

Curcumin Derivatives as Potential Mosquito Larvicidal Agents against Two Mosquito Vectors, *Culex pipiens* and *Aedes albopictus*

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NMR spectra

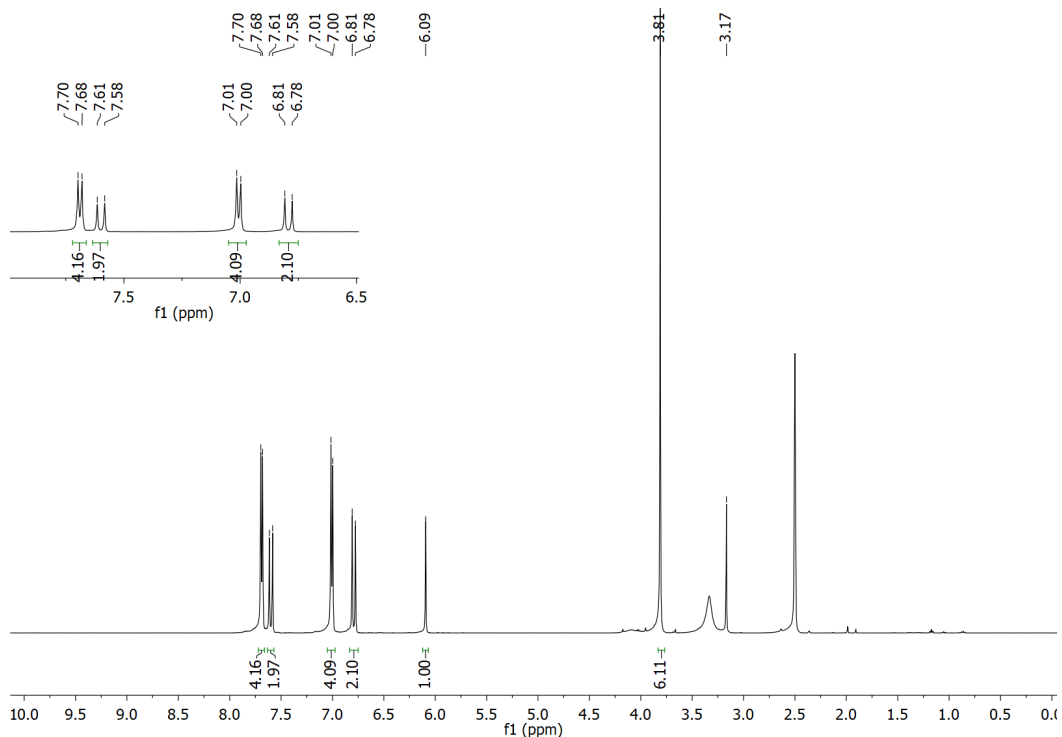


Figure S1. ^1H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(4-methoxyphenyl)hepta-1,6-diene-3,5-dione **1a** in $\text{DMSO-}d_6$.

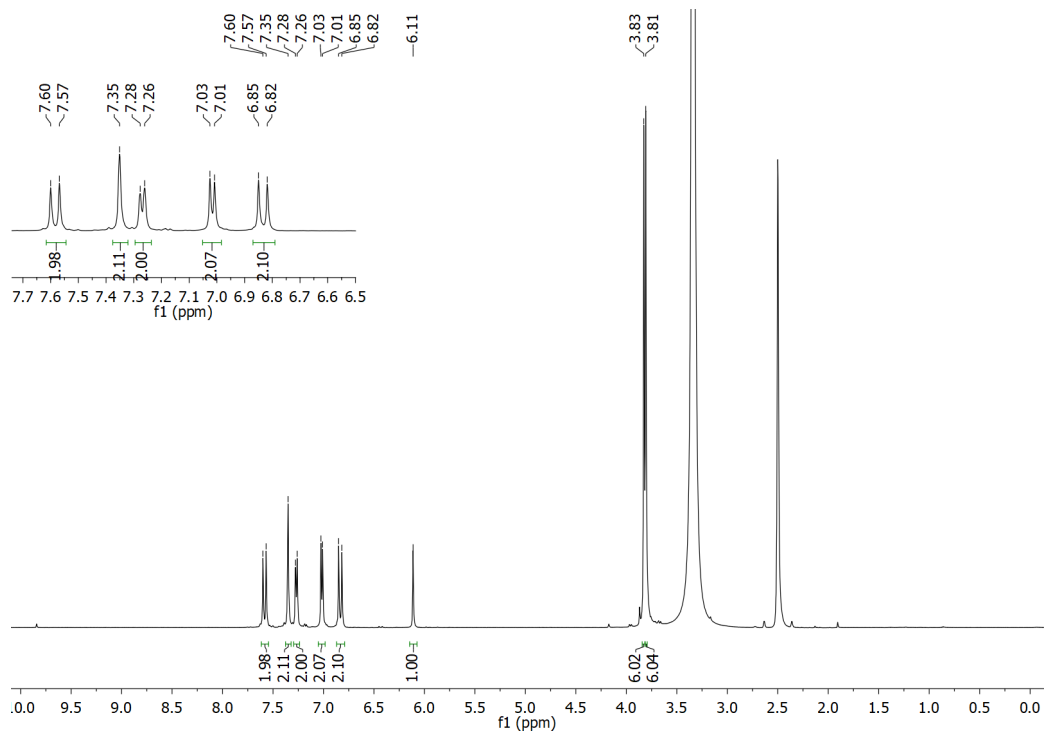


Figure S2. ^1H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(3,4-dimethoxyphenyl)hepta-1,6-diene-3,5-dione **1b** in $\text{DMSO-}d_6$.

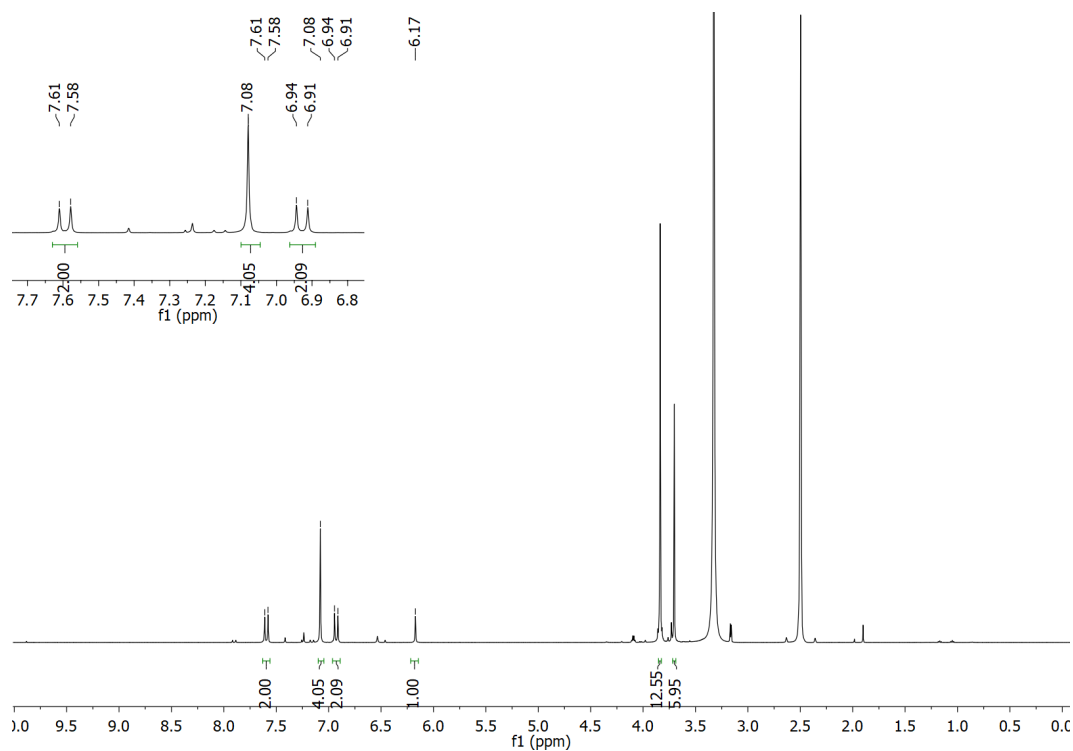


Figure S3. ¹H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(3,4,5-trimethoxyphenyl)hepta-1,6-diene-3,5-dione **1c** in DMSO-*d*₆.

