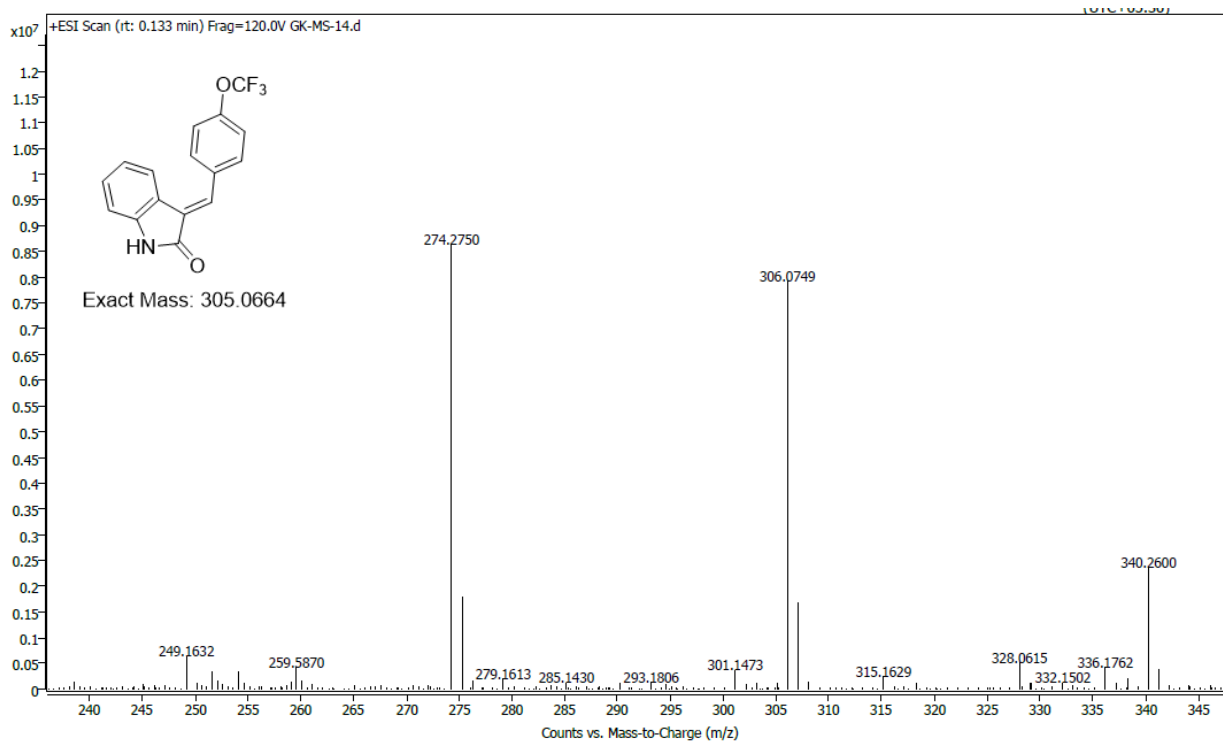


Figure S12: MS spectrum of (*E*)-3-(4-(trifluoromethoxy)benzylidene)indolin-2-one **3d**

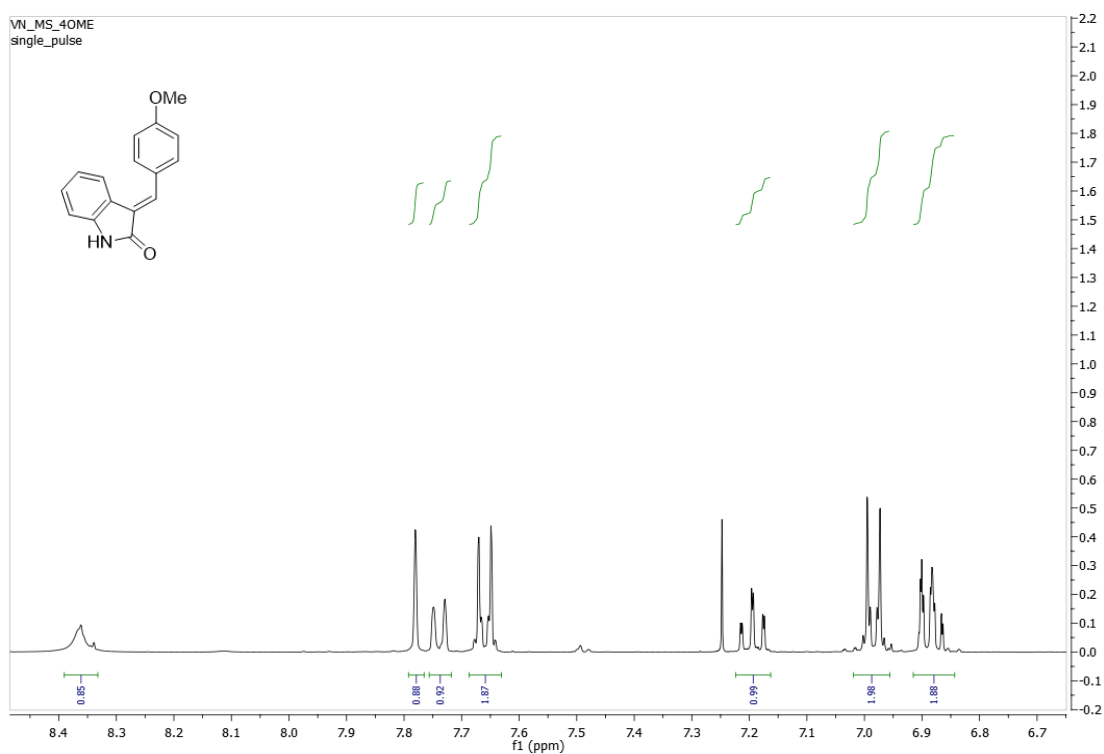
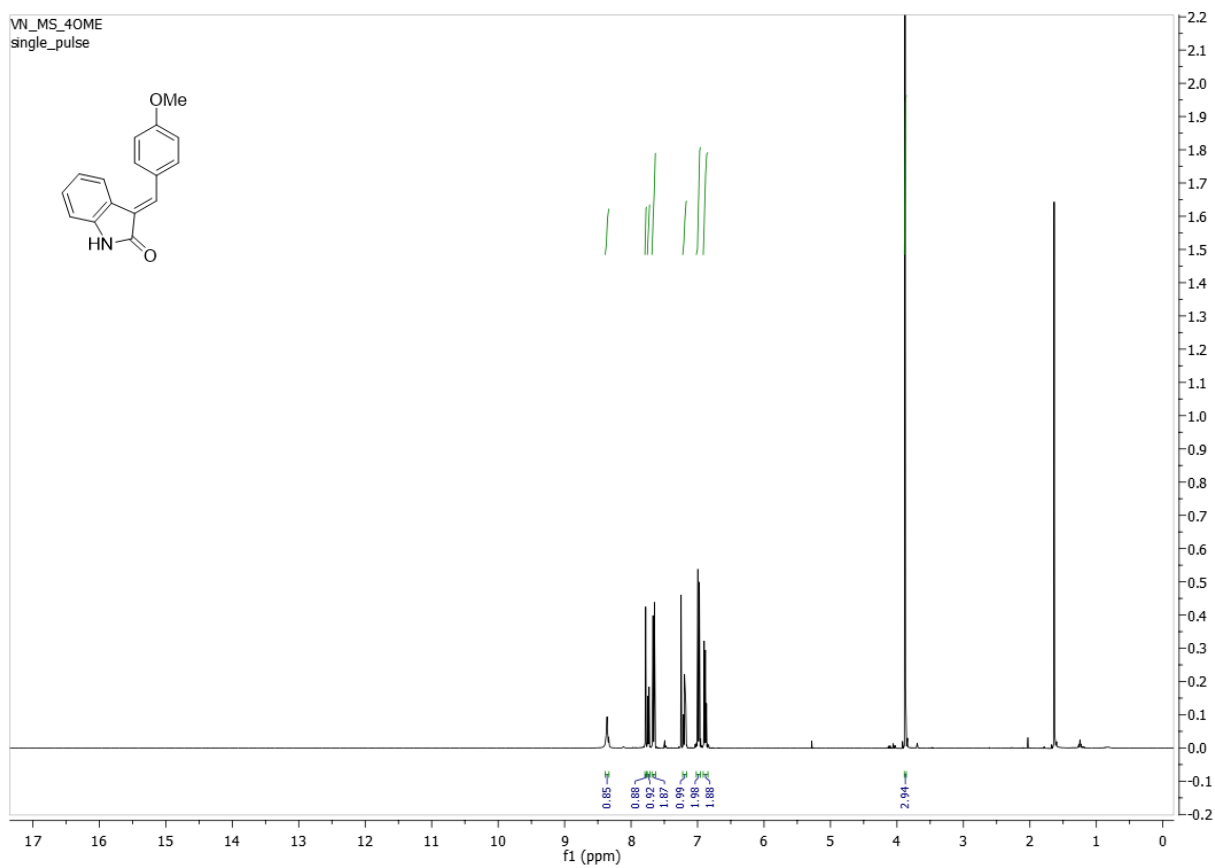


Figure S13: ^1H -NMR spectrum of *(E)*-3-(4-methoxybenzylidene)indolin-2-one **3e**

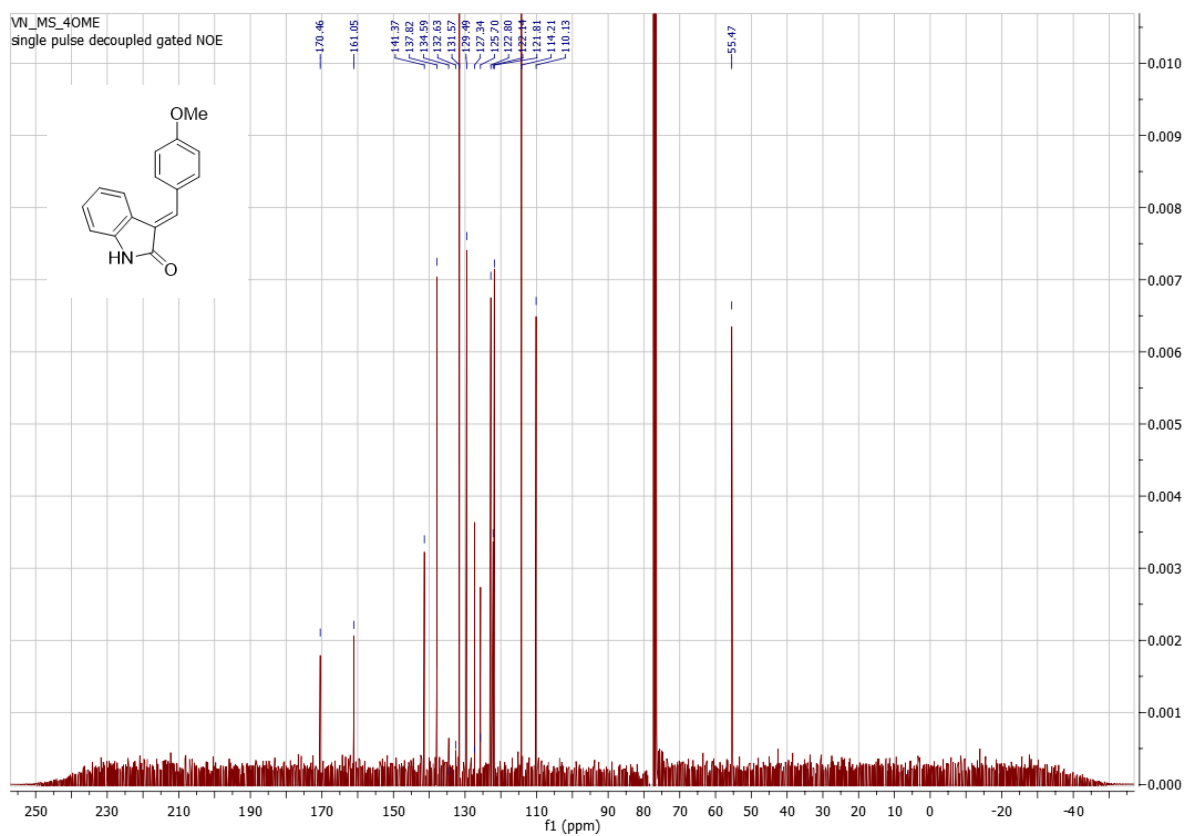


Figure S14: ^{13}C -NMR spectrum of *(E)*-3-(4-methoxybenzylidene)indolin-2-one **3e**

