

Identification of cyclic sulfonamides with an *N*-arylacetamide group as α -glucosidase and α -amylase inhibitors: Biological evaluation and molecular modeling

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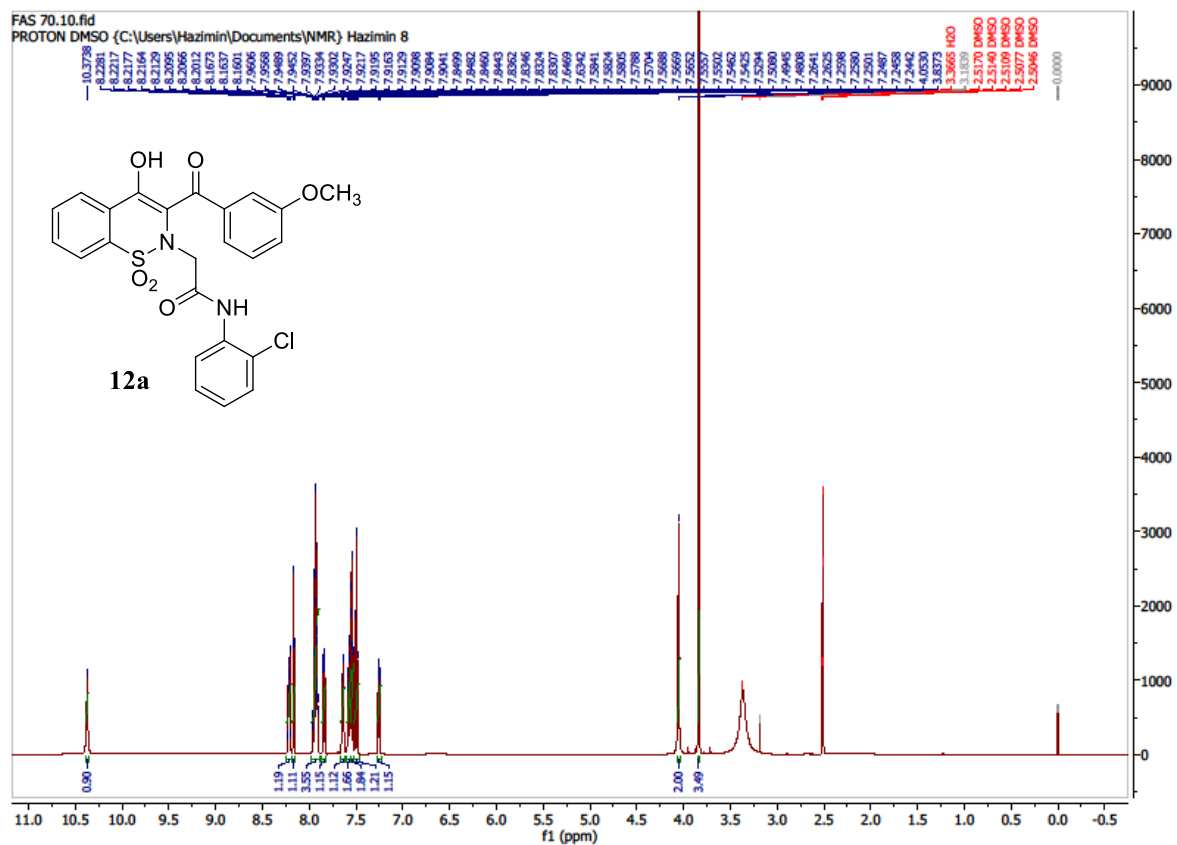
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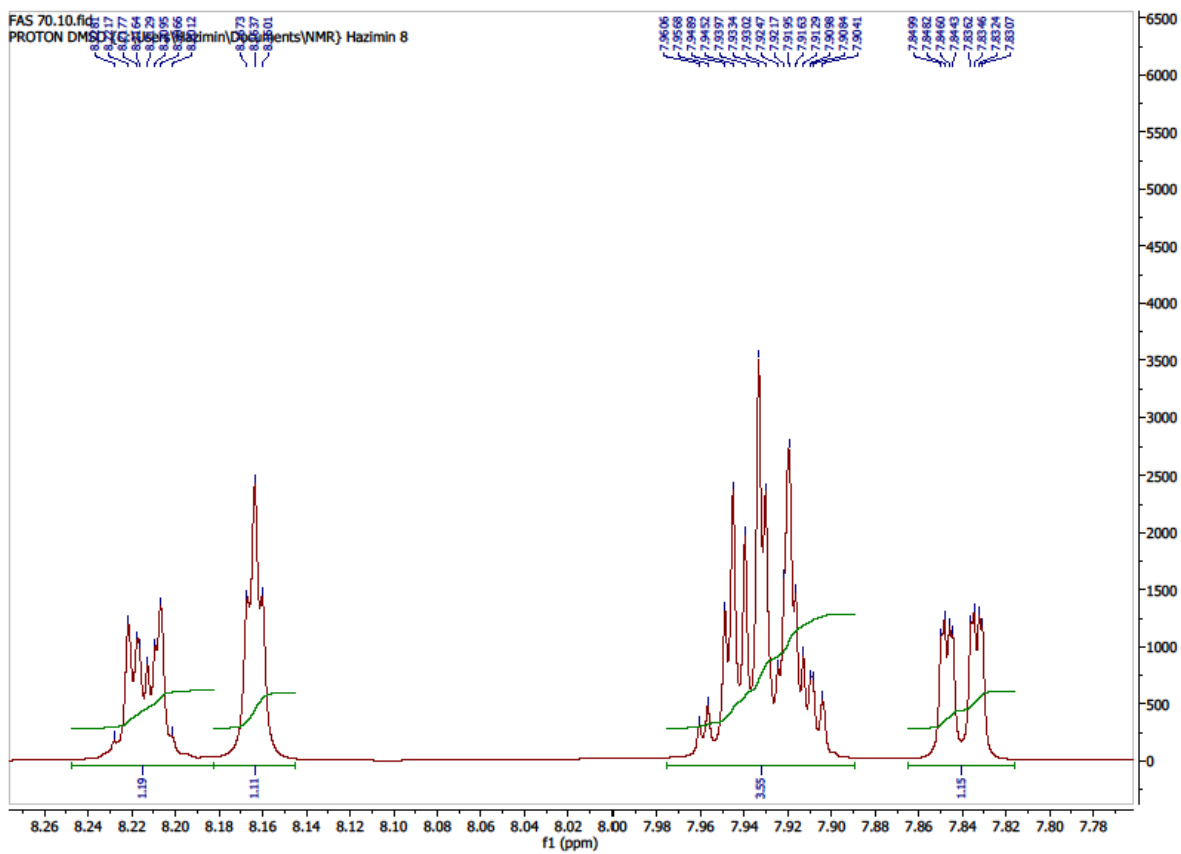
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(Supplementary Data File)

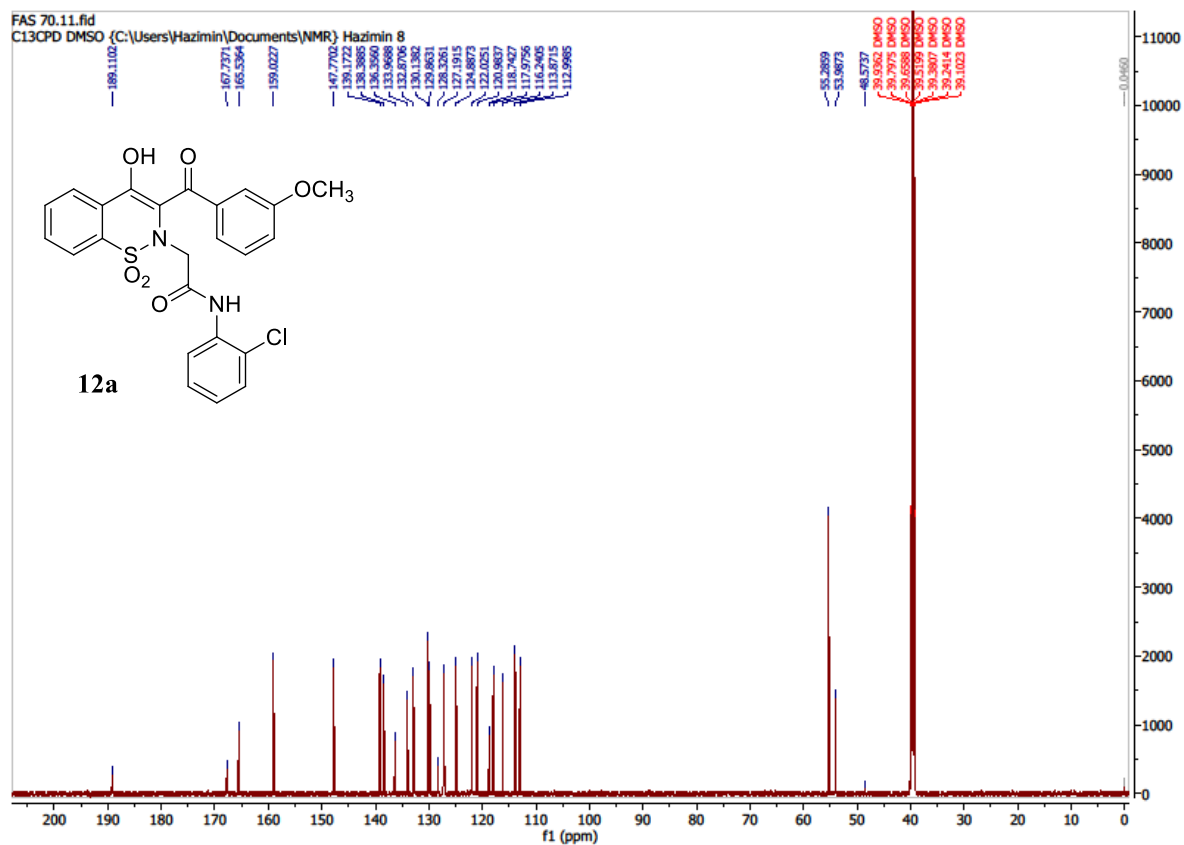
¹H NMR, ¹³C NMR, HRMS (ESI) spectra and 3D docking modes (Figure S1, Figure S2) of potent compounds (**12a**, **12c**, **12d**, **12g**, **12i**, **12k**). All the spectra were recorded using NMR Spectrophotometer (Hazimin) in deuterated DMSO and at 600 MHz frequency. HRMS (ESI) spectra were recorded using Agilent LC/TOF Mass 6210 Mass Spectrometer.