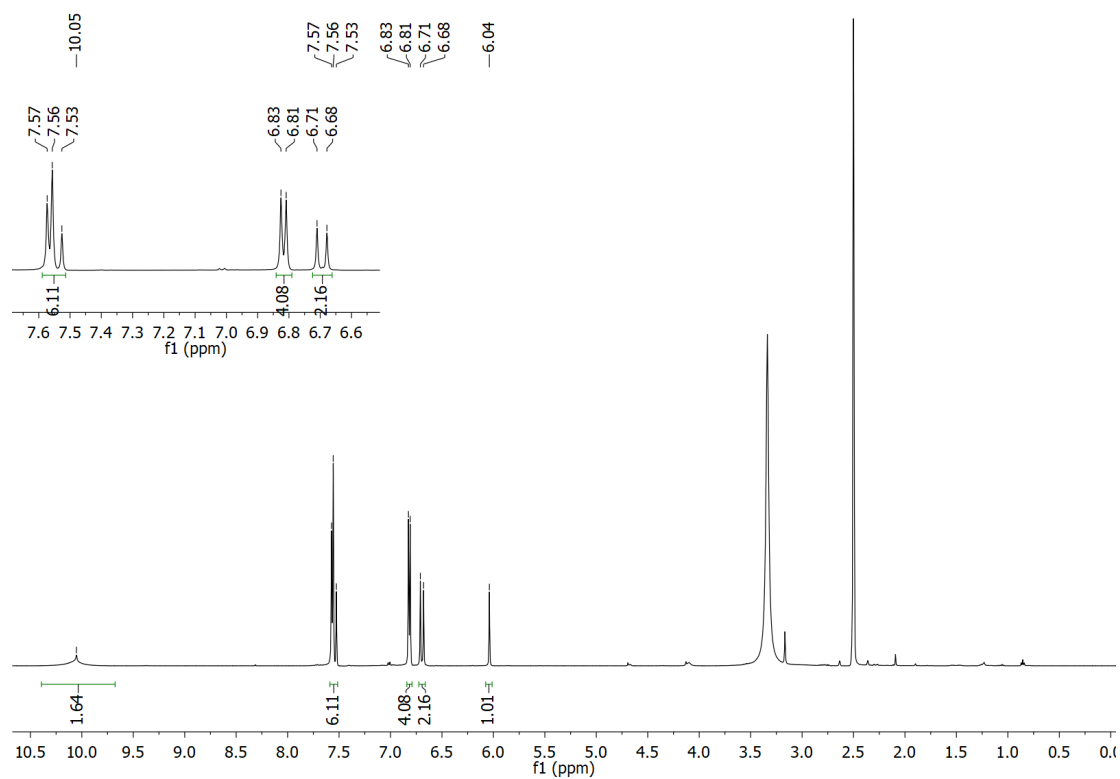


Figure S4. ¹H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(4-hydroxyphenyl)hepta-1,6-diene-3,5-dione **1d** in DMSO-*d*₆.

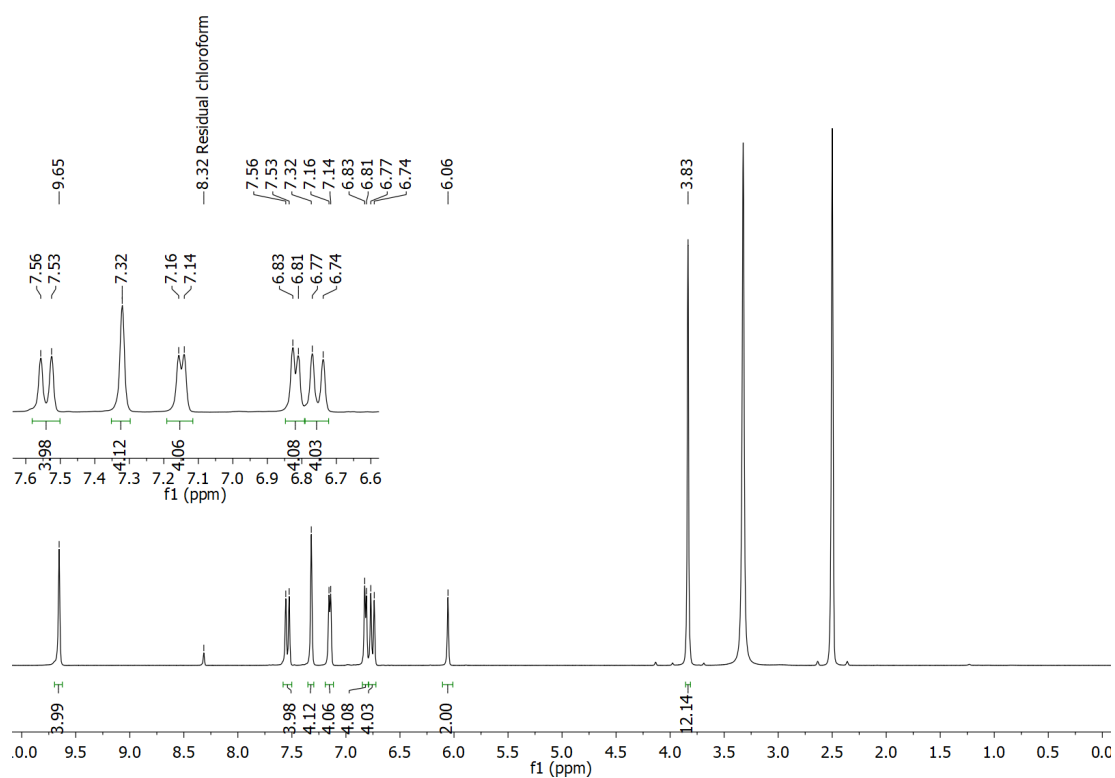


Figure S5. ¹H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(4-hydroxy-3-methoxyphenyl)hepta-1,6-diene-3,5-dione **1f** in DMSO-*d*₆.

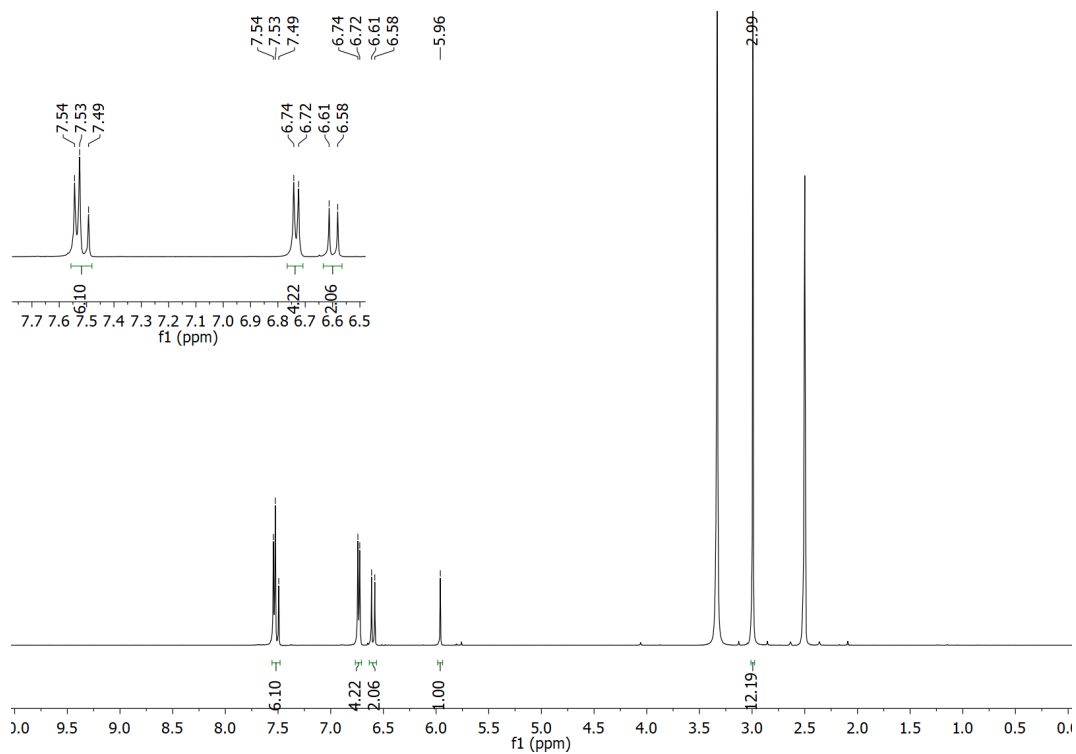


Figure S6. ¹H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(4-(dimethylamino)phenyl)hepta-1,6-diene-3,5-dione **1g** in DMSO-*d*₆.

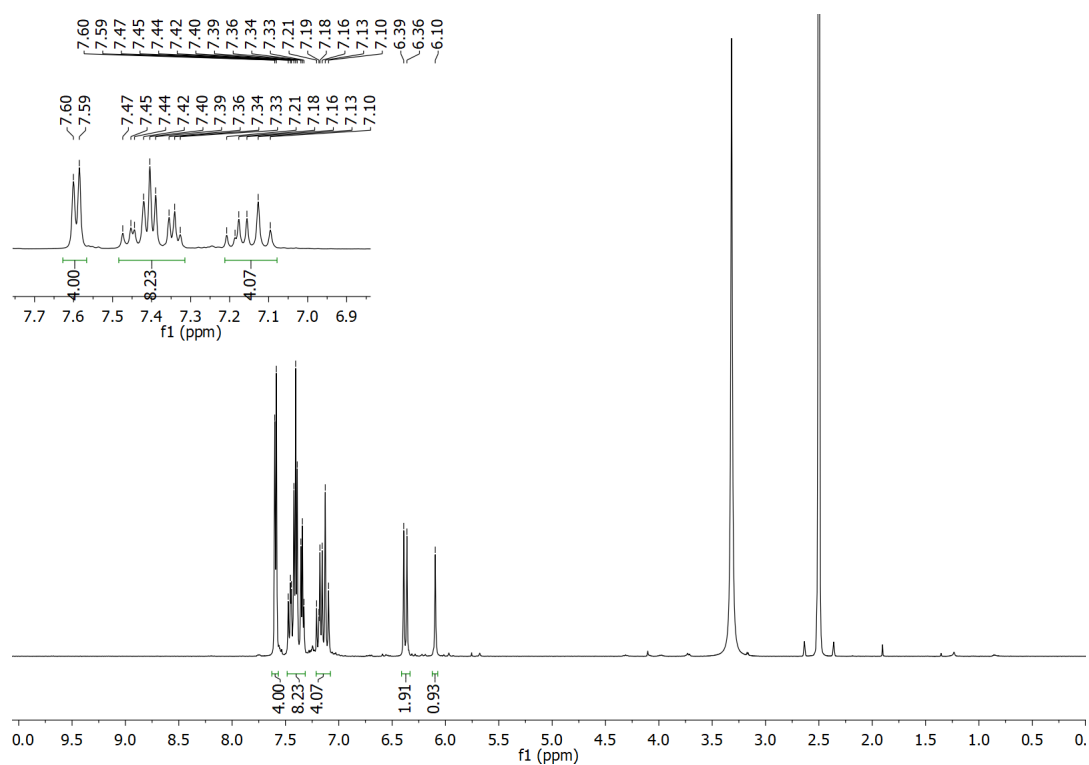


Figure S7. ^1H NMR spectrum of compound (1*E*,3*E*,8*E*,10*E*)-1,11-diphenylundeca-1,3,8,10-tetraene-5,7-dione **1h** in $\text{DMSO}-d_6$.