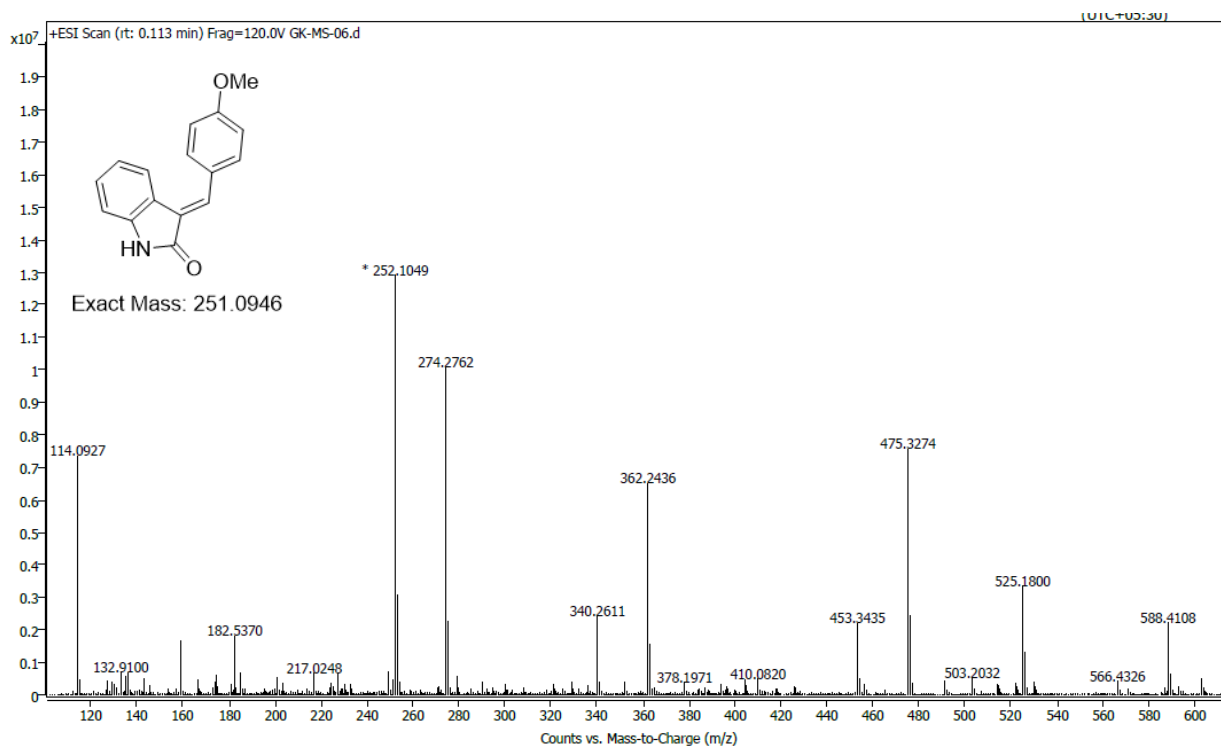


Figure S15: MS spectrum of (*E*)-3-(4-methoxybenzylidene)indolin-2-one **3e**

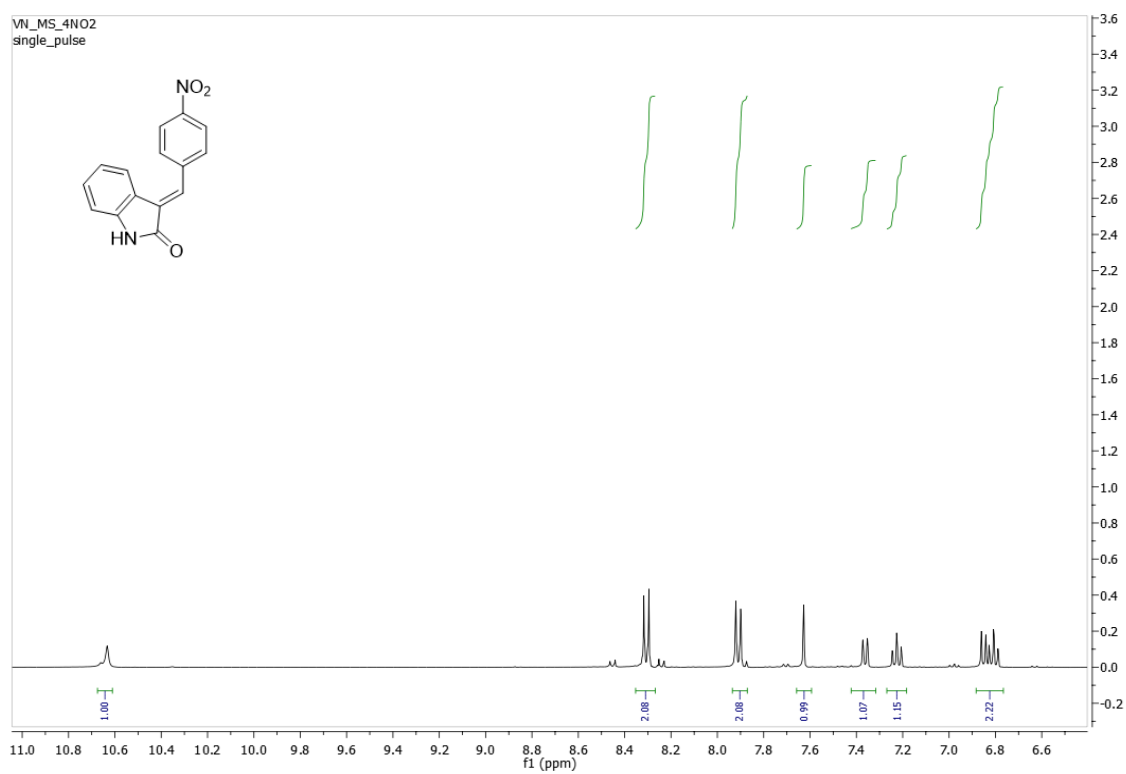
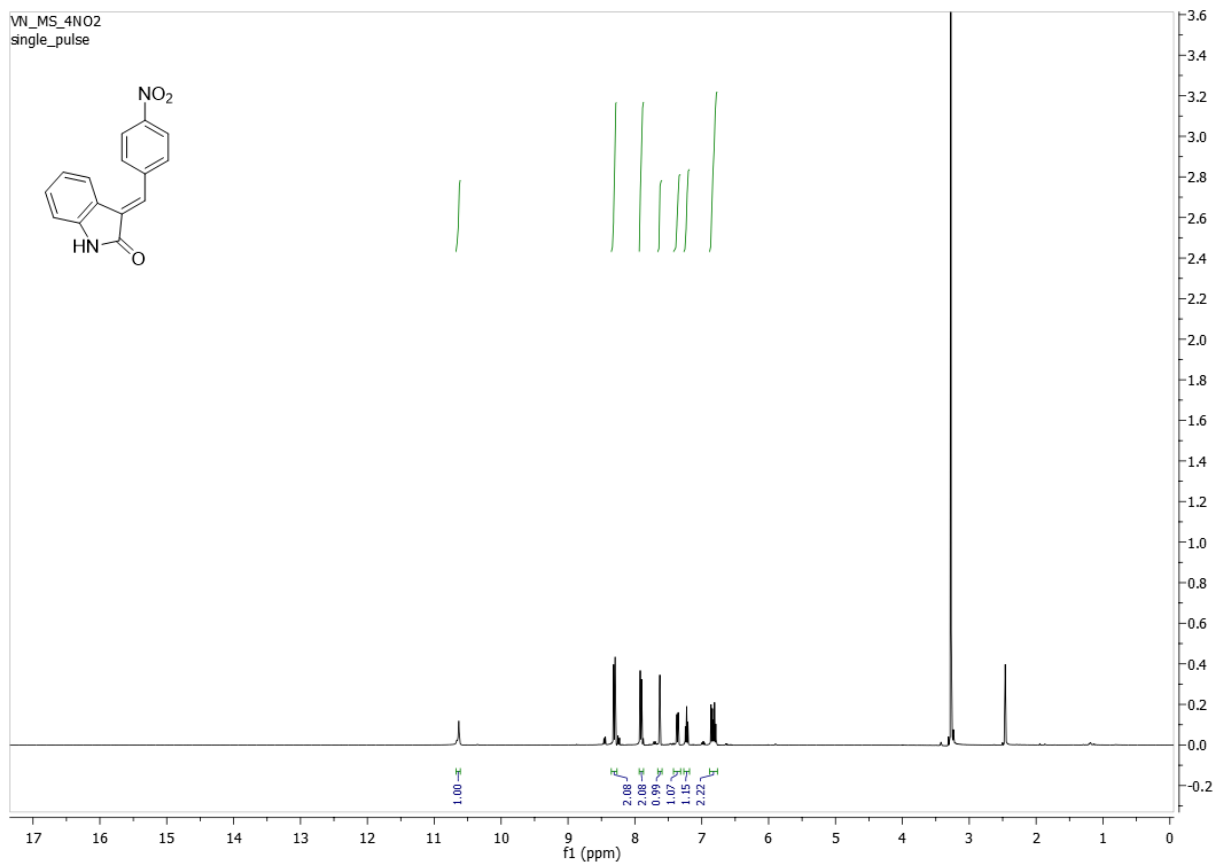


Figure S16: $^1\text{H-NMR}$ spectrum of *(E)*-3-(4-nitrobenzylidene)indolin-2-one **3f**

