

# Supporting information

for

## **Conserved and species-specific oxylipin pathways in the wound-activated chemical defense of the noninvasive red alga *Gracilaria chilensis* and the invasive *Gracilaria vermiculophylla***

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**Spectra for metabolites 5 and 6.**

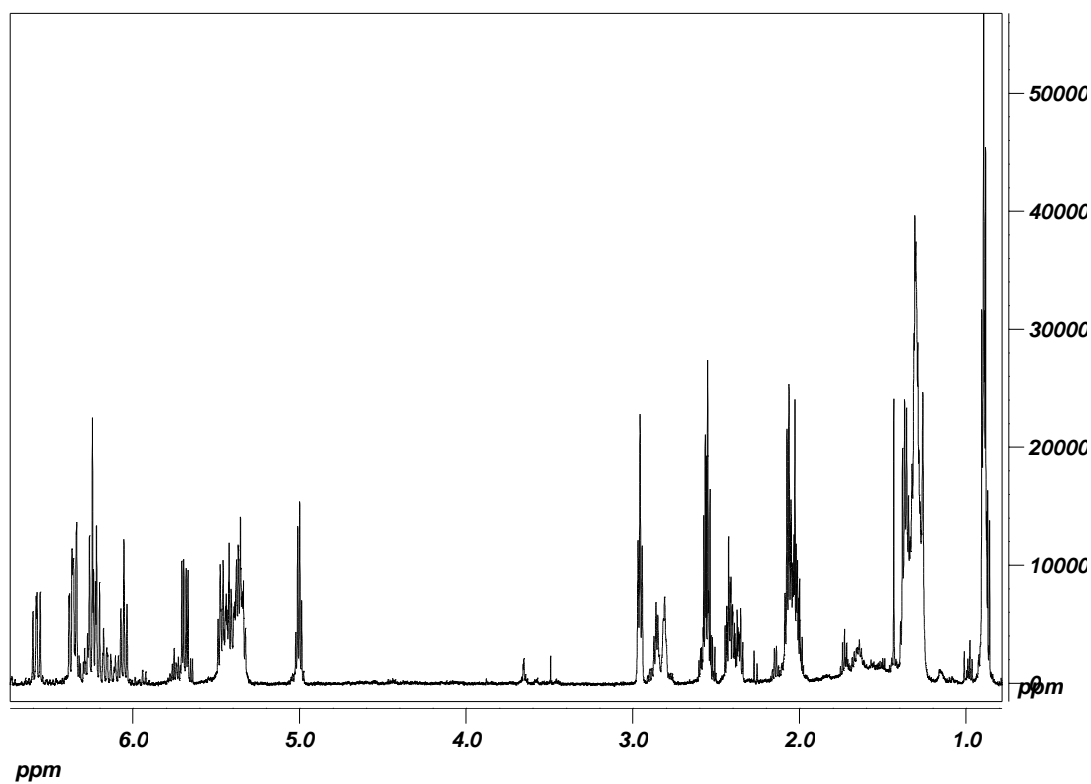


Figure S1:  $^1\text{H}$  NMR spectrum of compound 5.