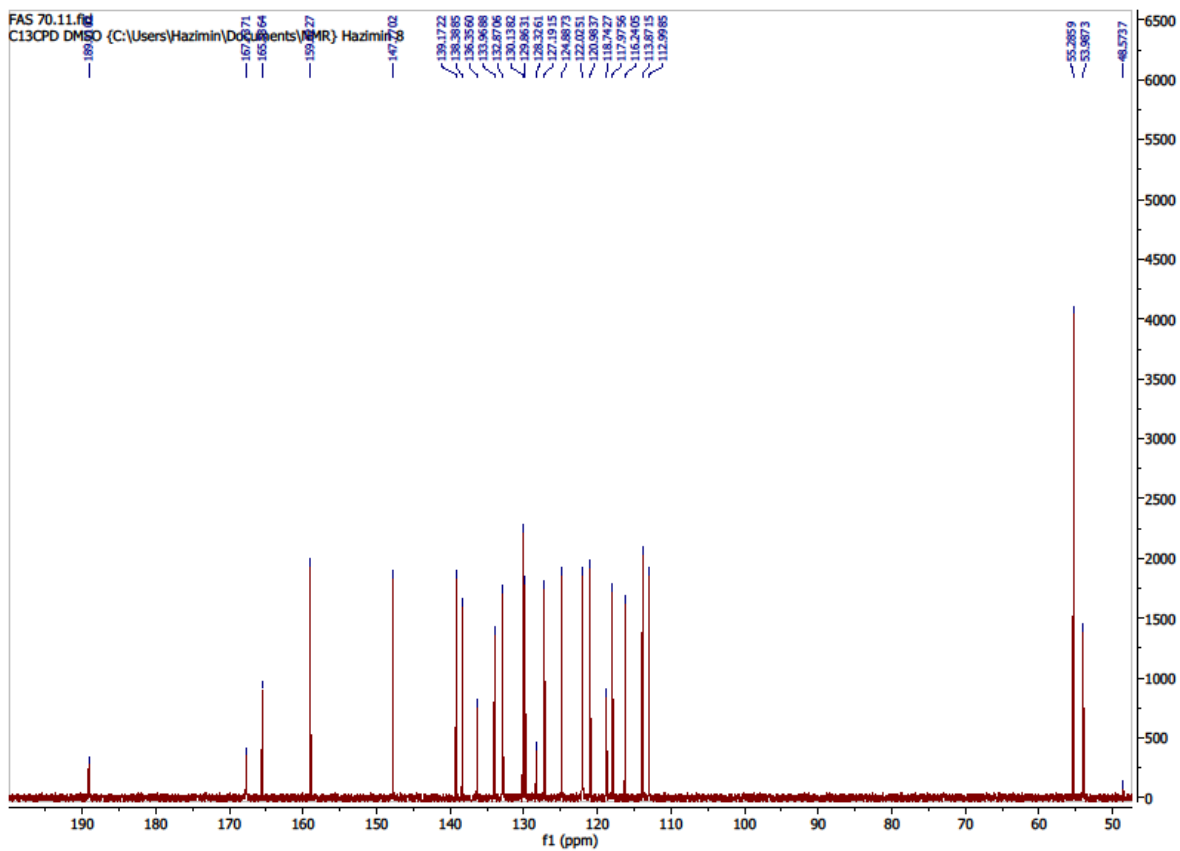
¹H NMR Spectrum of compound 12a.



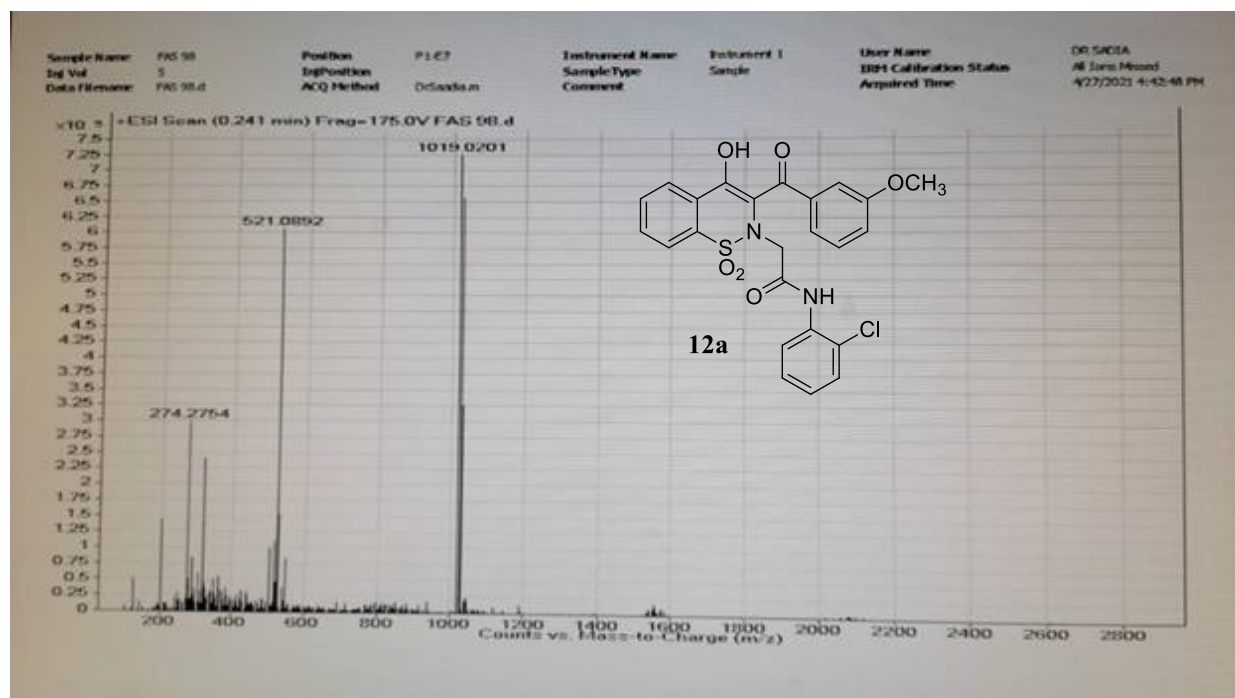
Expanded form of ^1H NMR Spectrum of compound **12a** (region 7.80-8.26 ppm).



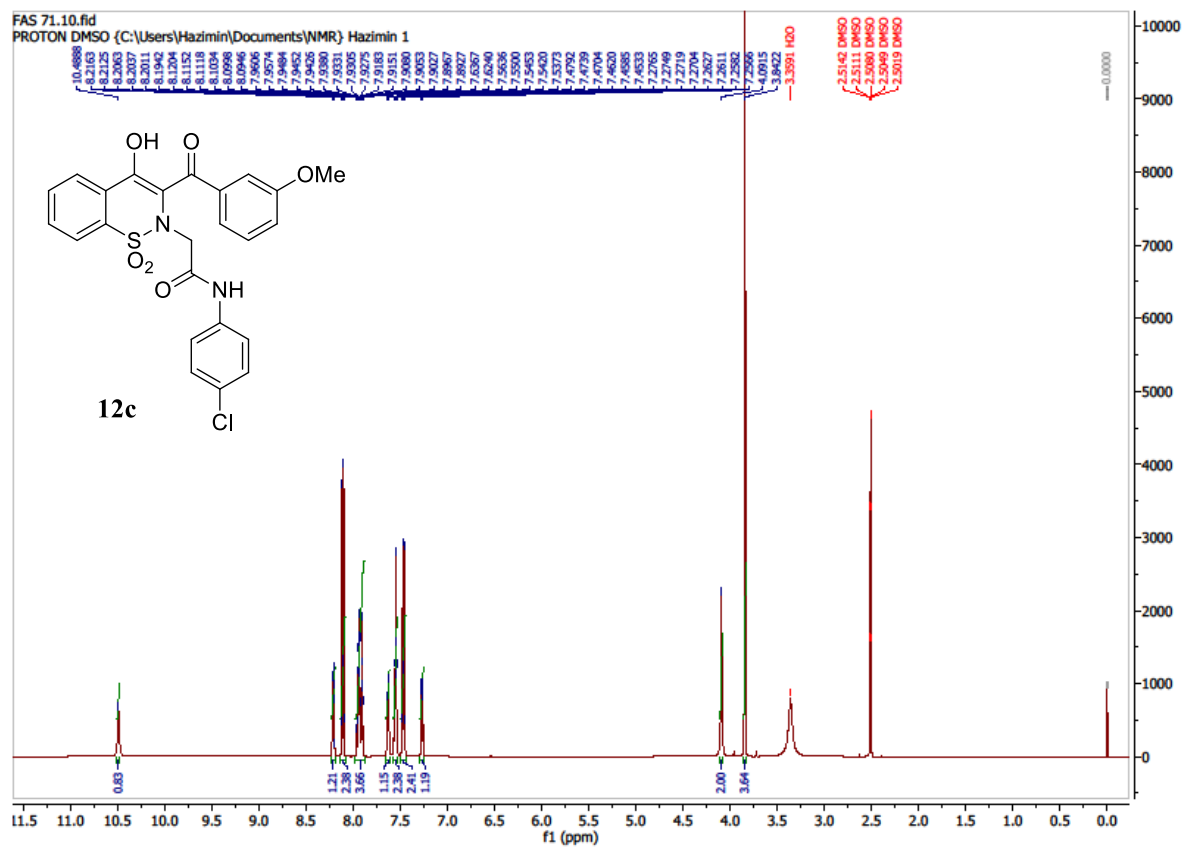
¹³C NMR Spectrum of compound **12a**.



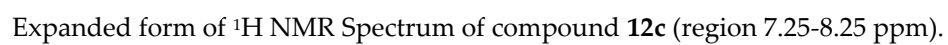
Expanded form of ^{13}C NMR Spectrum of compound **12a** (region 110-140 ppm).

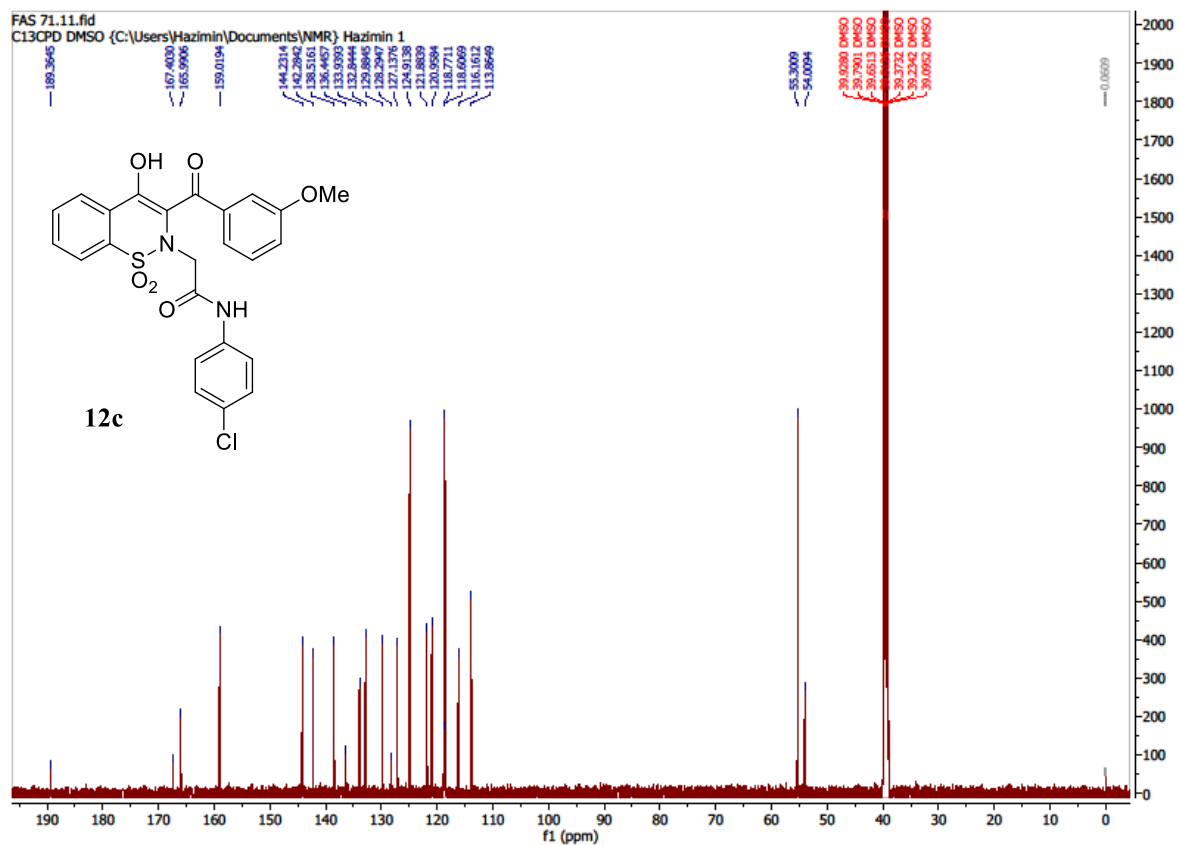


HRMS (ESI) Spectrum of compound **12a**.

