**SUPPLEMENTARY INFORMATION**

Transition Metal Free Decarbonyl-Oxidation of 3-Arylbenzofuran-2(3*H*)-ones: Access to 2-Hydroxy Benzophenones

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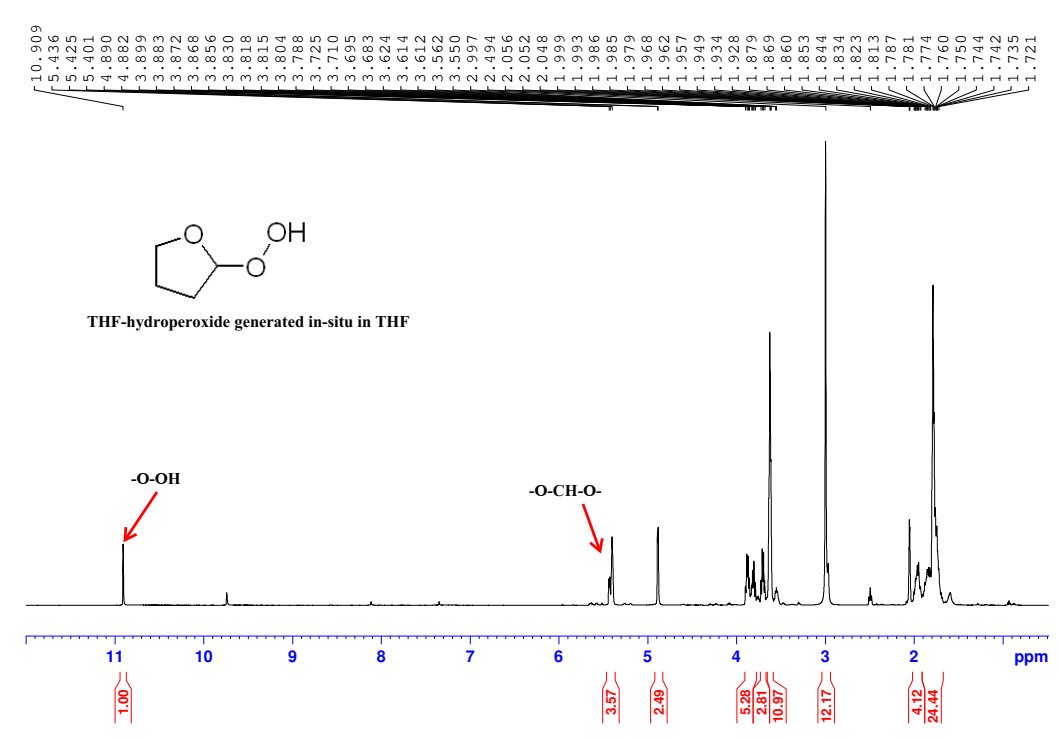
bNMIMS Sunandan Divatia School of Science, Vile-Parle, Mumbai, India-400056.

cChemistry Division, Bhabha Atomic Research Centre, Trombay, Mumbai, India-400085.

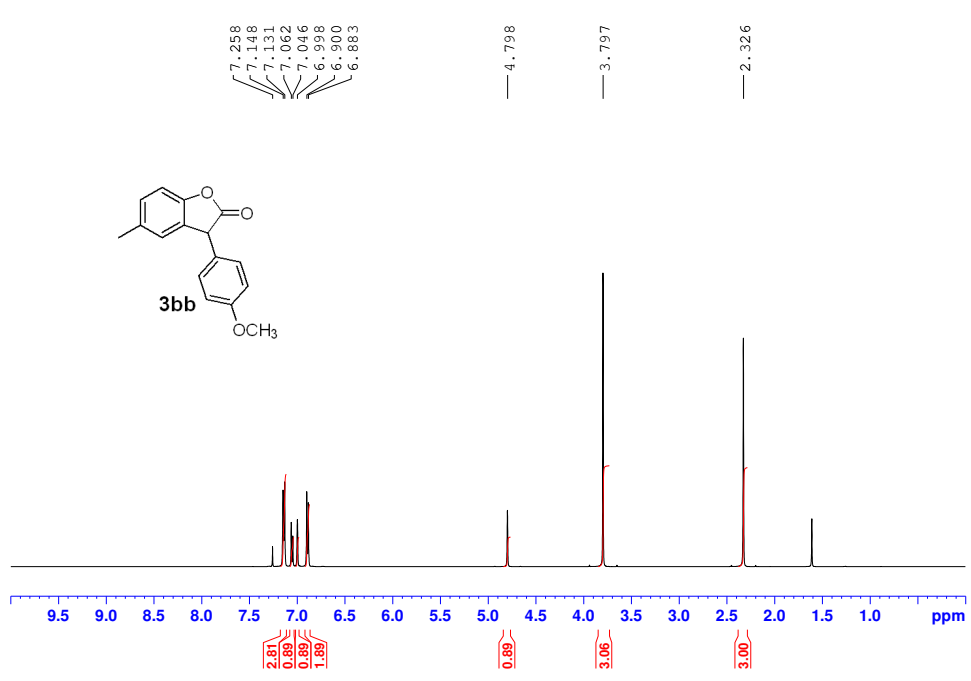
dHomi Bhabha National Institute, Anushaktinagar, Mumbai, India-400094.

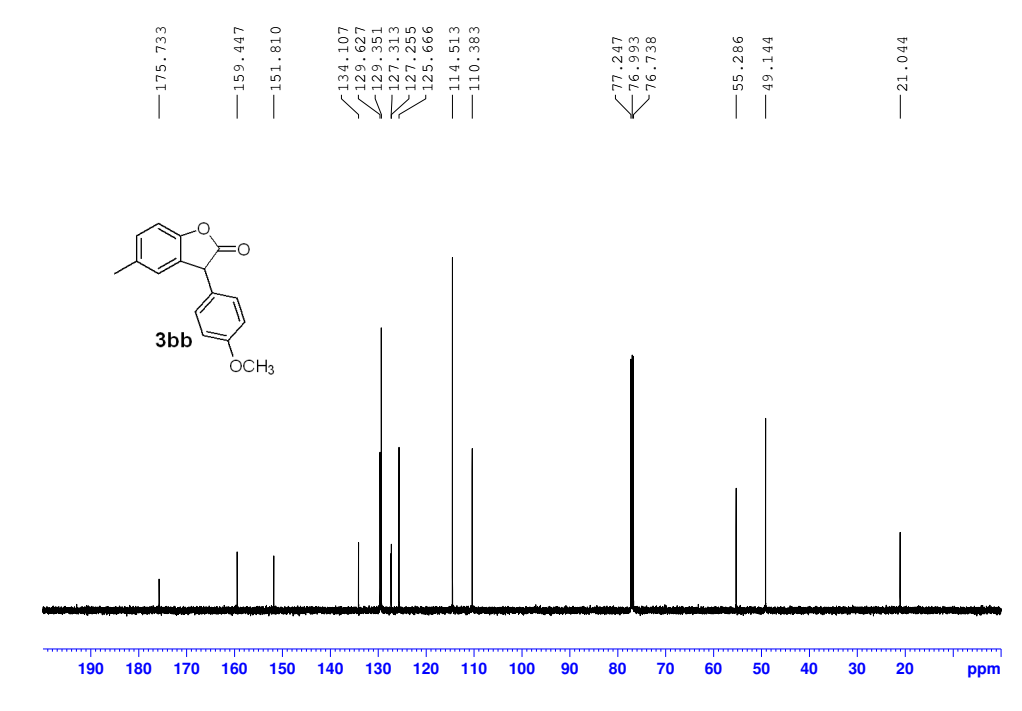
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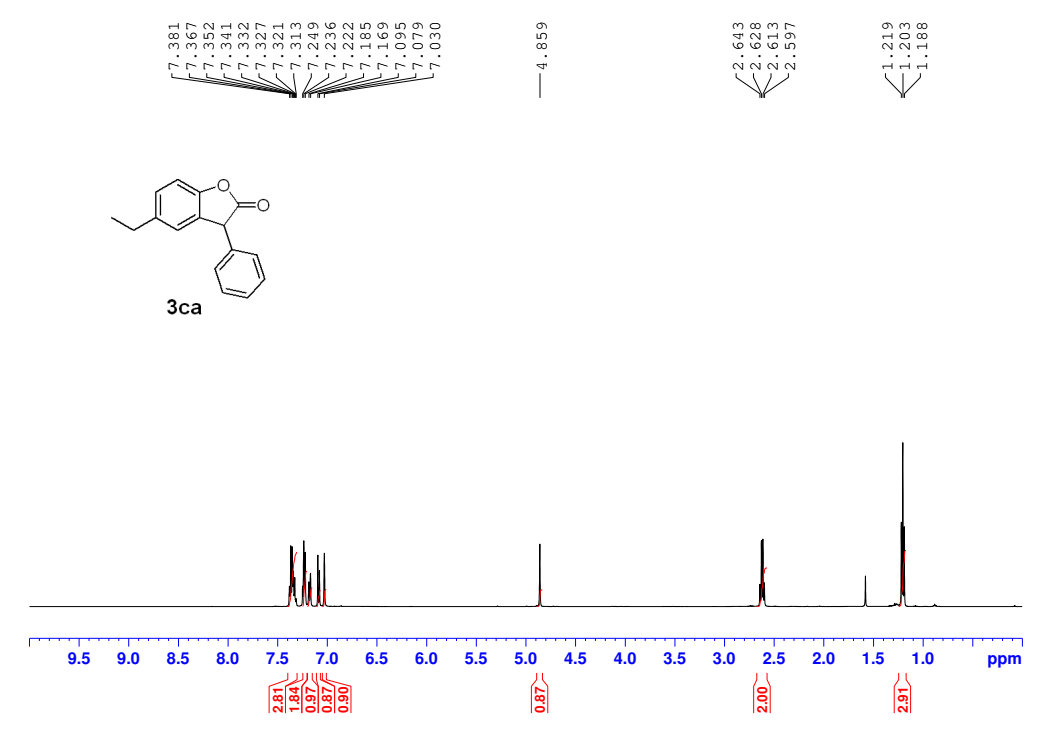


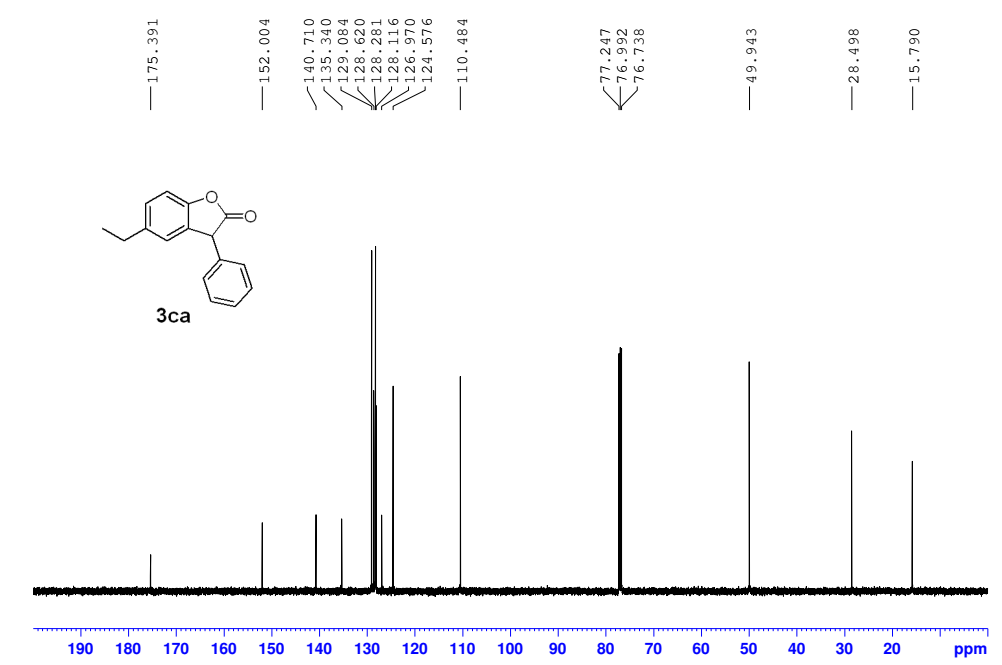
**Fig. S1**. 1H NMR showing formation of THF-hydroperoxide in situ in THF.



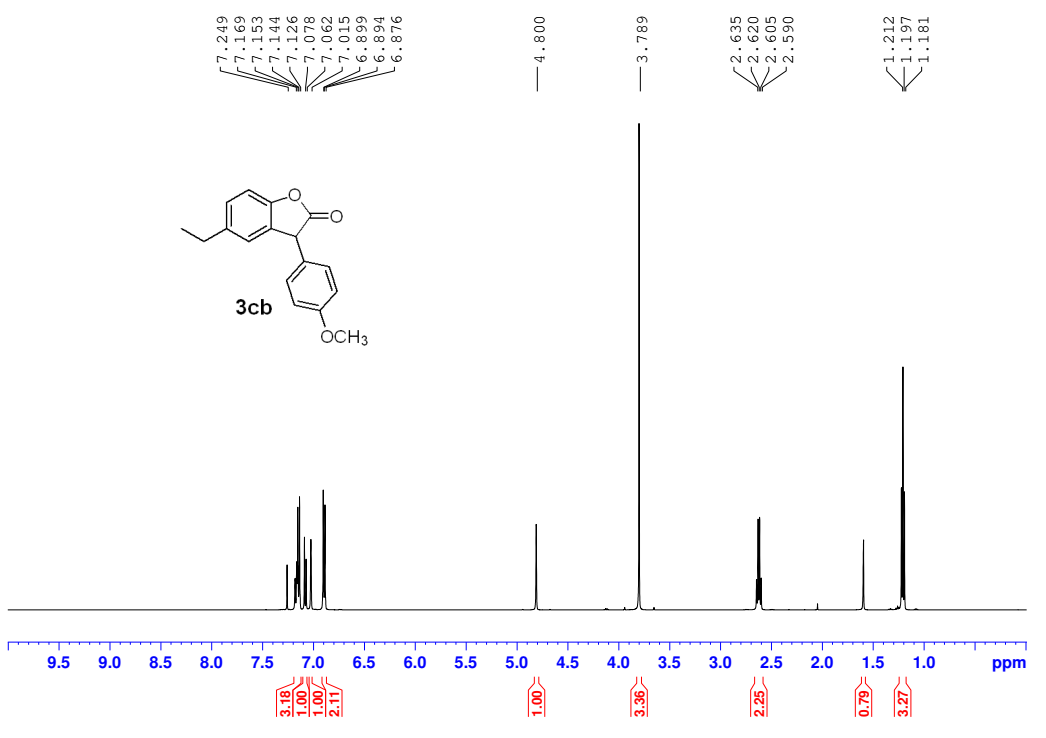


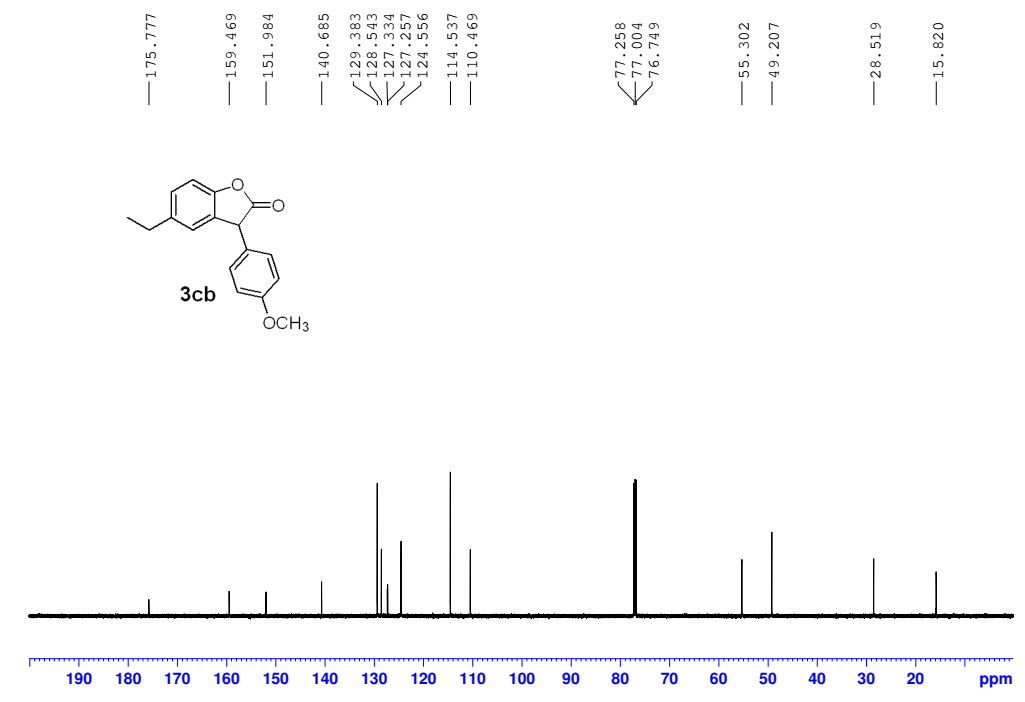
**Fig. S2**. 1H and 13C NMR spectrum of **3bb**.