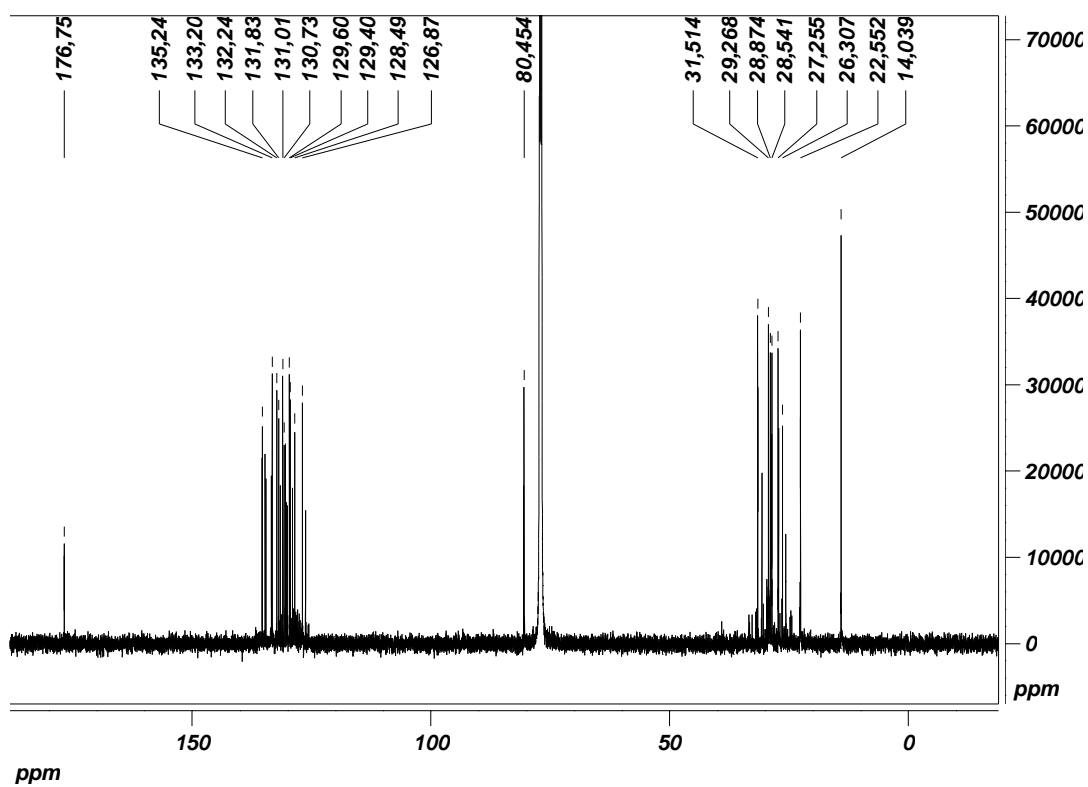


Figure S2:  $^{13}\text{C}$  NMR spectrum of compound 5.