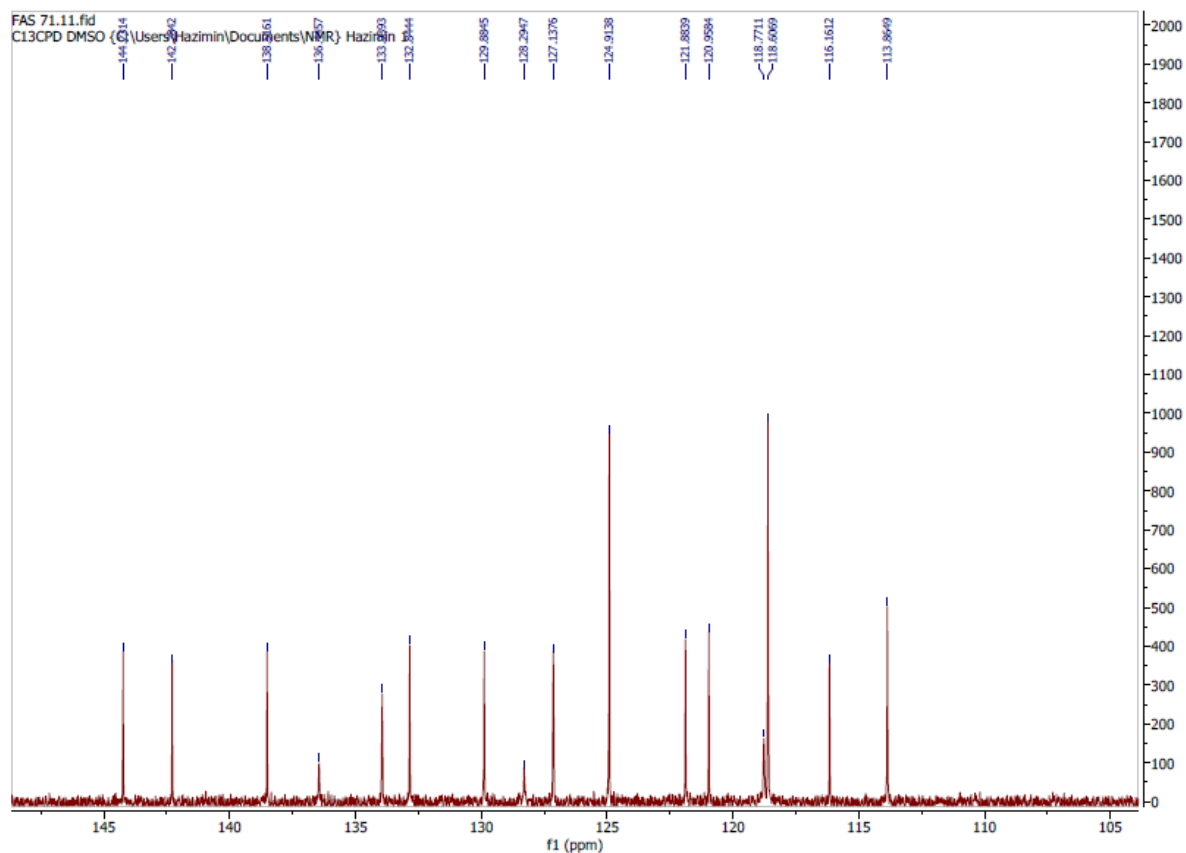


^1H NMR Spectrum of compound **12c**.

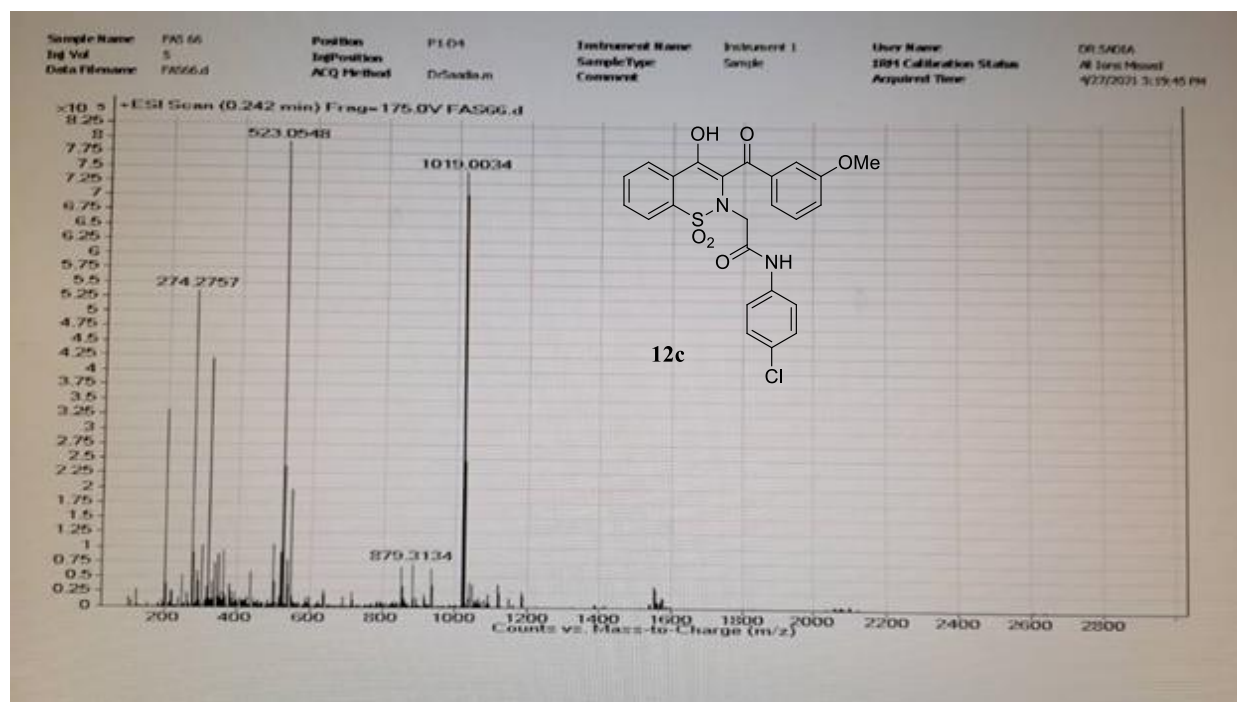




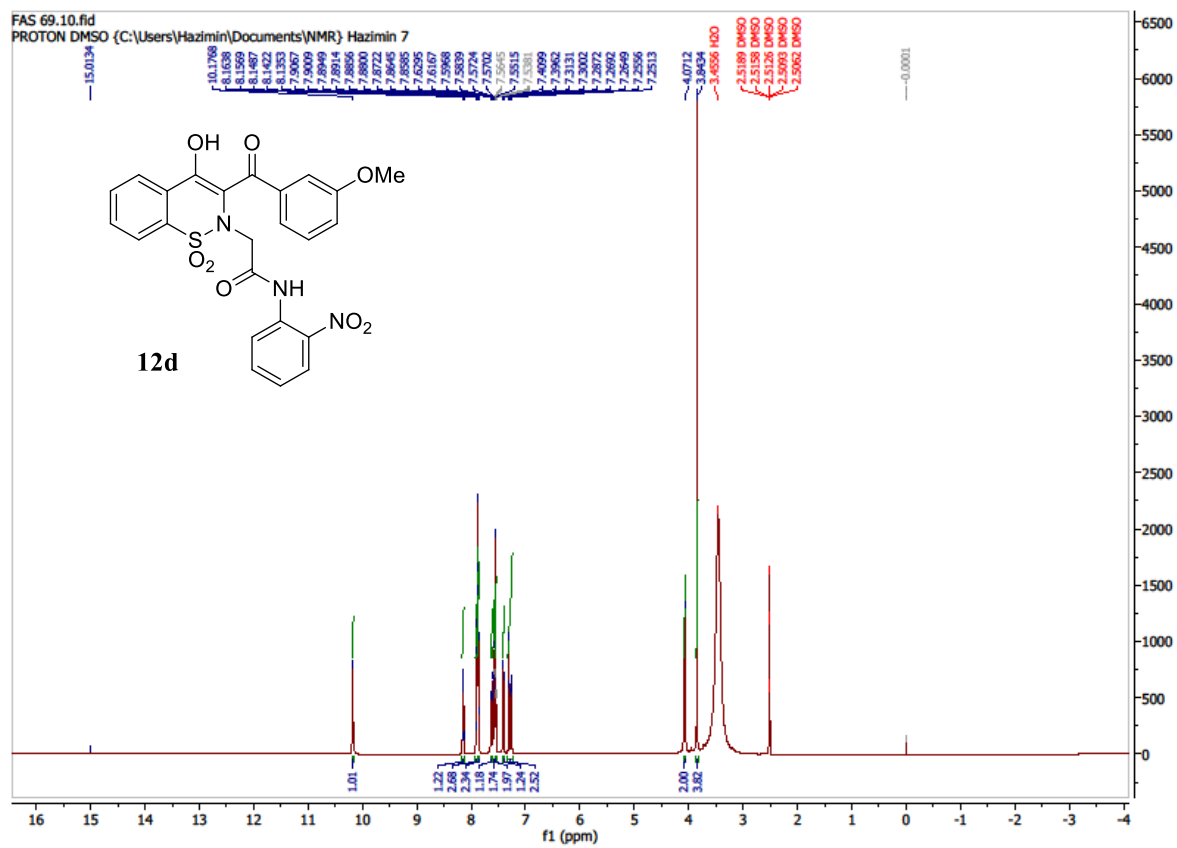
^{13}C NMR Spectrum of compound **12c**.



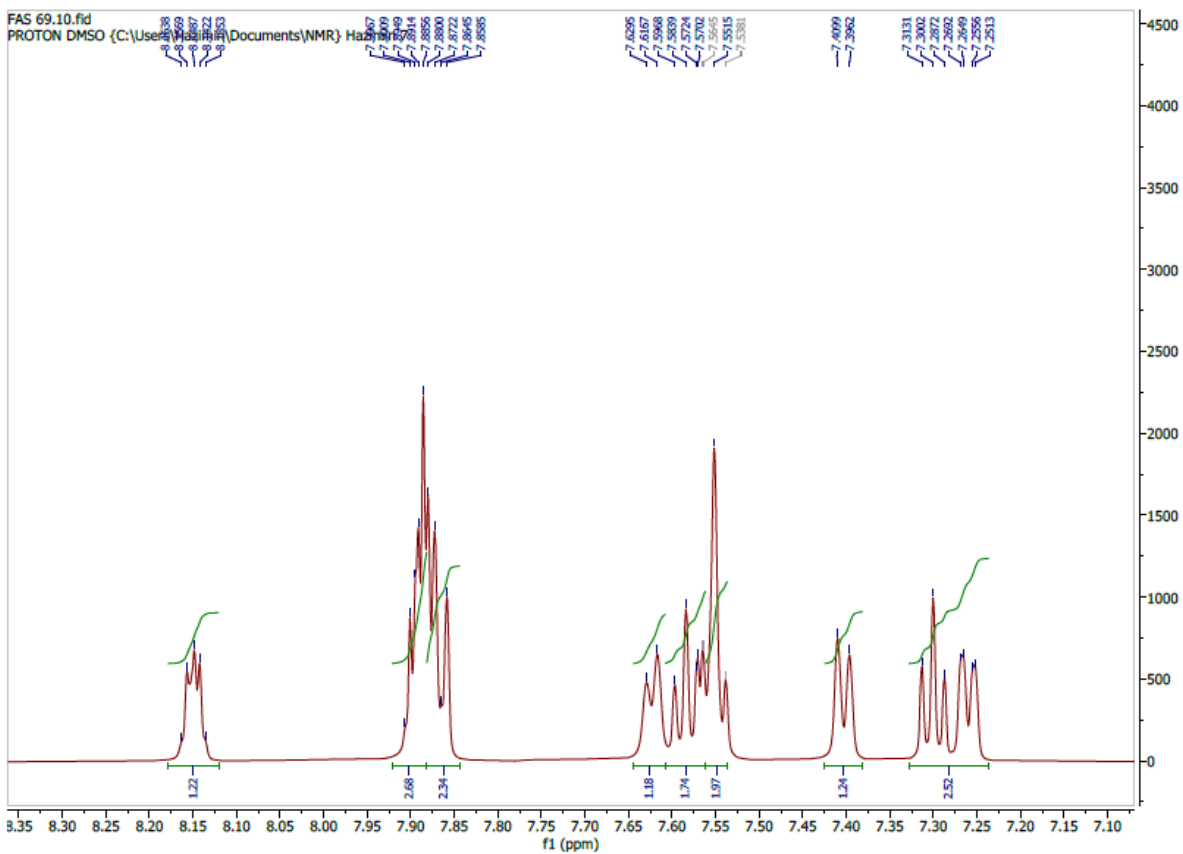
Expanded form of ^{13}C NMR Spectrum of compound **12c** (region 110-145 ppm).



