

## Supplementary Materials

### Switching from Aromatase Inhibitors to Dual Targeting Flavonoid-Based Compounds for Breast Cancer Treatment

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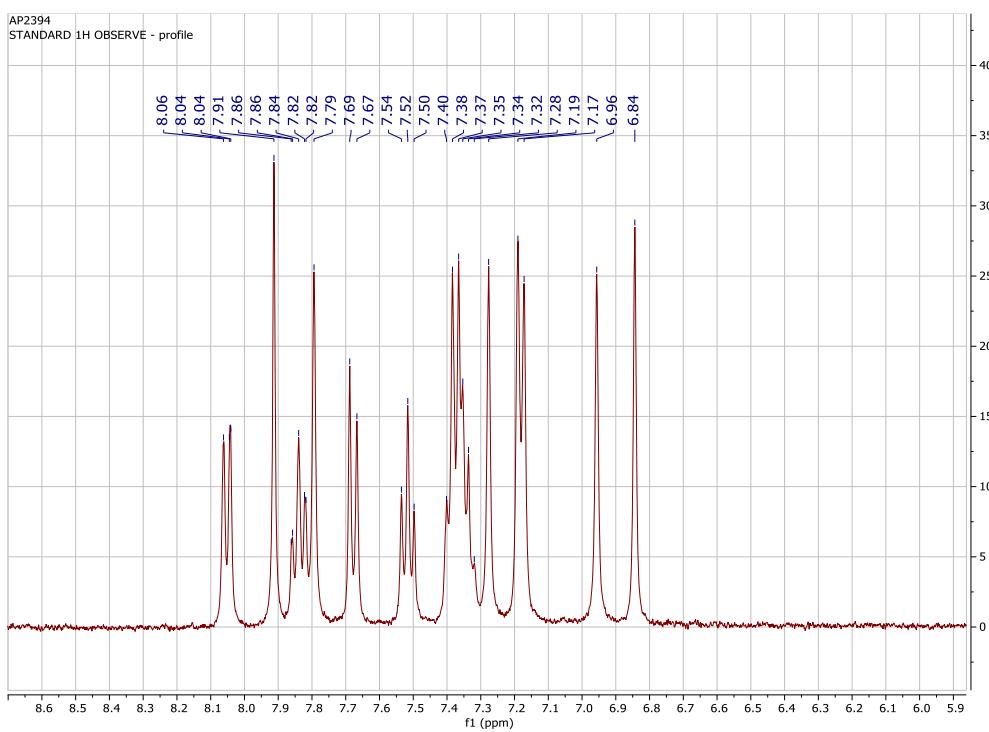
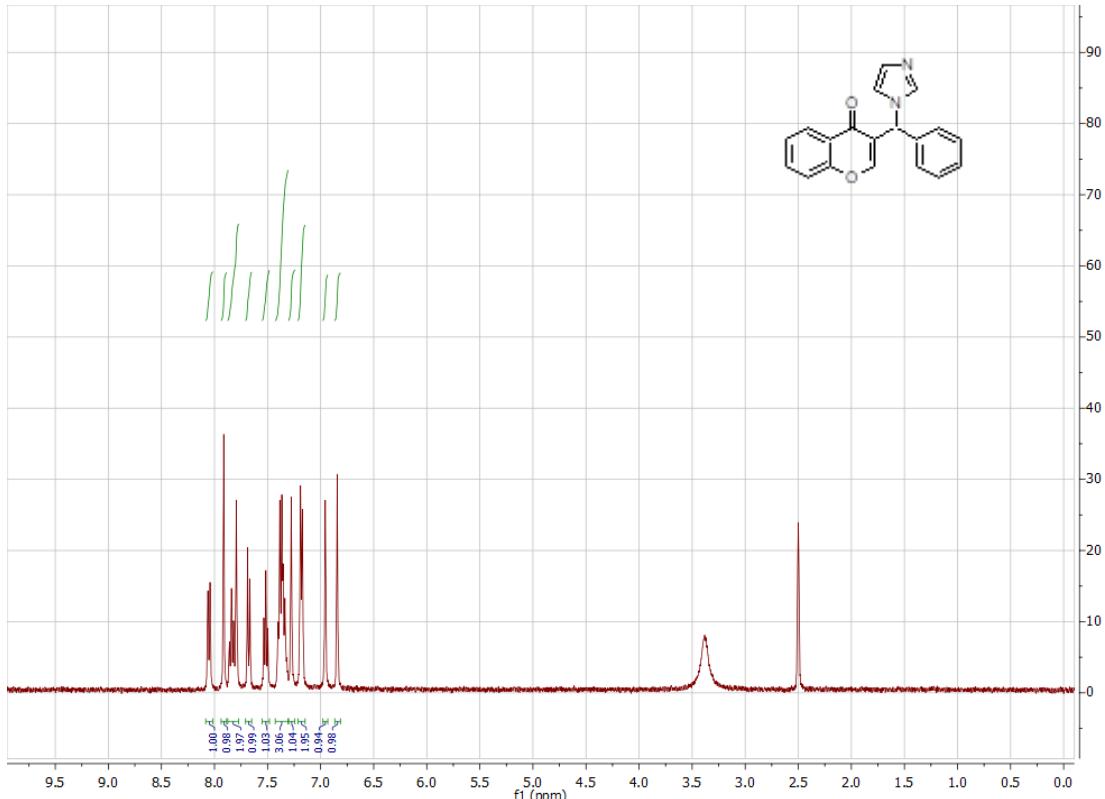
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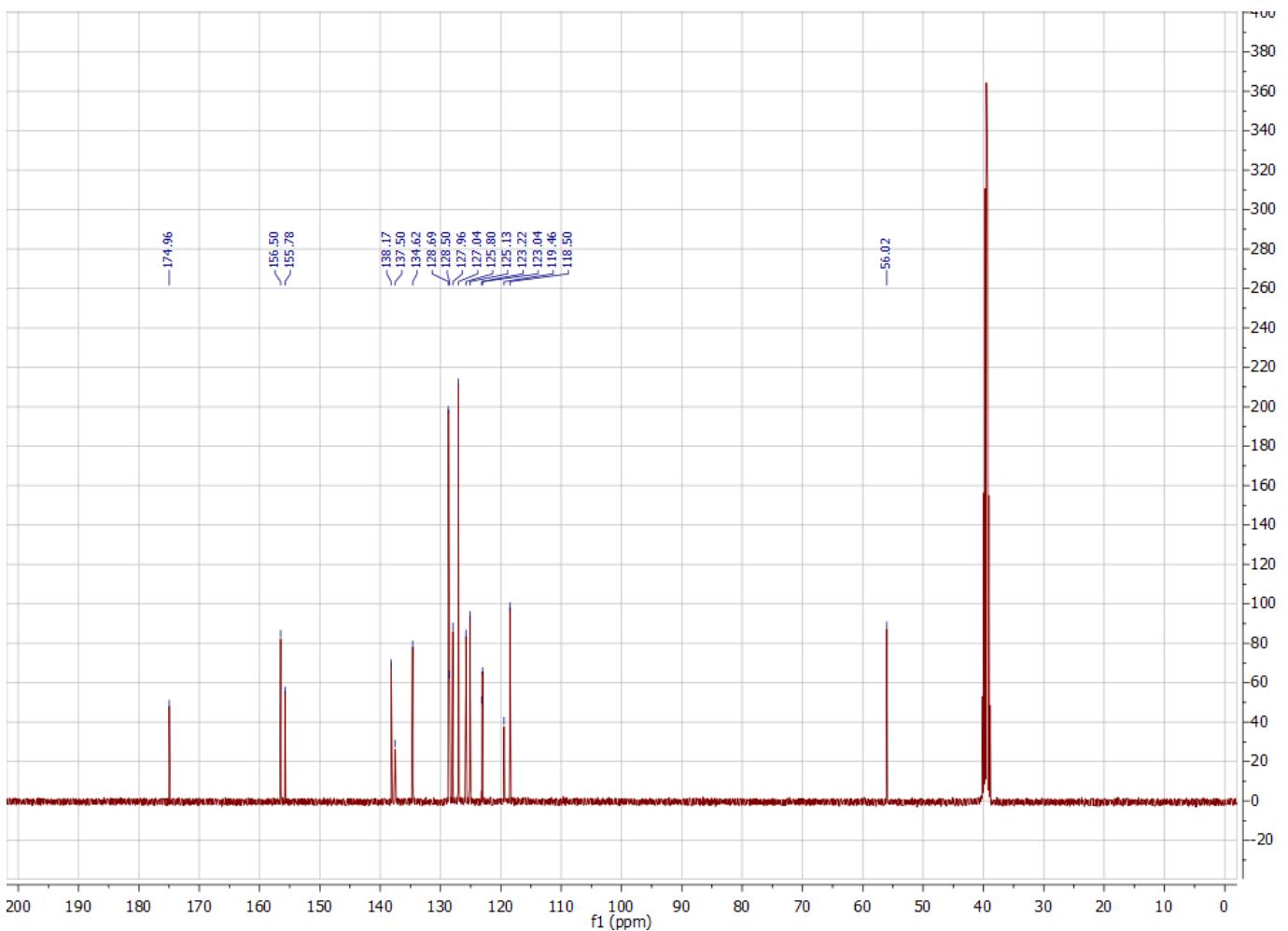
### NMR spectra of compound 3b