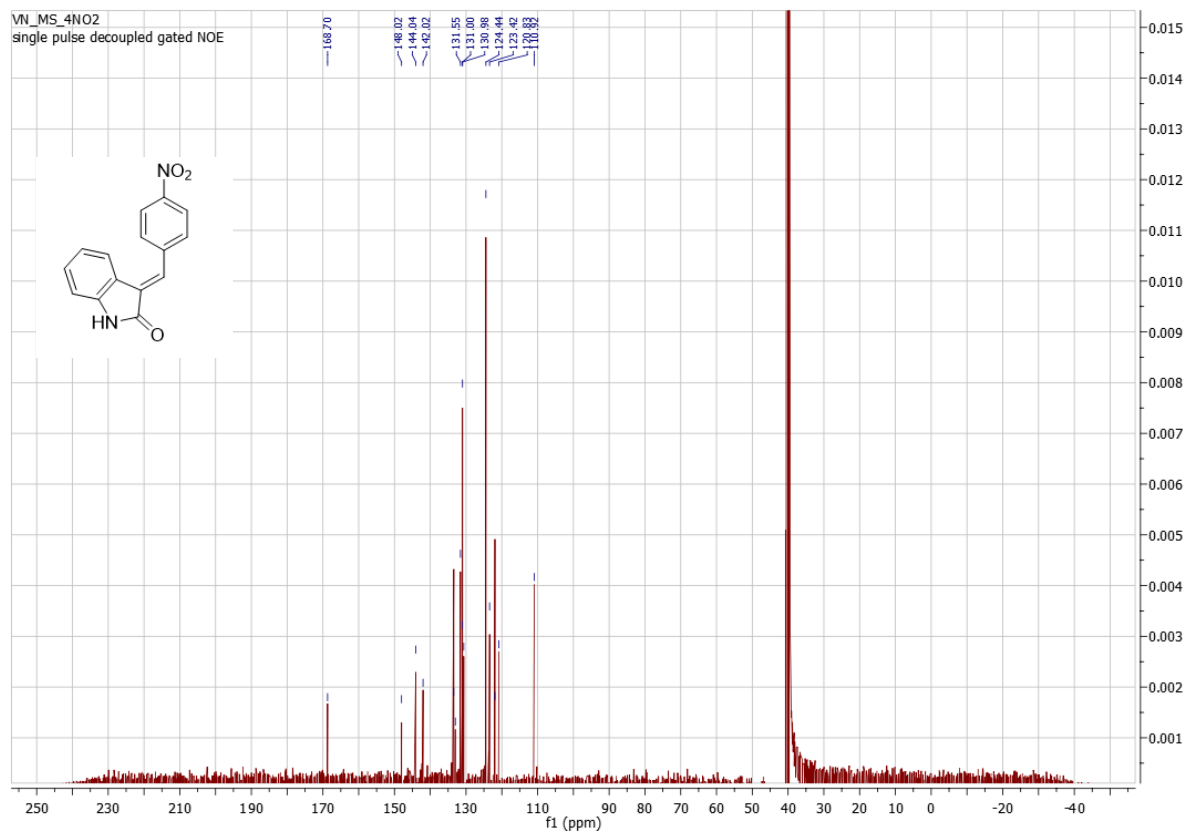


Figure S17: ^{13}C -NMR spectrum of (*E*)-3-(4-nitrobenzylidene)indolin-2-one **3f**

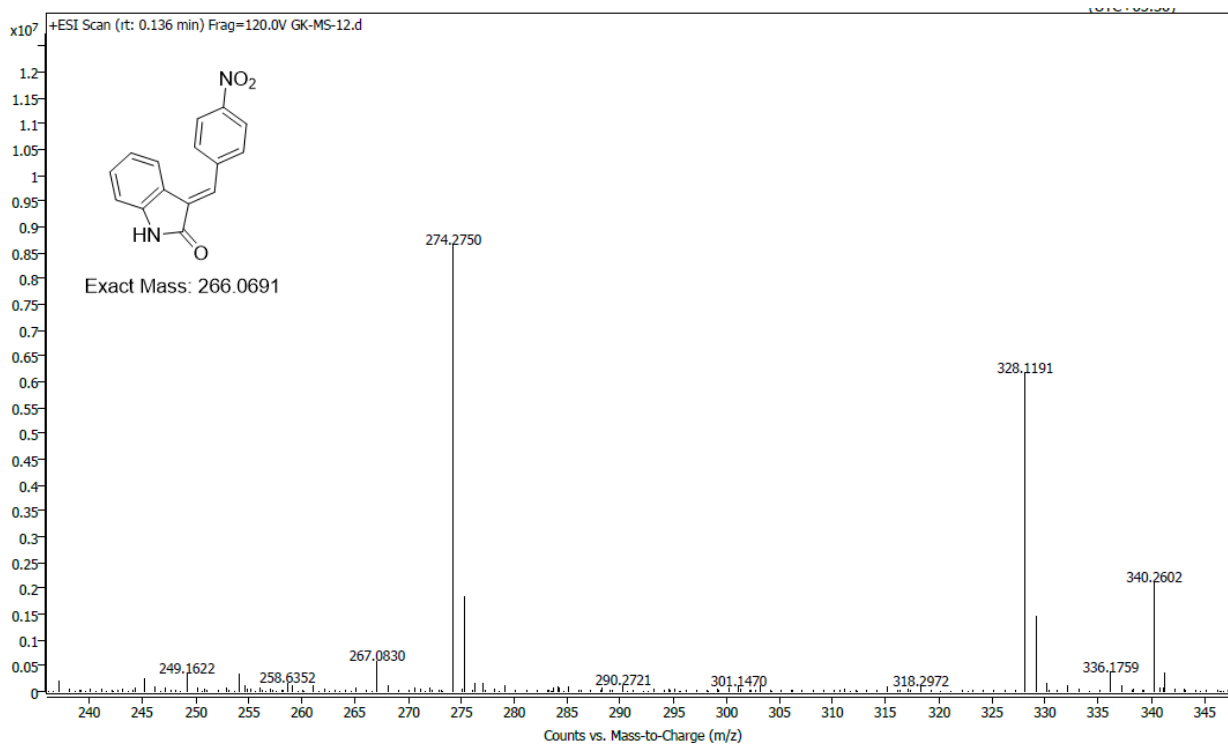


Figure S18: MS spectrum of (*E*)-3-(4-nitrobenzylidene)indolin-2-one **3f**

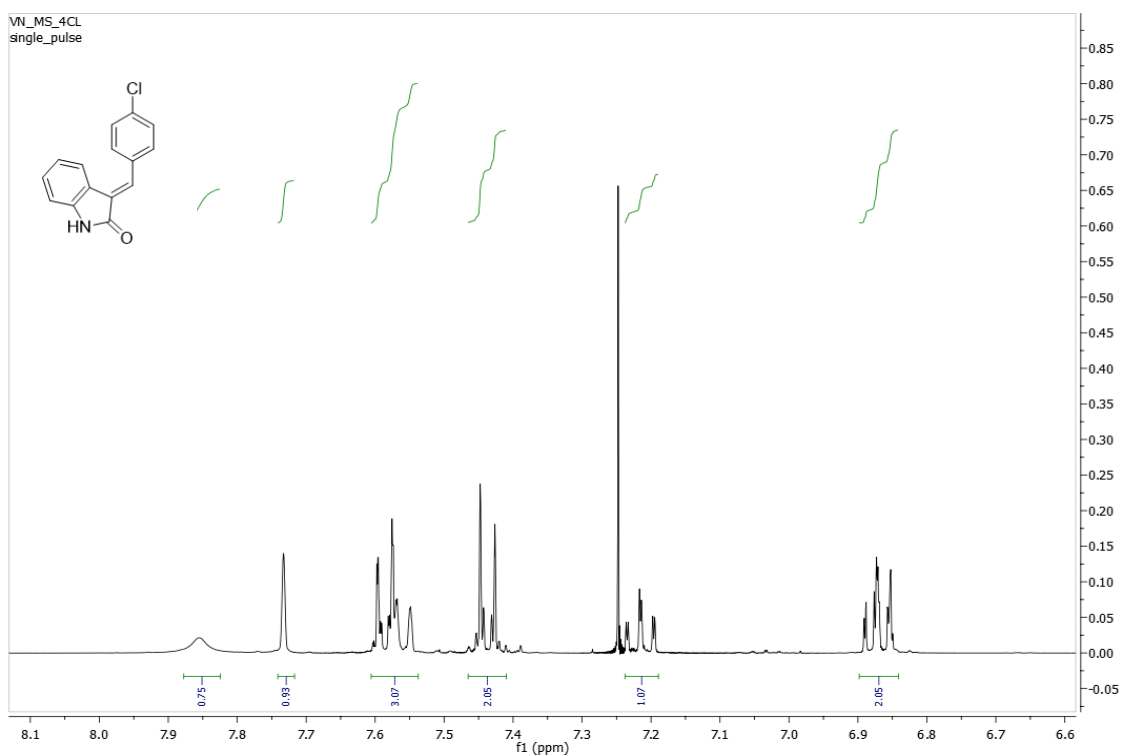
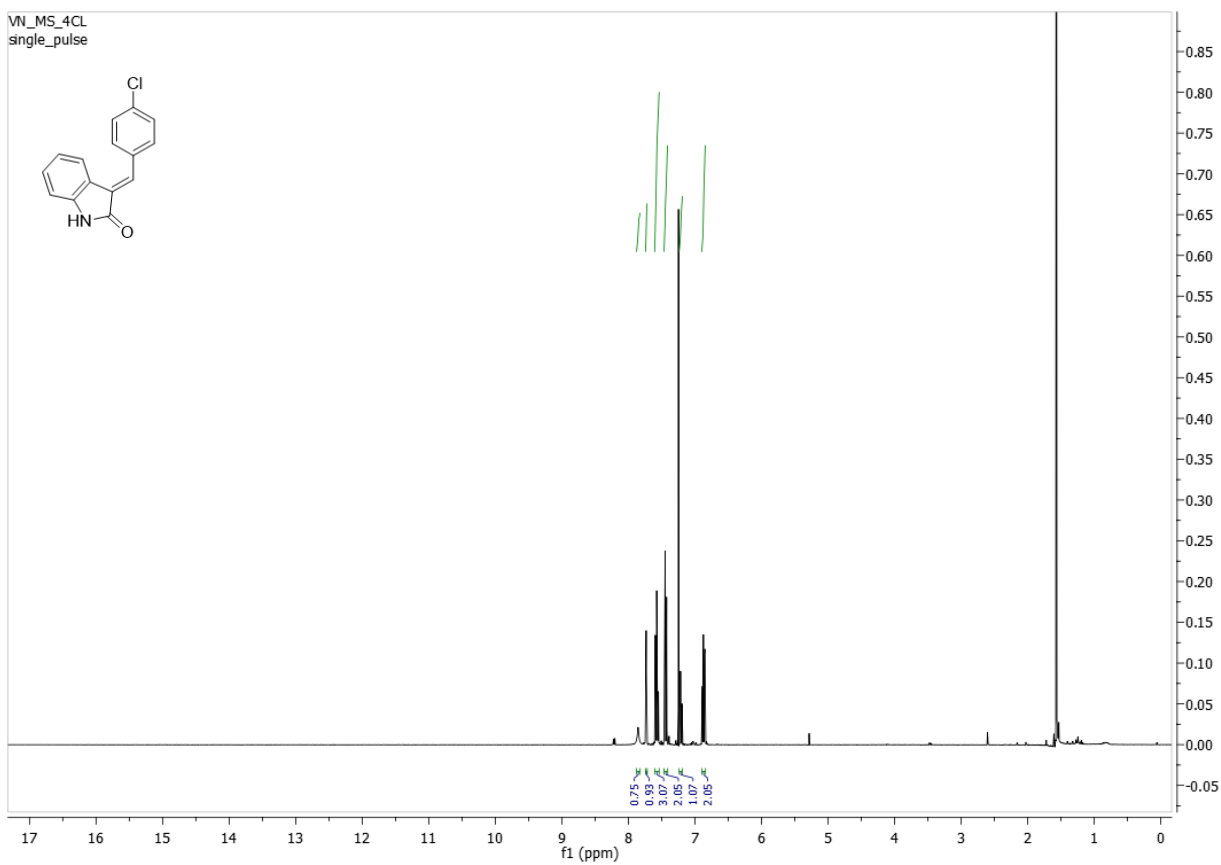


Figure S19: $^1\text{H-NMR}$ spectrum of *(E)*-3-(4-chlorobenzylidene)indolin-2-one **3g**