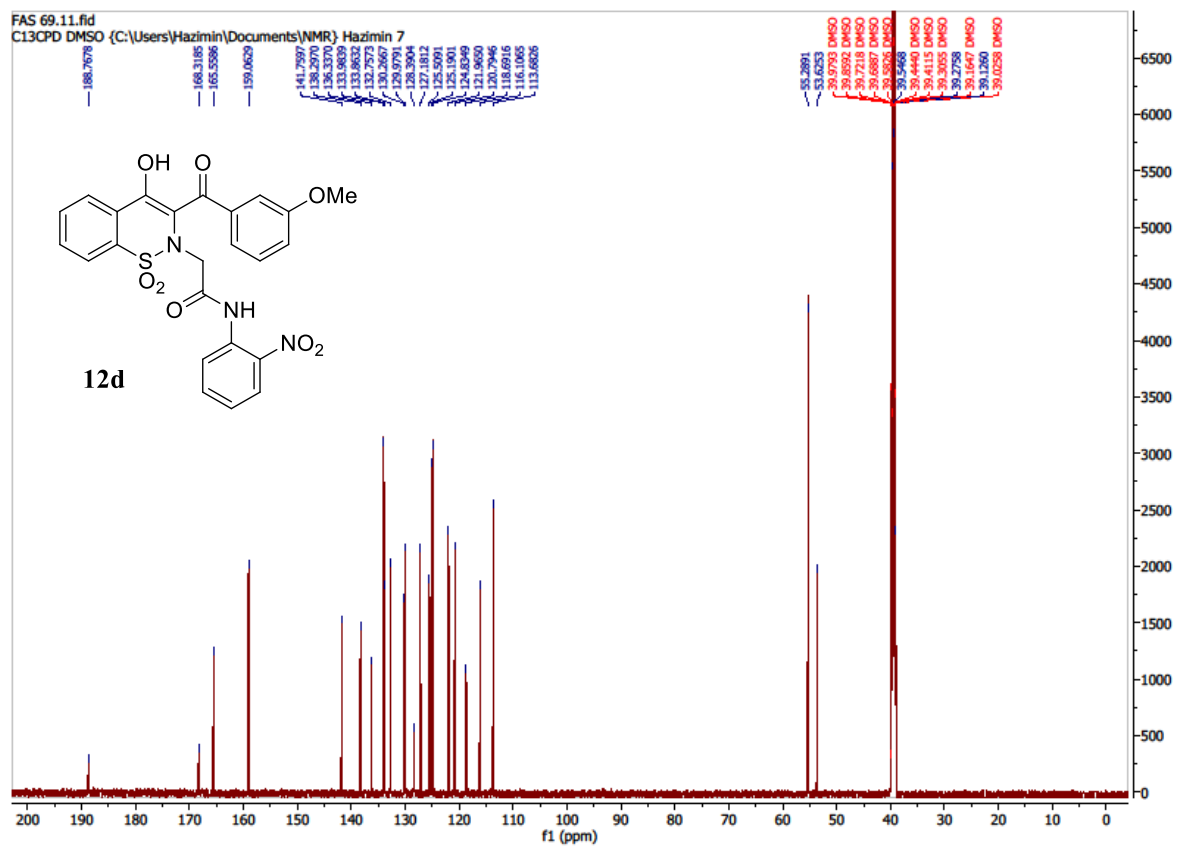
HRMS (ESI) Spectrum of compound **12c**.



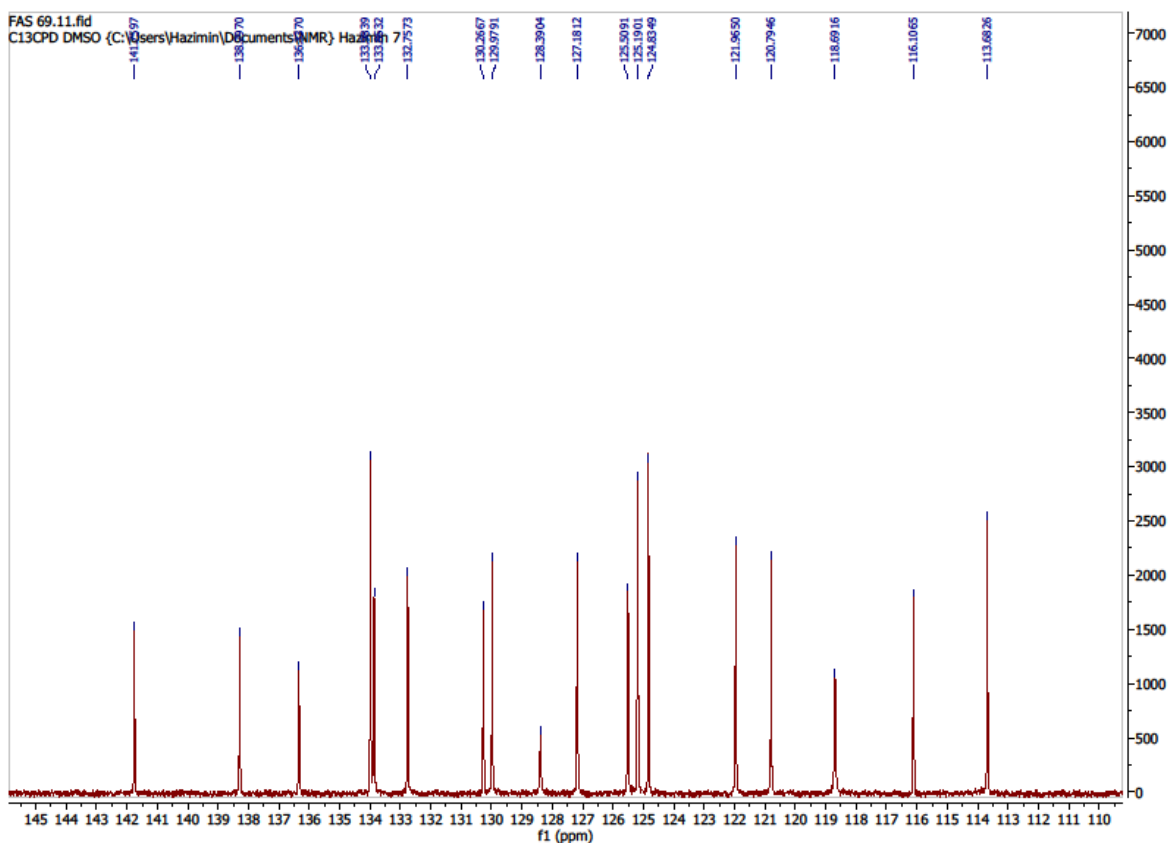
¹H NMR Spectrum of compound **12d**.



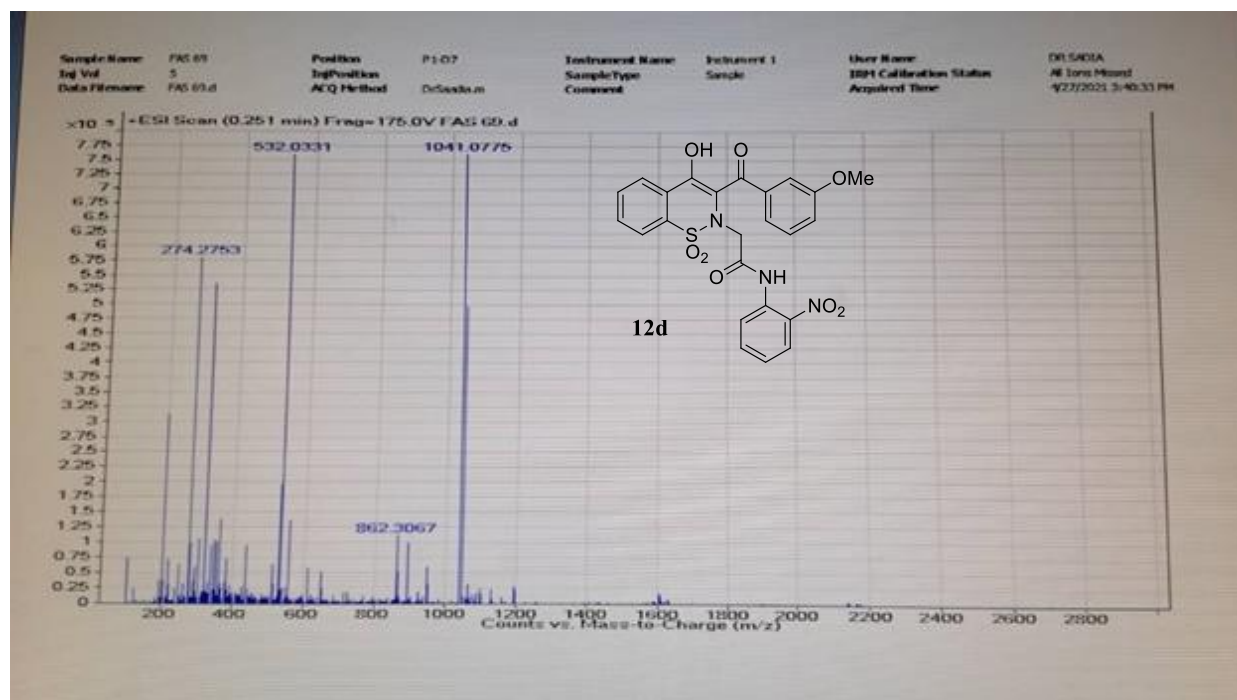
Expanded form of ^1H NMR Spectrum of compound **12d** (region 7.20-8.20 ppm).



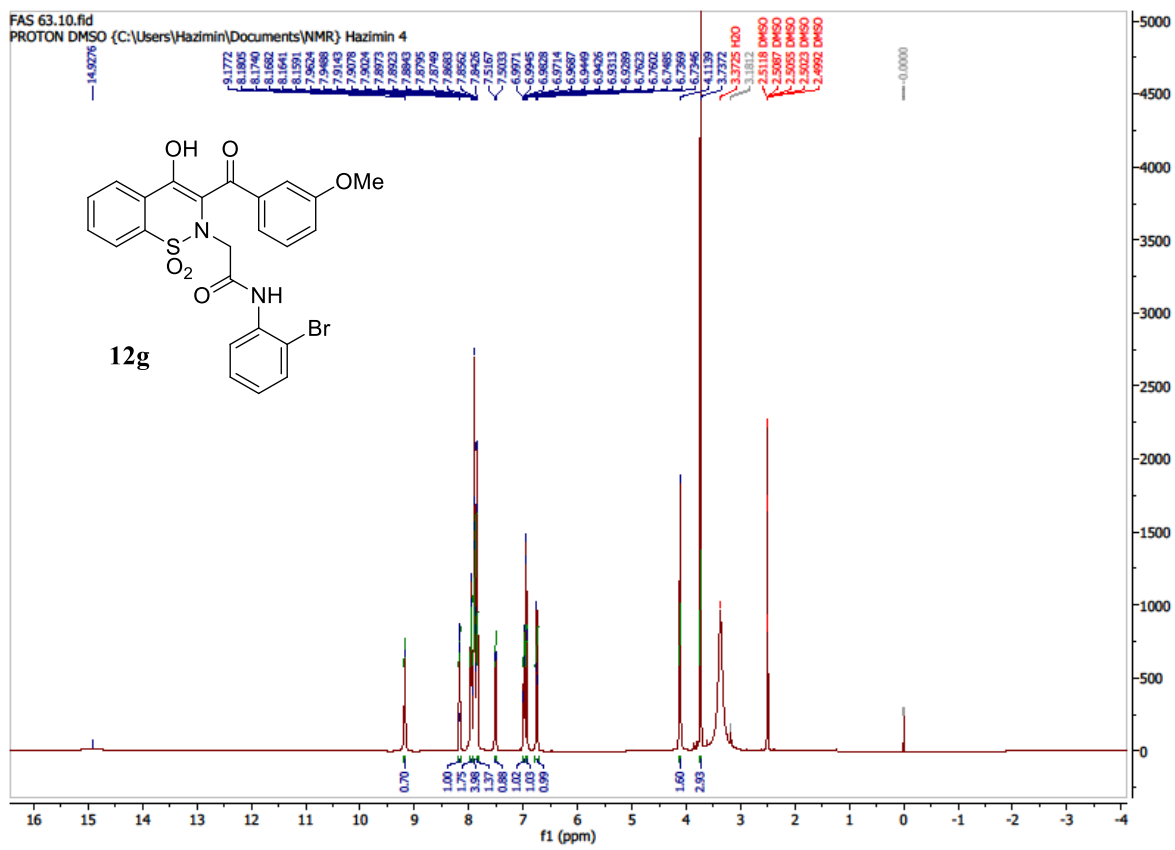
¹³C NMR Spectrum of compound **12d**.