**Figure S1.**  $^1\text{H}$ -NMR

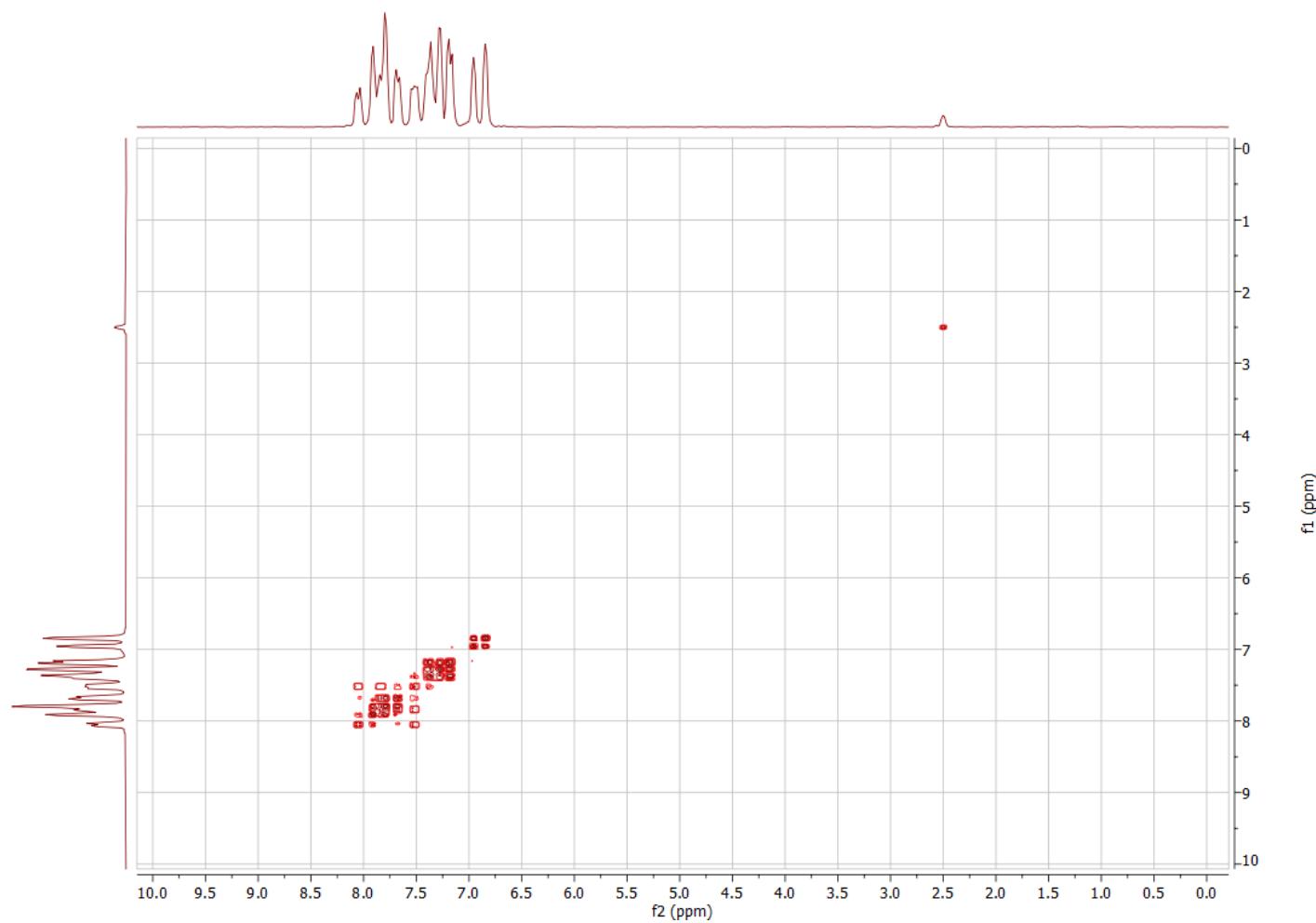


Expansion

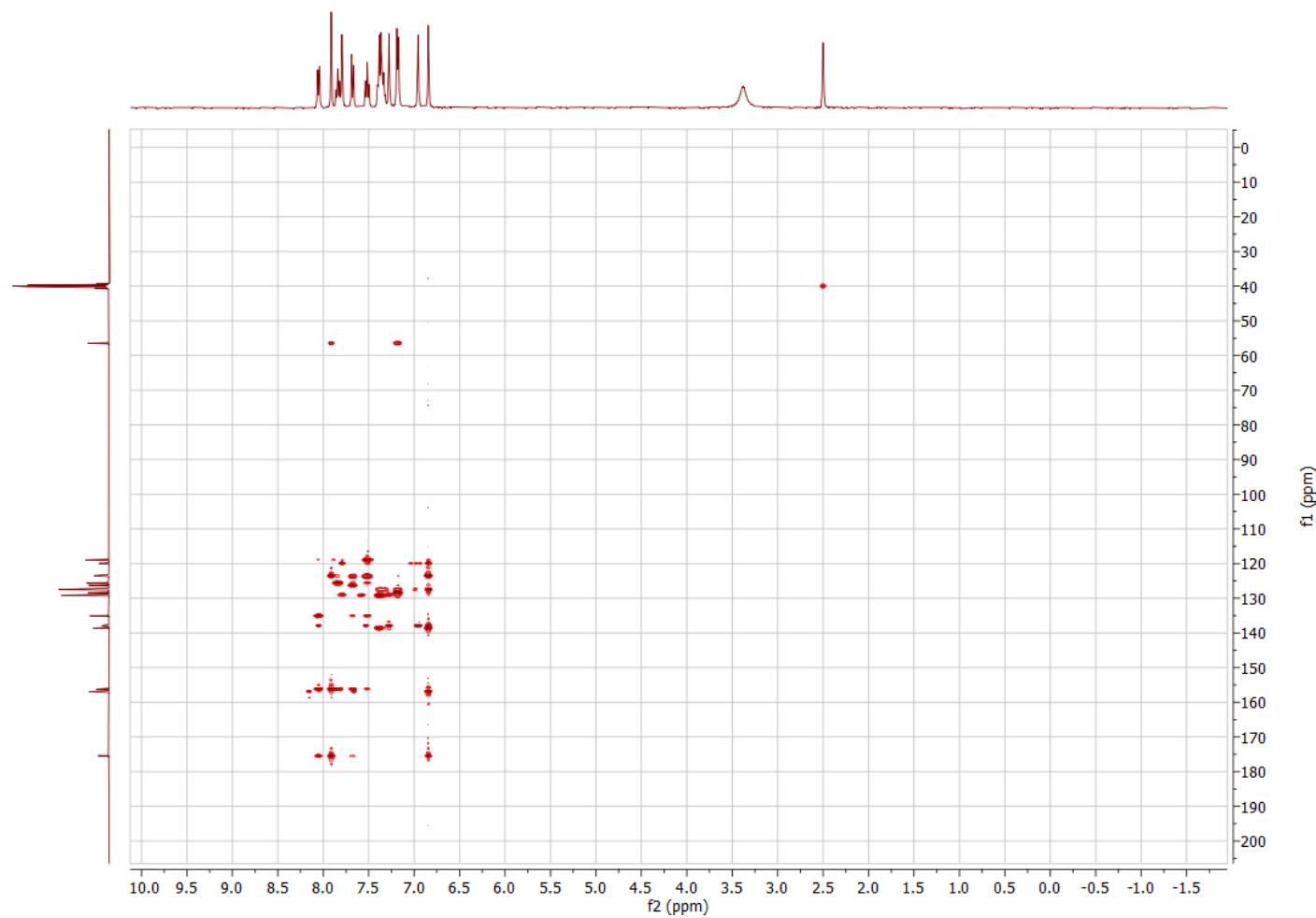