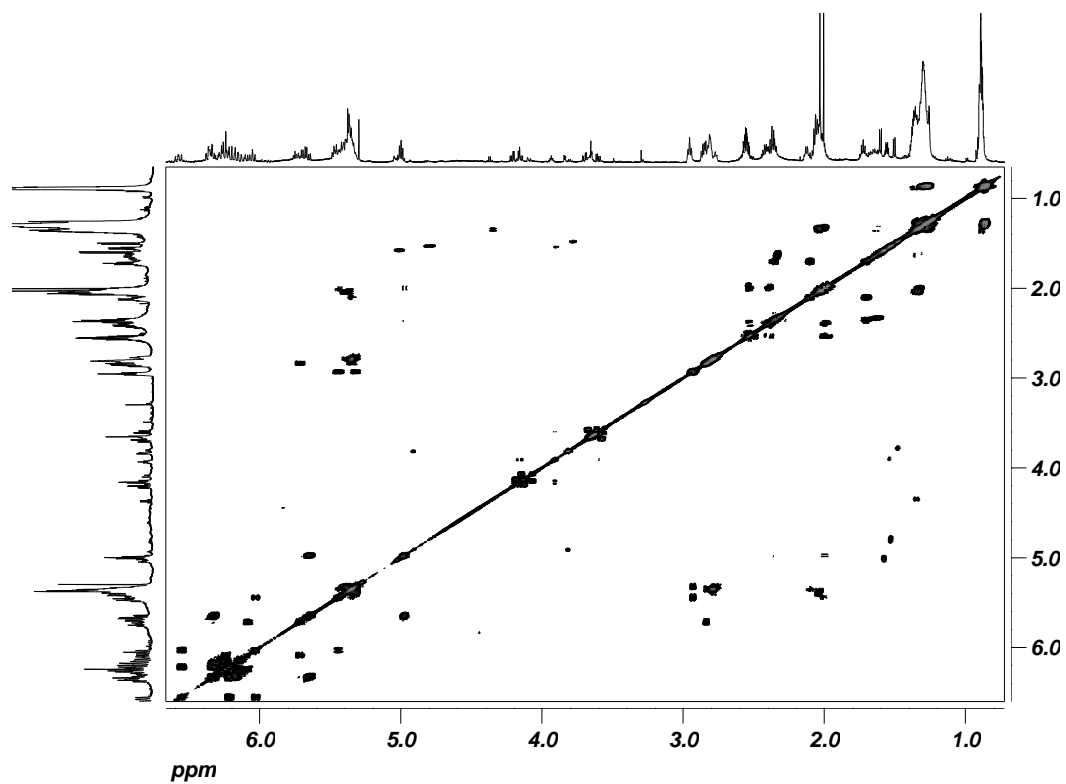


Figure S3:  $^1\text{H}/^1\text{H}$ -COSY spectrum of compound 5.