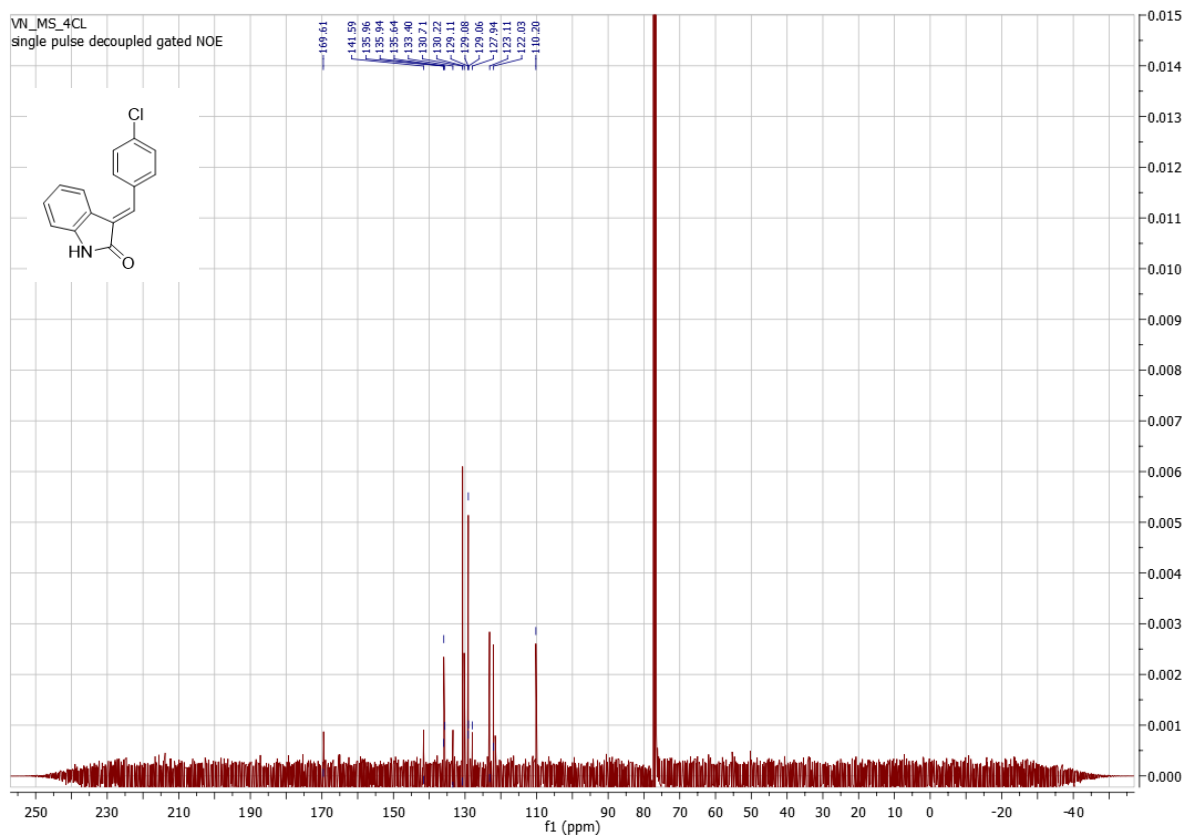


Figure S20: ^{13}C -NMR spectrum of *(E)*-3-(4-chlorobenzylidene)indolin-2-one **3g**

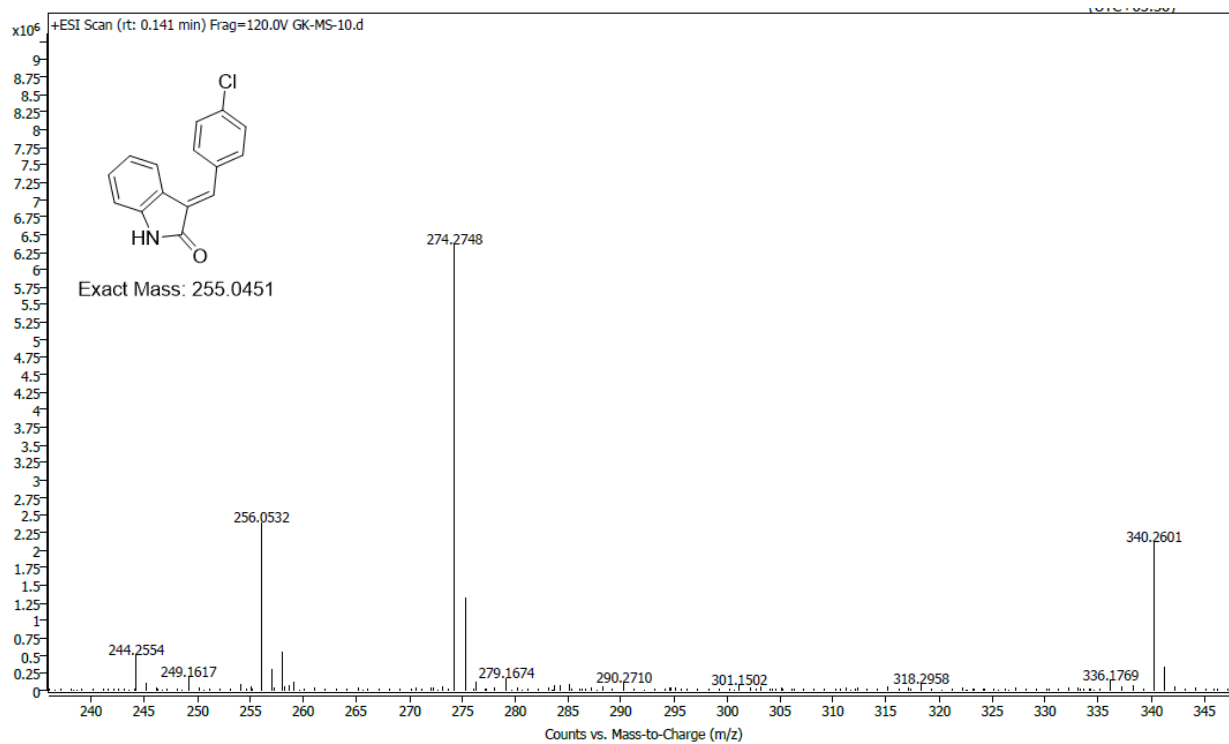


Figure S21: MS spectrum of (*E*)-3-(4-chlorobenzylidene)indolin-2-one **3g**

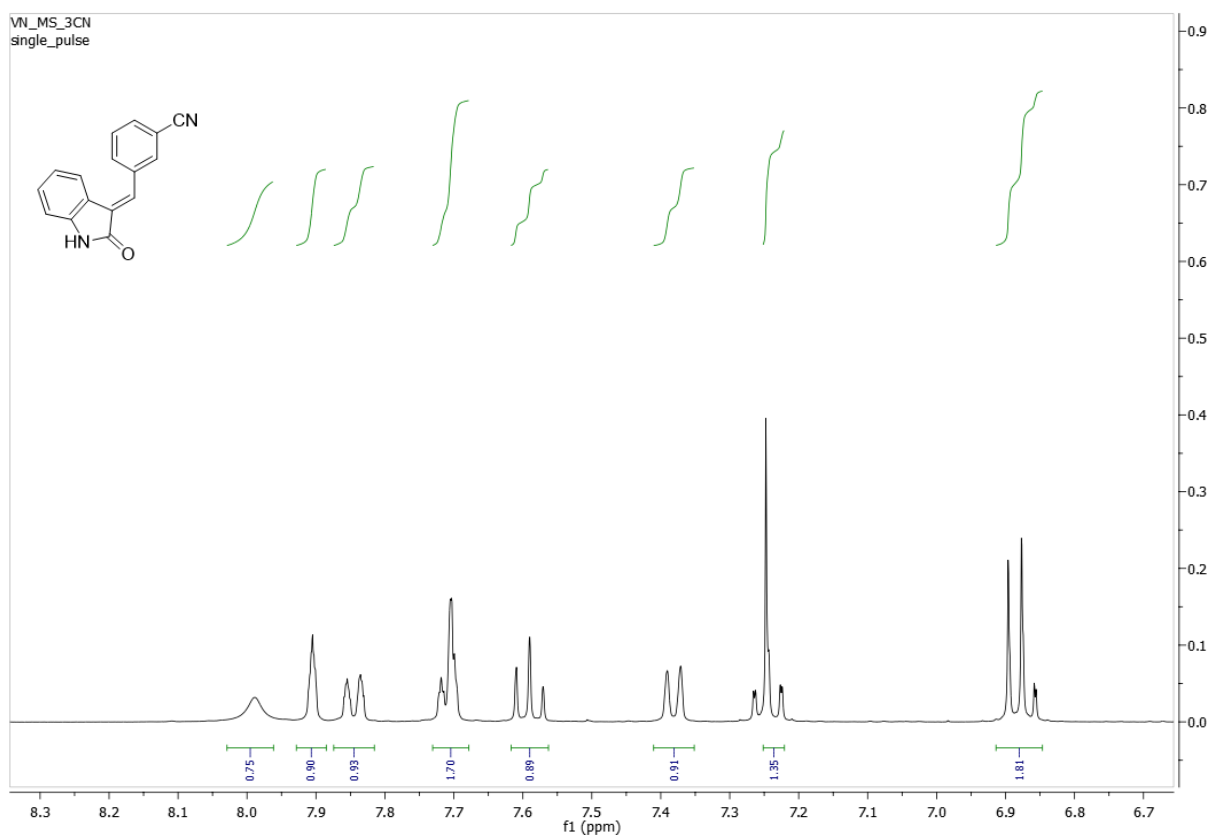
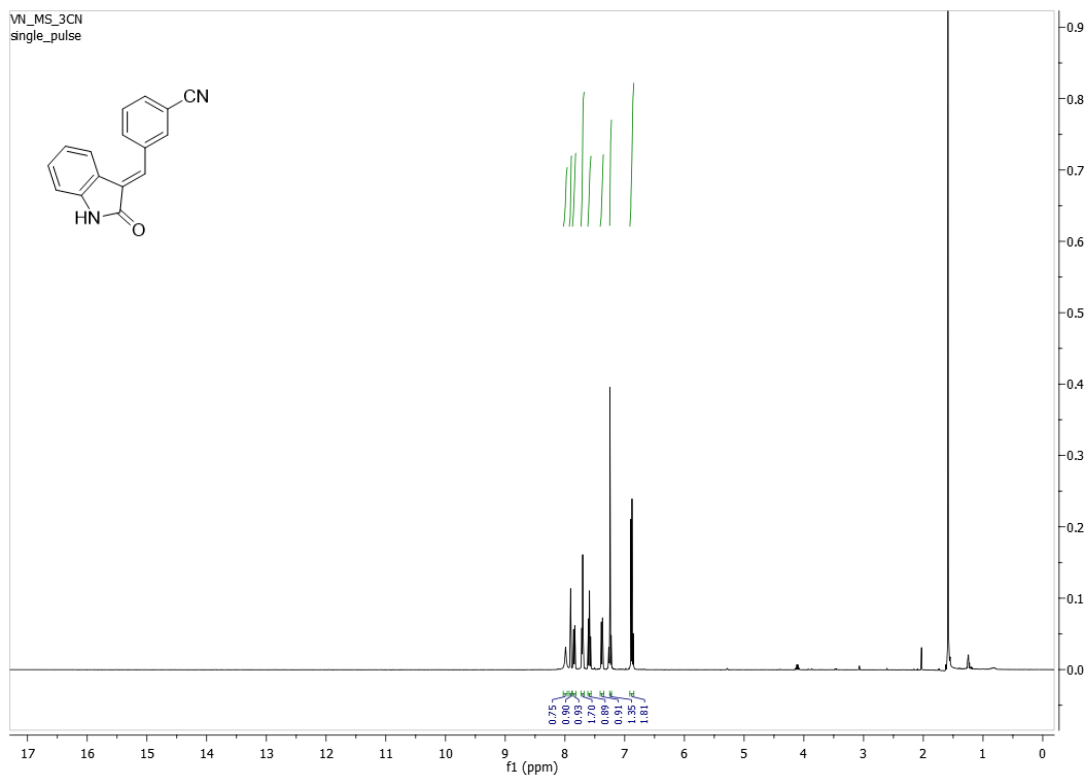


Figure S22: $^1\text{H-NMR}$ spectrum of (*E*)-3-((2-oxoindolin-3-ylidene)methyl)benzonitrile **3h**