**Figure S2.**  $^{13}\text{C}$ -NMR



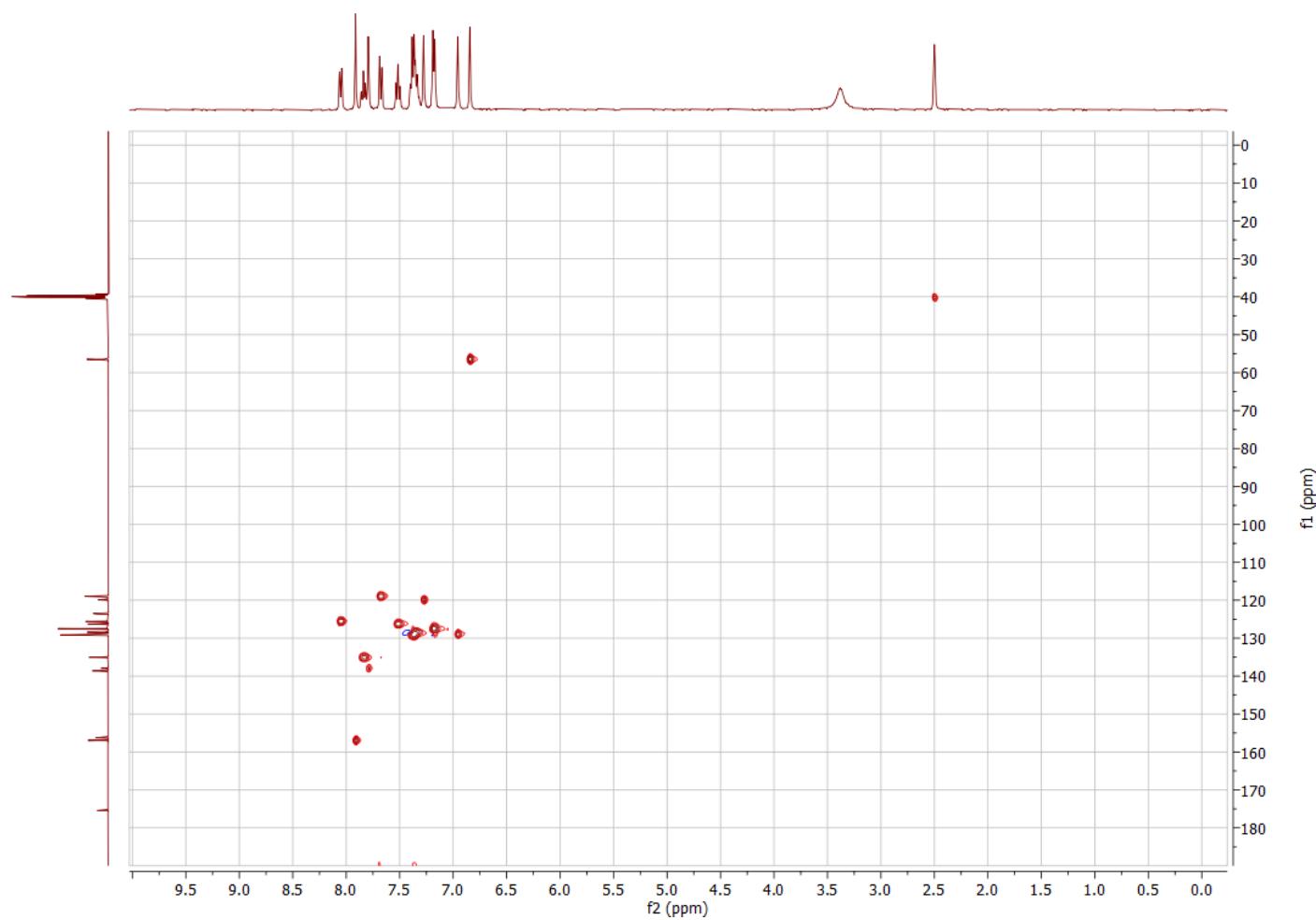
**Figure S3.**  $^1\text{H}$ - $^1\text{H}$  COSY