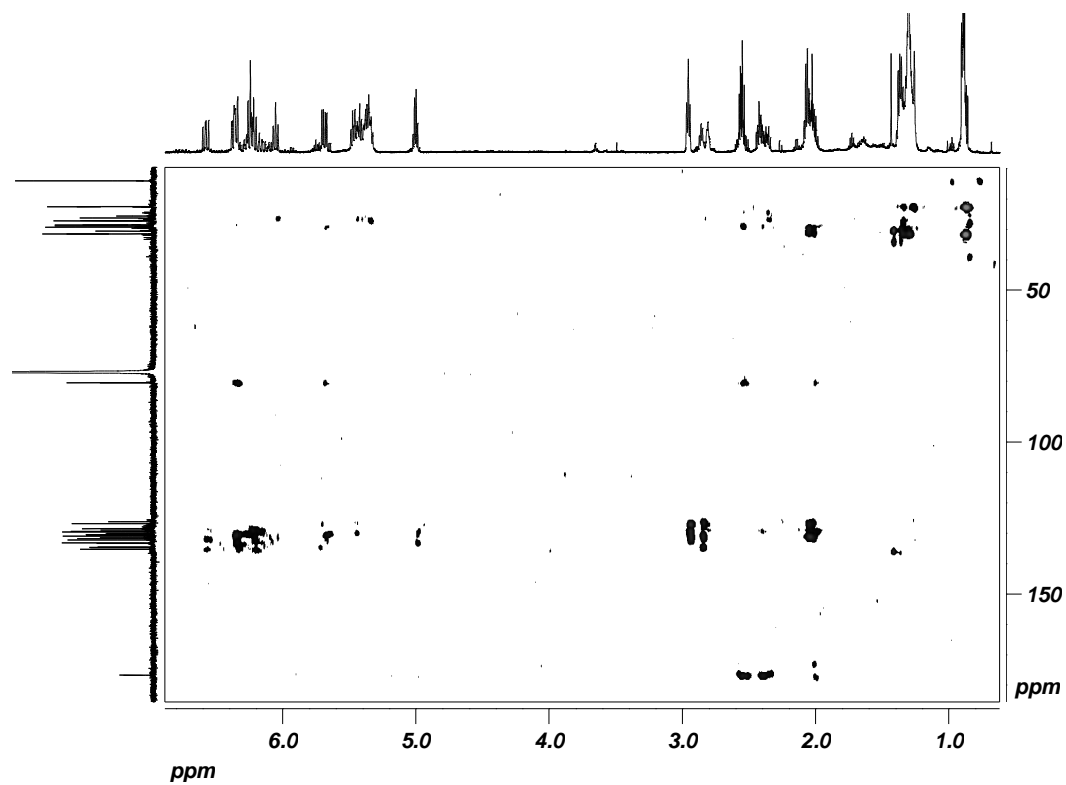
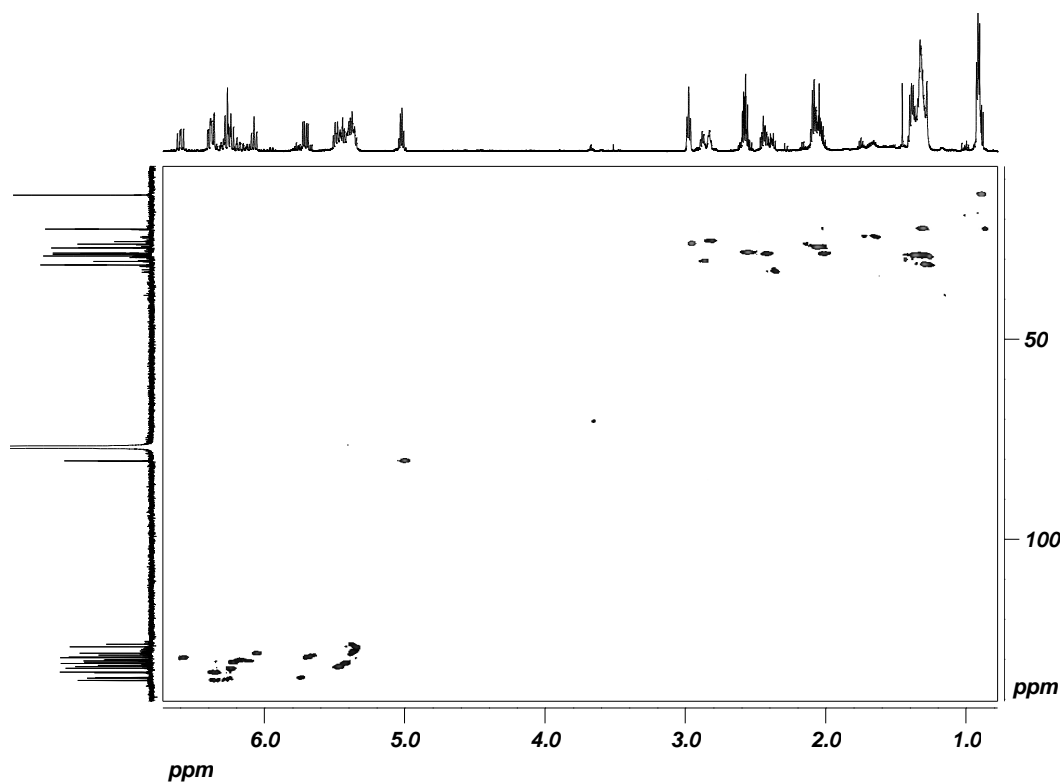