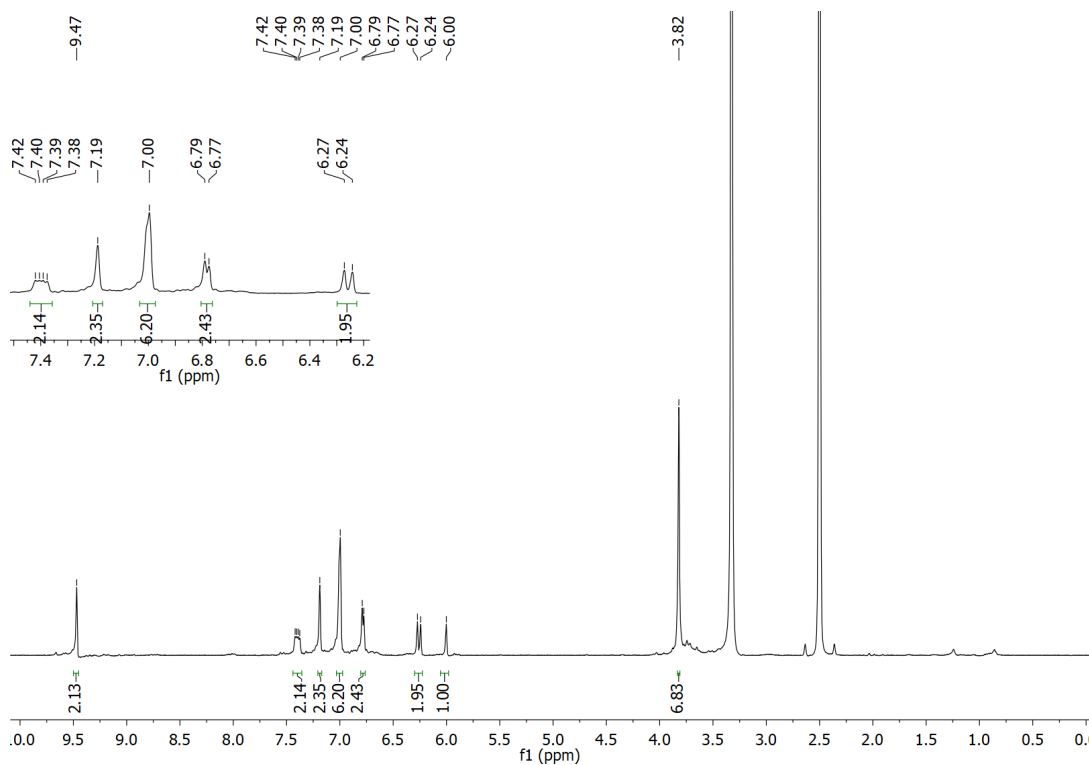


Figure S8. ^1H NMR spectrum of compound (1*E*,3*E*,8*E*,10*E*)-1,11-bis(4-hydroxy-3-methoxyphenyl)undeca-1,3,8,10-tetraene-5,7-dione **1i** in $\text{DMSO}-d_6$.

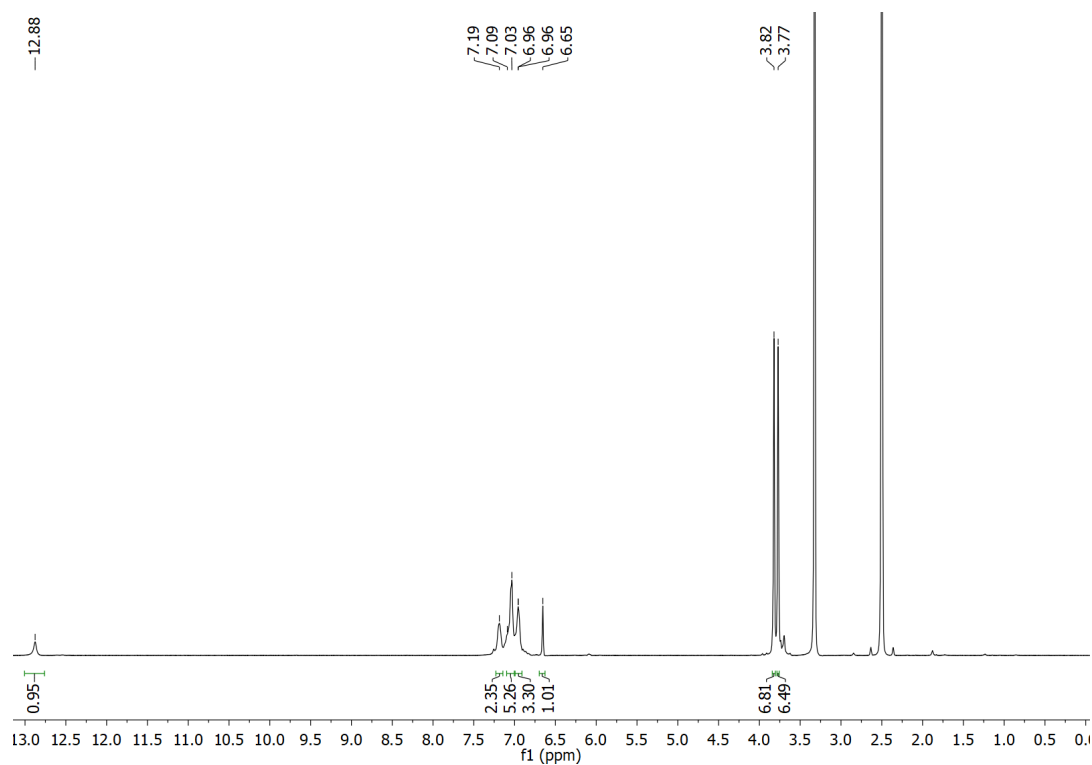


Figure S9. ^1H NMR spectrum of compound 4,4'-((1*E*,1'*E*)-(1*H*-pyrazole-3,5-diyl)bis(ethene-2,1-diyl))bis(2-methoxyphenol) **2** in $\text{DMSO-}d_6$.

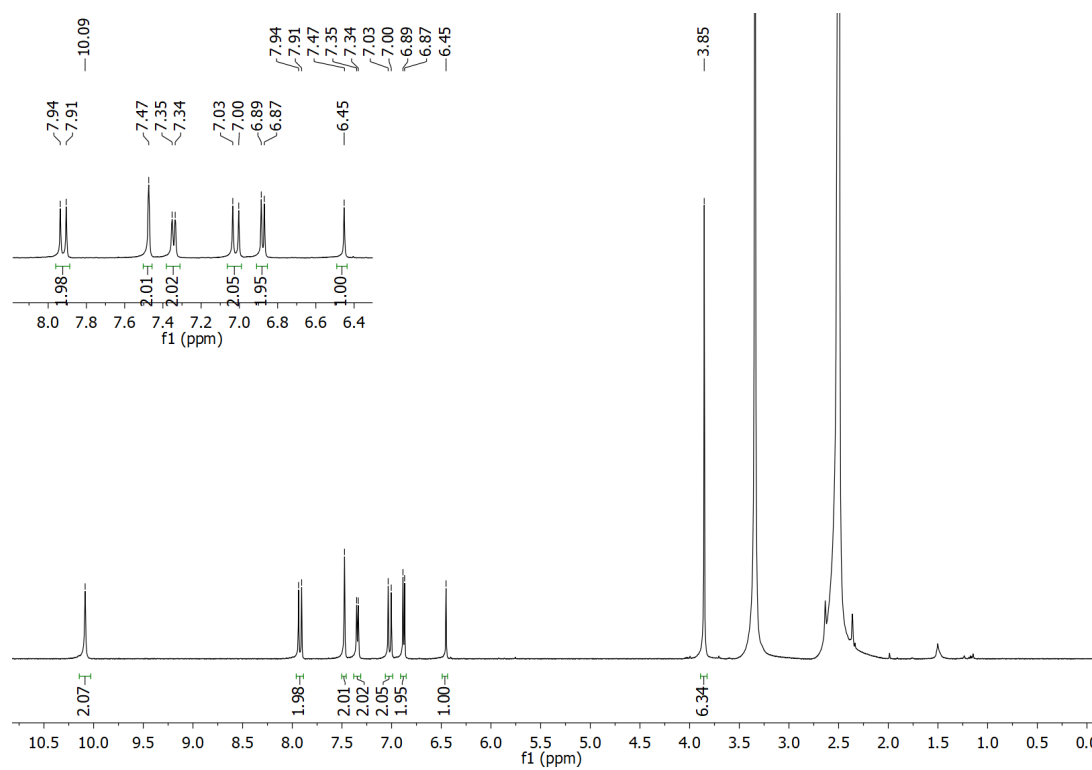


Figure S10. ^1H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(4-hydroxy-3-methoxyphenyl)hepta-1,6-diene-3,5-dione- BF_2 complex **3f** in $\text{DMSO-}d_6$.