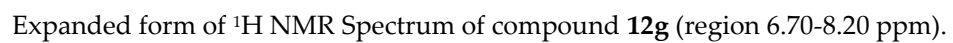
Expanded form of ^{13}C NMR Spectrum of compound **12d** (region 113-142 ppm).



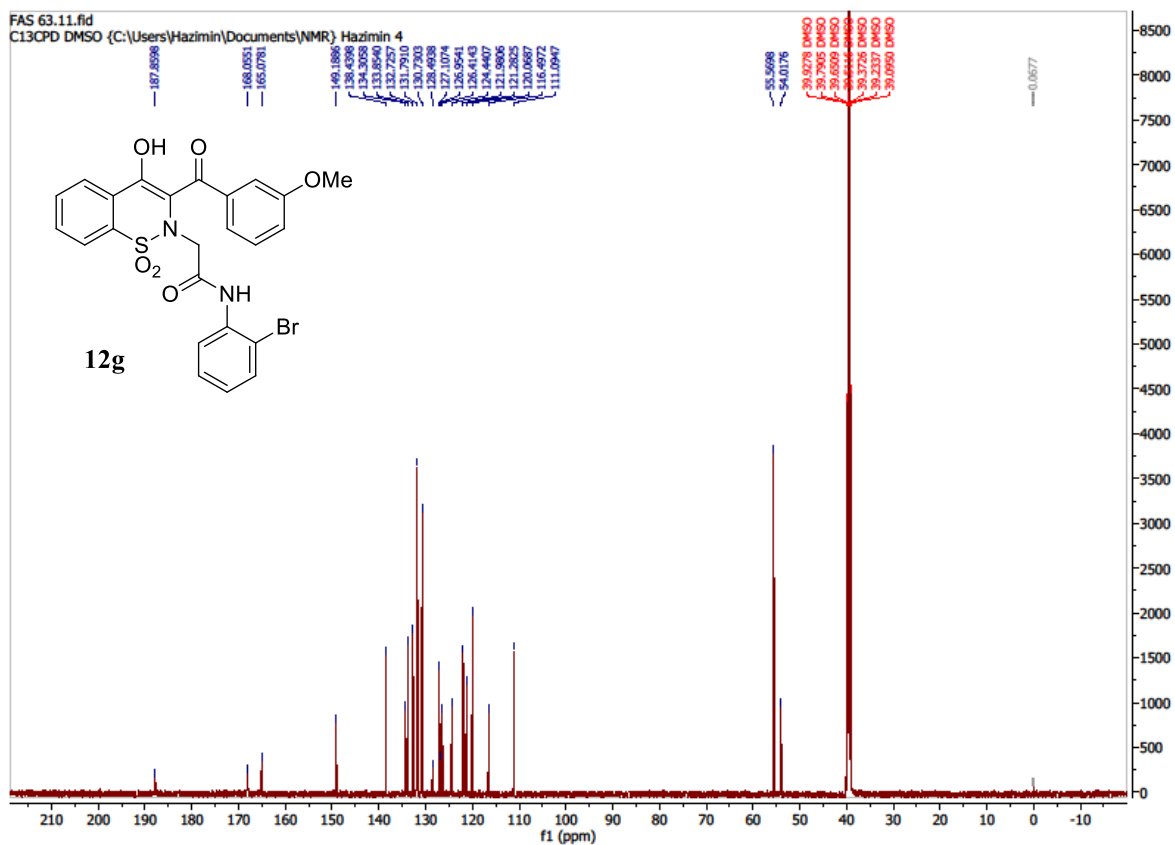
HRMS (ESI) Spectrum of compound **12d**.



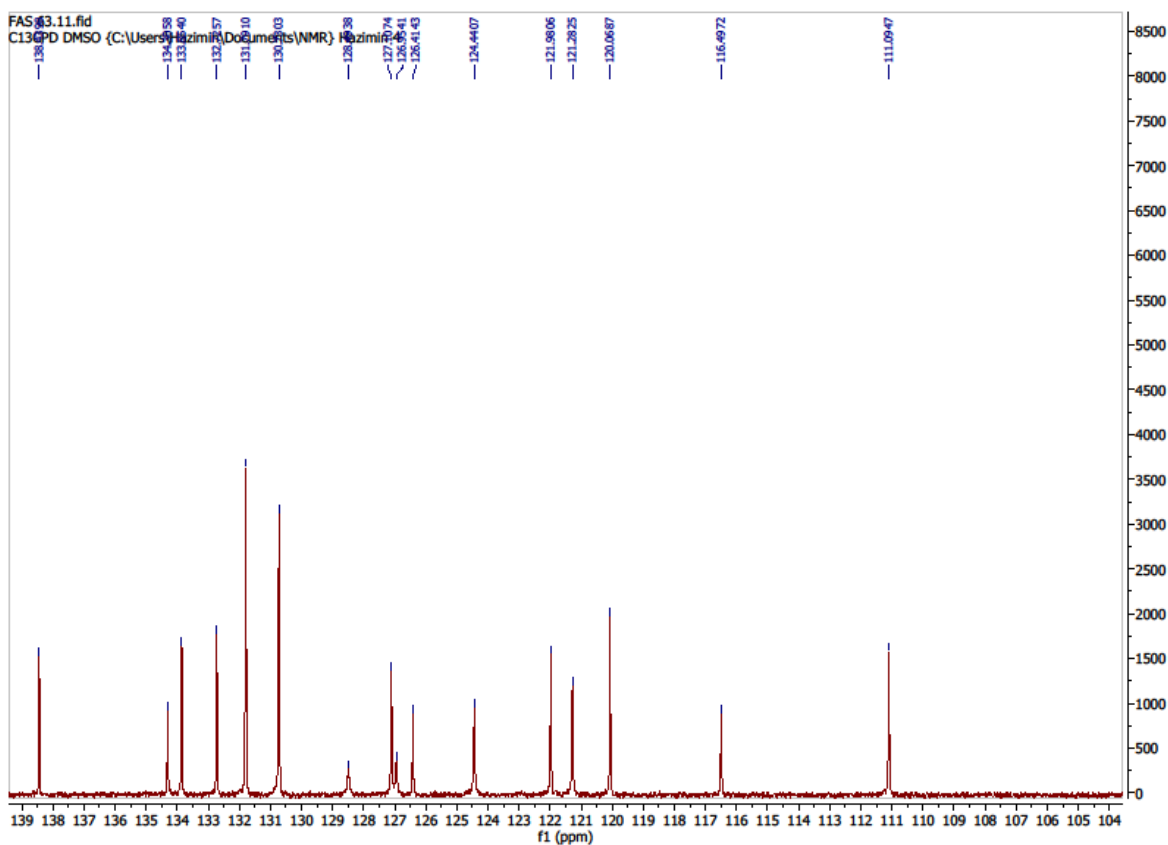
¹H NMR Spectrum of compound 12g.



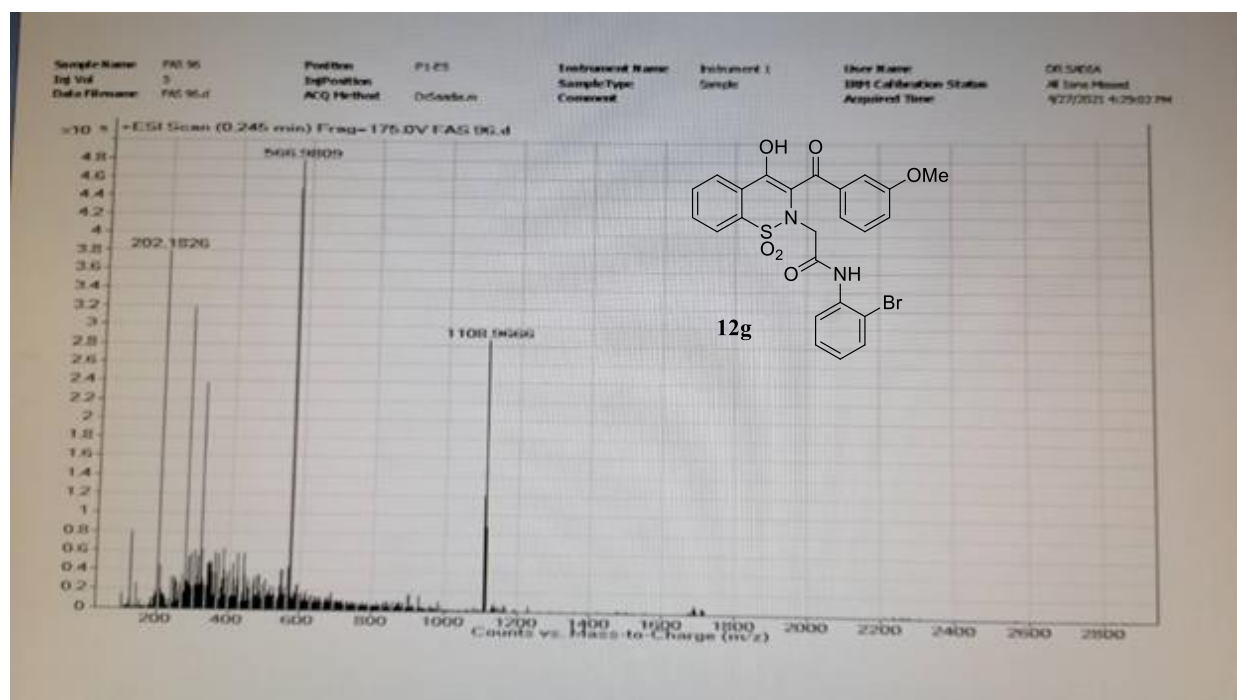
Expanded form of ¹H NMR Spectrum of compound **12g** (region 6.70-8.20 ppm).