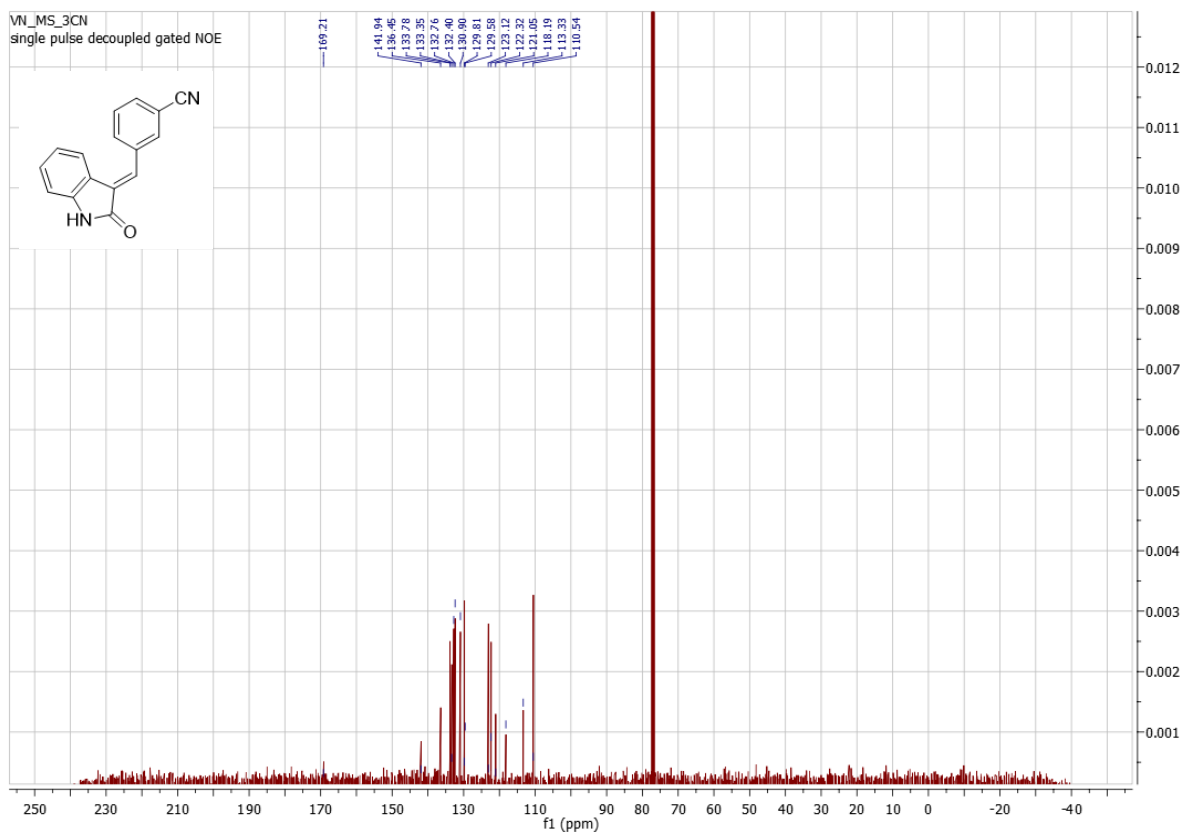


Figure S23: ^{13}C -NMR spectrum of (*E*)-3-((2-oxoindolin-3-ylidene)methyl)benzonitrile **3h**

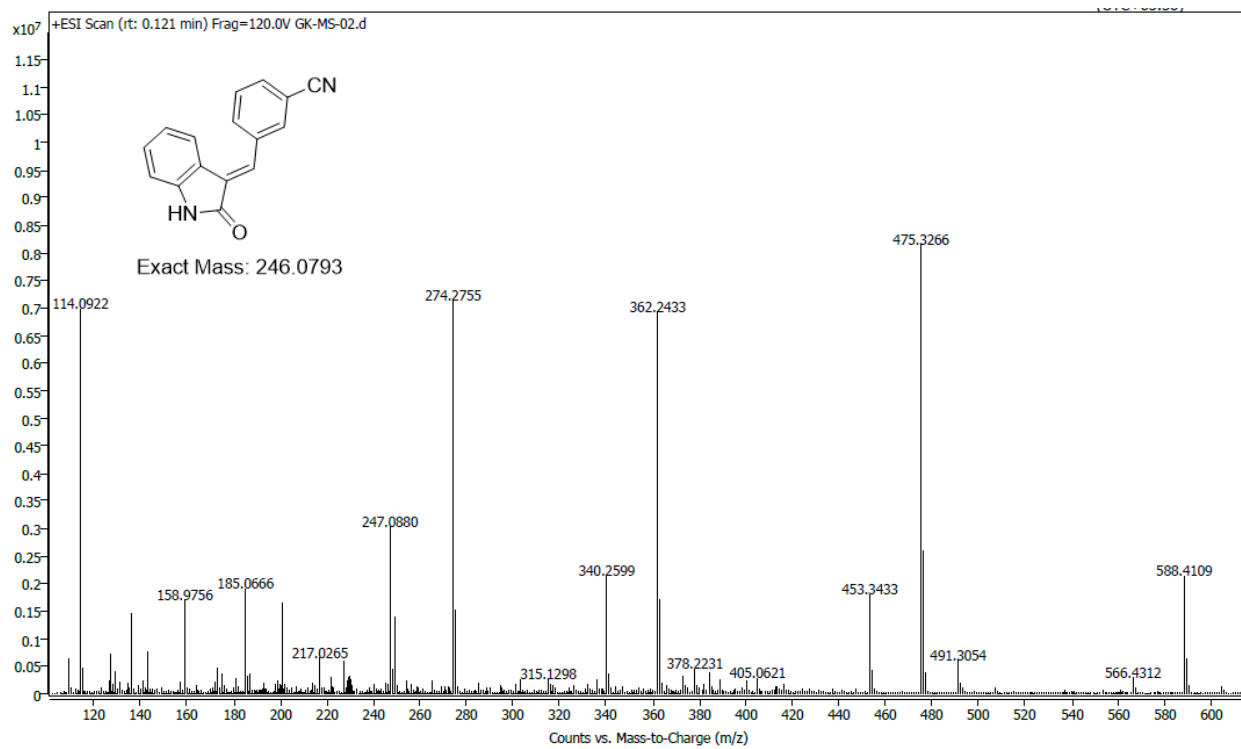


Figure S24: MS spectrum of (*E*)-3-((2-oxoindolin-3-ylidene)methyl)benzonitrile **3h**

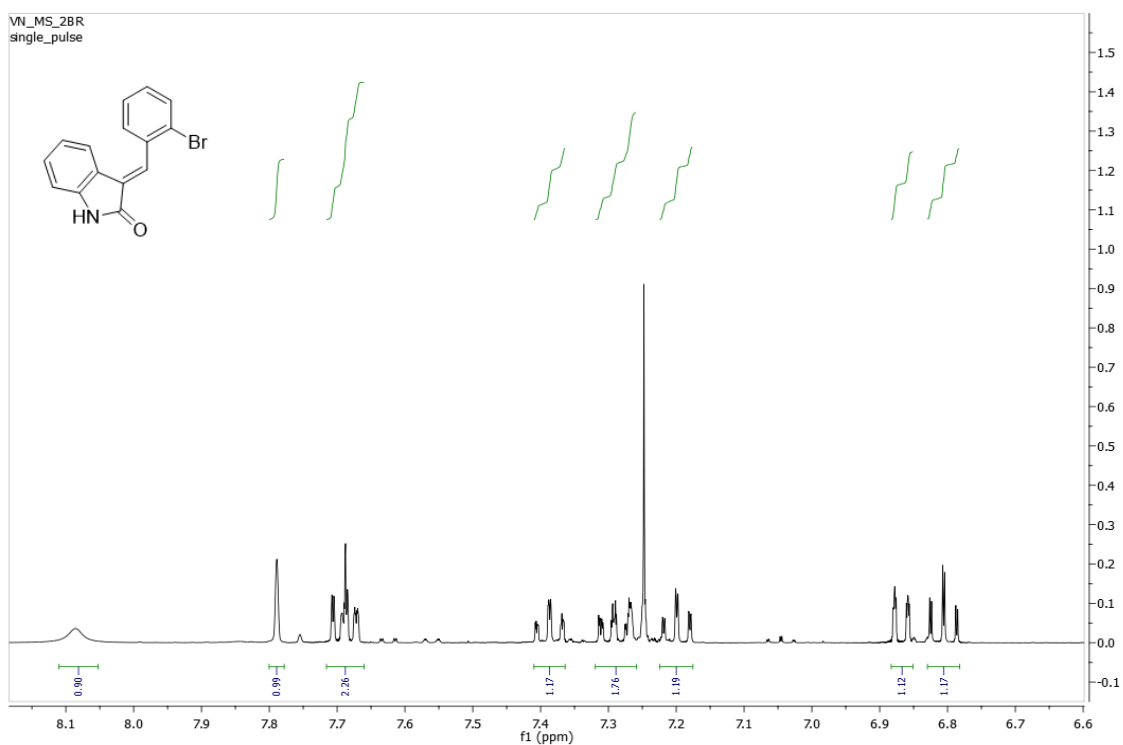
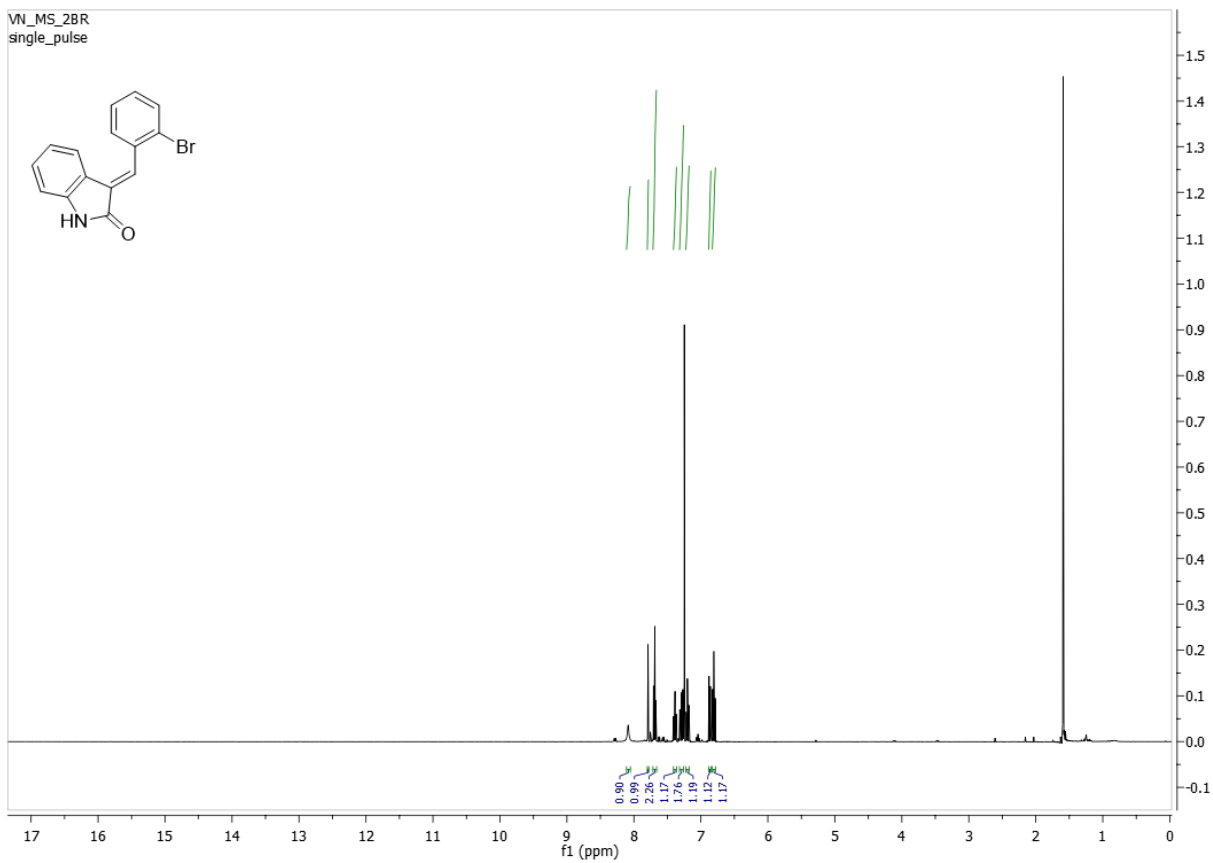