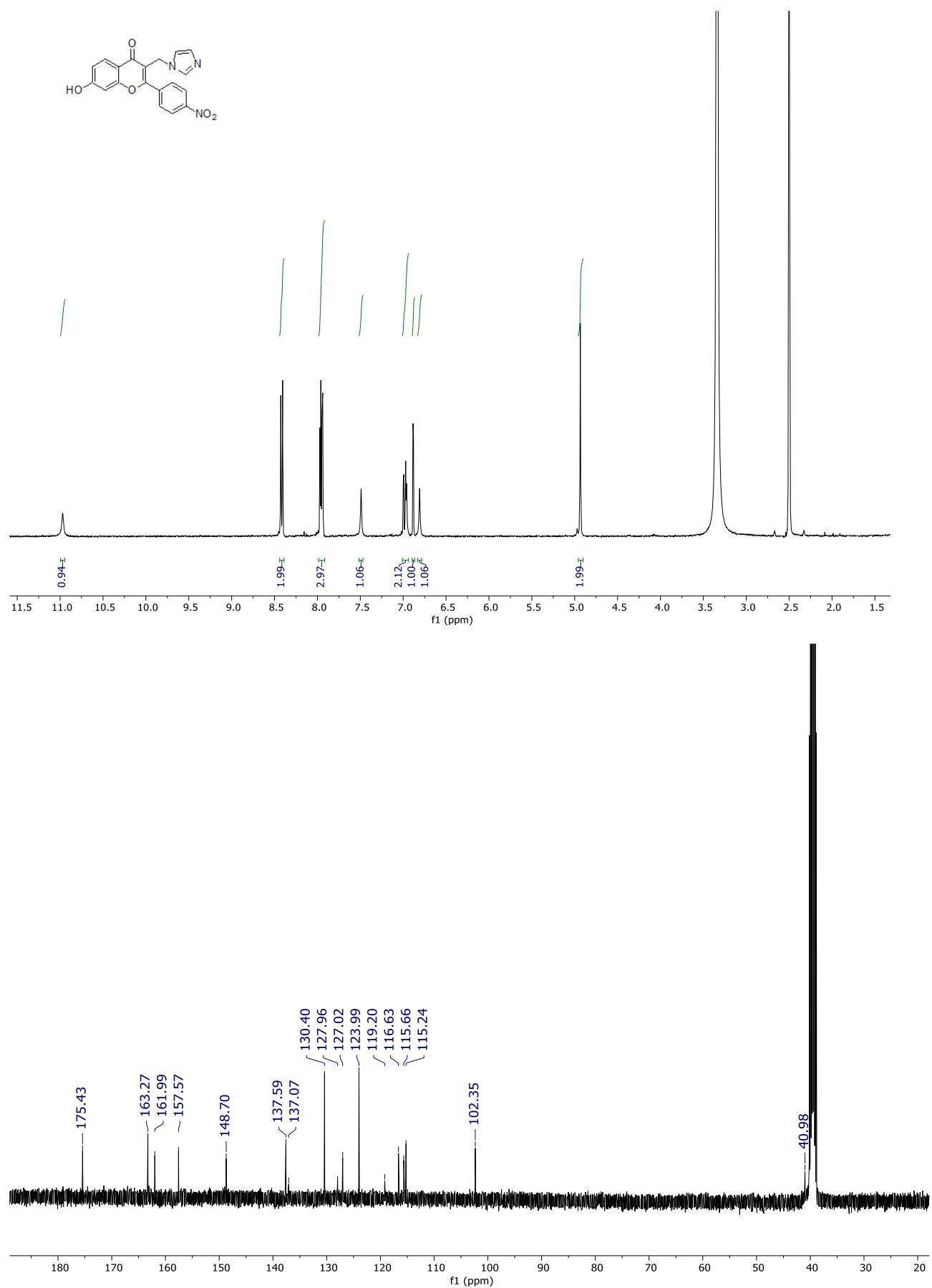
**Figure S4.** HMBC



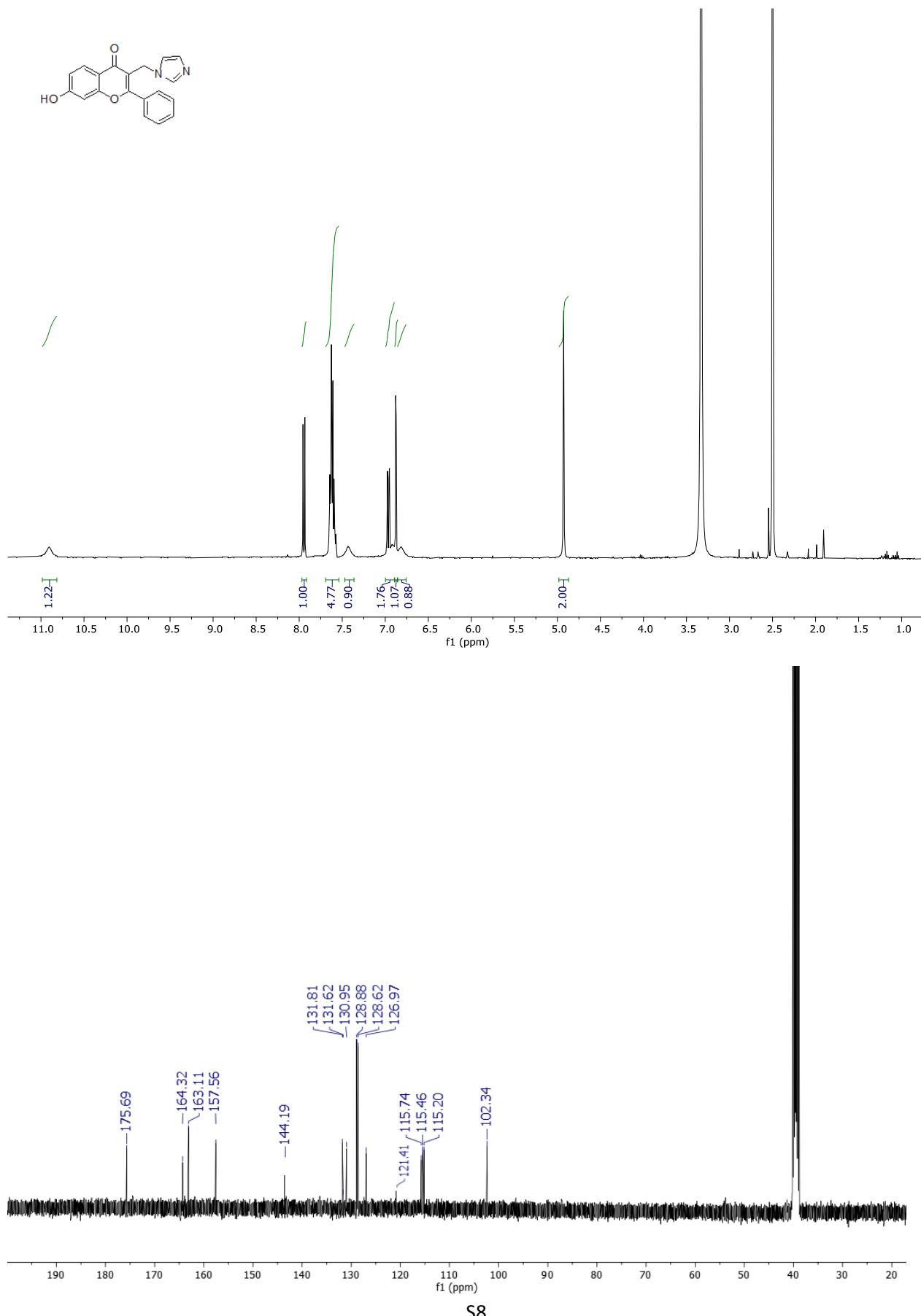
**Figure S5.** HSQC



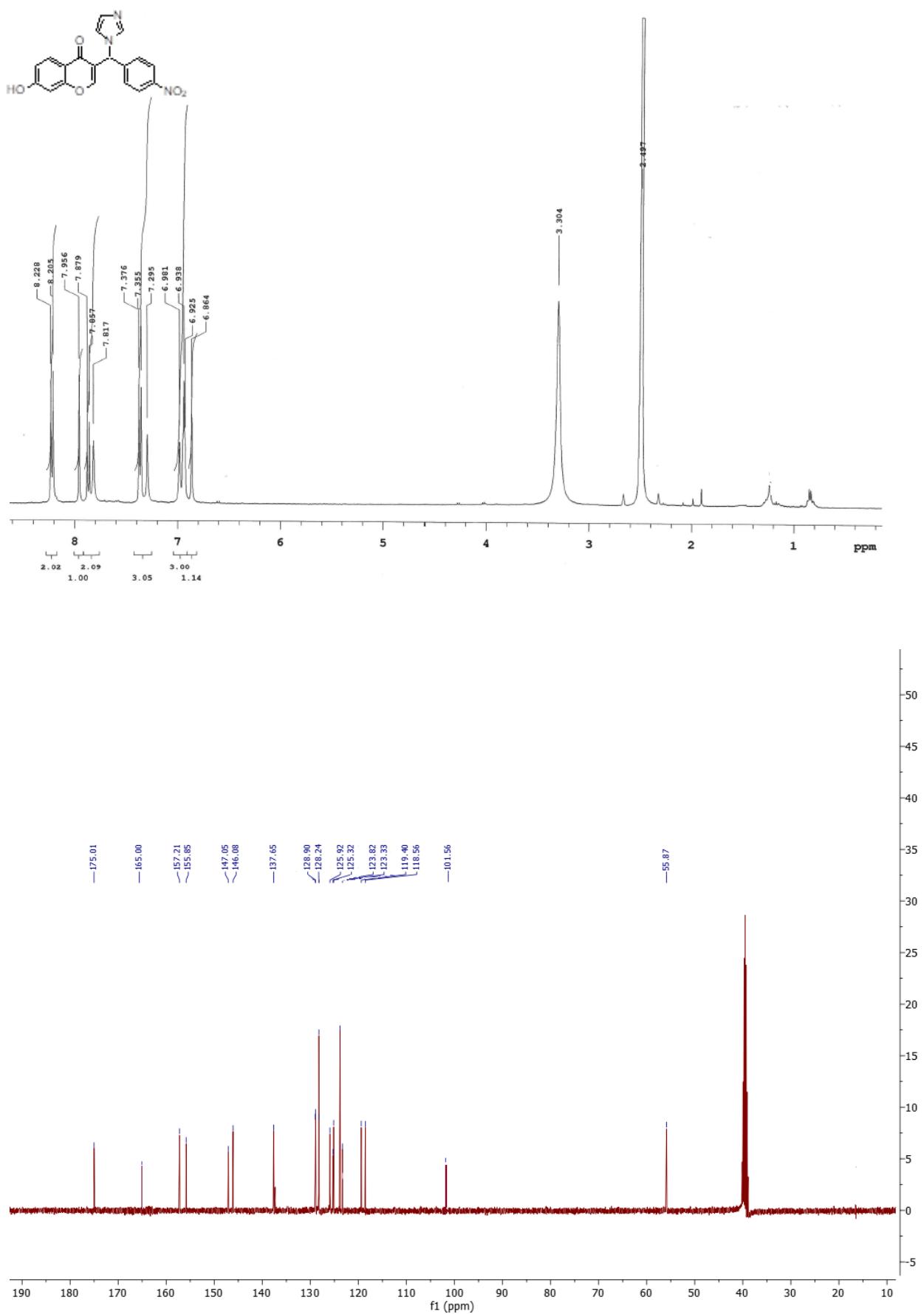
**Figure S6. NMR spectra of 2a**



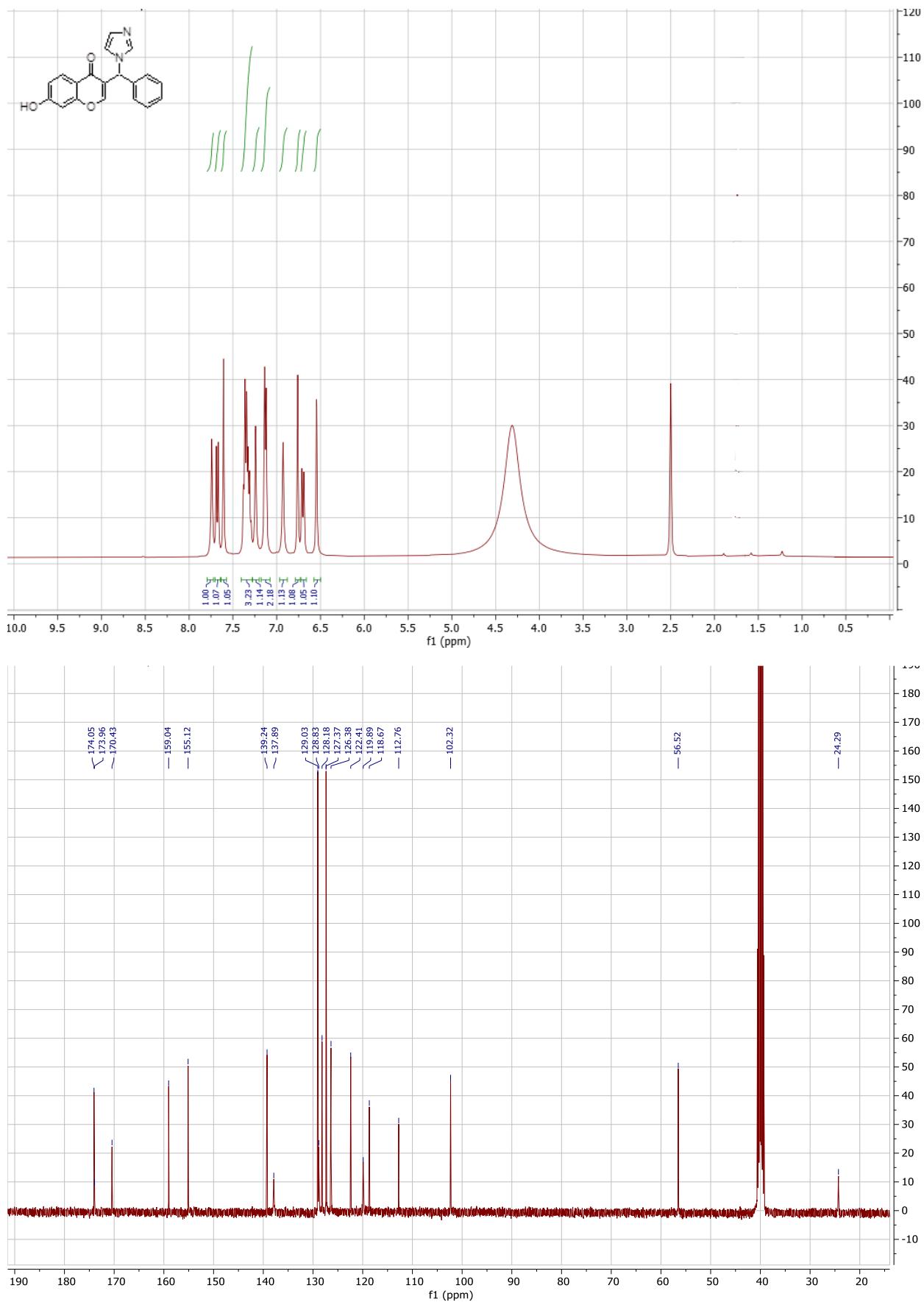