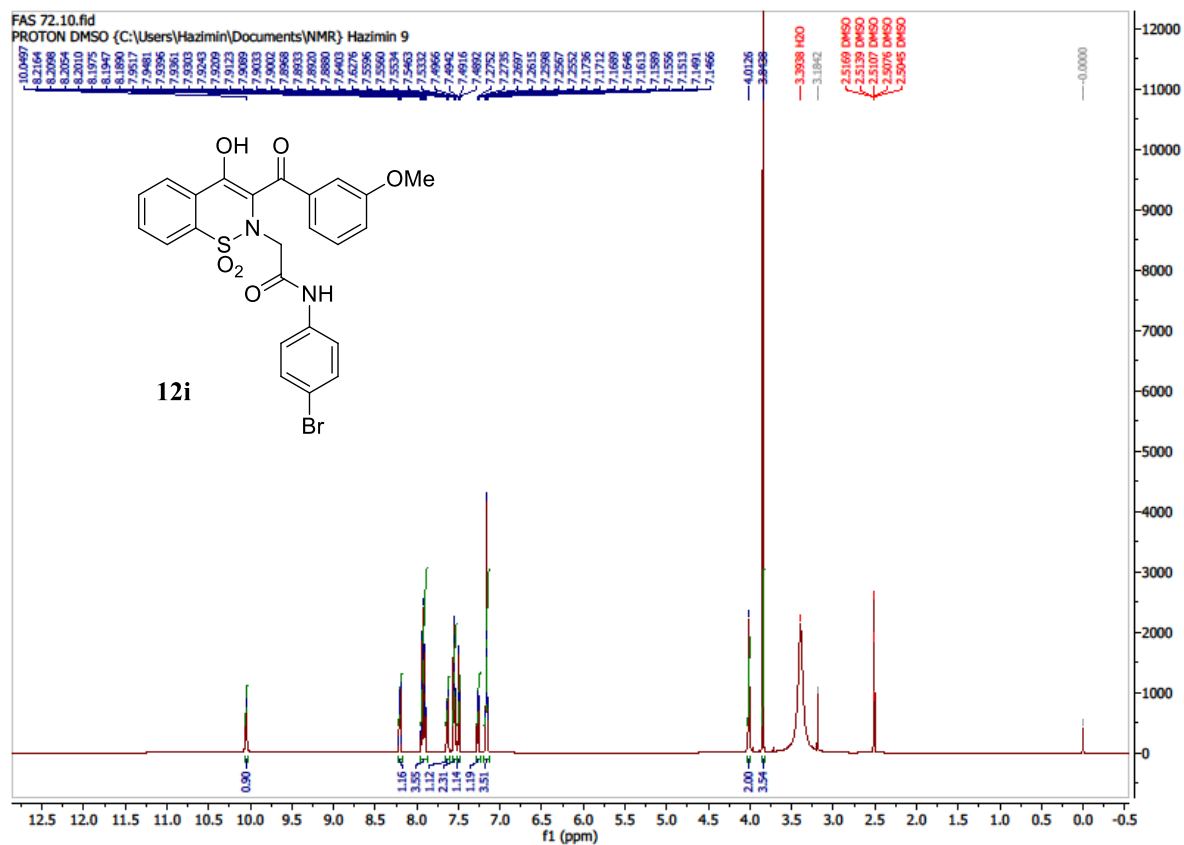
^{13}C NMR Spectrum of compound **12g**.

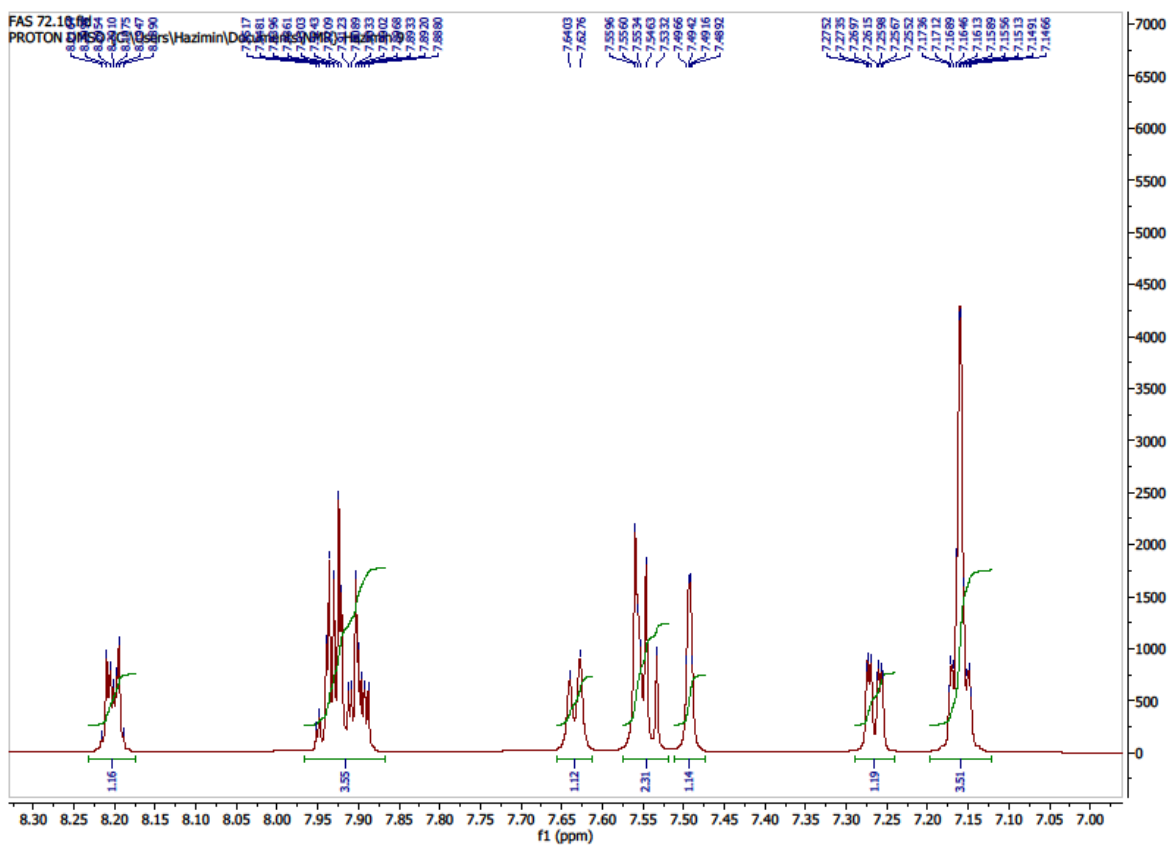


Expanded form of ^{13}C NMR Spectrum of compound **12g** (region 120-135 ppm).

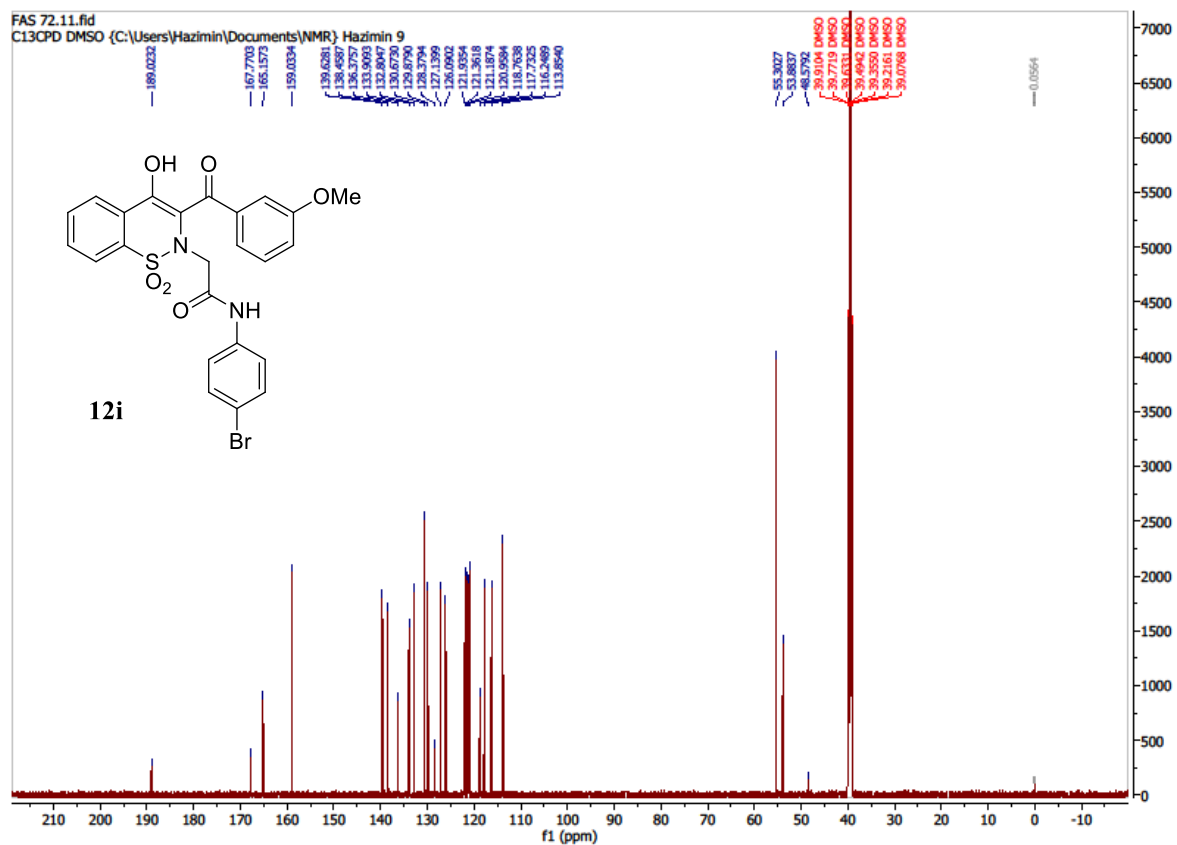


HRMS (ESI) Spectrum of compound **12g**.