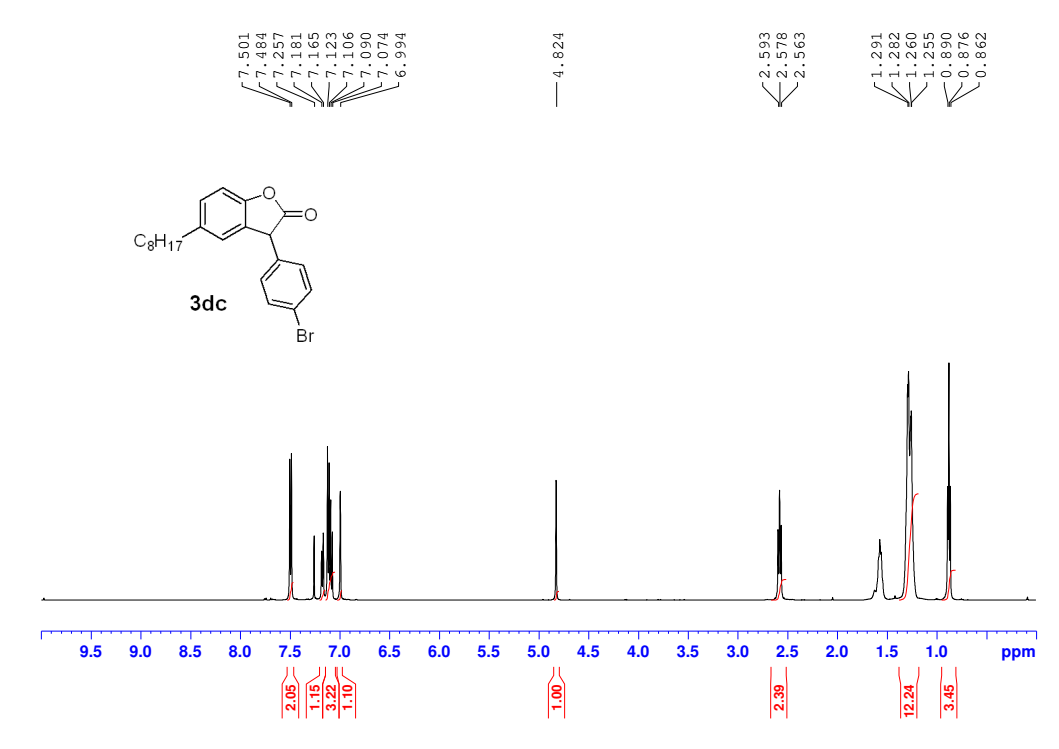


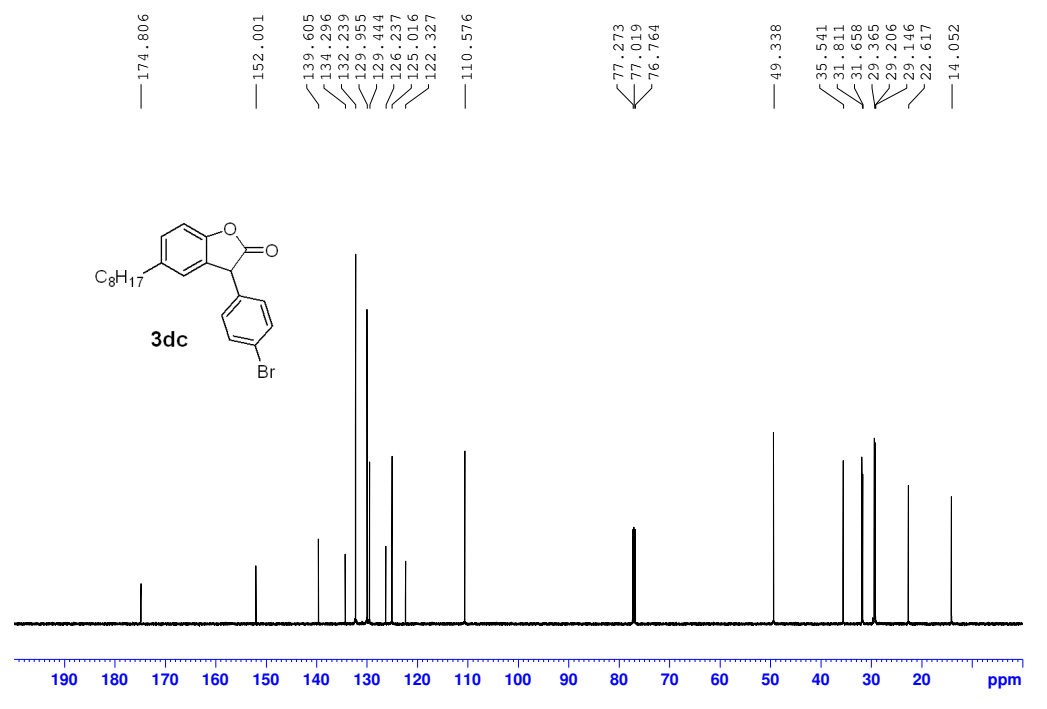
**Fig. S3**. 1H and 13C NMR spectrum of **3ca**.



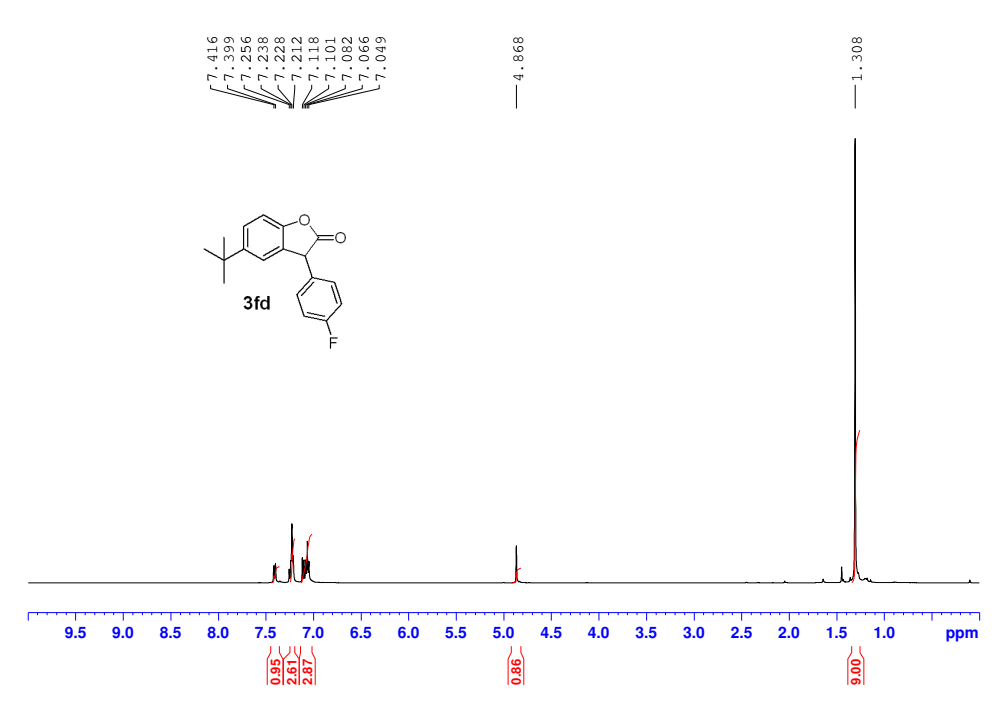


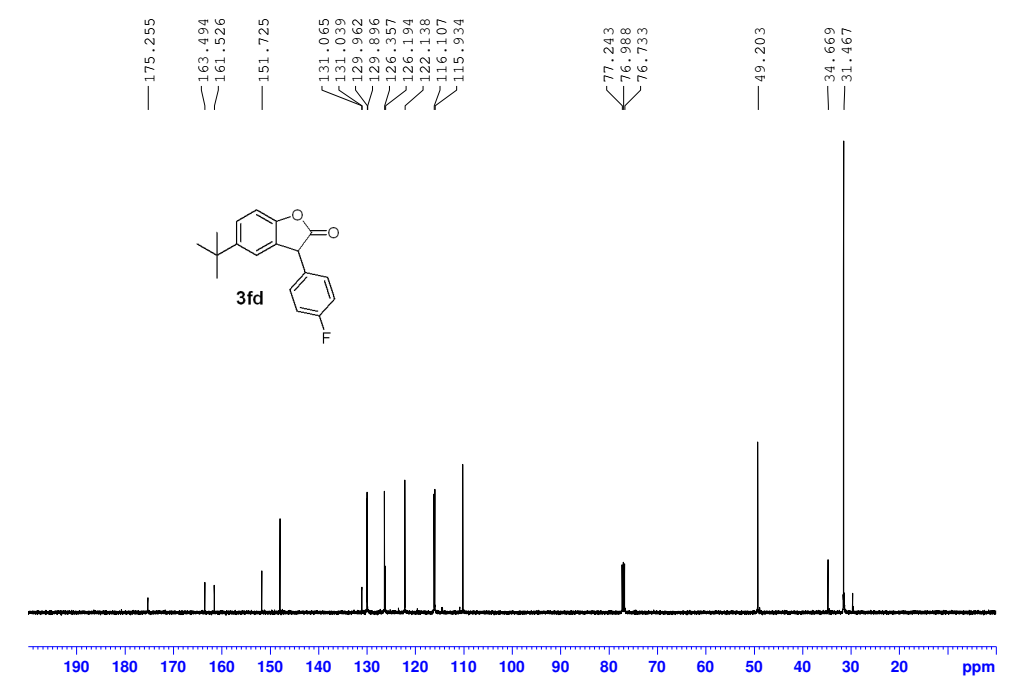
**Fig. S4**. 1H and 13C NMR spectrum of **3cb**.



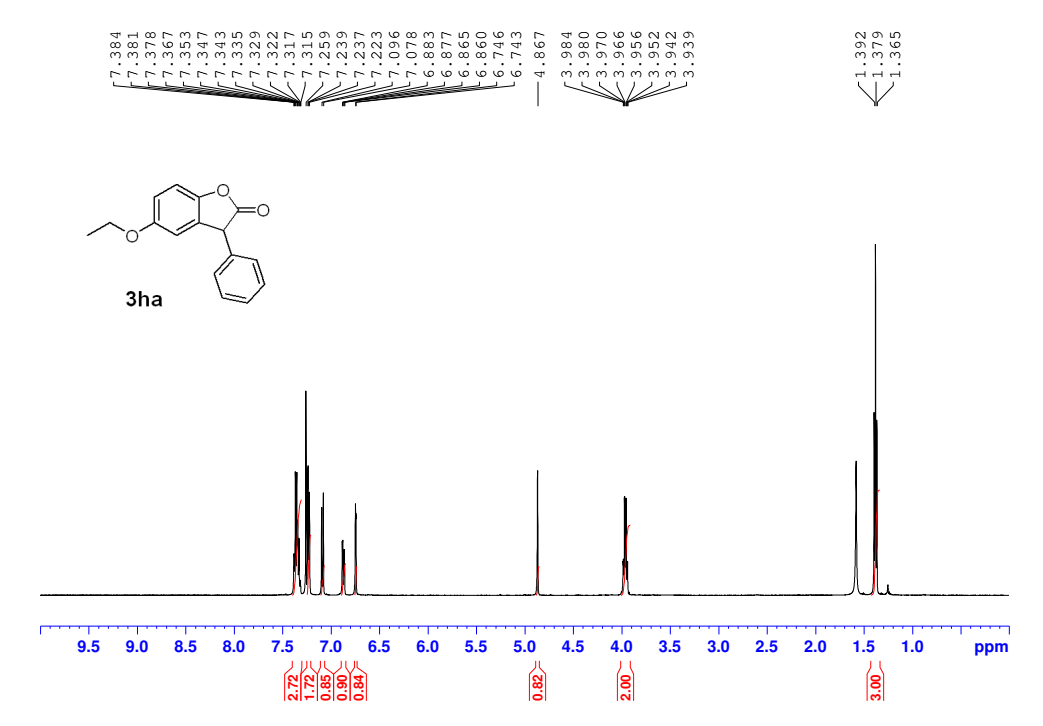


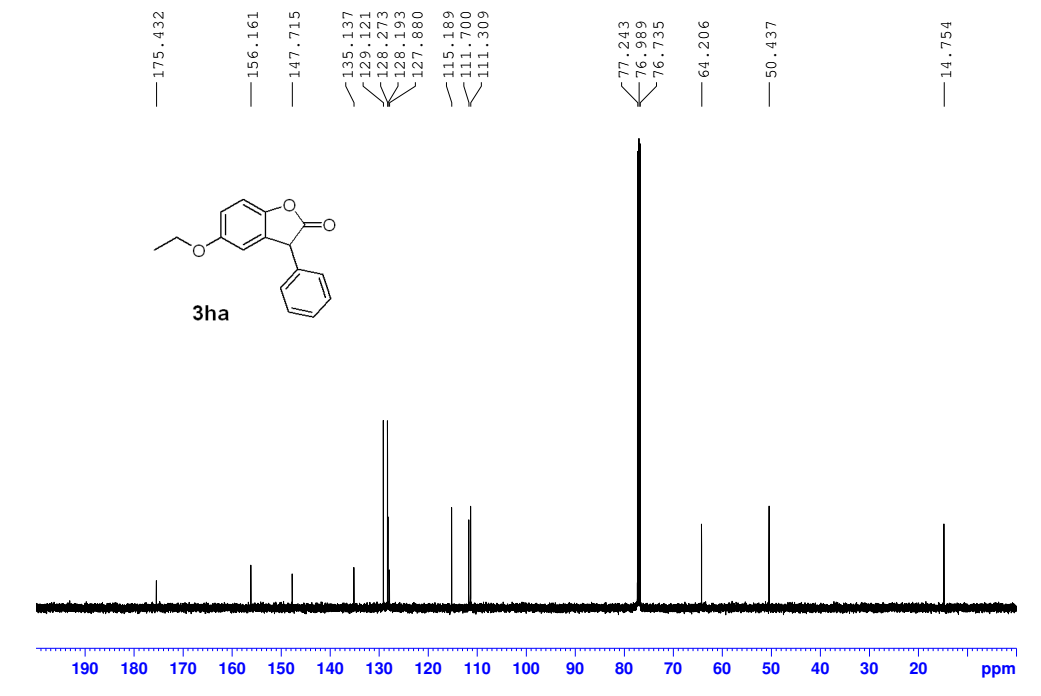
**Fig. S5**. 1H and 13C NMR spectrum of **3dc**.