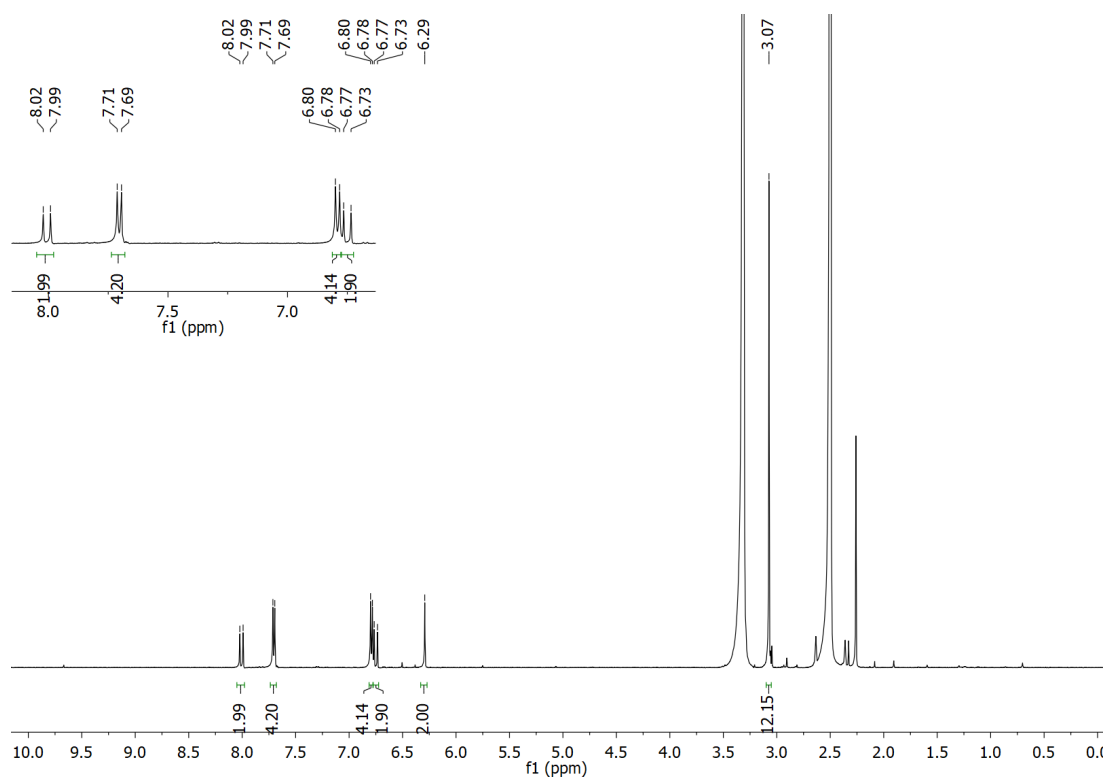


Figure S11. ¹H NMR spectrum of compound (1*E*,6*E*)-1,7-bis(4-(dimethylamino)phenyl)hepta-1,6-diene-3,5-dione-BF₂ complex **3g** in DMSO-*d*₆.

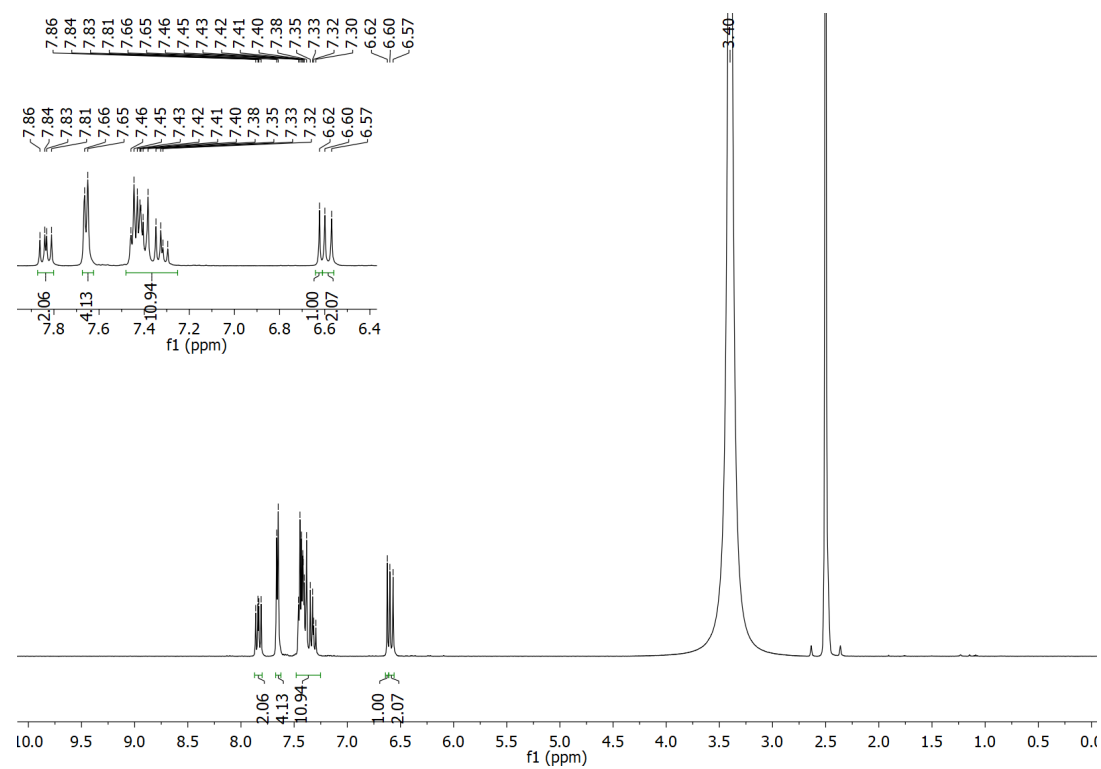


Figure S12. ¹H NMR spectrum of compound (1*E*,3*E*,8*E*,10*E*)-1,11-diphenylundeca-1,3,8,10-tetraene-5,7-dione-BF₂ complex **3h** in DMSO-*d*₆.

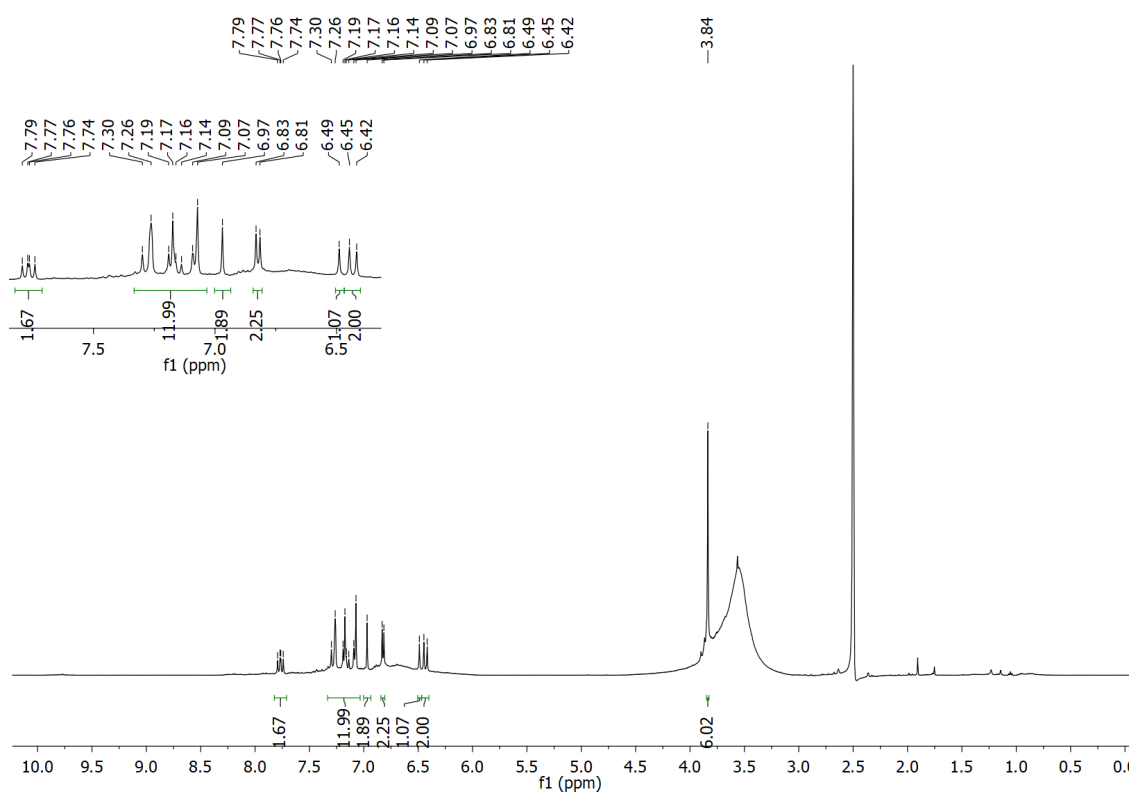


Figure S13. ¹H NMR spectrum of compound (1*E*,3*E*,8*E*,10*E*)-1,11-bis(4-hydroxy-3-methoxyphenyl)undeca-1,3,8,10-tetraene-5,7-dione-BF₂ complex **3i** in DMSO-*d*₆.