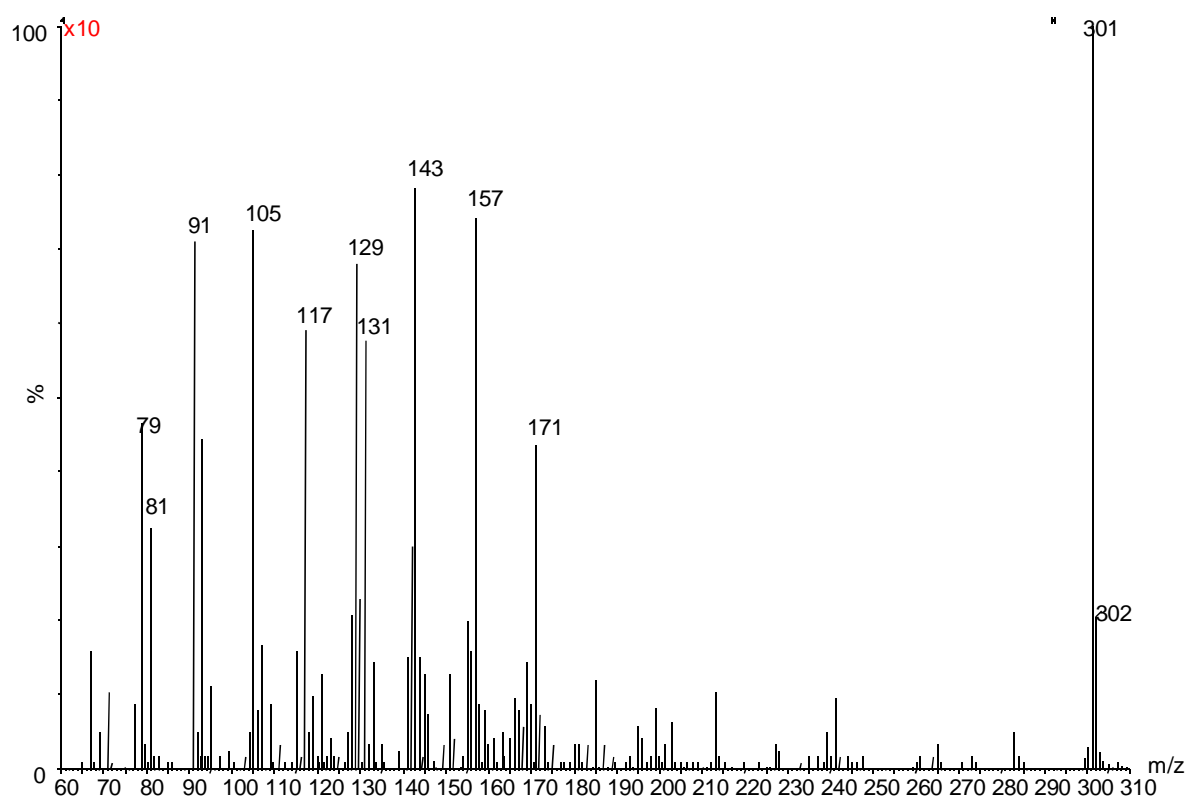