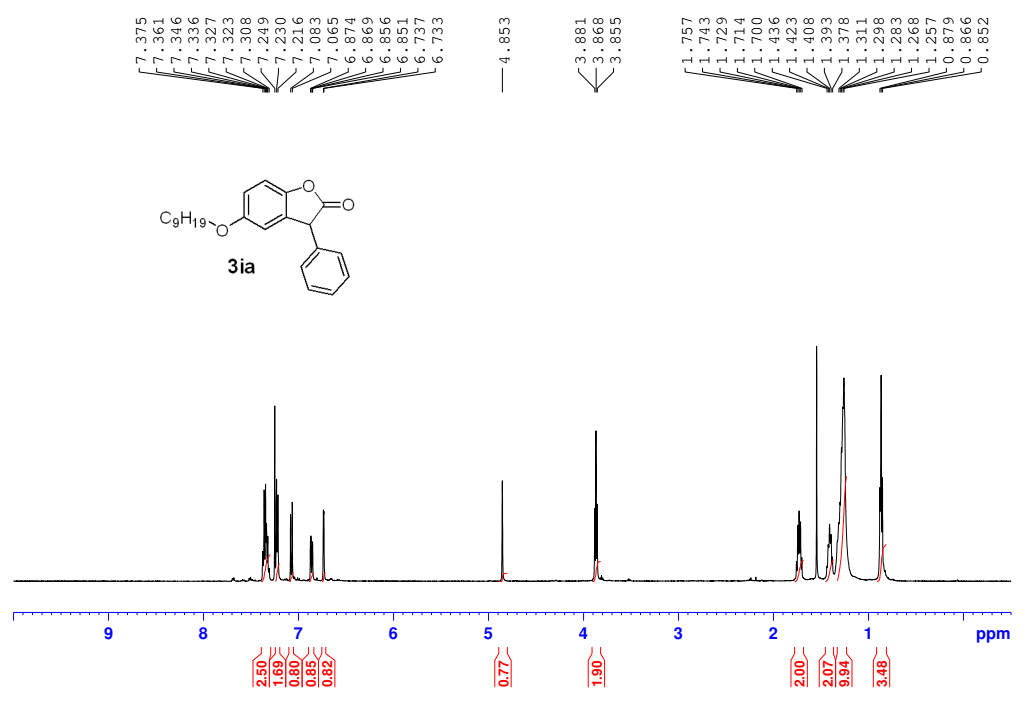


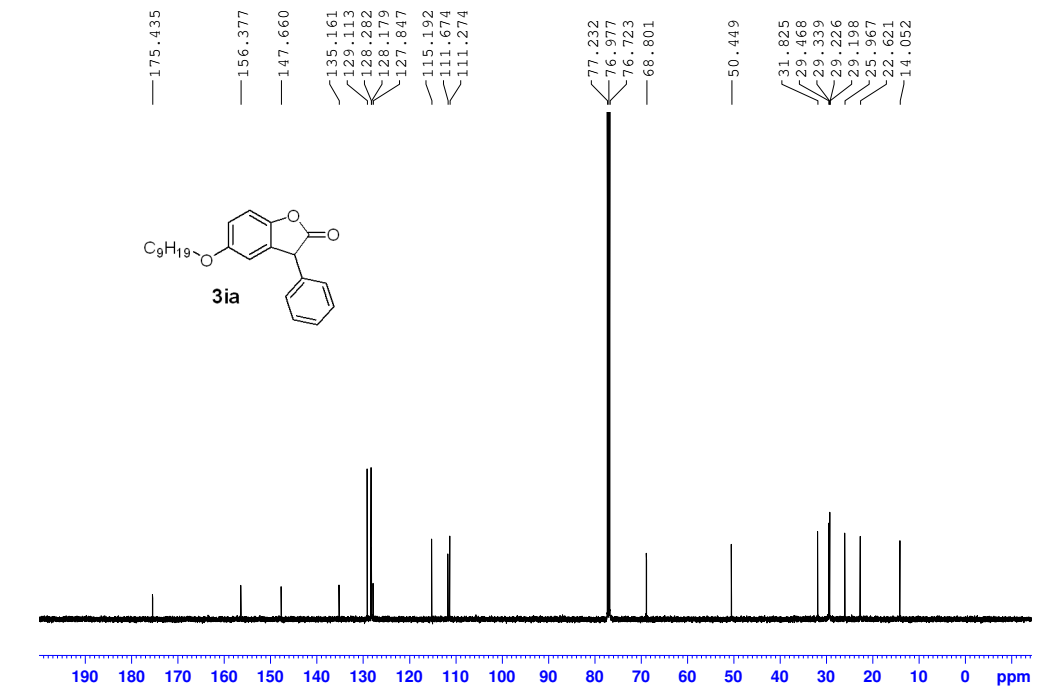
**Fig. S6**. 1H and 13C NMR spectrum of **3fd**.



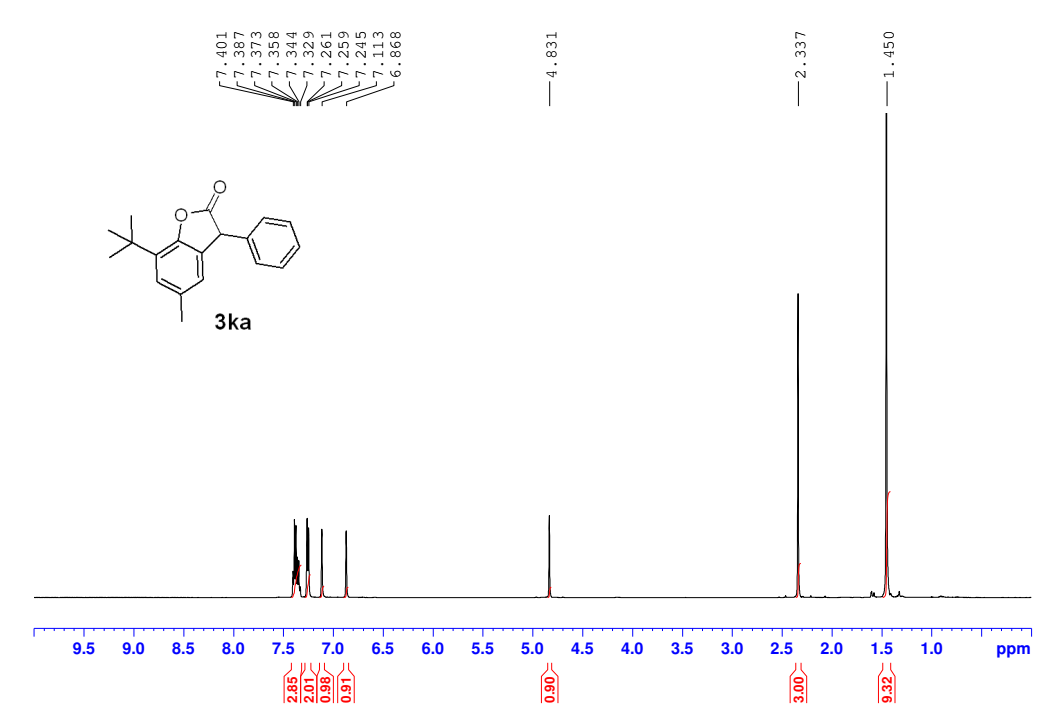


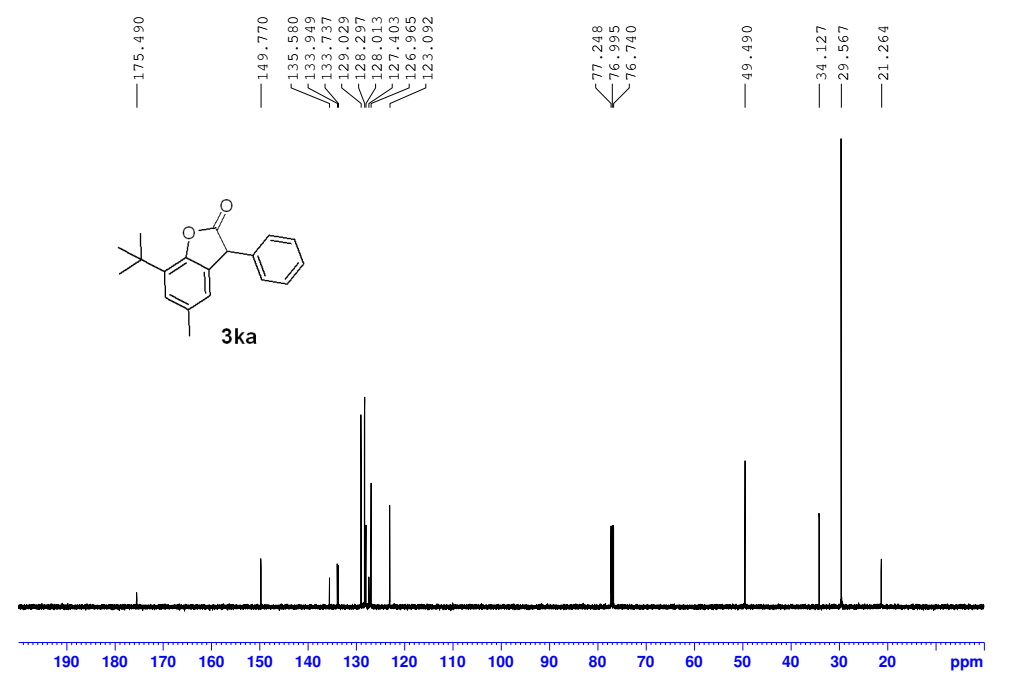
**Fig. S7**. 1H and 13C NMR spectrum of **3ha**.



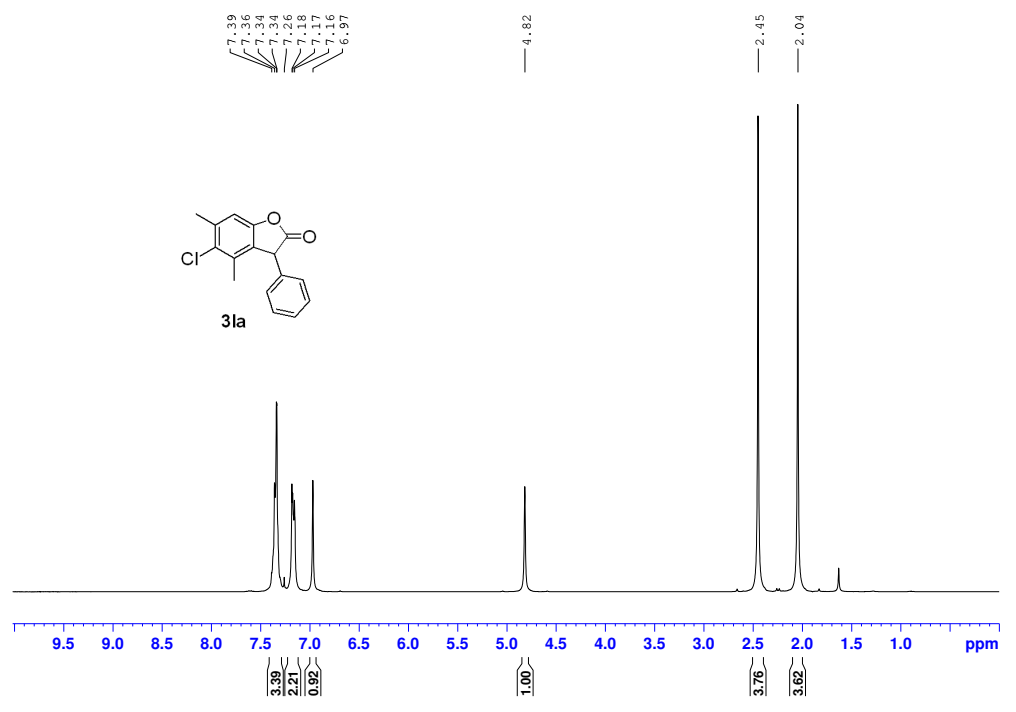


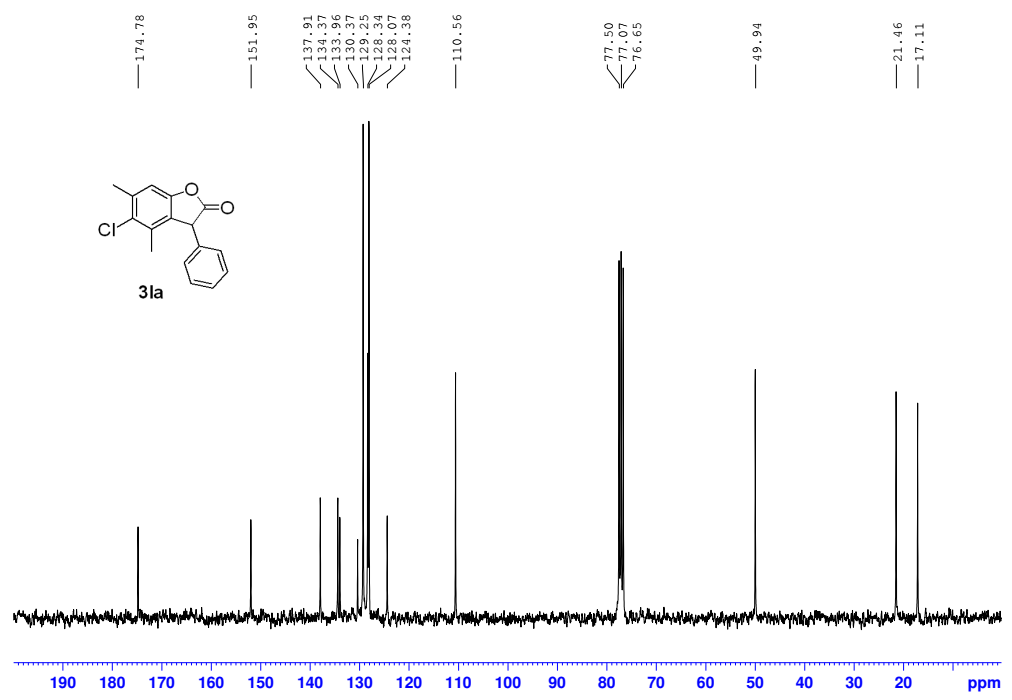
**Fig. S8**. 1H and 13C NMR spectrum of **3ia**.