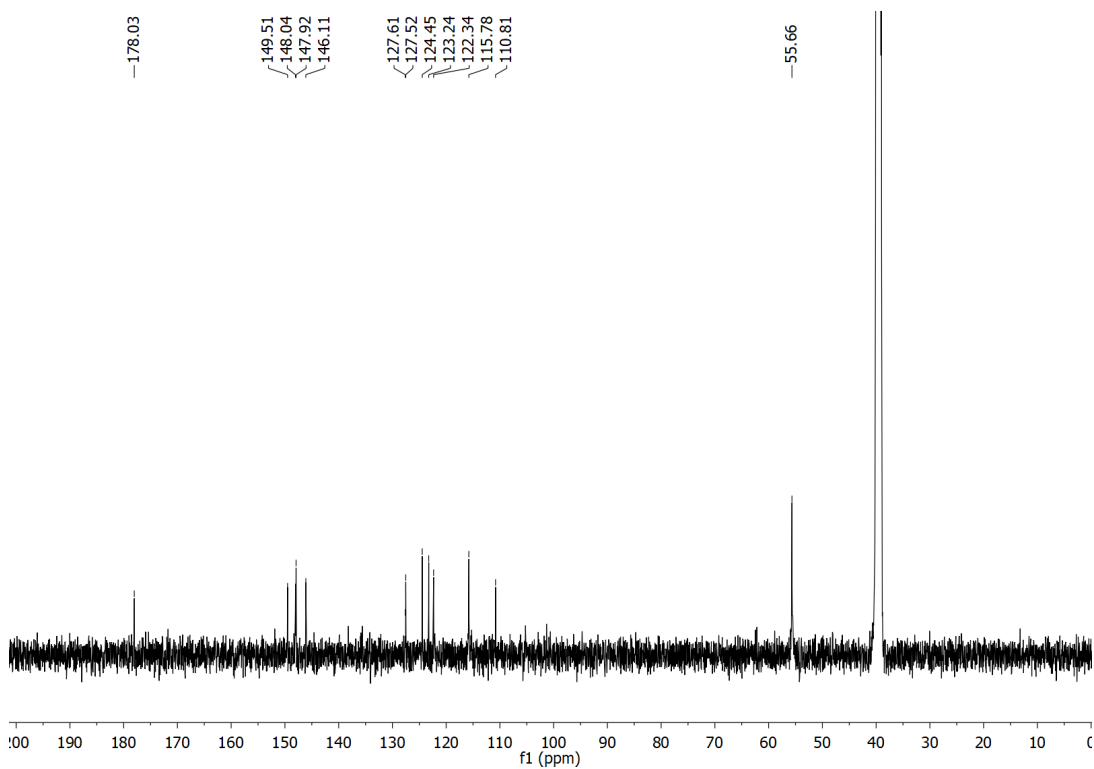


Figure S14. ¹³C NMR spectrum of compound **3i** in DMSO-*d*₆.

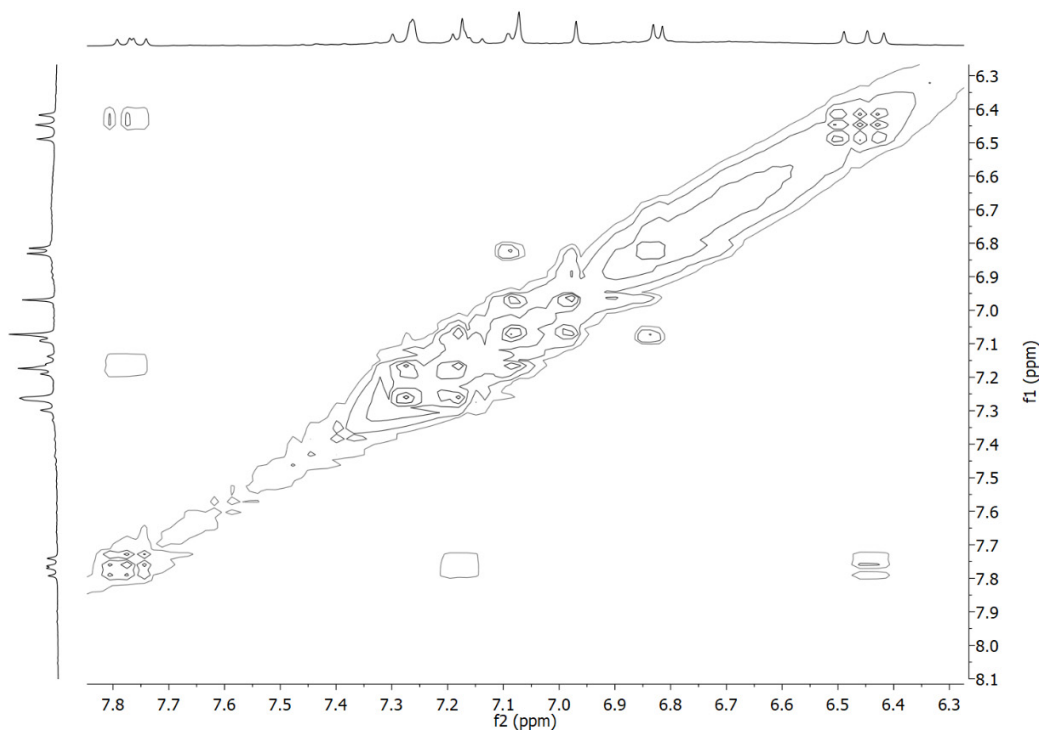


Figure S15. ^1H - ^1H COSY spectrum of compound **3i** in $\text{DMSO-}d_6$.

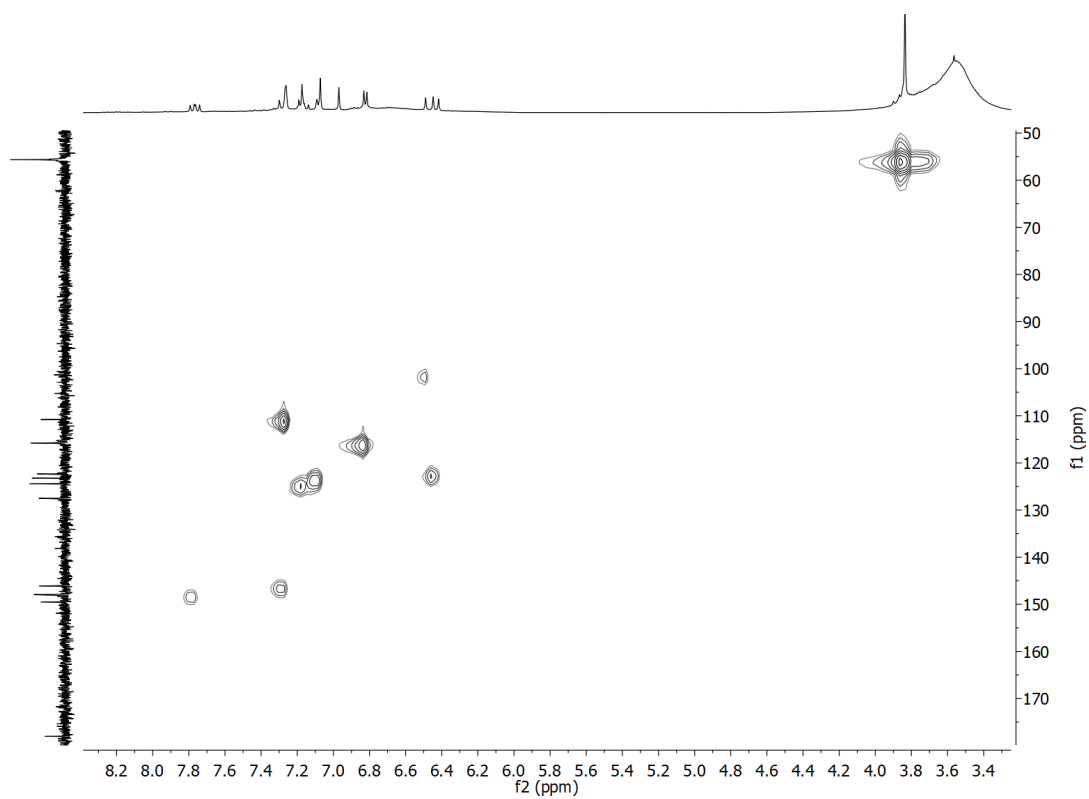


Figure S16. ^1H - ^{13}C HSQC spectrum of compound **3i** in $\text{DMSO-}d_6$.