Figure S25: $^1\text{H-NMR}$ spectrum of *(E)*-3-(2-bromobenzylidene)indolin-2-one **3i**

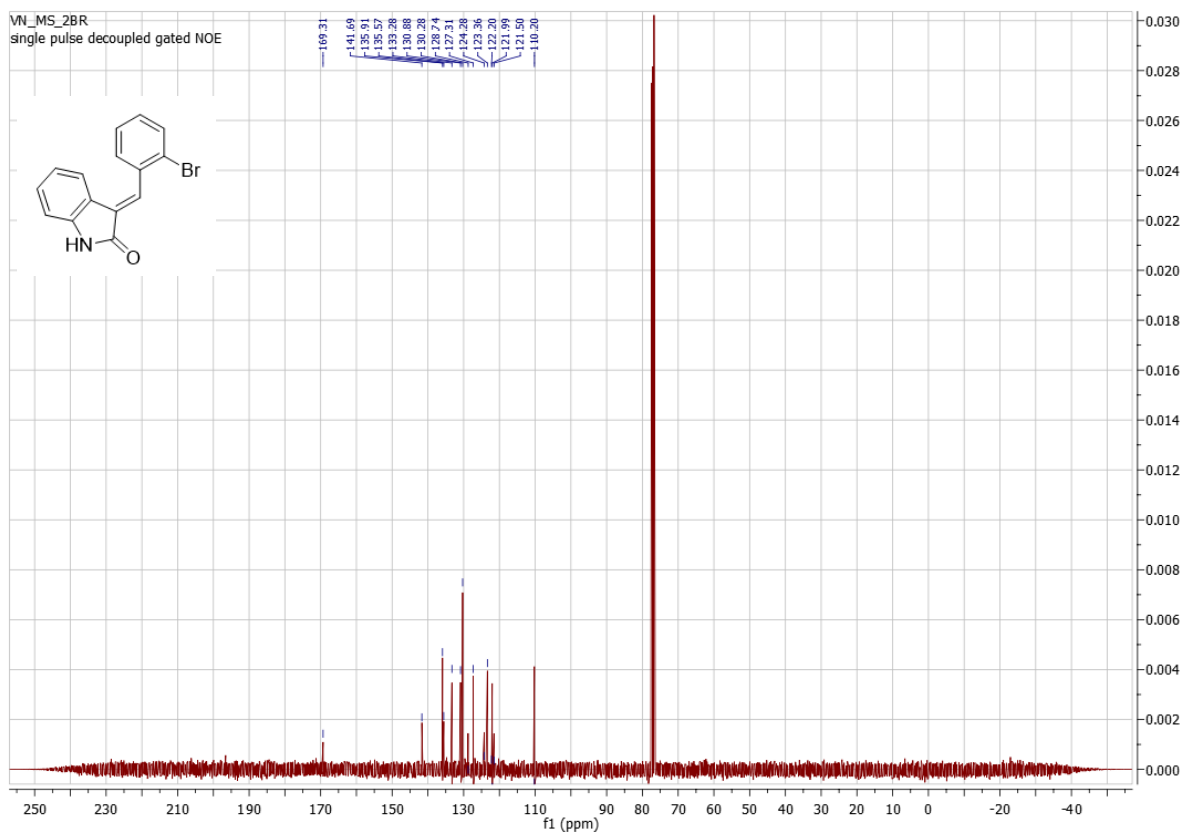


Figure S26: ^{13}C -NMR spectrum of *(E)*-3-(2-bromobenzylidene)indolin-2-one **3i**

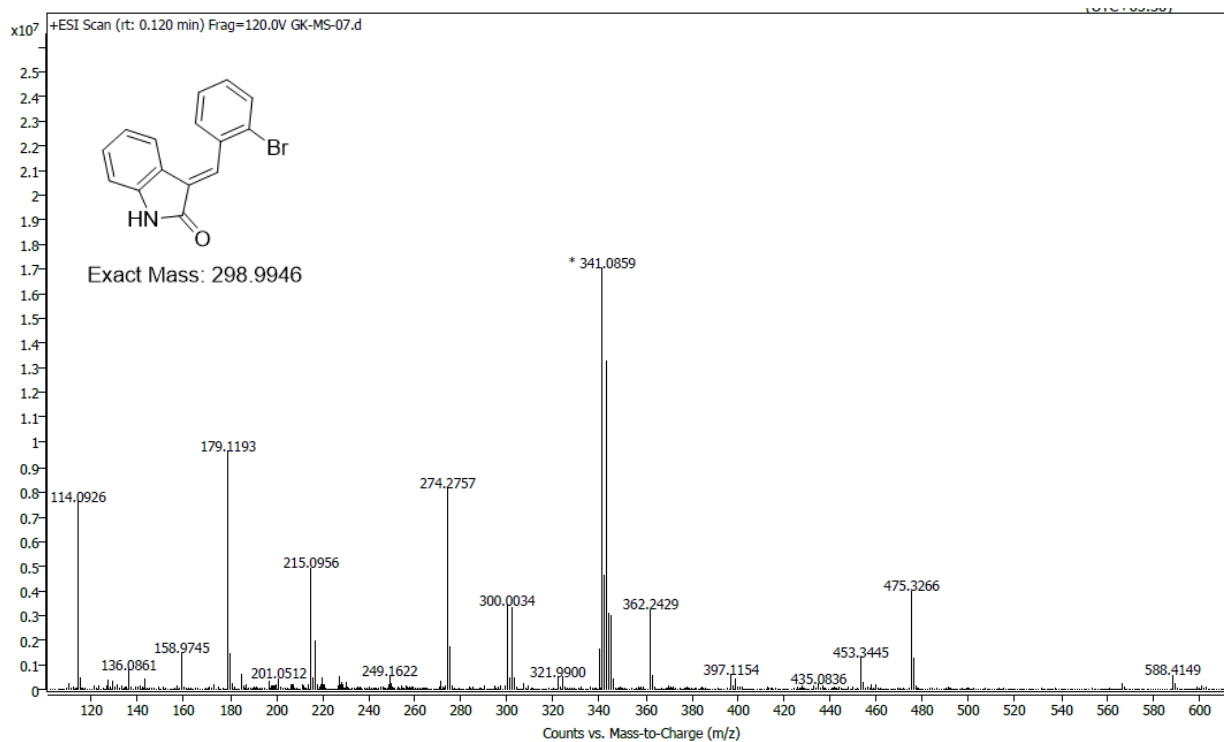


Figure S27: MS spectrum of *(E)*-3-(2-bromobenzylidene)indolin-2-one **3i**

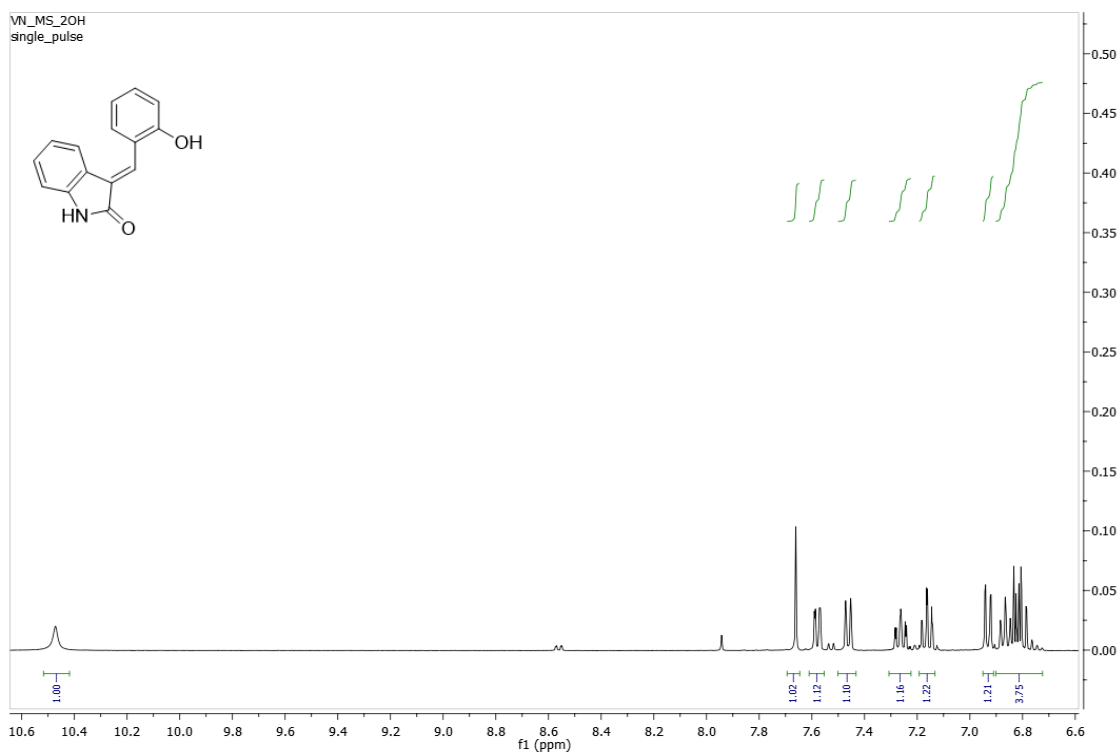
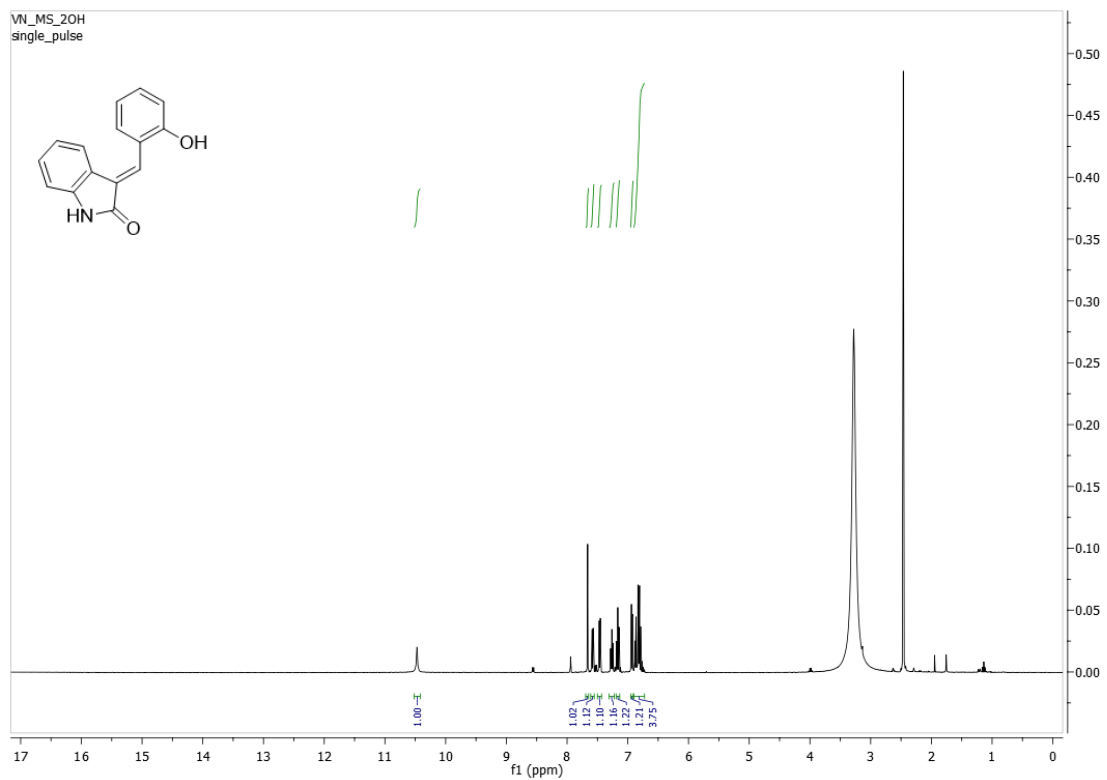