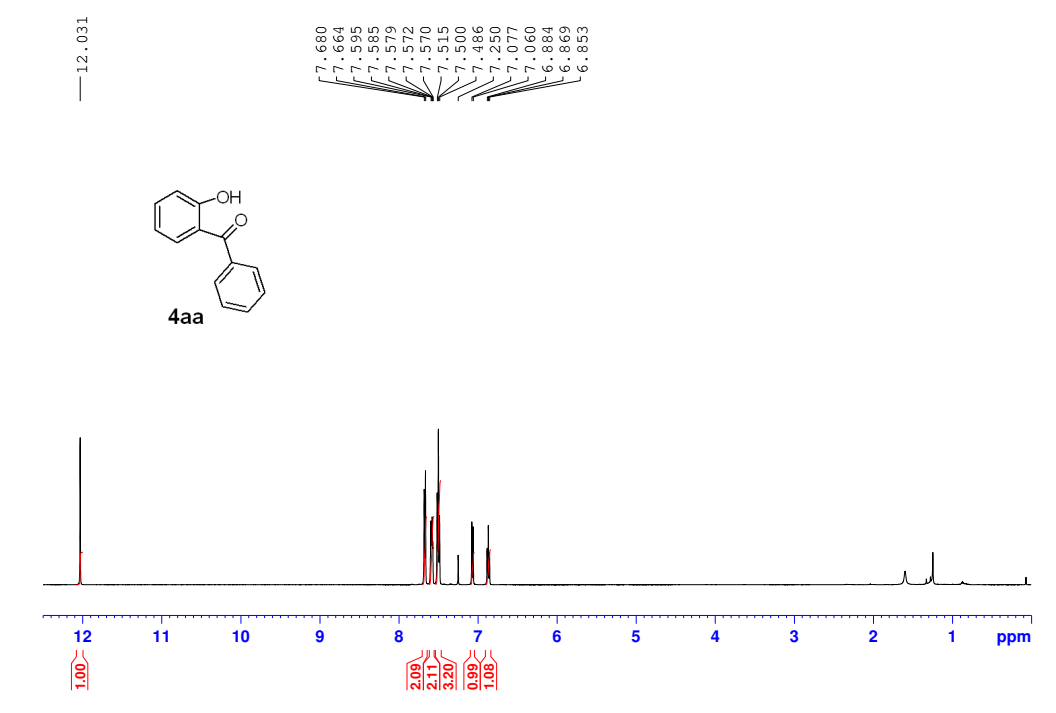


**Fig. S9**. 1H and 13C NMR spectrum of **3ka**.

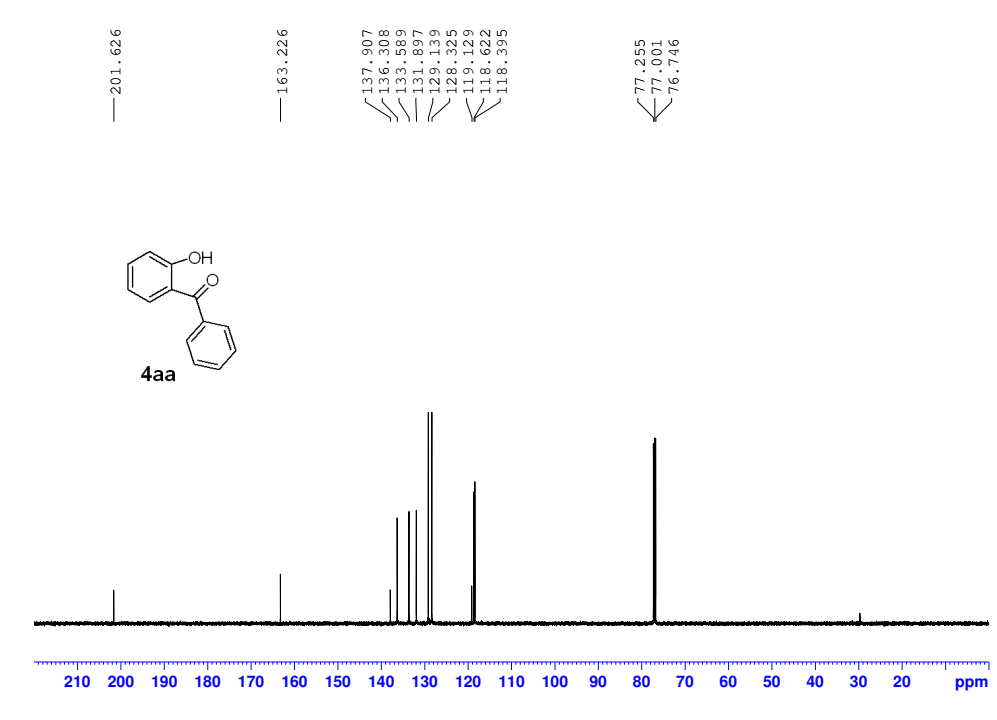




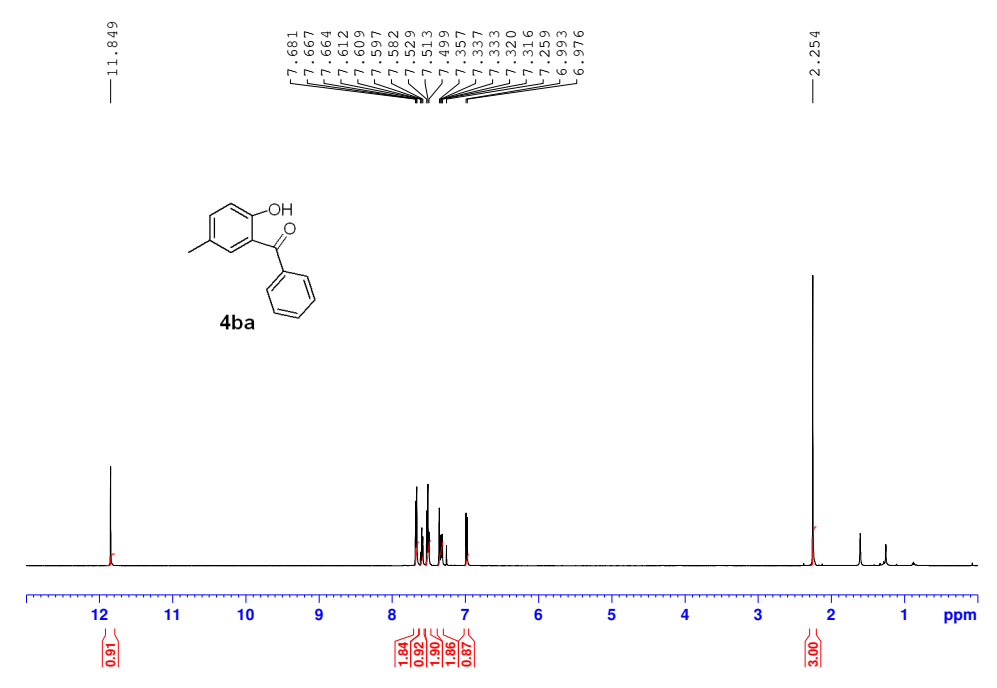
**Fig. S10**. 1H and 13C NMR spectrum of **3la**.



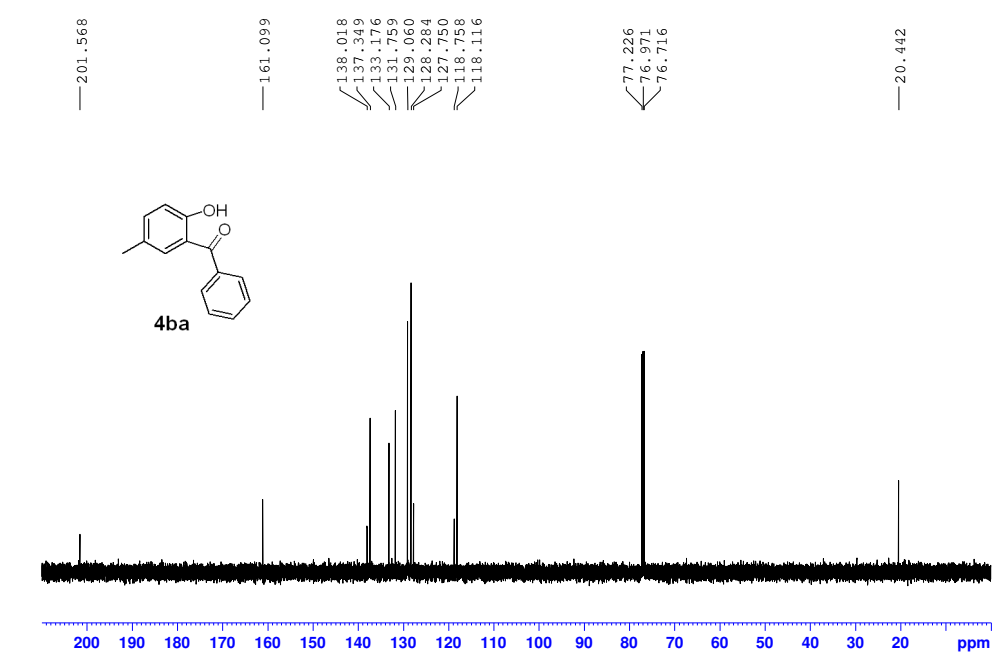
NMR solvent impurity

**F**

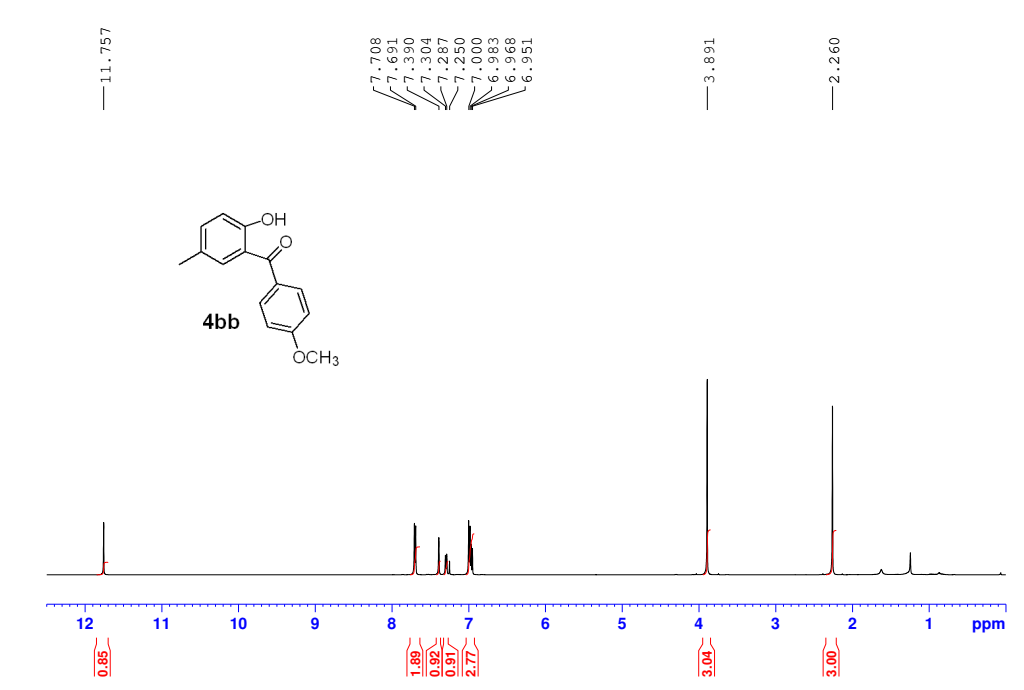
**S11**. 1H and 13C NMR spectrum of **4aa**.



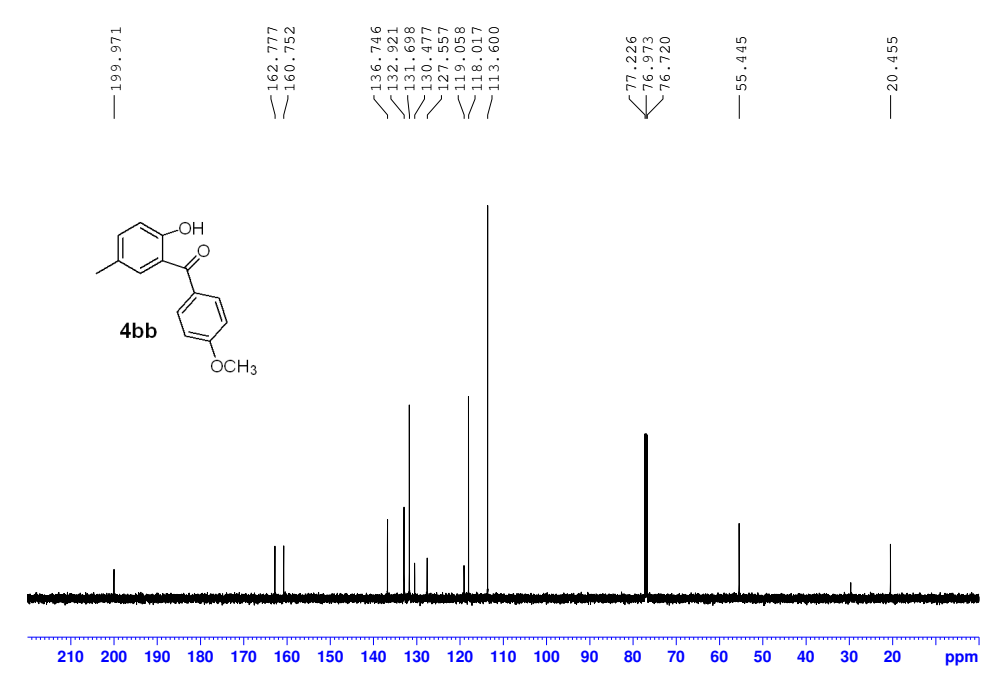
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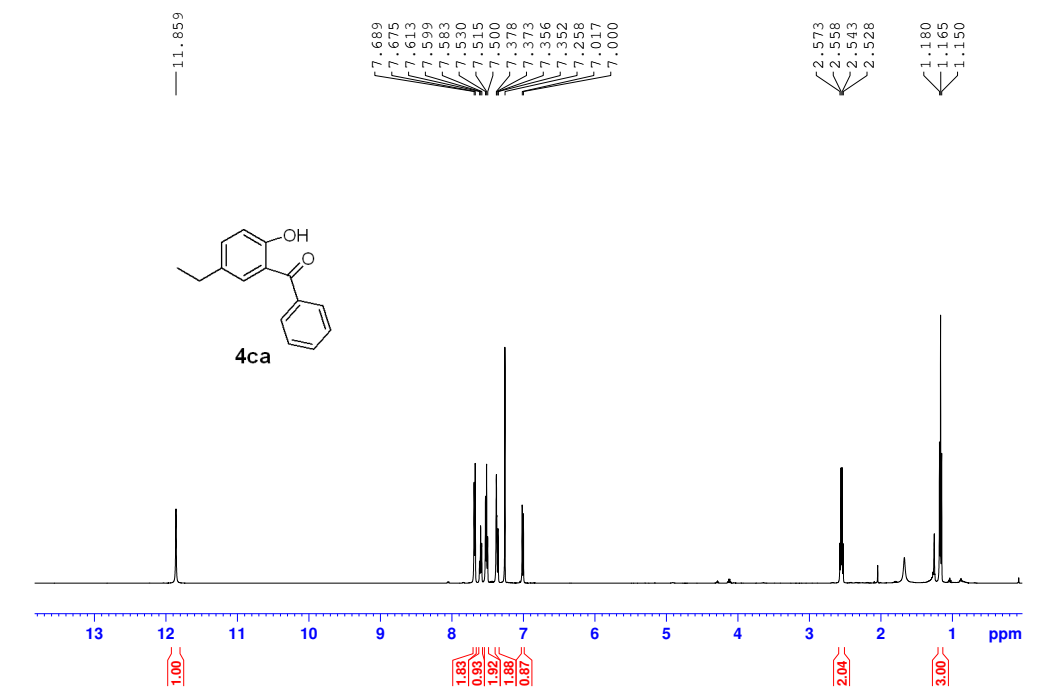
**Fig. S12**. 1H and 13C NMR spectrum of **4ba**.