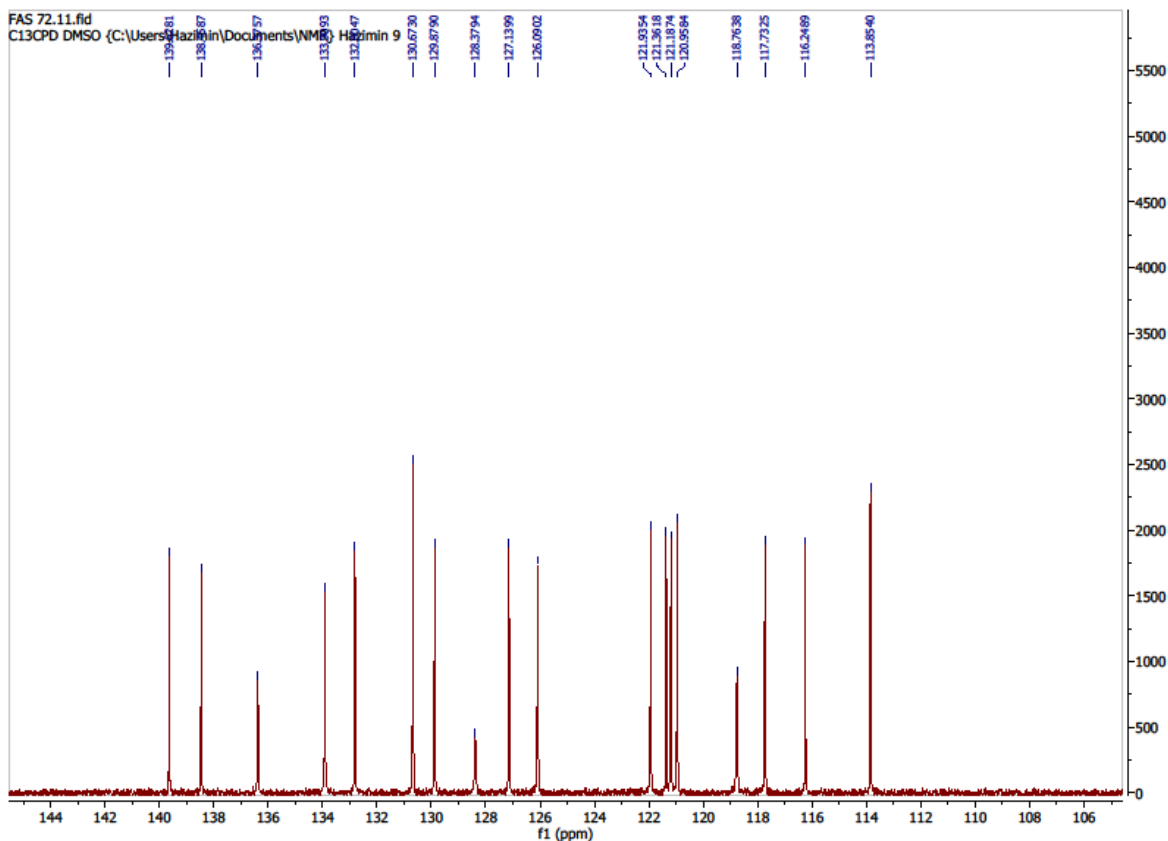




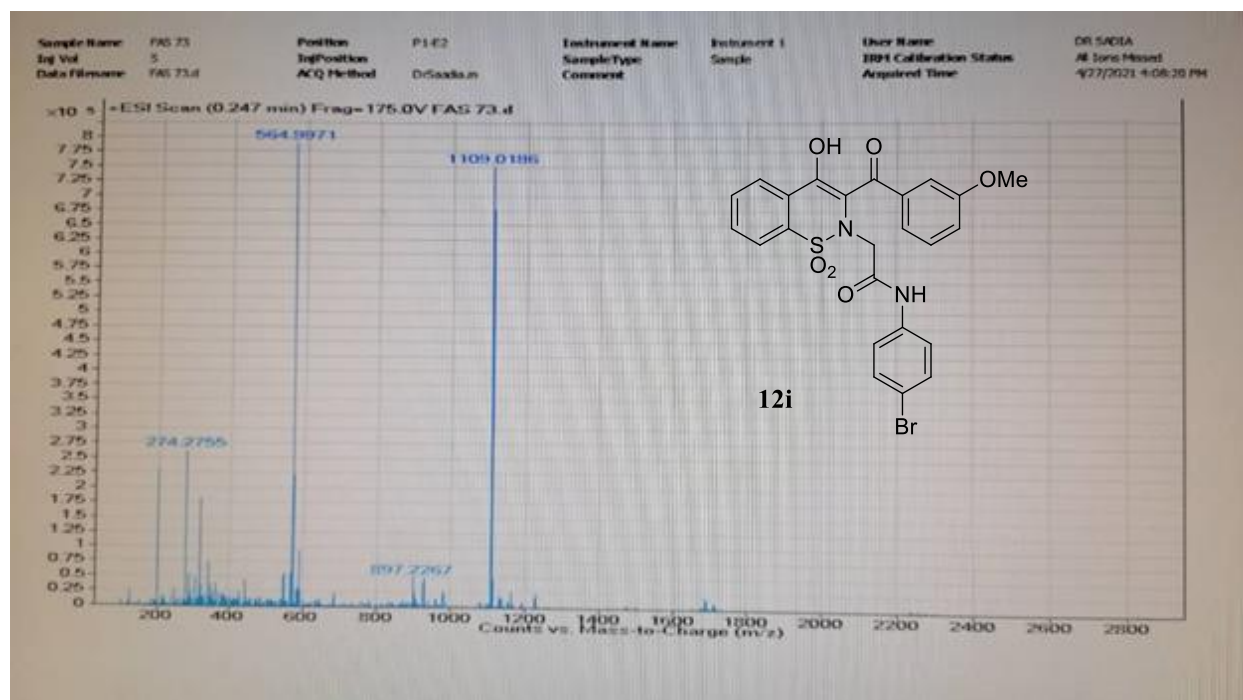
Expanded form of ^1H NMR Spectrum of compound **12i** (region 7.10-8.25 ppm).



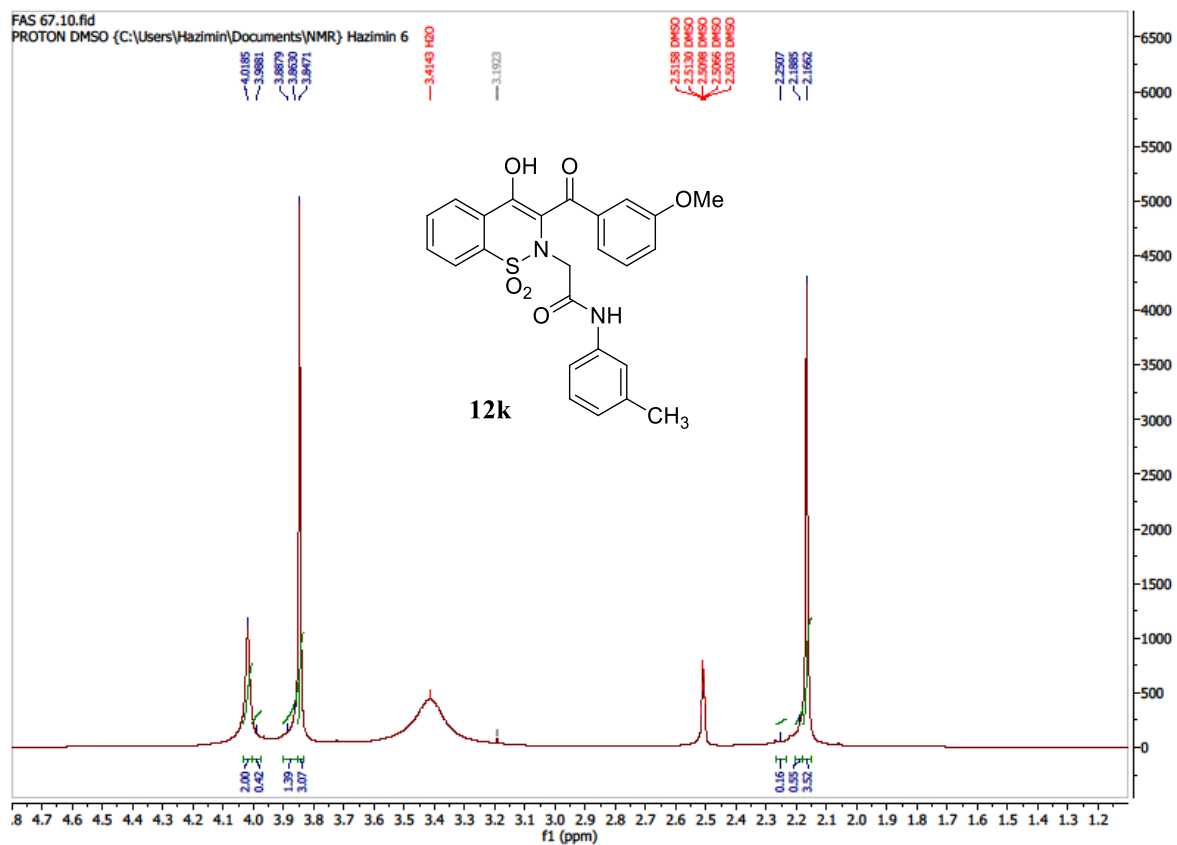
¹³C NMR Spectrum of compound **12i**.



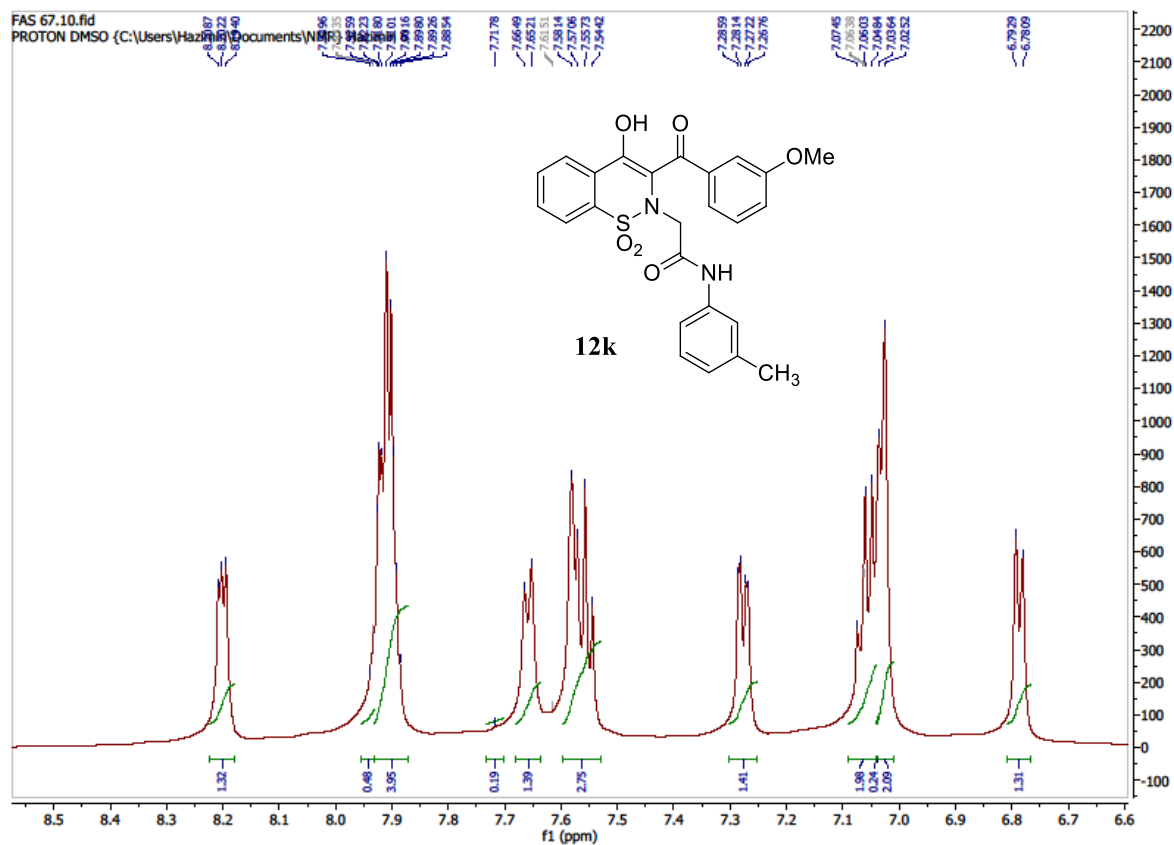
Expanded form of ^{13}C NMR Spectrum of compound **12i** (region 114-140 ppm).



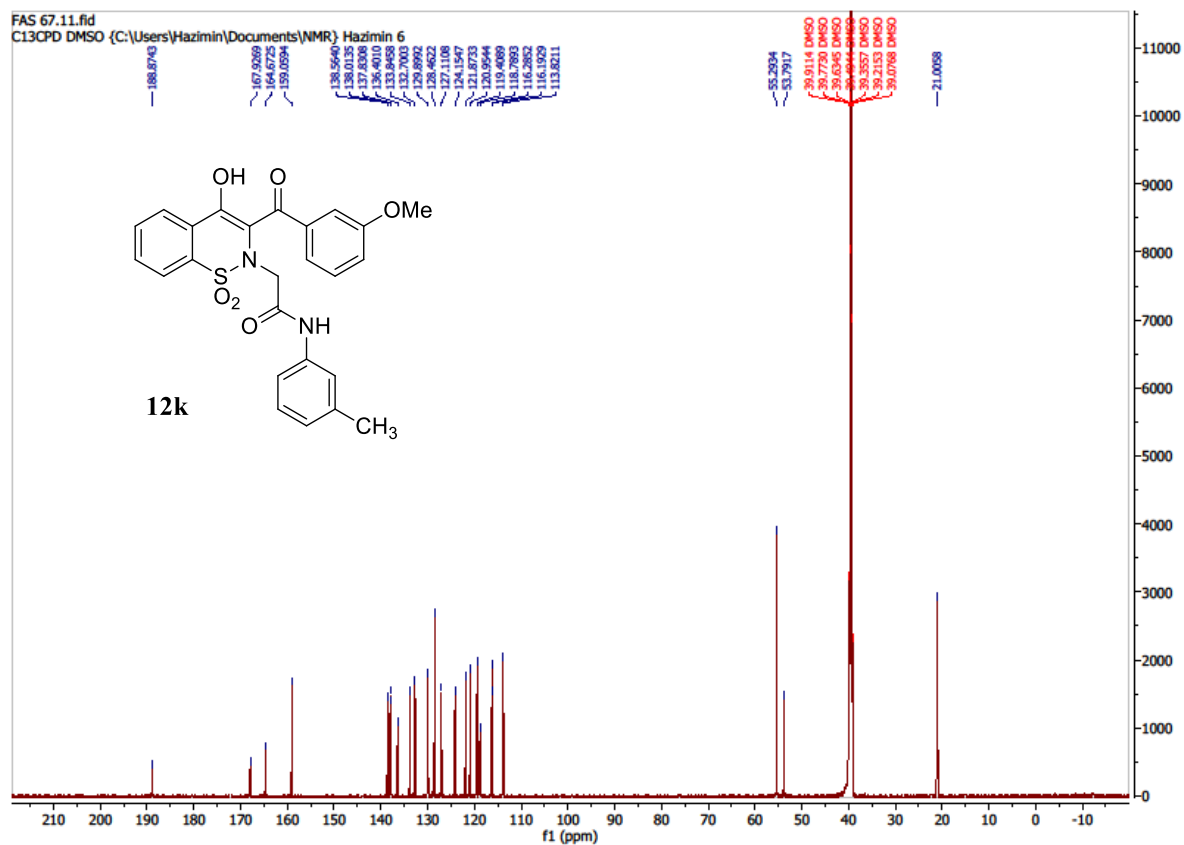
HRMS (ESI) Spectrum of compound **12i**.