Figure S28: $^1\text{H-NMR}$ spectrum of (*E*)-3-(2-hydroxybenzylidene)indolin-2-one **3j**

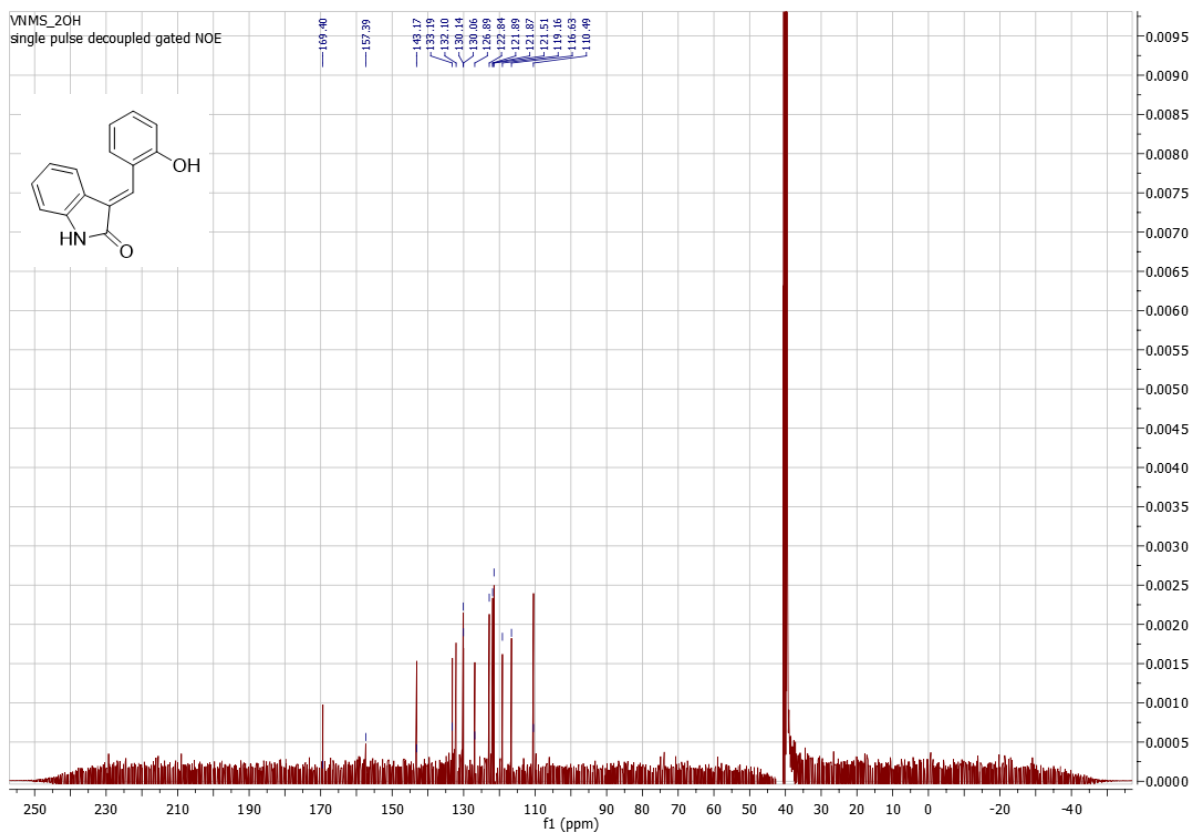


Figure S29: ^{13}C -NMR spectrum of (*E*)-3-(2-hydroxybenzylidene)indolin-2-one **3j**

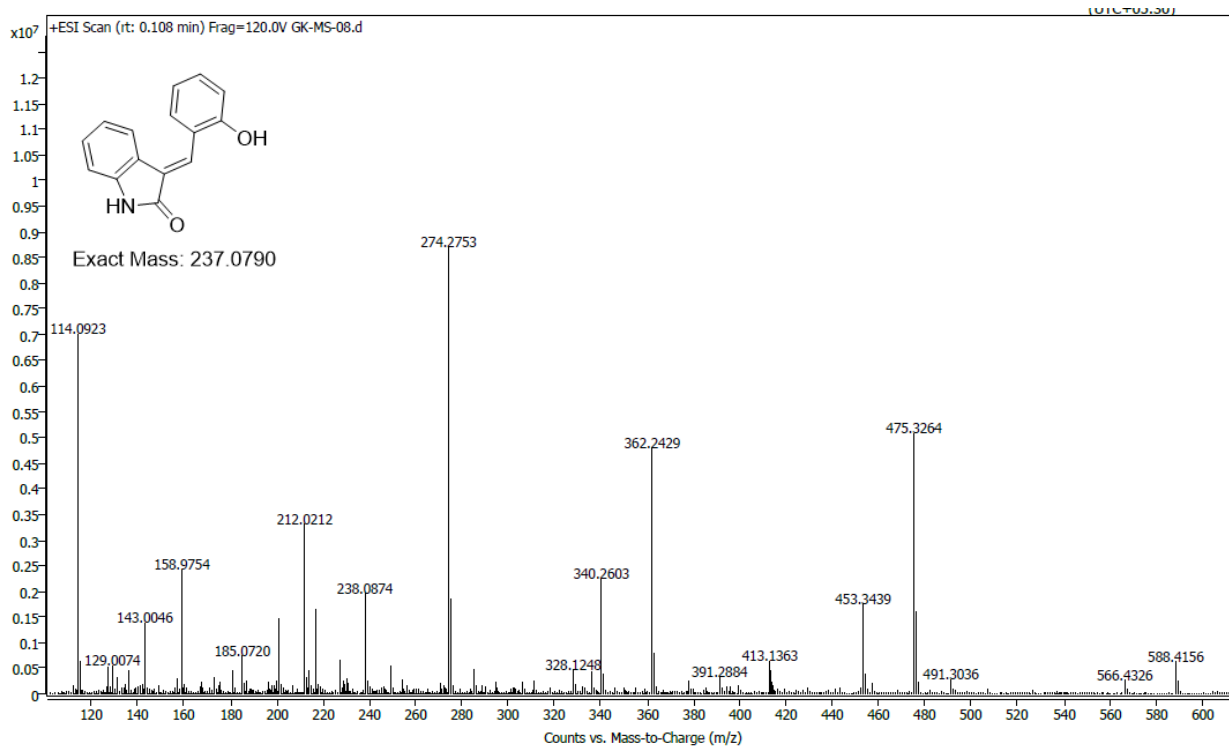


Figure S30: MS spectrum of (*E*)-3-(2-hydroxybenzylidene)indolin-2-one **3j**

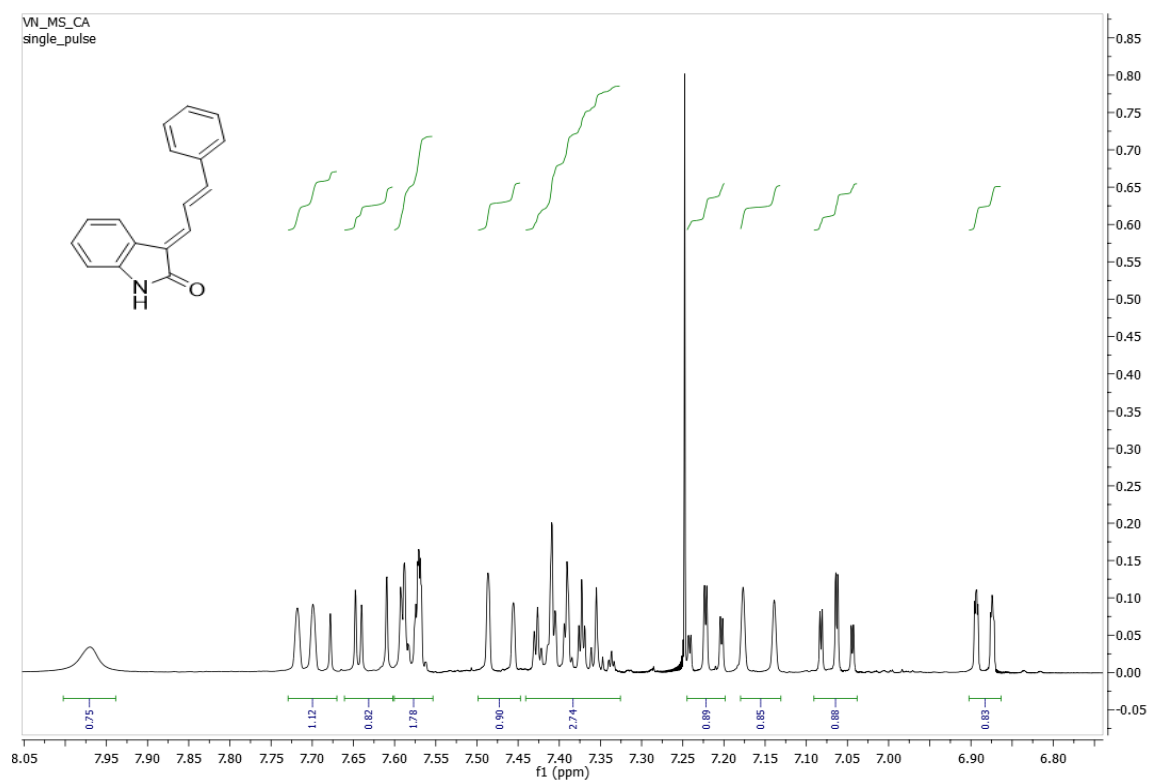
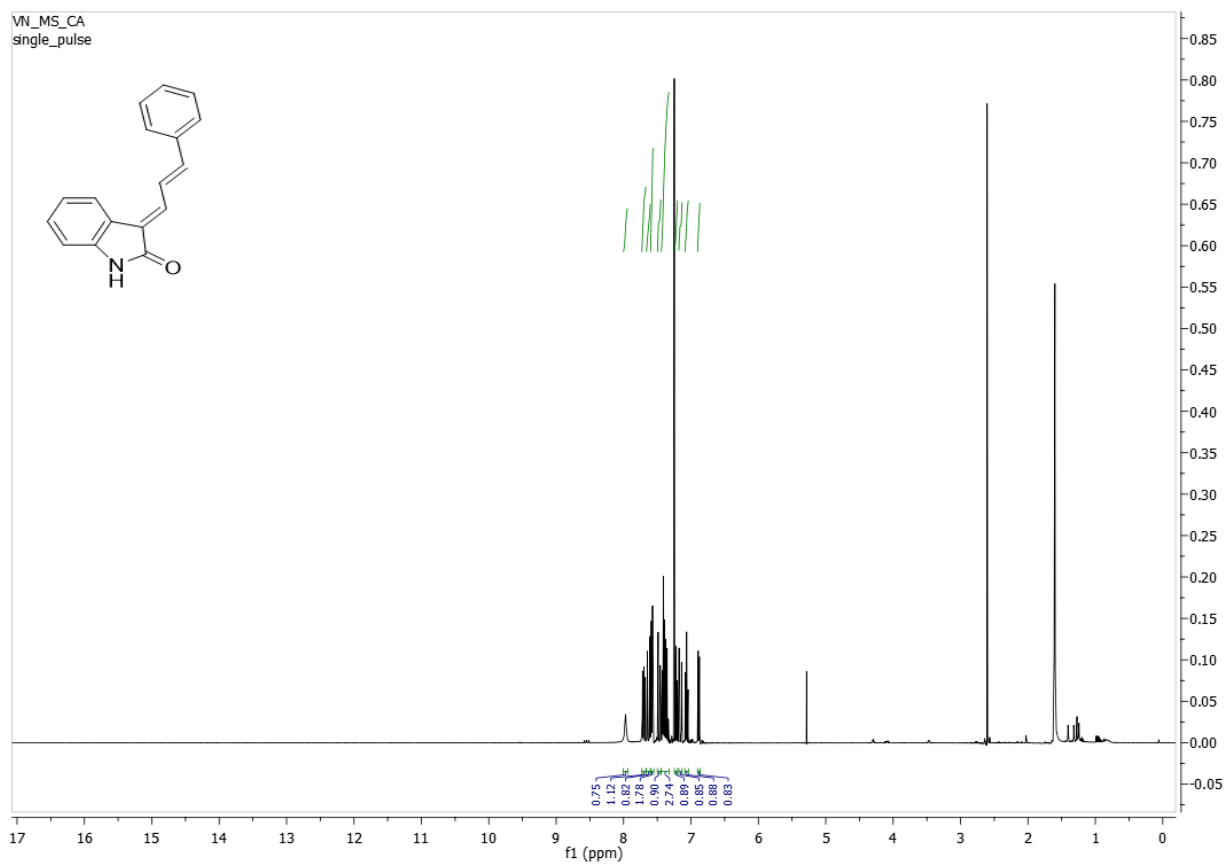