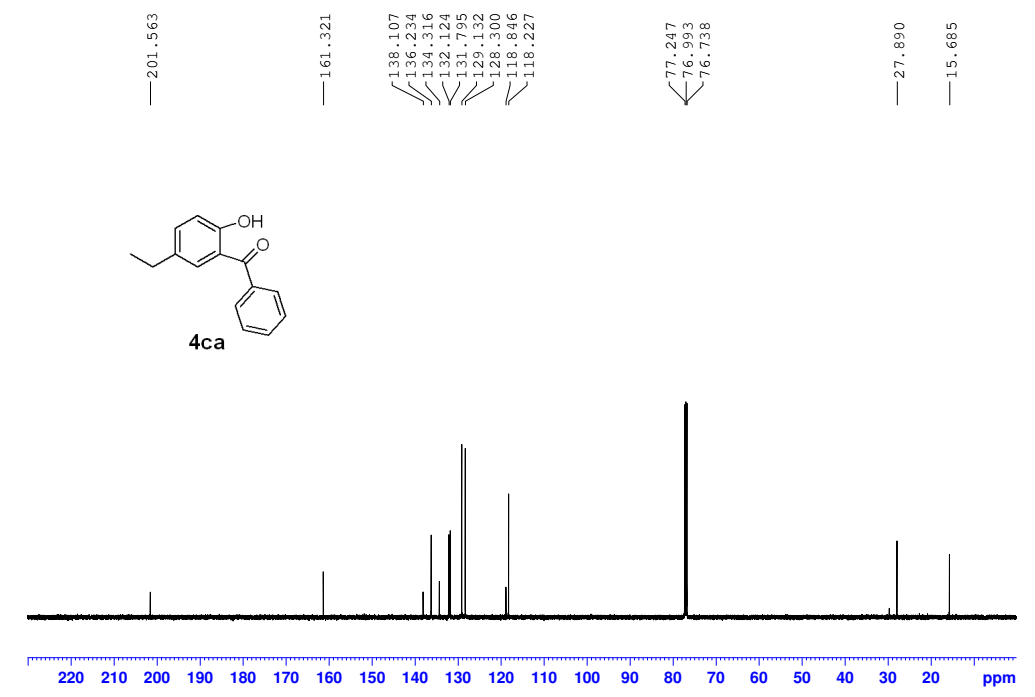
NMR solvent impurity



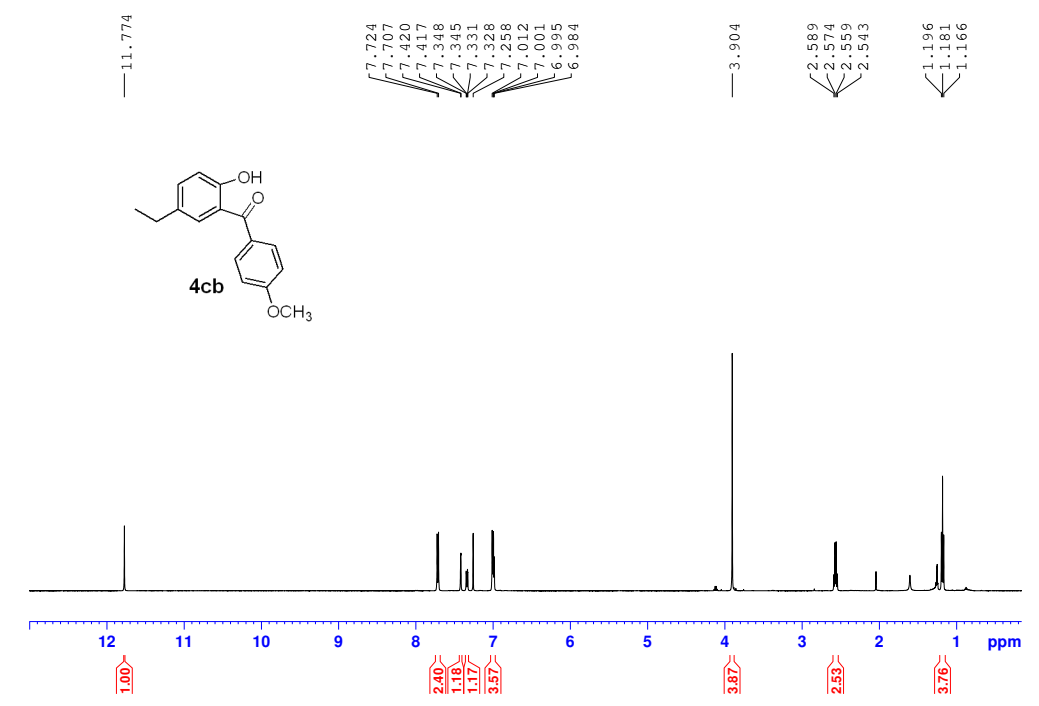
**Fig. S13**. 1H and 13C NMR spectrum of **4bb**.



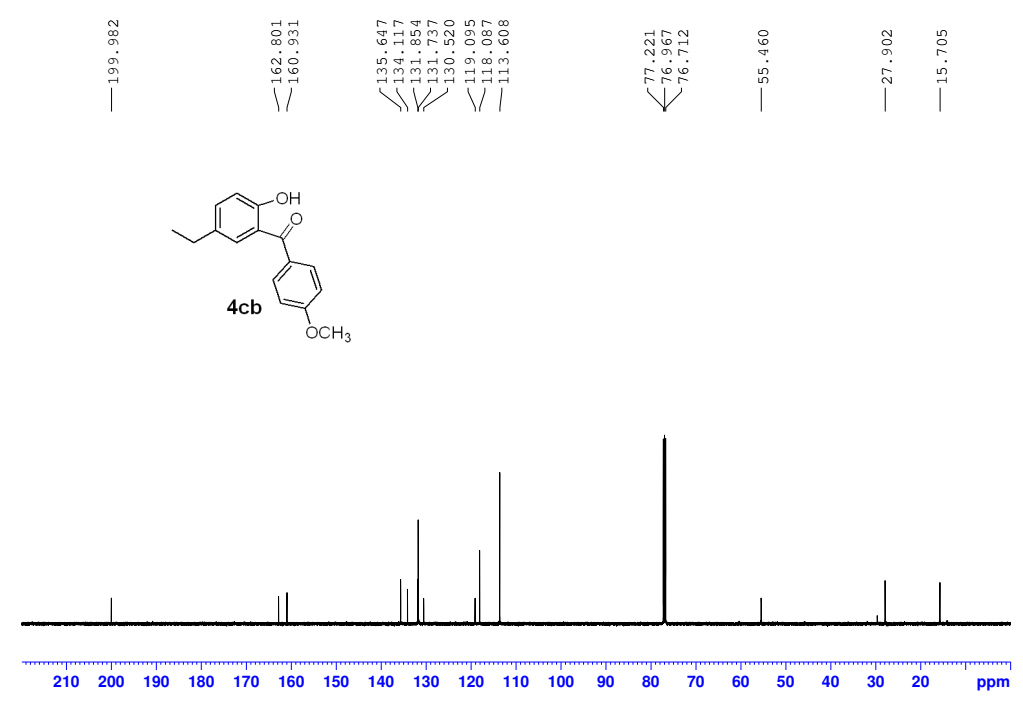
NMR solvent impurity



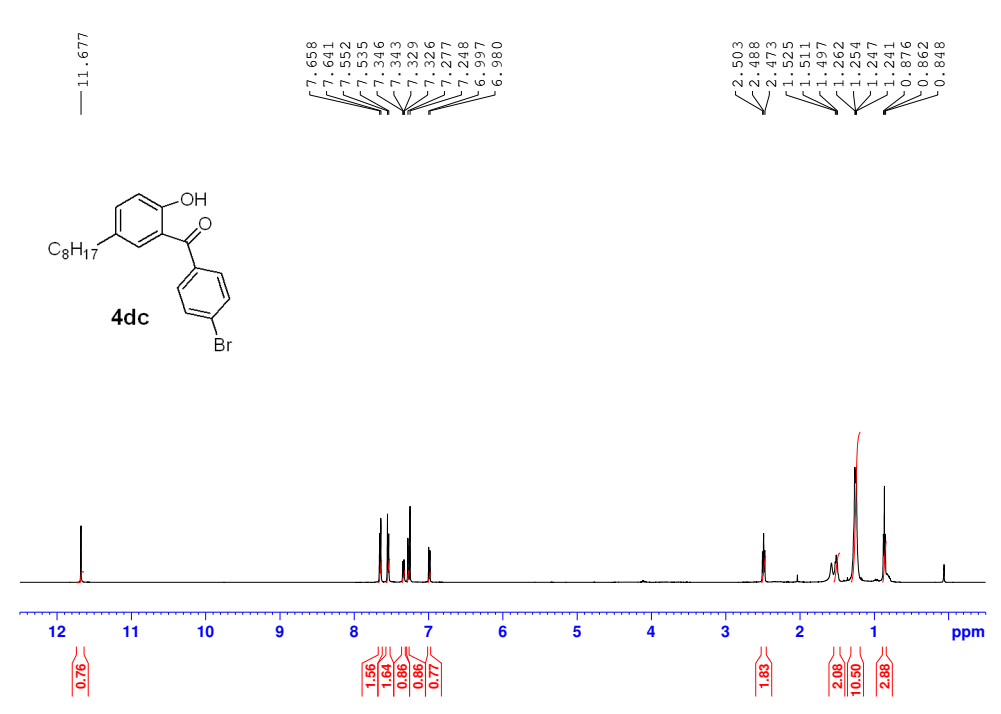
**Fig. S14**. 1H and 13C NMR spectrum of **4ca**.

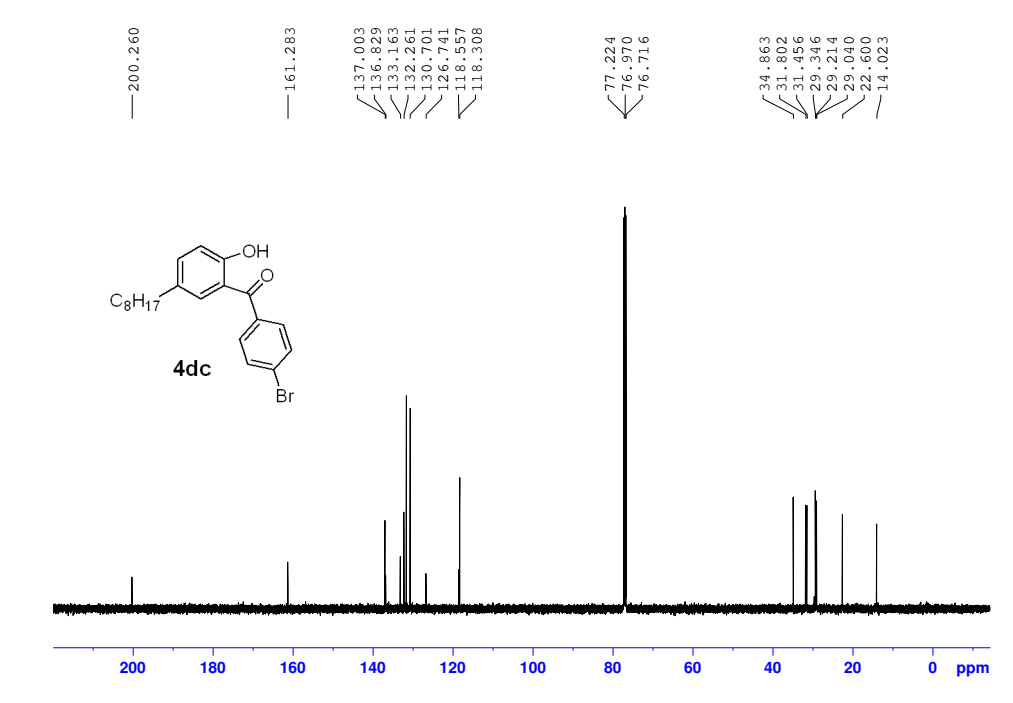


NMR solvent impurity

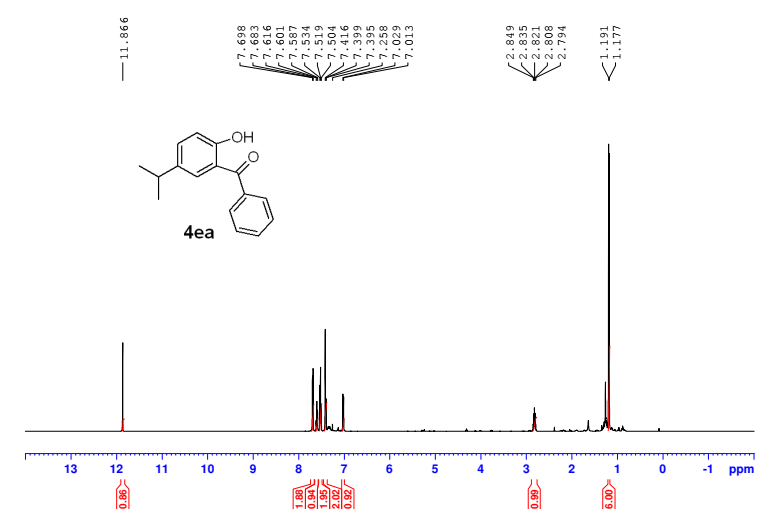


**Fig. S15**. 1H and 13C NMR spectrum of **4cb**

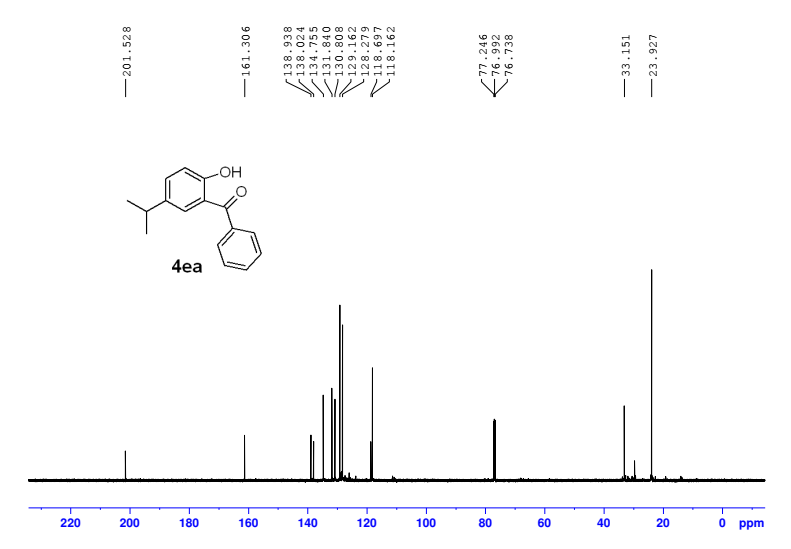
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**Fig. S16**. 1H and 13C NMR spectrum of **4dc**.