Figure S4: HMBC spectrum of compound 5.



**Figure S5:** HSQC spectrum of compound **5**.



**Figure S6:** ESI-MS/MS spectrum of compound **5** (target mass 301 amu).

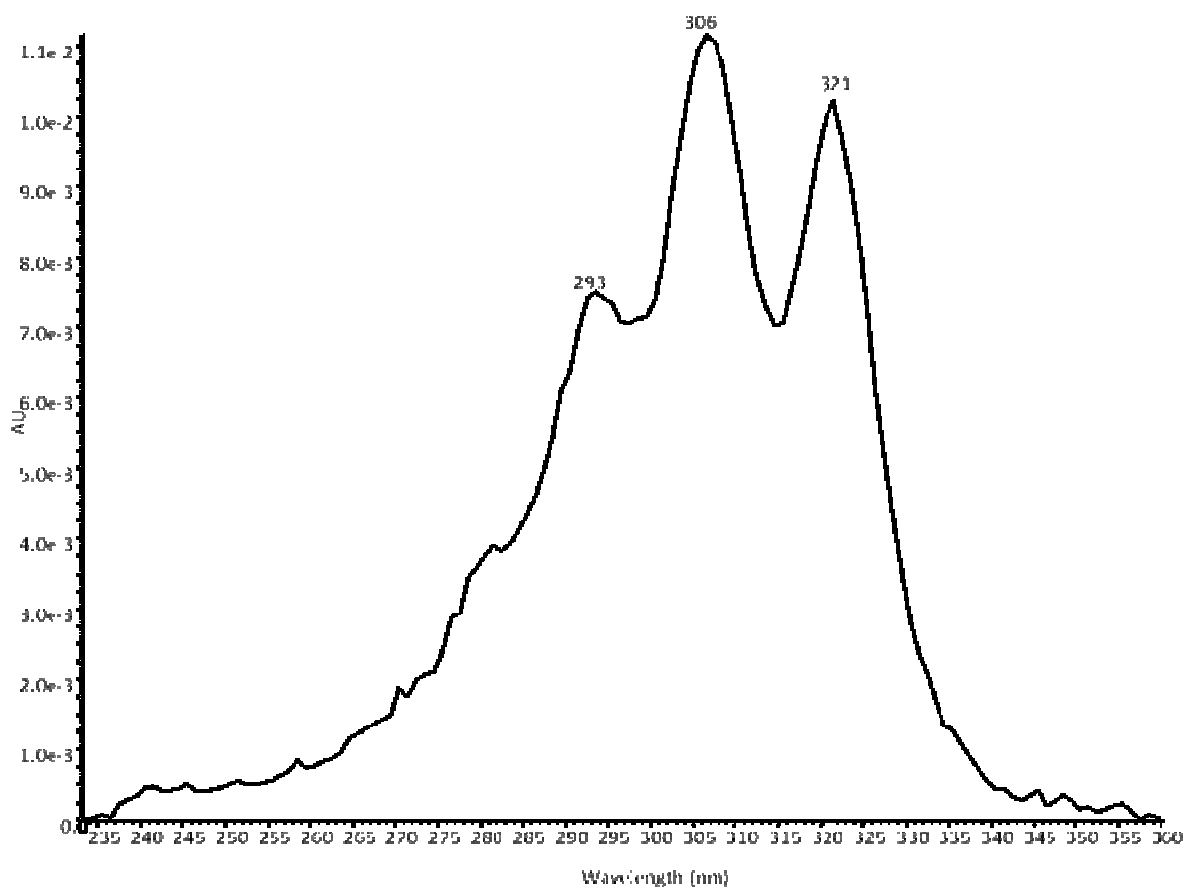
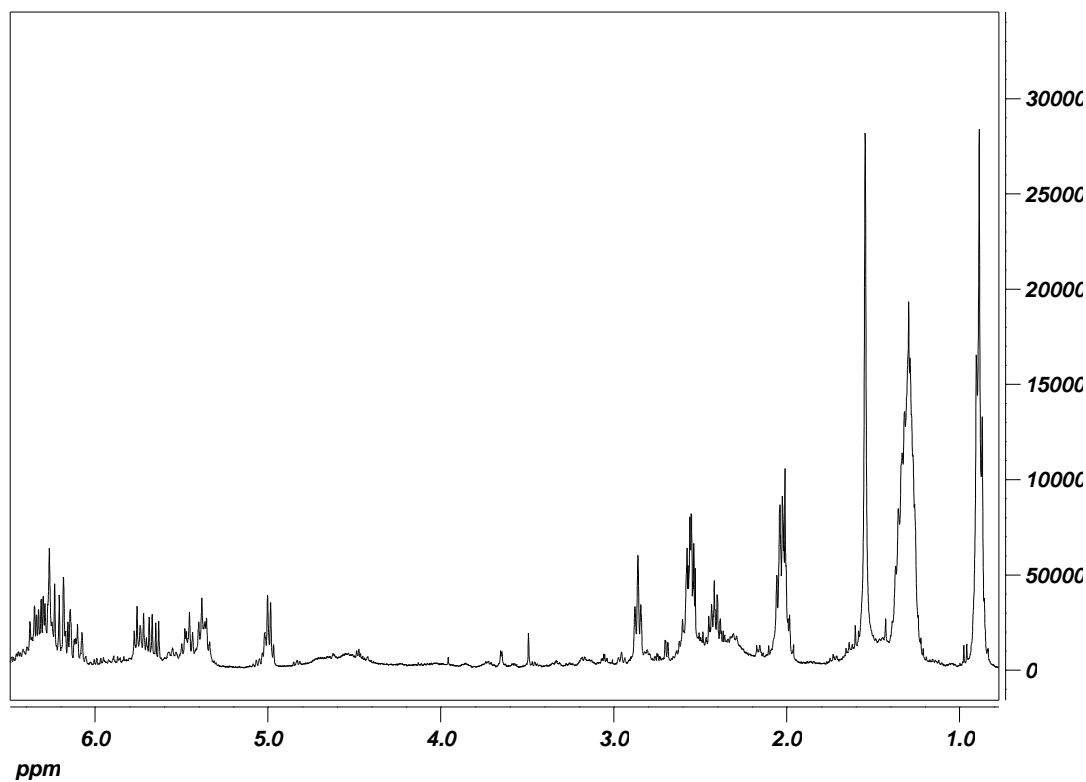


Figure S7: UV-vis spectrum of compound 5 in acetonitrile.

5-((1*E*,3*E*,5*E*,7*E*,10*Z*)-hexadeca-1,3,5,7,10-pentaenyl)dihydrofuran-2(3*H*)-one (**6**) was obtained as a light-yellow oil. The analysis of the *J*-couplings between H11 and H12 revealed the *trans* character of the double bond in comparison to compound **5**. Furthermore, a lambda (max) shift of about 2 nm in the UV-vis confirmed this assignment.