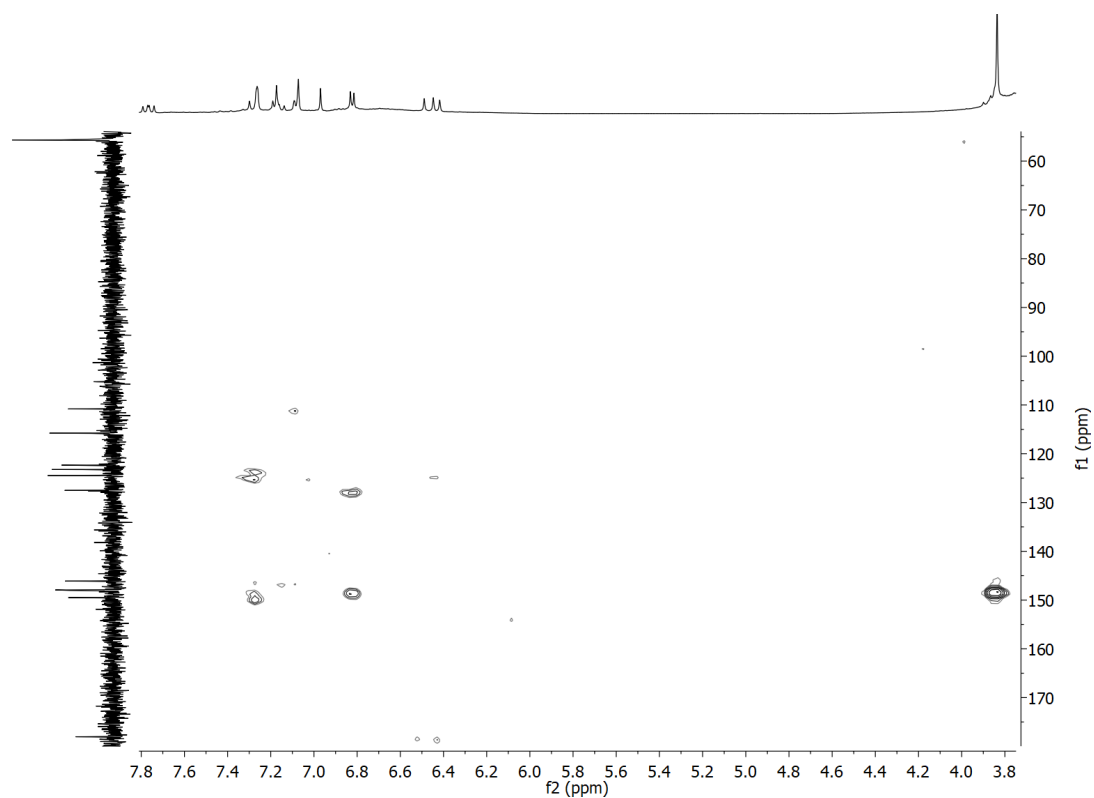


Figure S17. ^1H - ^{13}C HMBC spectrum of compound **3i** in $\text{DMSO}-d_6$.

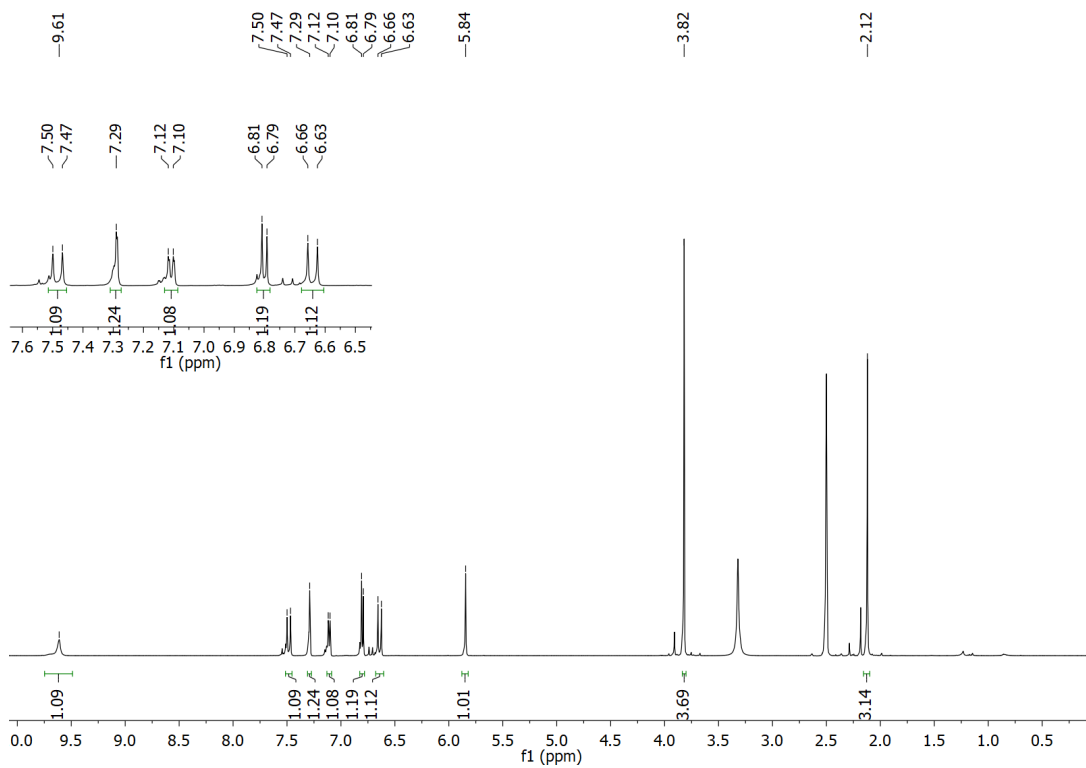
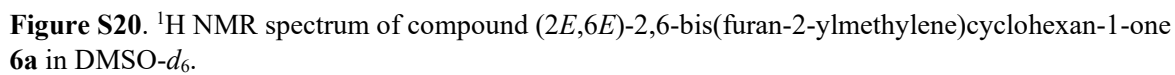
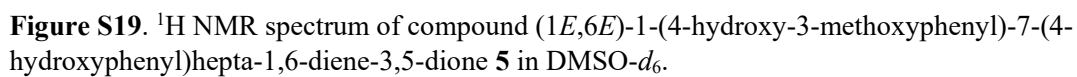


Figure S18. ^1H NMR spectrum of compound (*E*)-6-(4-hydroxy-3-methoxyphenyl)hex-5-ene-2,4-dione **4** in $\text{DMSO}-d_6$.



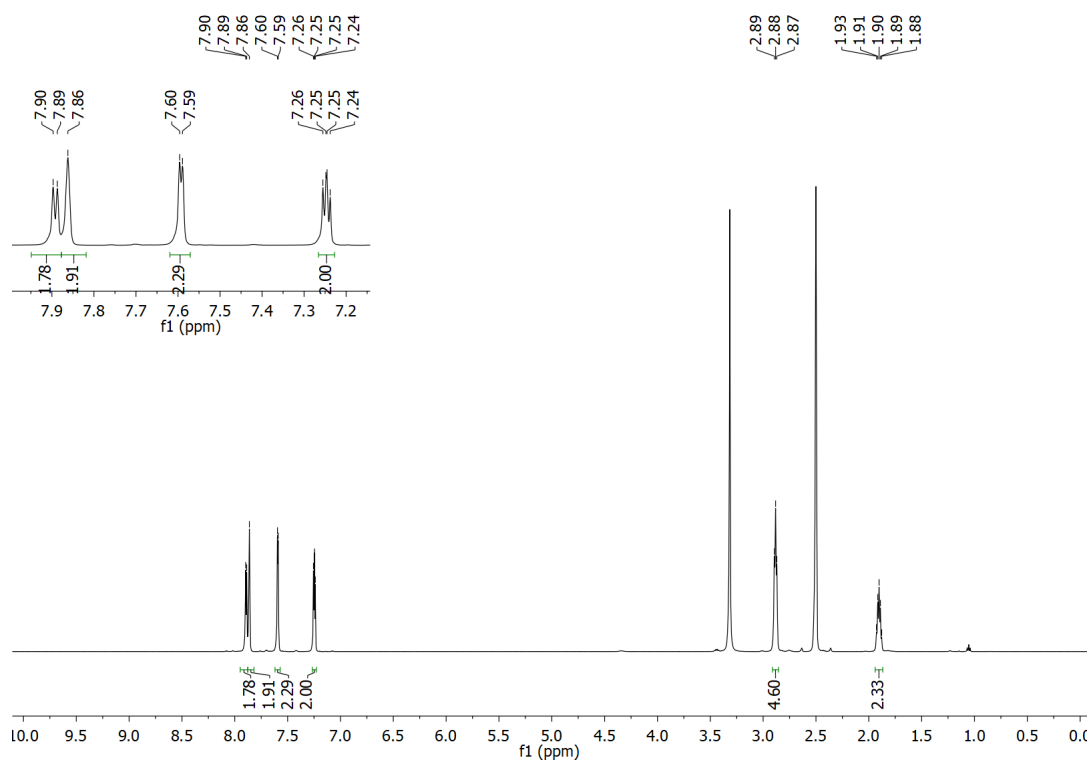


Figure S21. ¹H NMR spectrum of compound (2*E*,6*E*)-2,6-bis(thiophen-2-ylmethylene)cyclohexan-1-one **6b** in DMSO-*d*₆.