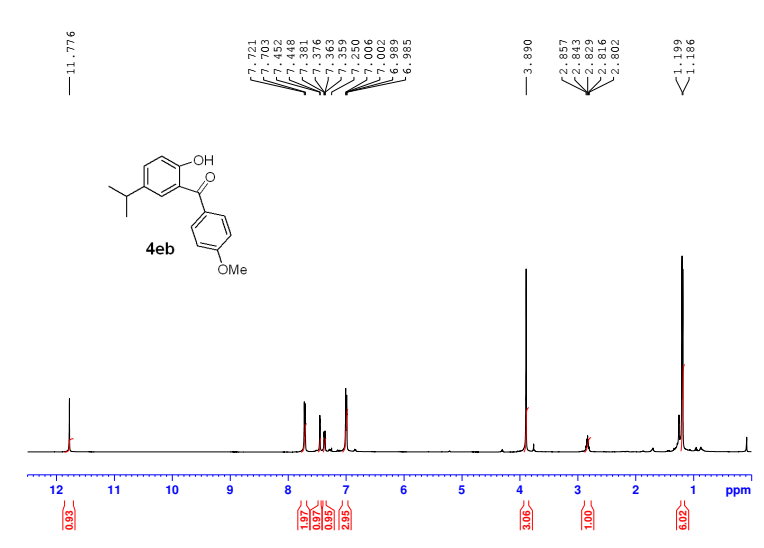


NMR solvent impurity

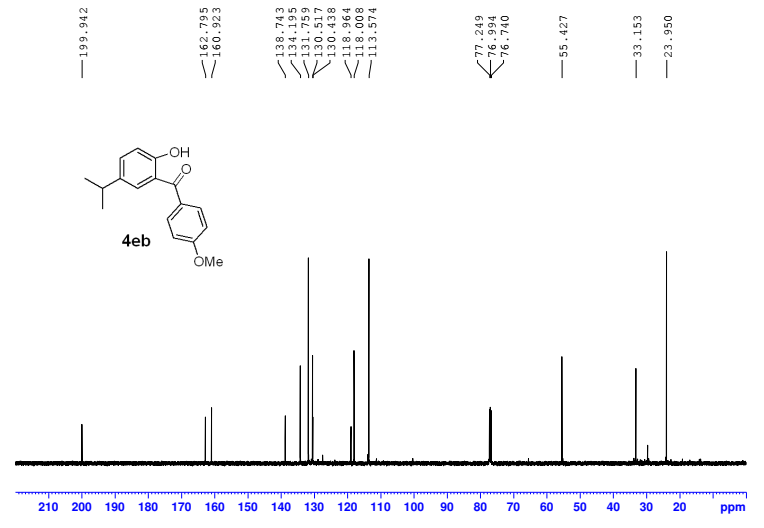


NMR solvent impurity

**Fig. S17**. 1H and 13C NMR spectrum of **4ea**.



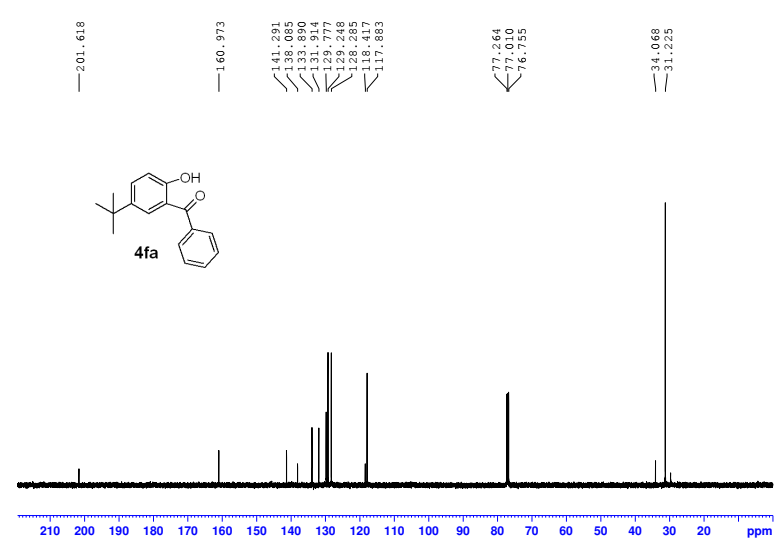
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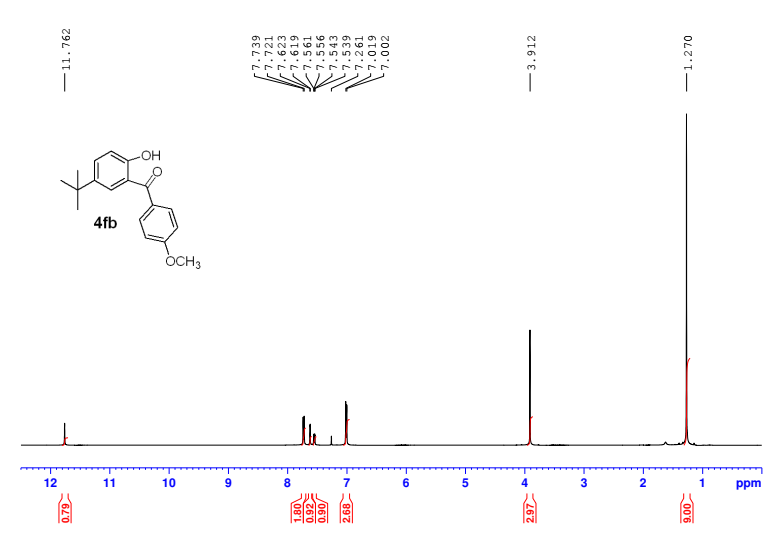
NMR solvent impurity

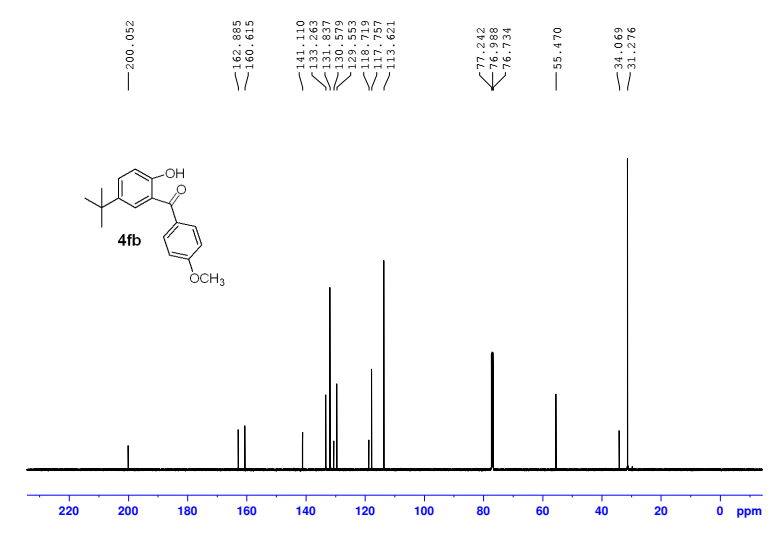
**Fig. S18**. 1H and 13C NMR spectrum of **4eb**.



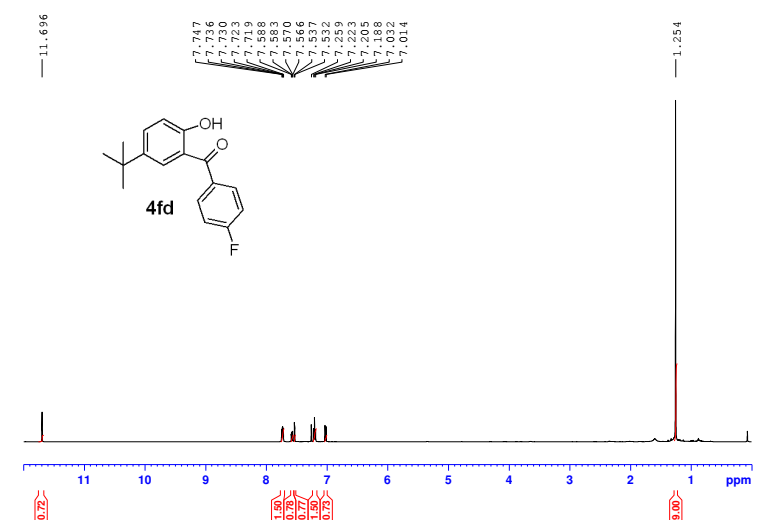


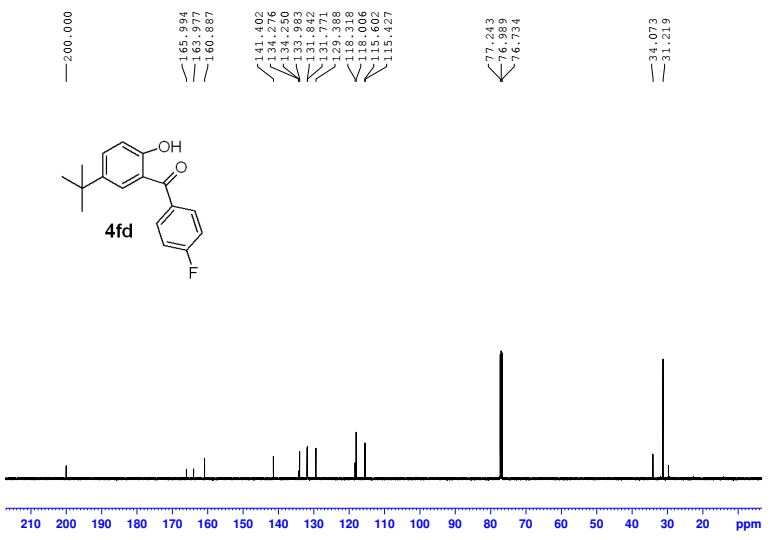
**Fig. S19**. 1H and 13C NMR spectrum of **4fa**.