**Figure S8:**  $^1\text{H}$  NMR spectrum of compound **6**.

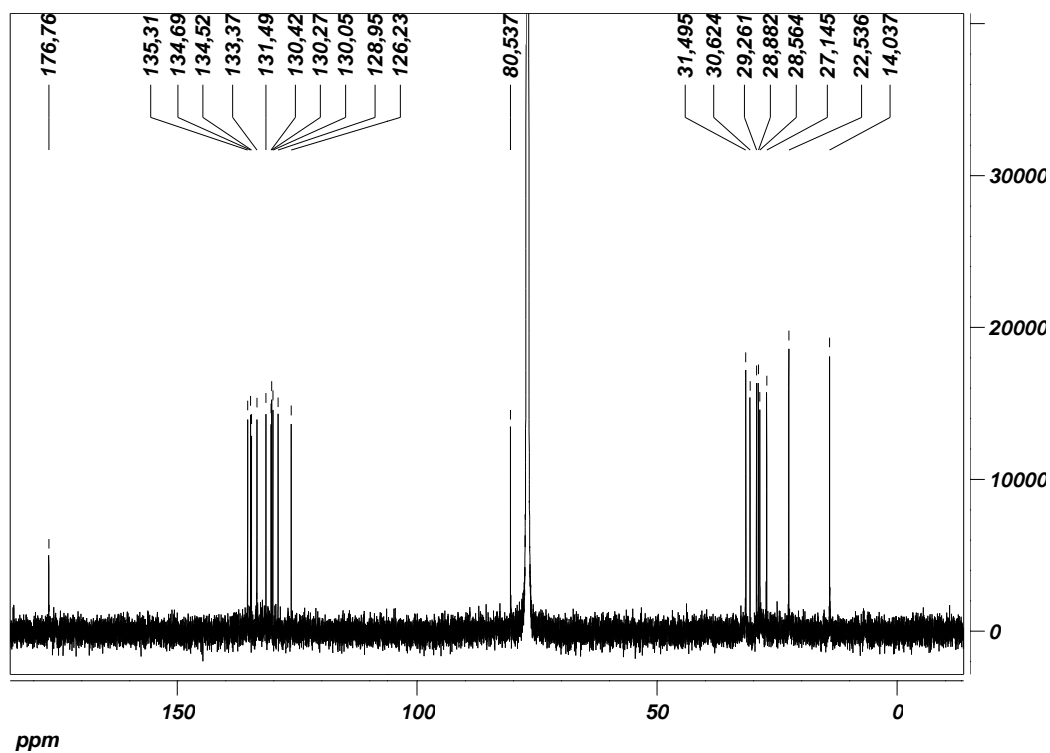


Figure S9:  $^{13}\text{C}$  NMR spectrum of compound 6.

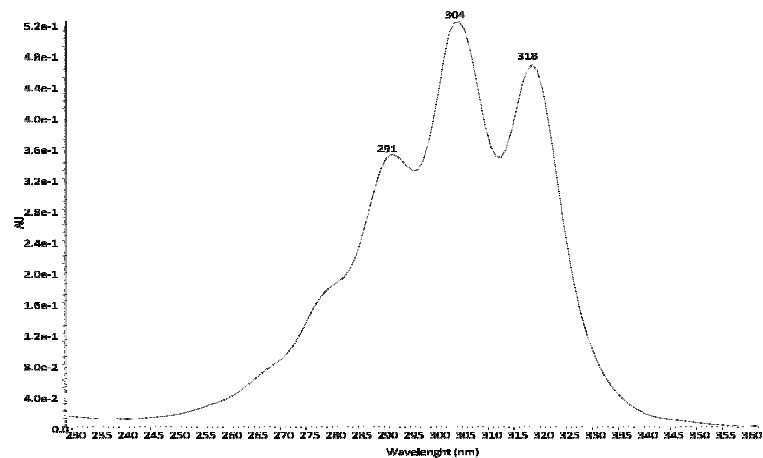


Figure S10: UV-vis spectrum of compound 6 in acetonitrile.