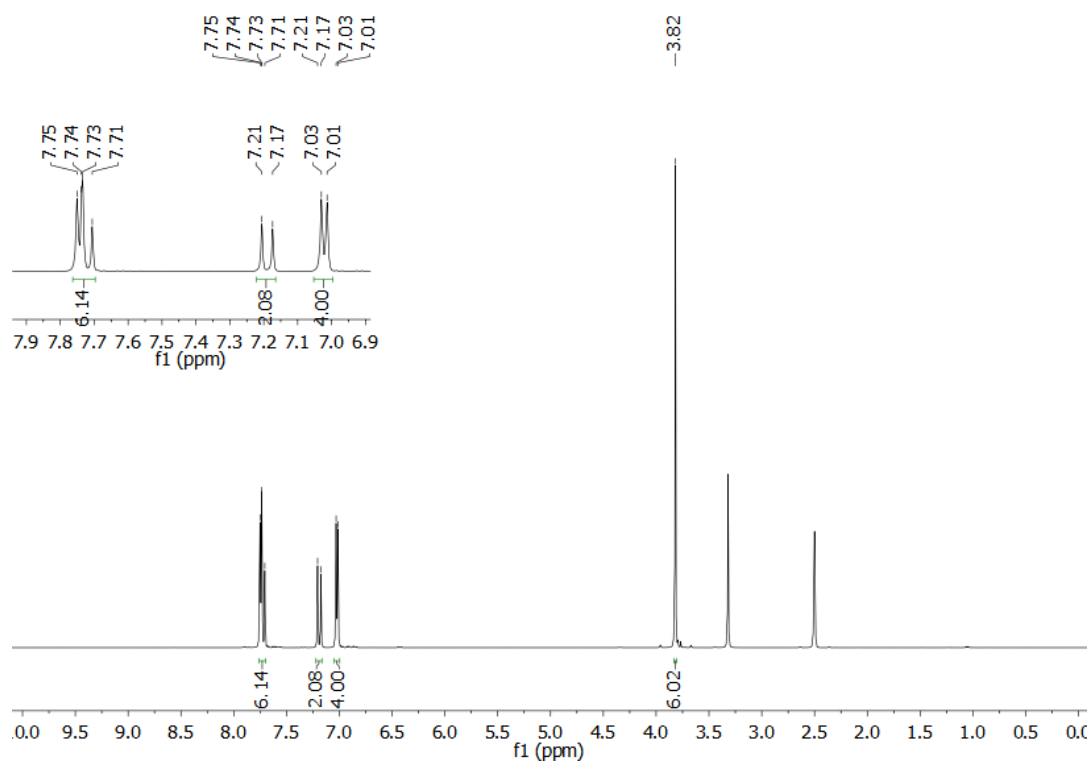


Figure S22. ¹H NMR spectrum of compound (1*E*,4*E*)-1,5-bis(4-methoxyphenyl)penta-1,4-dien-3-one **6c** in DMSO-*d*₆.

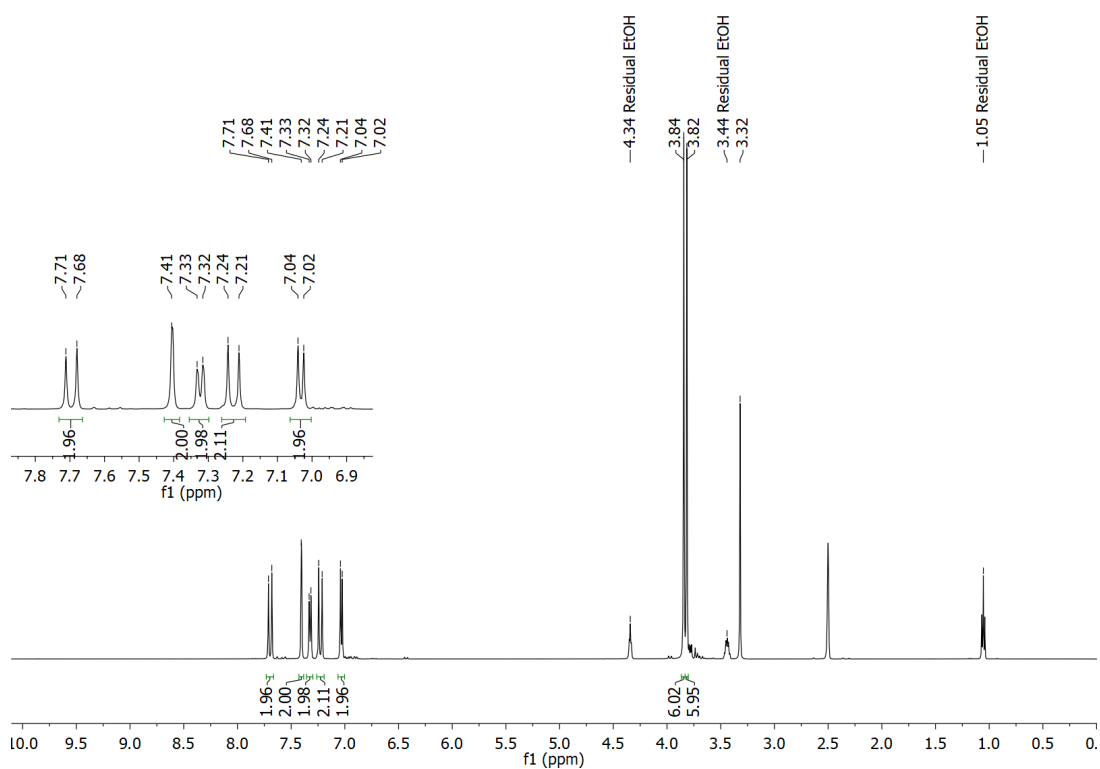


Figure S23. ^1H NMR spectrum of compound (1*E*,4*E*)-1,5-bis(3,4-dimethoxyphenyl)penta-1,4-dien-3-one **6d** in $\text{DMSO}-d_6$.

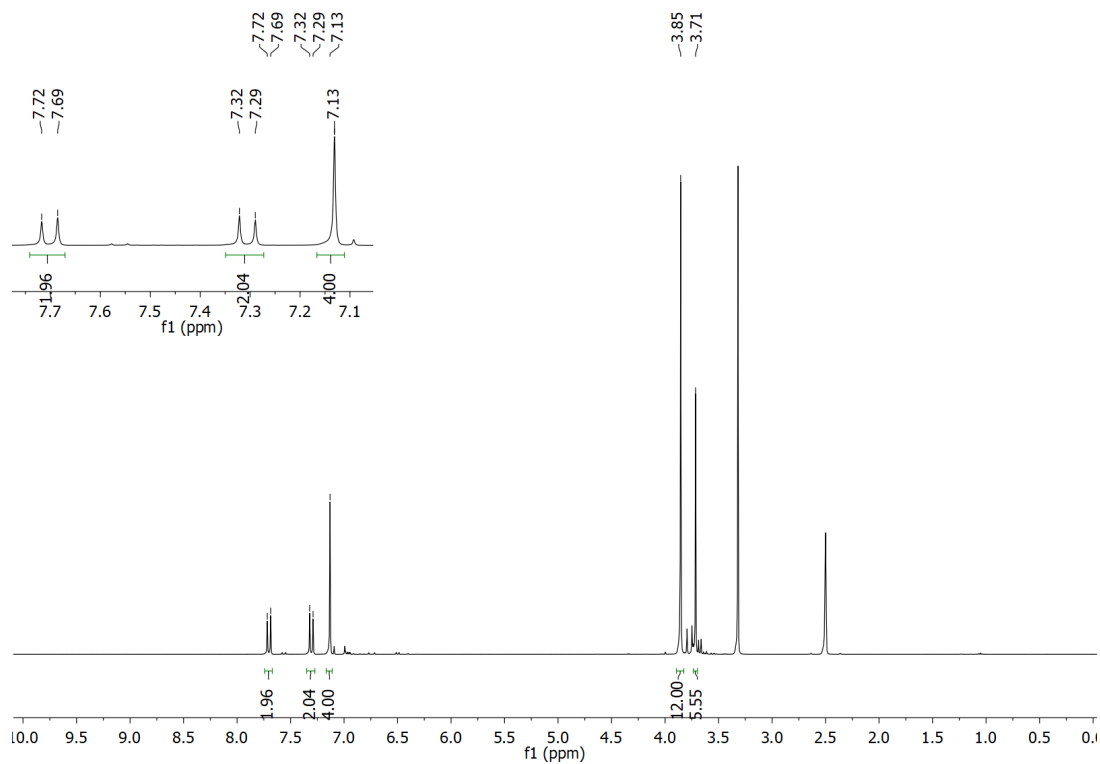


Figure S24. ^1H NMR spectrum of compound (1*E*,4*E*)-1,5-bis(3,4,5-trimethoxyphenyl)penta-1,4-dien-3-one **6e** in $\text{DMSO}-d_6$.

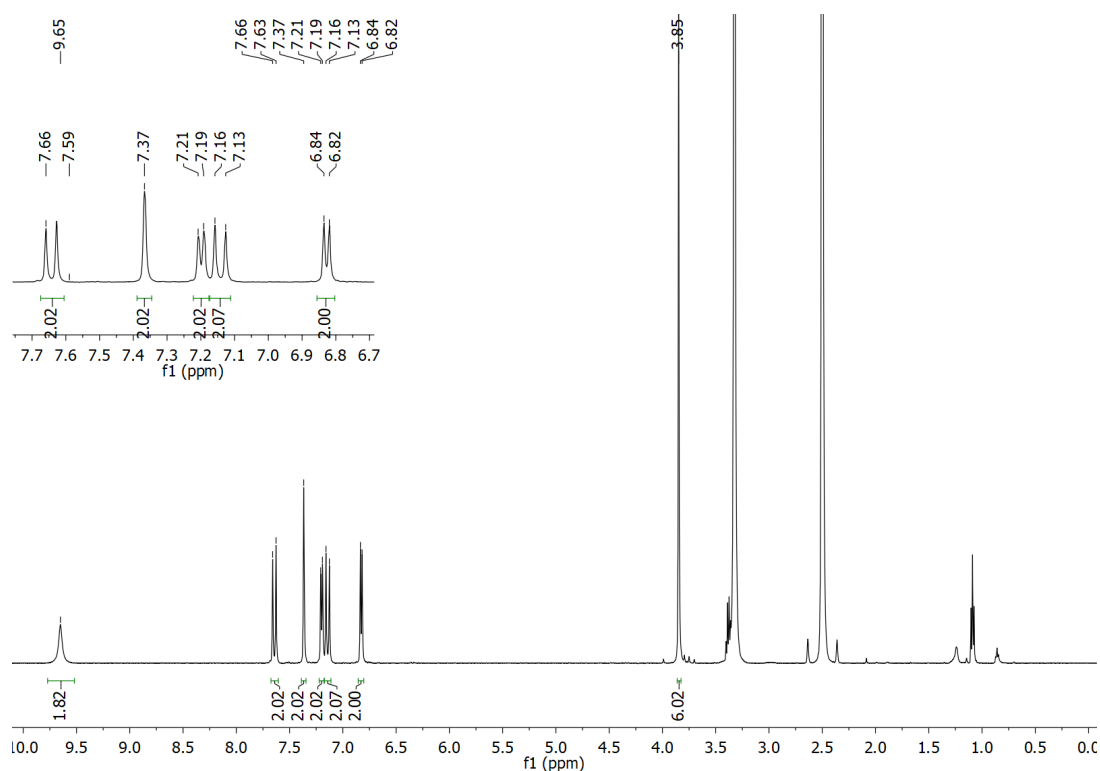


Figure S25. ¹H NMR spectrum of compound (1*E*,4*E*)-1,5-bis(4-hydroxy-3-methoxyphenyl)penta-1,4-dien-3-one **6f** in DMSO-*d*₆.