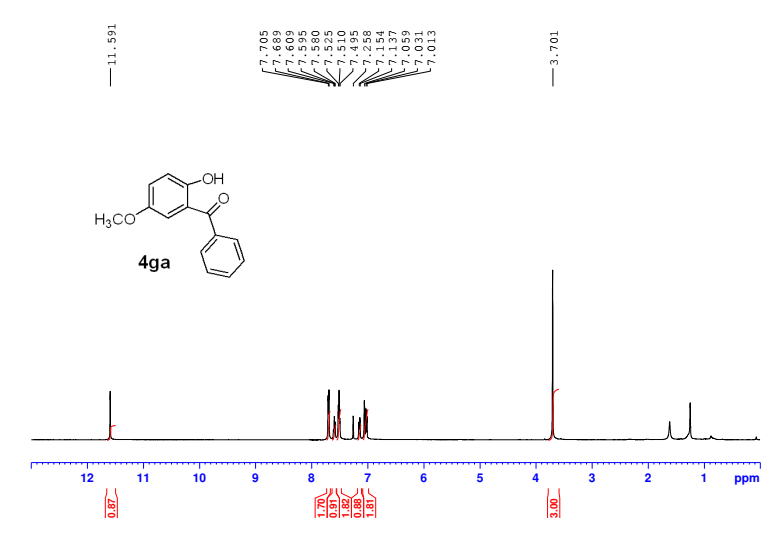


**Fig. S20**. 1H and 13C NMR spectrum of **4fb**.

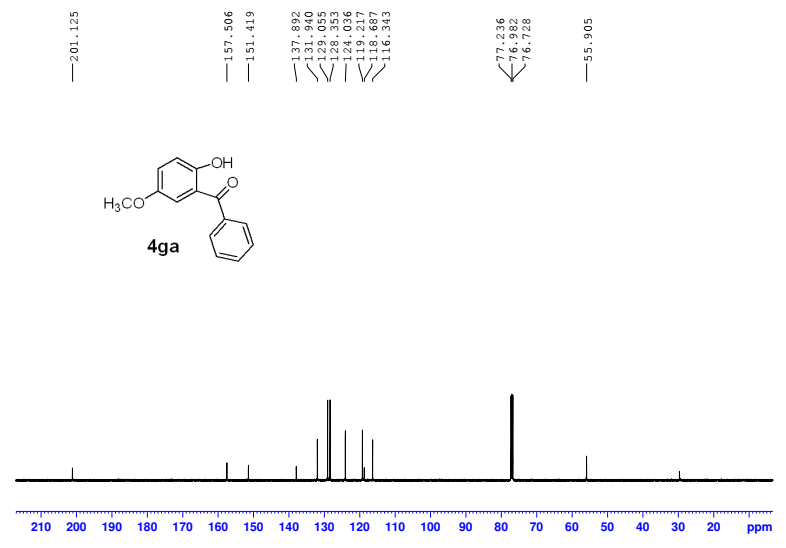




**Fig. S21**. 1H and 13C NMR spectrum of **4fd**.

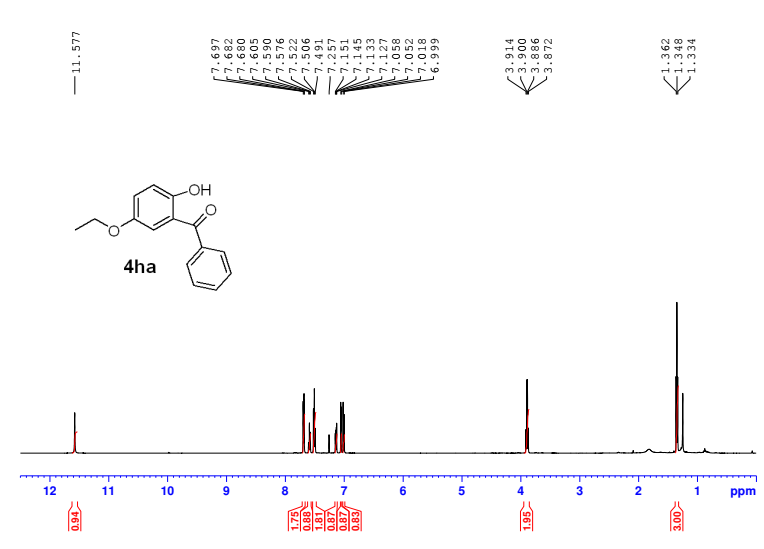


NMR solvent impurity

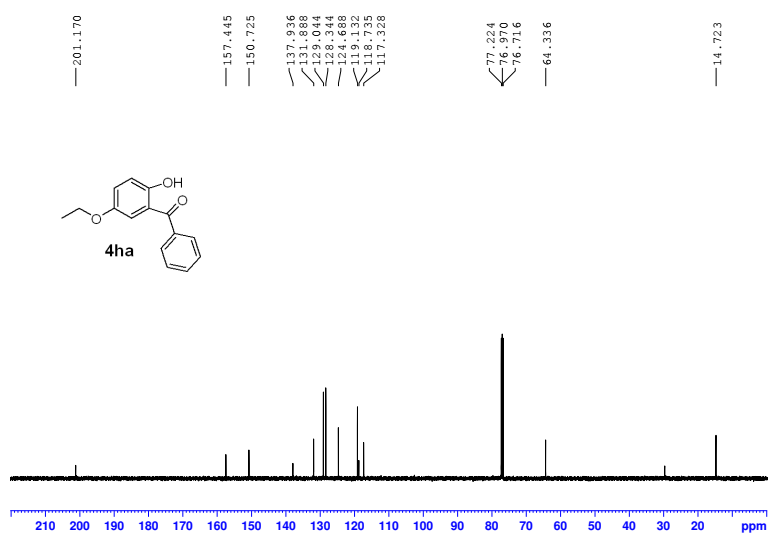


NMR solvent impurity

**Fig. S22**. 1H and 13C NMR spectrum of **4ga**.

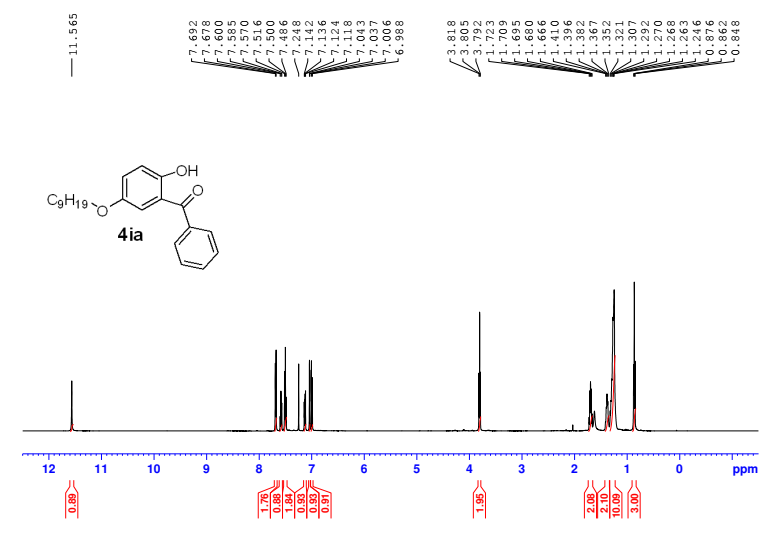


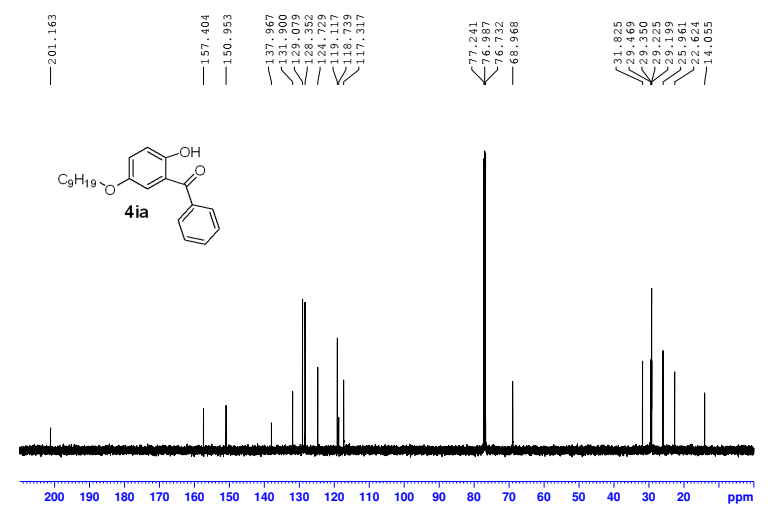
NMR solvent impurity



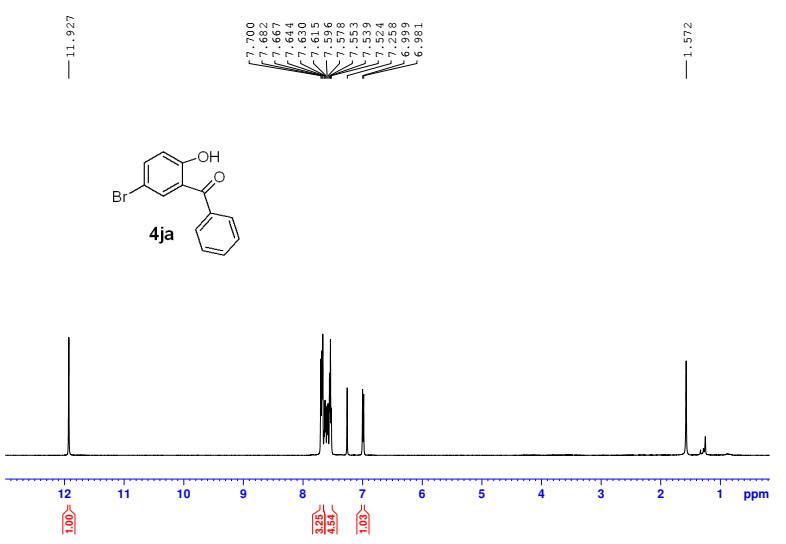
NMR solvent impurity

**Fig. S23**. 1H and 13C NMR spectrum of **4ha**.

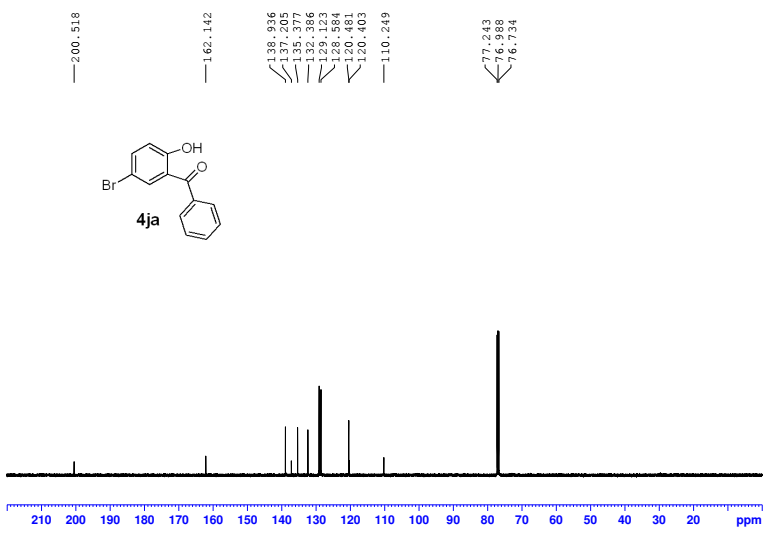




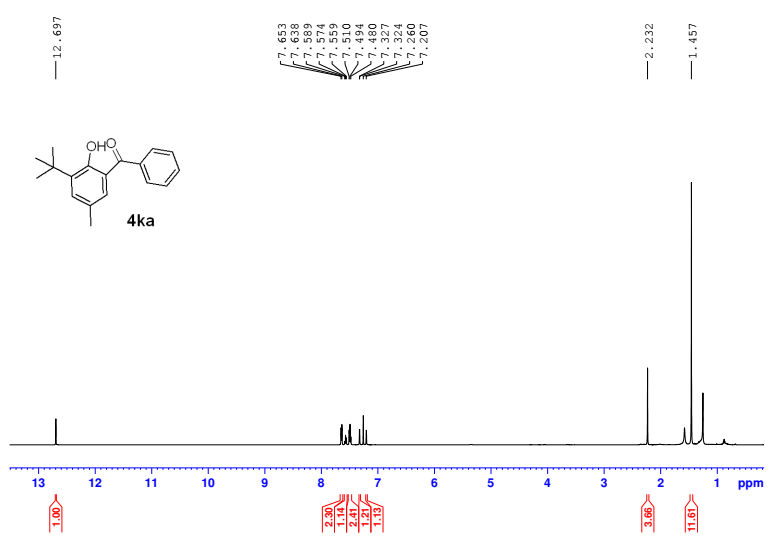
**Fig. S24**. 1H and 13C NMR spectrum of **4ia**.



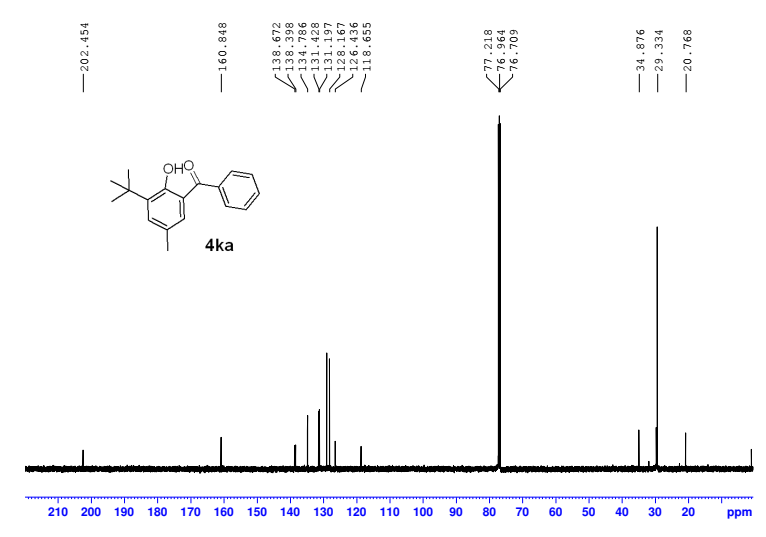
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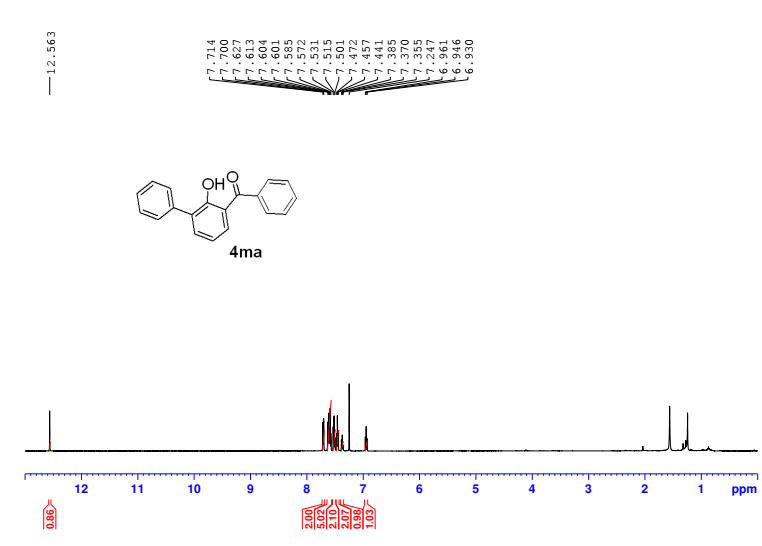
**Fig. S25**. 1H and 13C NMR spectrum of **4ja**.



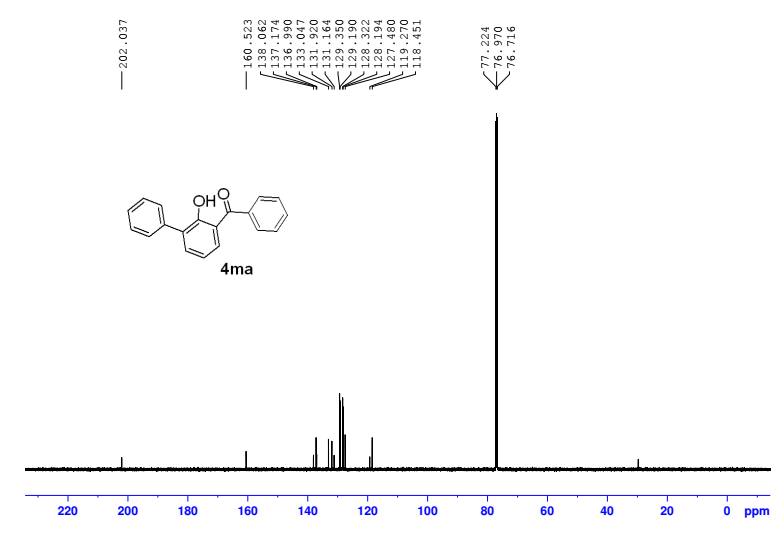
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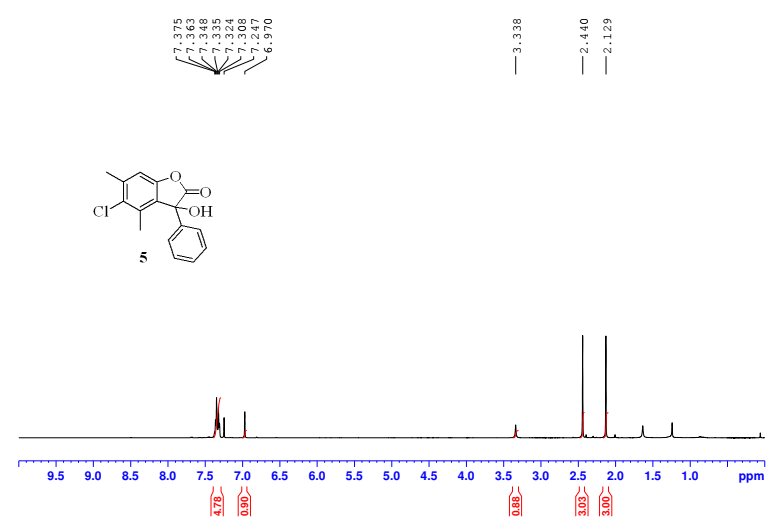
**Fig. S26**. 1H and 13C NMR spectrum of **4ka**.



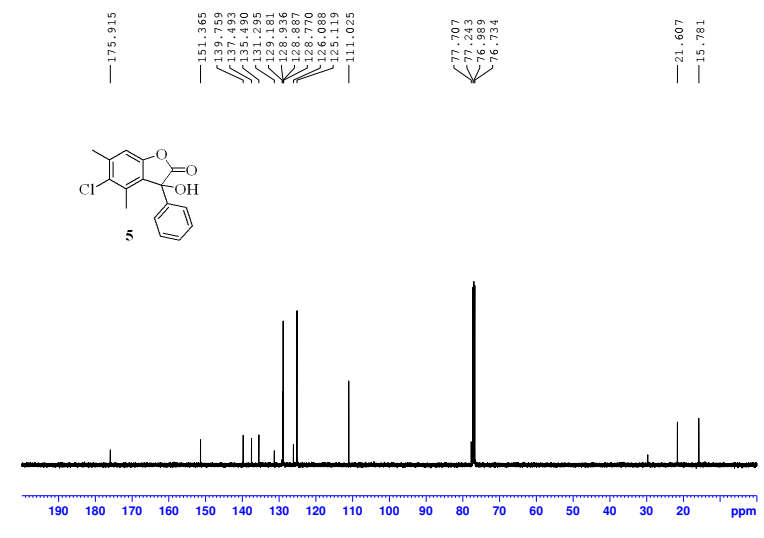
NMR solvent impurity



**Fig. S27**. 1H and 13C NMR spectrum of **4ma**.

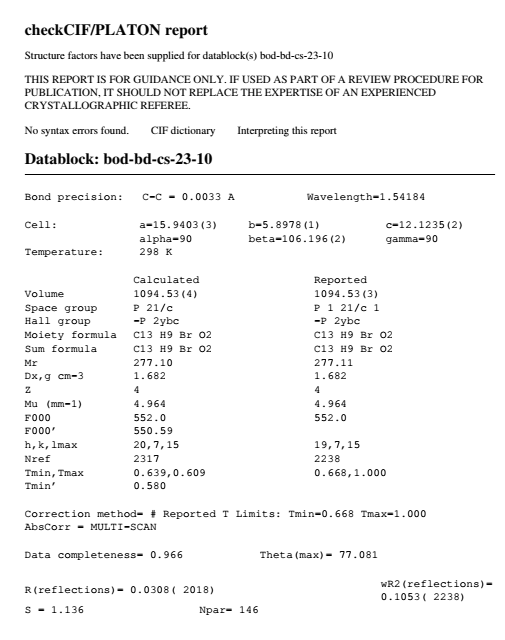


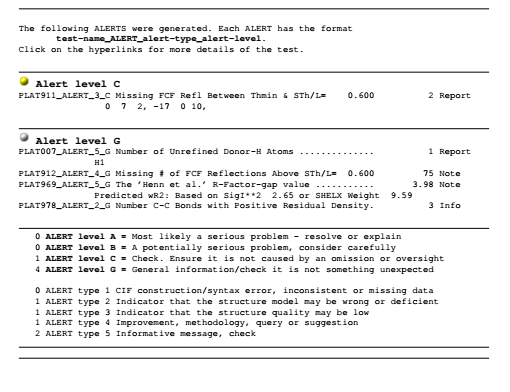
NMR solvent impurity

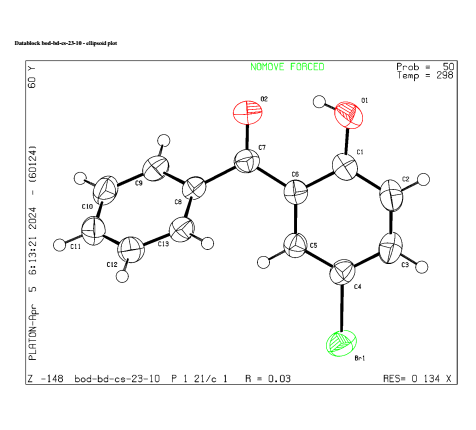


**Fig. S28**. 1H and 13C NMR spectrum of **5**.

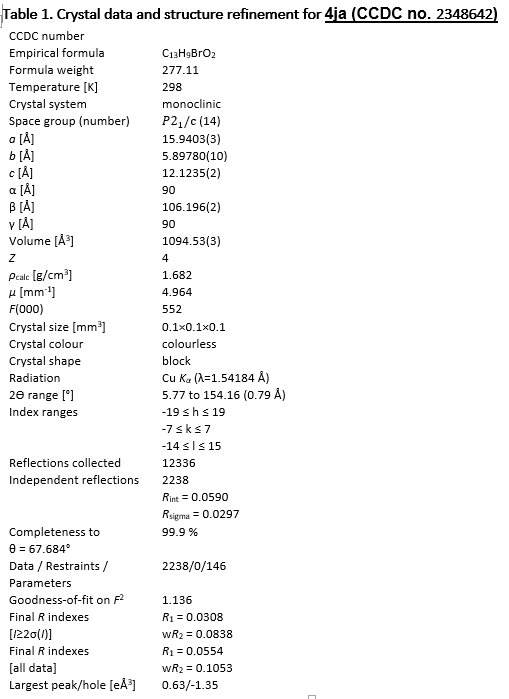
Single crystal XRD data for compound **4ja (CCDC no. 2348642)**