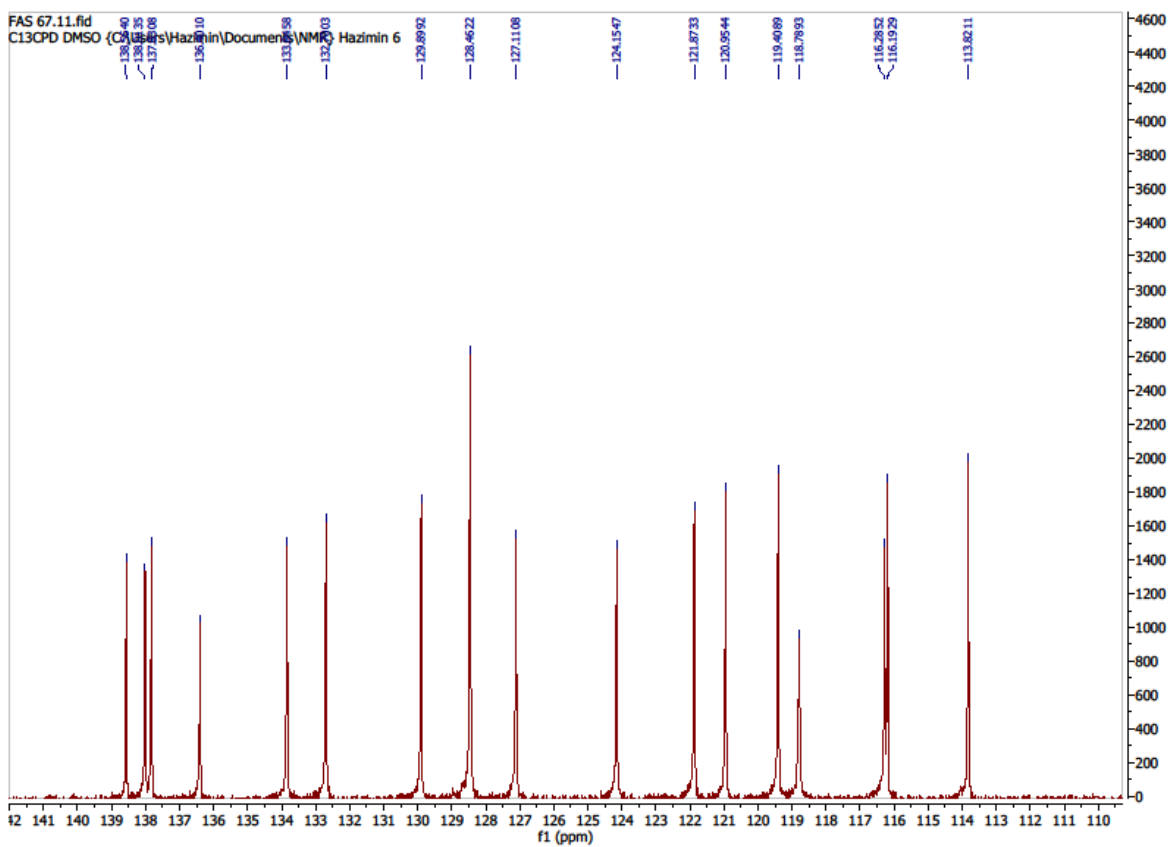
¹H NMR Spectrum (up-field region) of compound **12k**.



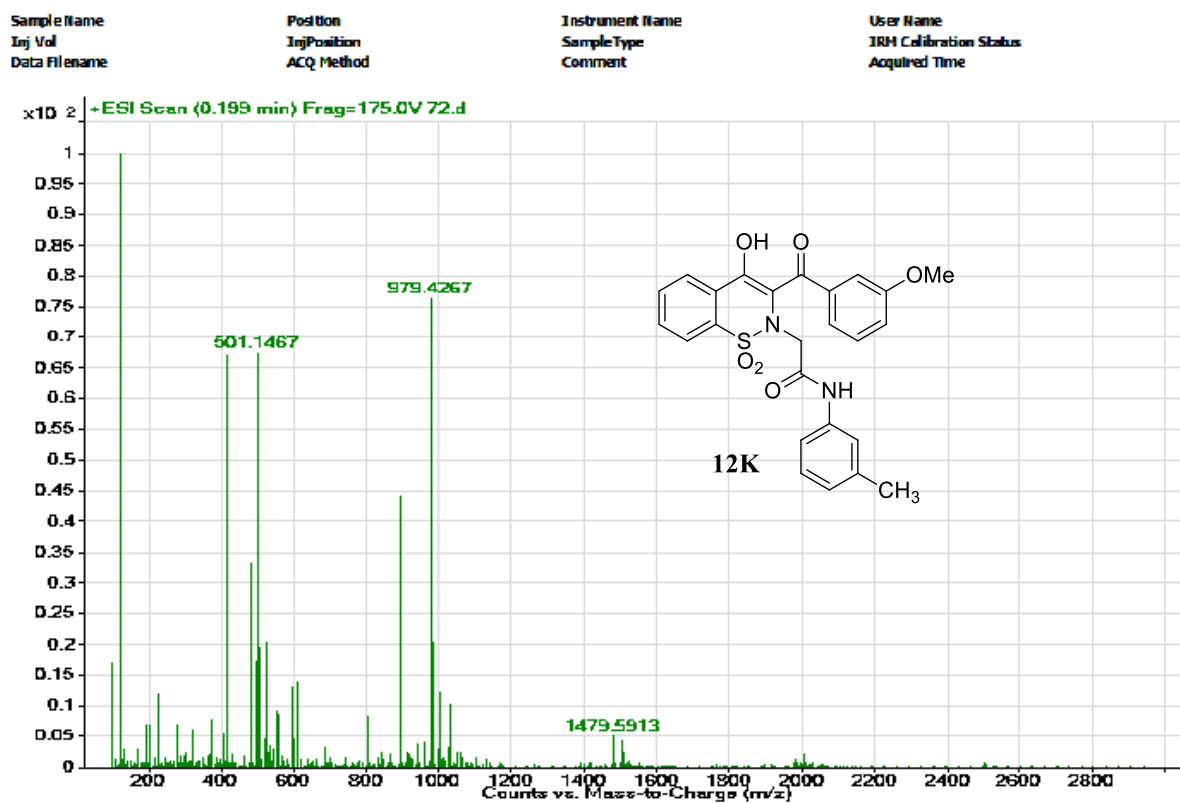
¹H NMR Spectrum (down-field region) of compound 12k.



^{13}C NMR Spectrum of compound **12k**.



Expanded form of ^{13}C NMR Spectrum of compound **12k** (region 113-139 ppm).



HRMS (ESI) Spectrum of compound 12k.

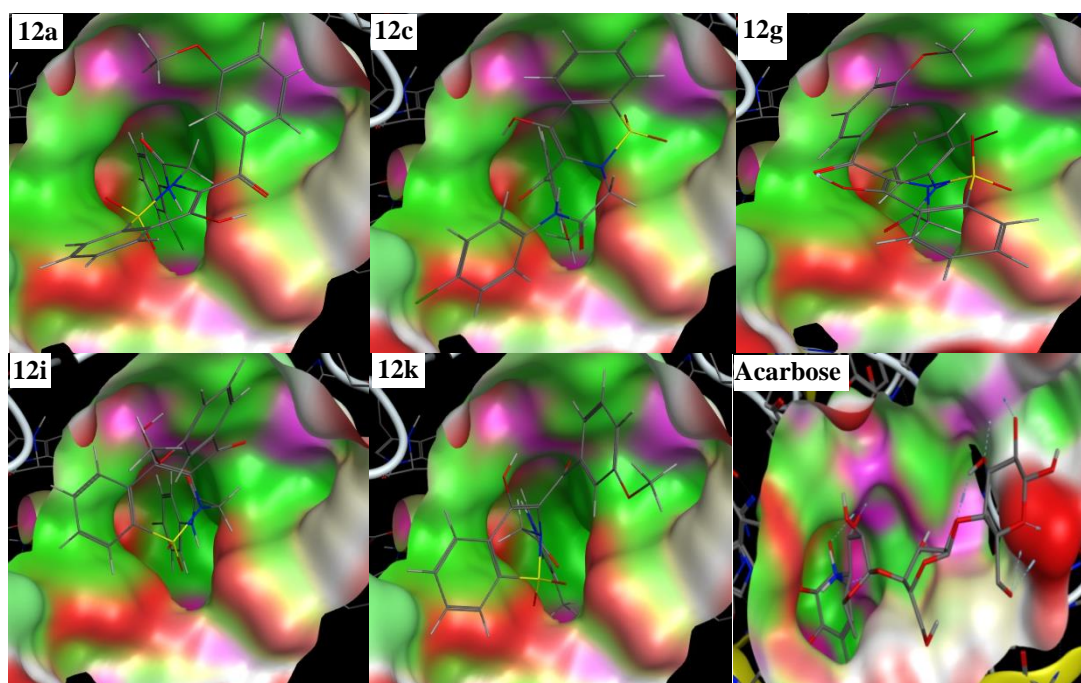


Figure S1. 3D docking modes of potent compounds (**12a**, **12c**, **12g**, **12i**, **12k**) and the reference drug, acarbose against α -glucosidase enzyme. Red color portions indicate the ligand exposure points and color portion shows pocket selected.

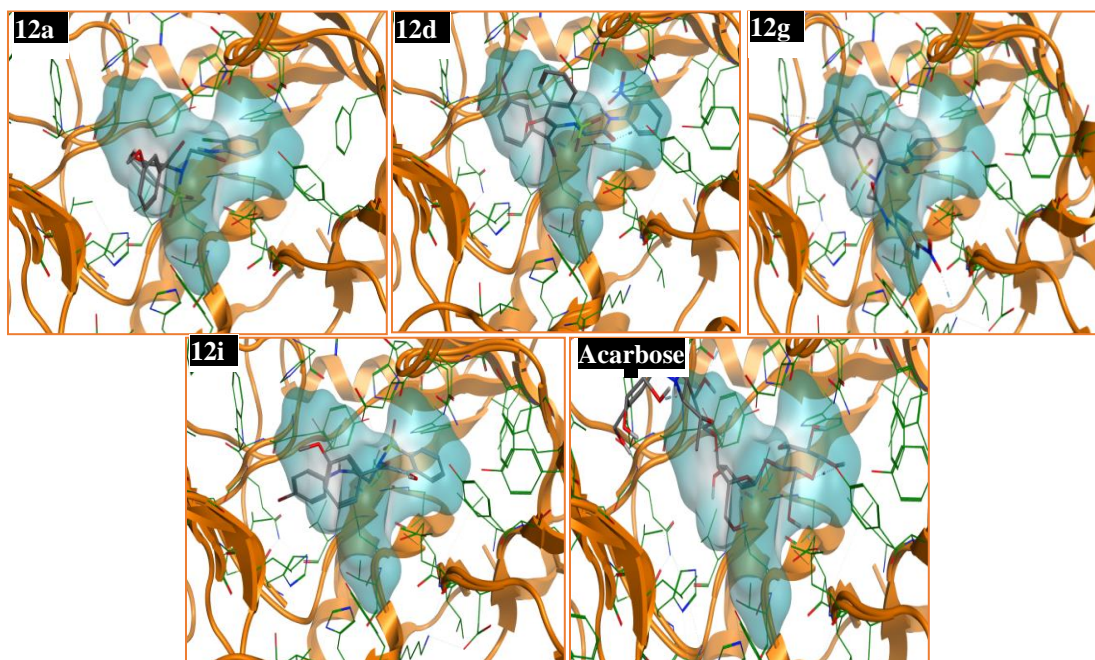


Figure S2. 3D docking modes of potent compounds (**12a**, **12d**, **12g**, **12i**) and the reference drug, acarbose against amylase enzyme. Red color portions indicate the ligand exposure points and color portion shows pocket selected.