**Figure S7. NMR spectra of 2b**



**Figure S8. NMR spectra of 4a**

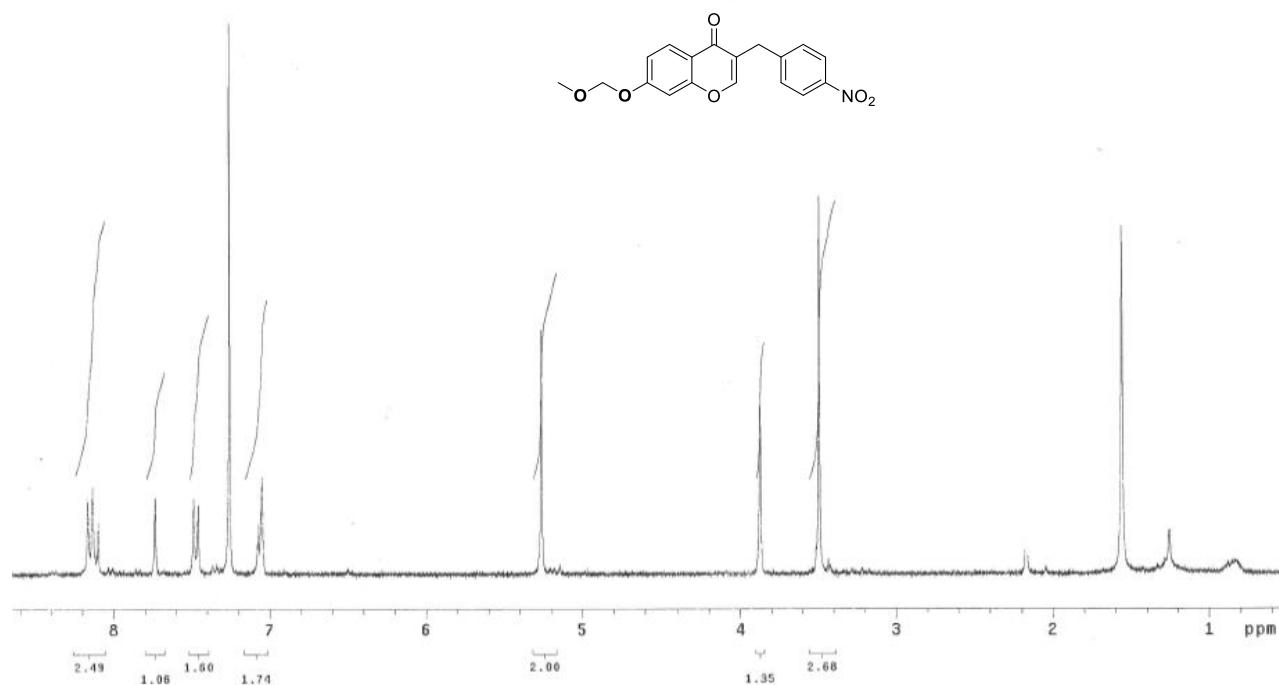


**Figure S9. NMR spectra of 4b**

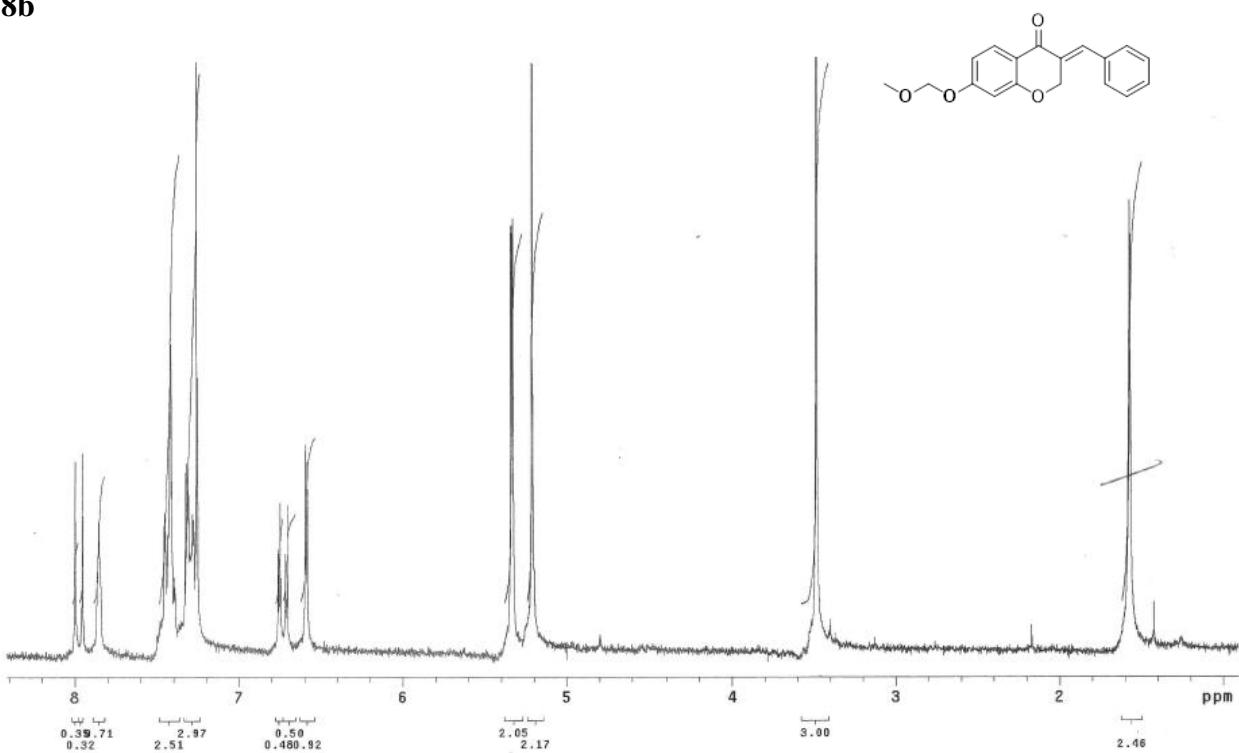


**Figure S10. NMR spectra of intermediates 8a and 8b**

**8a**



**8b**



**Table S1.** Docking score (kcal/mol) to Estrogen Receptor  $\alpha$  for the studied compounds. For compounds **3a,b** and **4a,b** we considered the R and S enantiomer in the docking simulations.

Compound	Docking score	Docking score R	Docking score S
<b>1a</b>	-9.76		
<b>2a</b>	-10.52		
<b>1b</b>	-9.85		
<b>2b</b>	-10.03		
<b>3a</b>		-9.53	-9.20
<b>3b</b>		-9.84	-8.68
<b>4a</b>		-10.49	-8.96
<b>4b</b>		-10.09	-10.38