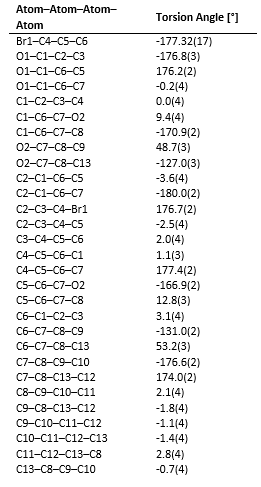
## Table S2. Crystal data and structure refinement for 4ja (CCDC no. 2348642)



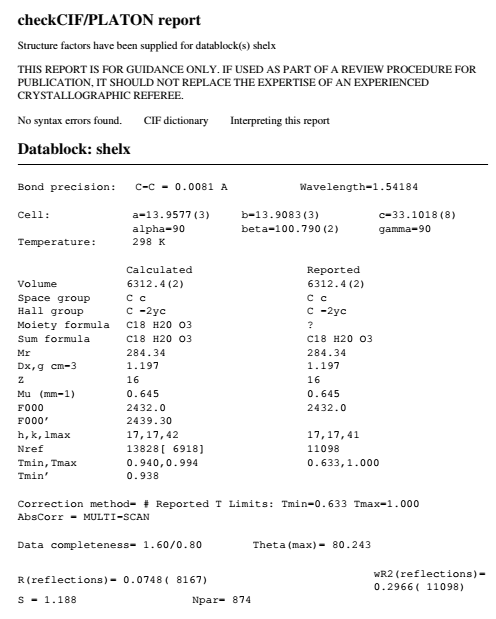
## Table S3. Bond lengths and angles for 4ja (CCDC no. 2348642)

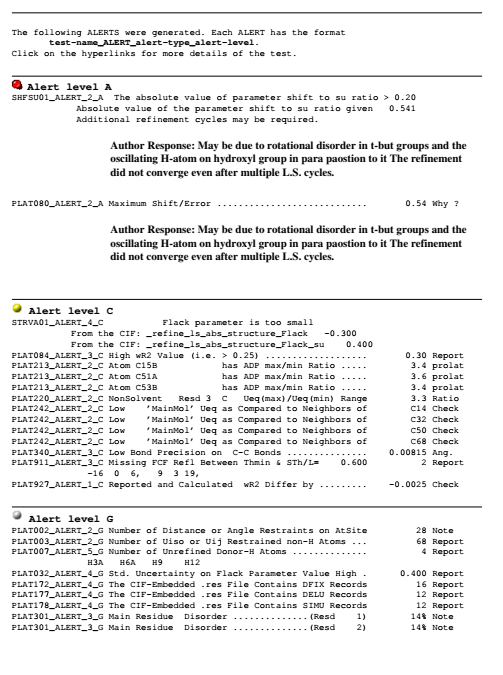
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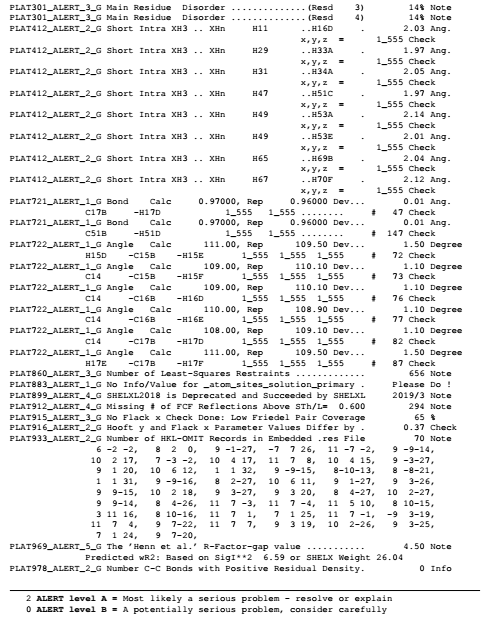
## Table S4. Torsion angles for 4ja (CCDC no. 2348642).

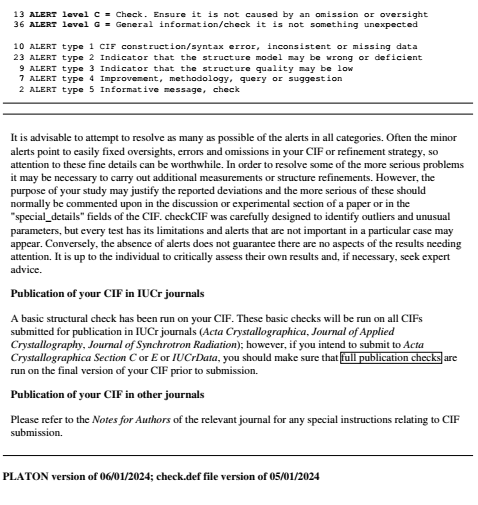


Single crystal XRD data for compound **4fb (CCDC no. 2348641)**









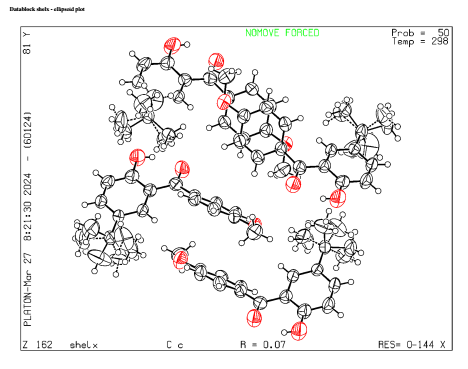


Table S5. Crystal data and structure refinement for shelx (**4fb : CCDC no. 2348641)**

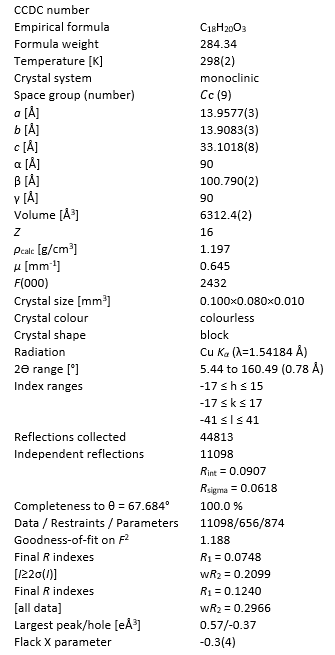
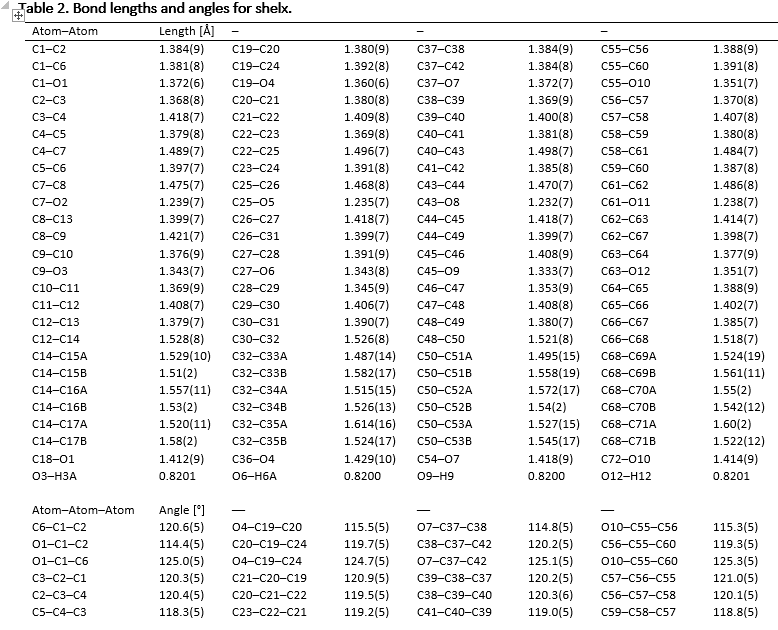


Table S6. Bond lengths and angles for shelx (**4fb : CCDC no. 2348641)**



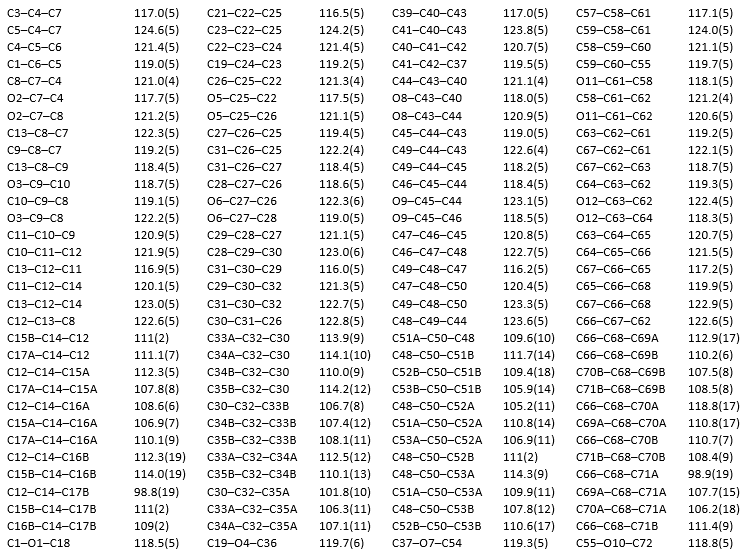


Table S7. Hydrogen bonds for shelx (**4fb : CCDC no. 2348641)**

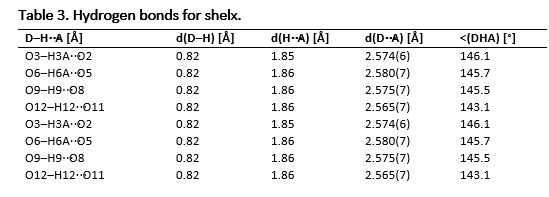
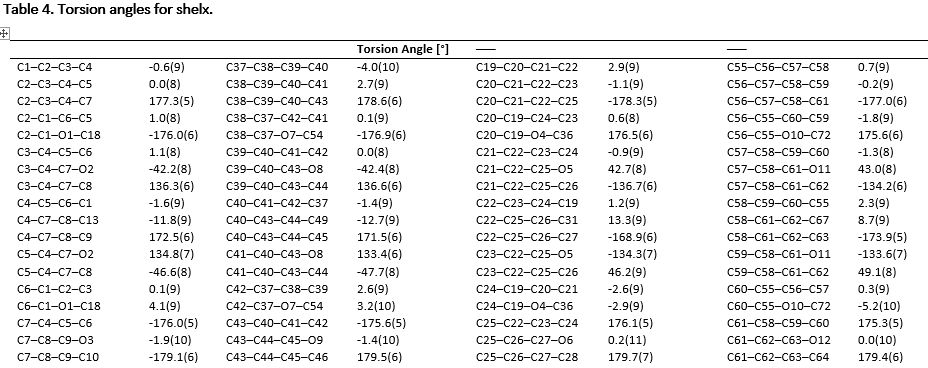
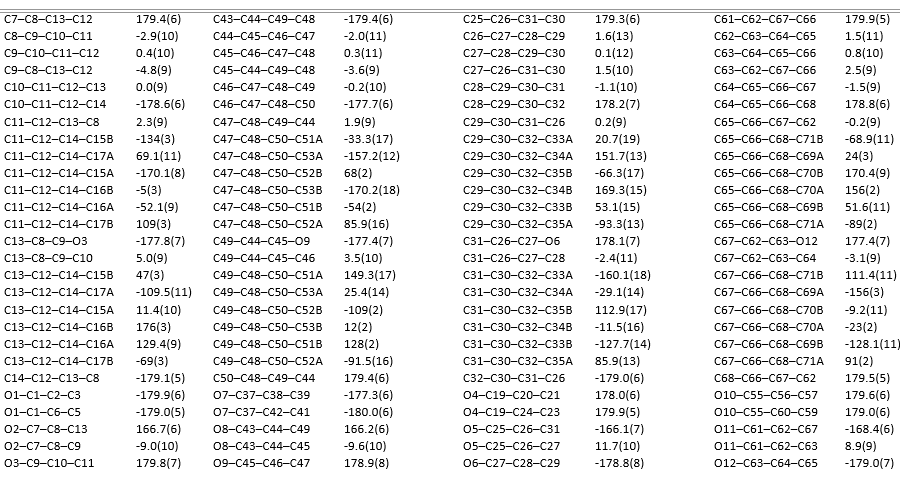
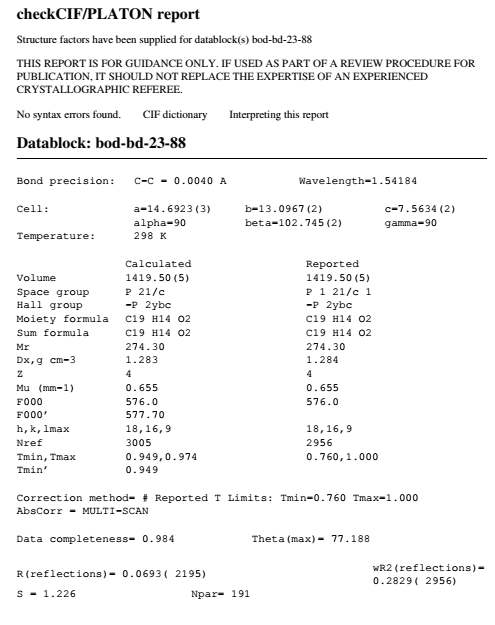


Table S8. Torsion angles for shelx (**4fb : CCDC no. 2348641)**

Single crystal XRD data for compound **4ma (CCDC no. 2348646)**



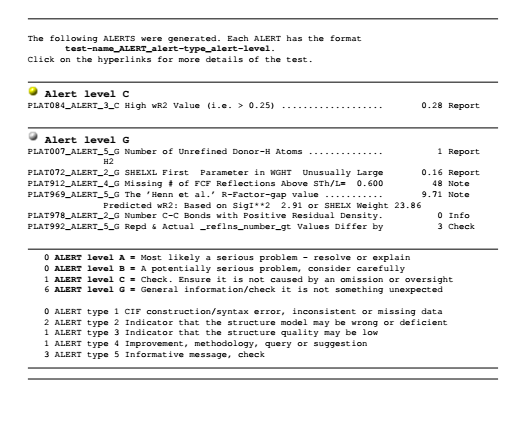
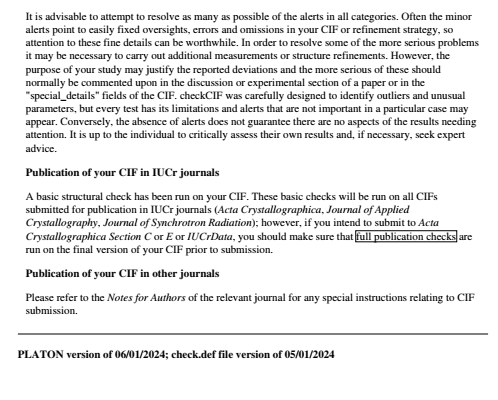
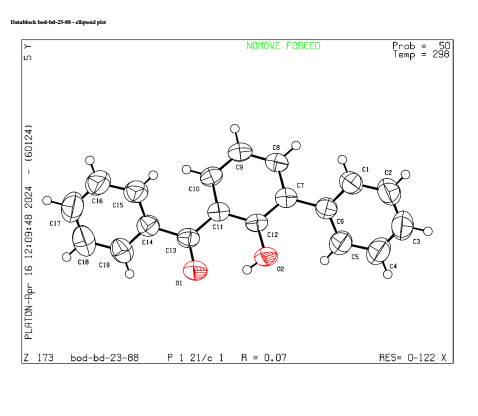
  

Table S9. Crystal data and structure refinement for **4ma (CCDC no. 2348646)**

## 

Table S10. Bond lengths and angles for **4ma (CCDC no. 2348646)**

|  |  |
| --- | --- |
|  |  |
|  |

Table S11. Torsion angles for **4ma (CCDC no. 2348646)**