Figure S31: $^1\text{H-NMR}$ spectrum of (*E*)-3-((*E*)-3-phenylallylidene)indolin-2-one **3k**

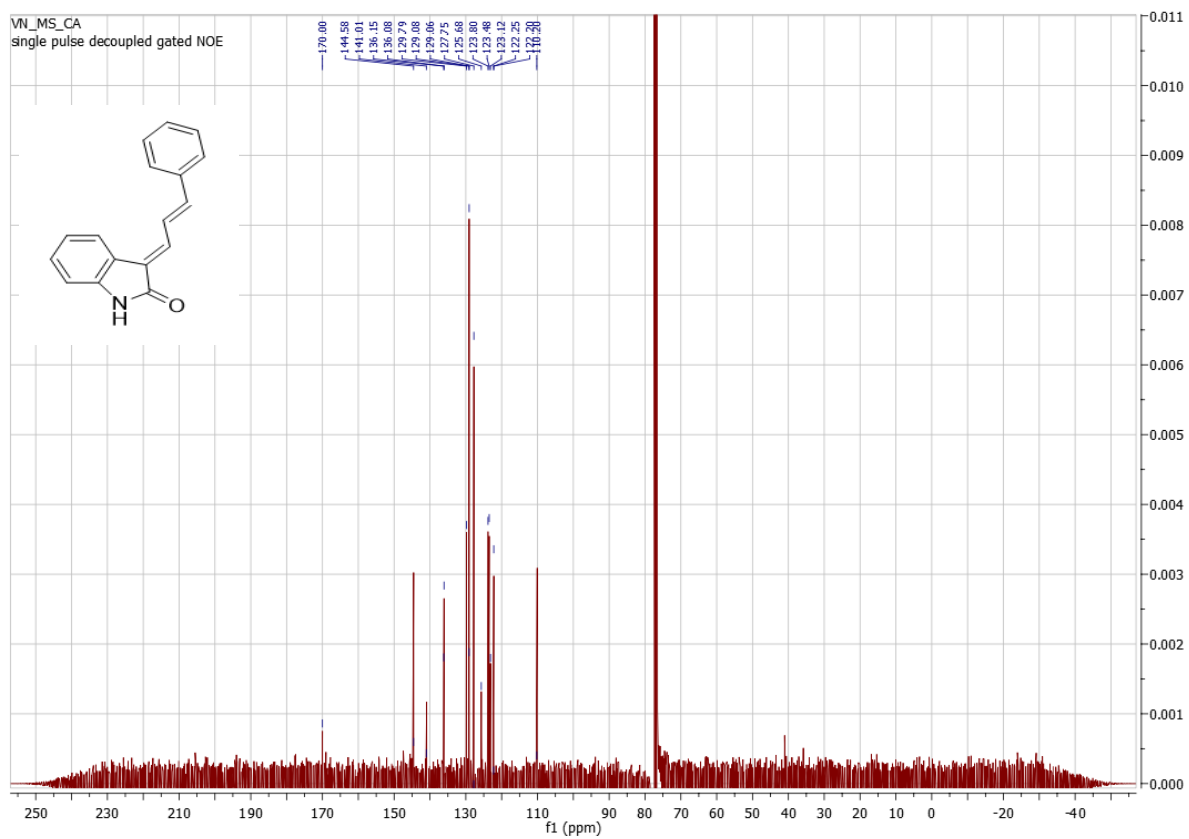


Figure S32: ^{13}C -NMR spectrum of (*E*)-3-((*E*)-3-phenylallylidene)indolin-2-one **3k**

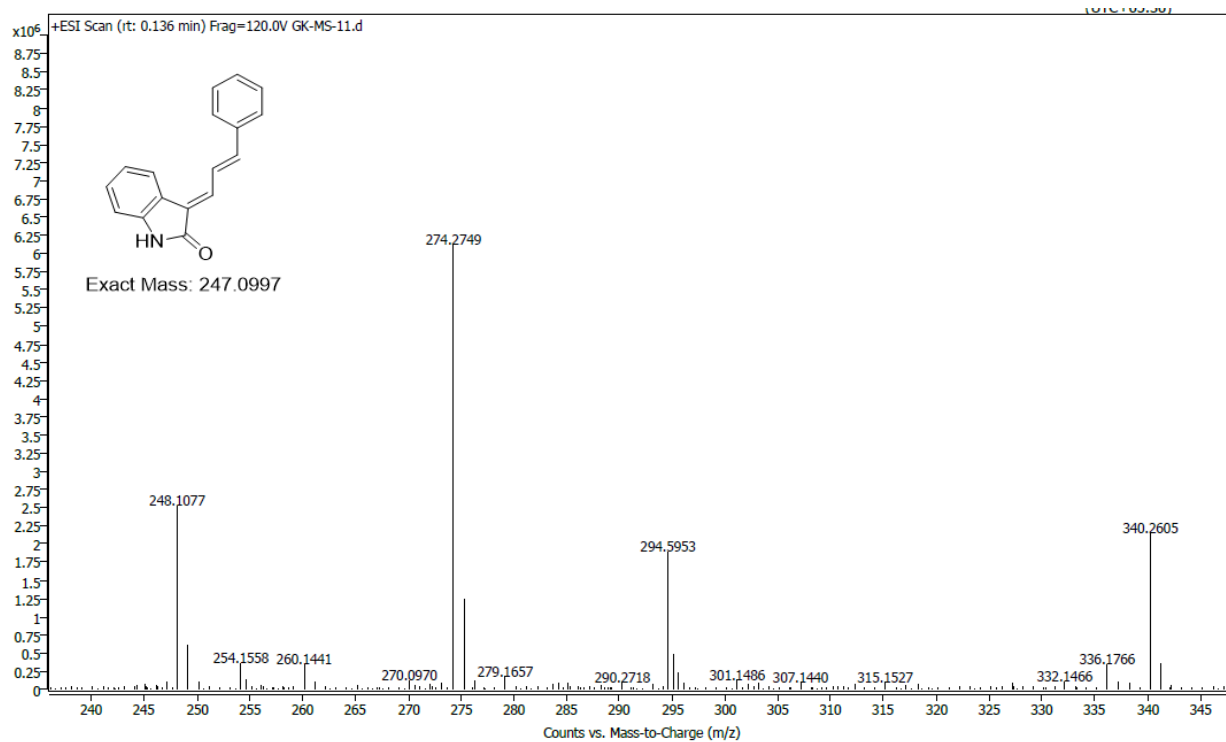


Figure S33: MS spectrum of (*E*)-3-((*E*)-3-phenylallylidene)indolin-2-one **3k**

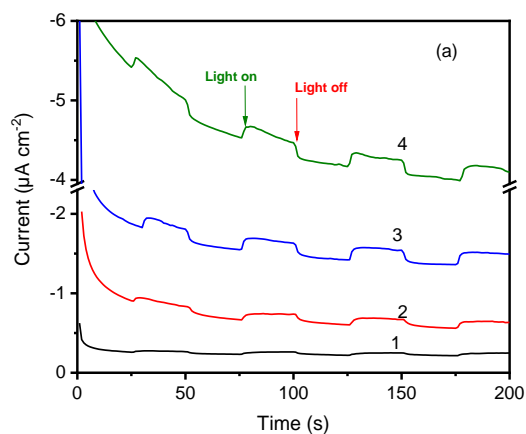


Figure S34: Photocurrent responses of a) (*E*)-3-benzylideneindolin-2-one in 0.5 M Na_2SO_4 at (1) 0.3 V, (2) 0.4 V, (3) 0.5 V and (4) 0.6 V vs Ag/AgCl in sat. KCl

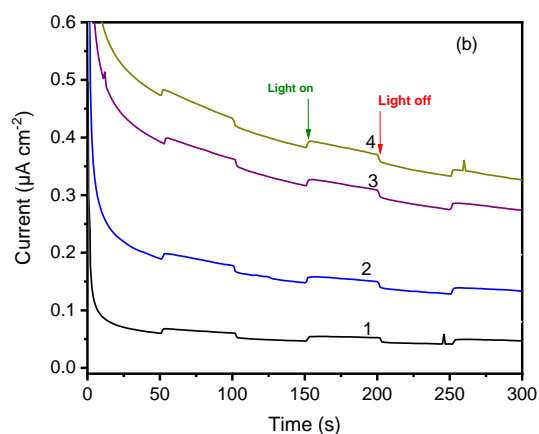


Figure S35: Photocurrent responses of (*E*)-3-(4-chlorobenzylidene)indolin-2-one in 0.5 M Na_2SO_4 at (1) 0.3 V, (2) 0.4 V, (3) 0.5 V and (4) 0.6 V vs Ag/AgCl in sat. KCl

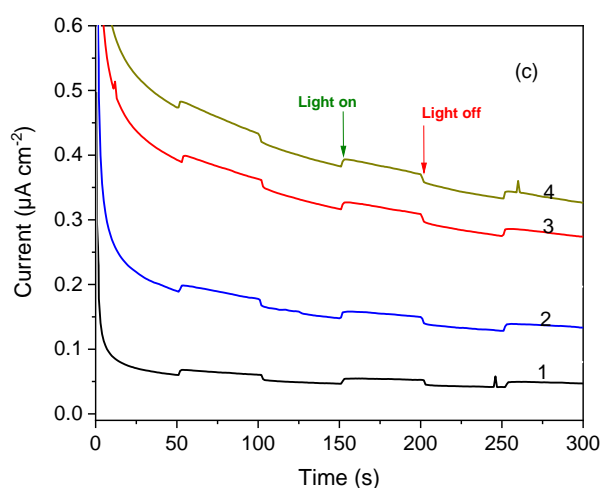


Figure S36: Photocurrent responses of (*E*)-3-((*E*)-3-phenylallylidene)indolin-2-one in 0.5 M Na_2SO_4 at (1) 0.3 V, (2) 0.4 V, (3) 0.5 V and (4) 0.6 V vs Ag/AgCl in sat. KCl