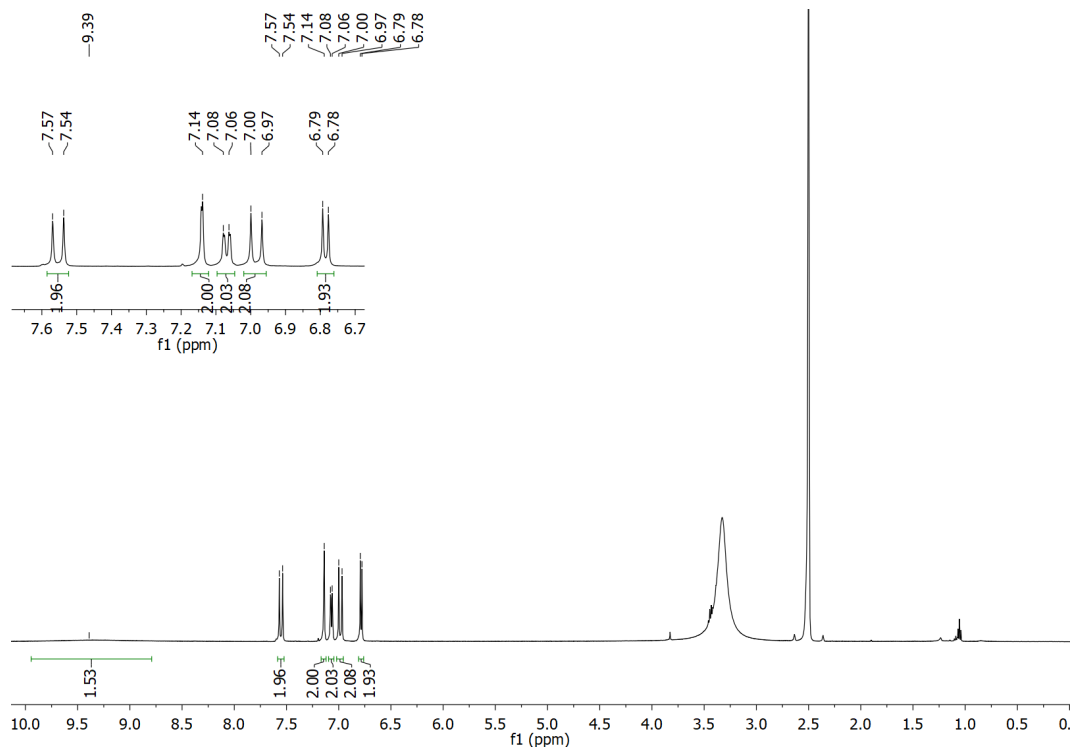


Figure S26. ¹H NMR spectrum of compound (1*E*,4*E*)-1,5-bis(3,4-dihydroxyphenyl)penta-1,4-dien-3-one **6g** in DMSO-*d*₆.

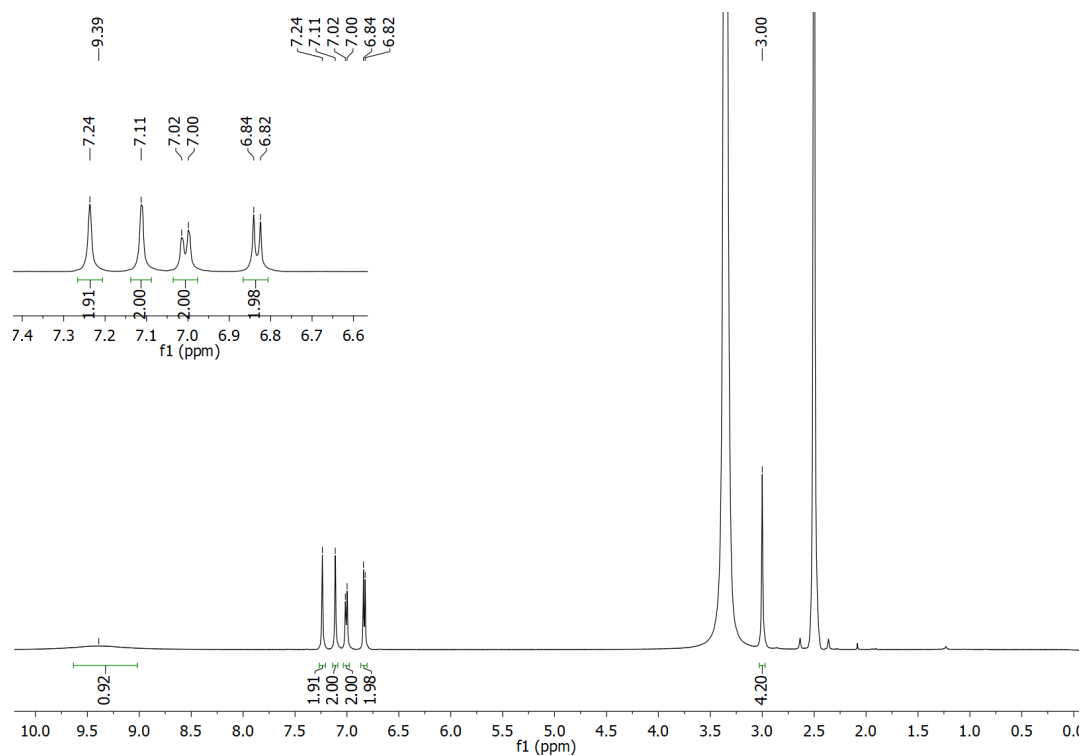


Figure S27. ^1H NMR spectrum of compound 2,5-bis((*E*)-3,4-dihydroxybenzylidene)cyclopentan-1-one **6h** in $\text{DMSO}-d_6$.

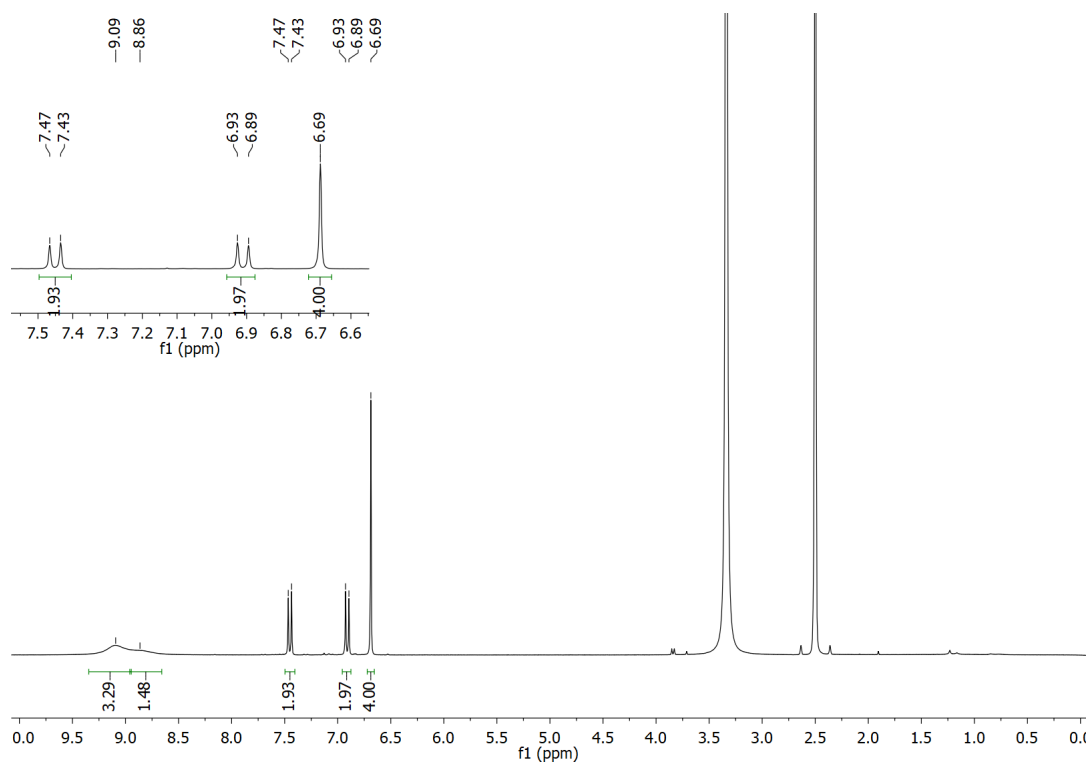


Figure S28. ^1H NMR spectrum of compound (1*E*,4*E*)-1,5-bis(3,4,5-trihydroxyphenyl)penta-1,4-dien-3-one **6i** in $\text{DMSO}-d_6$.

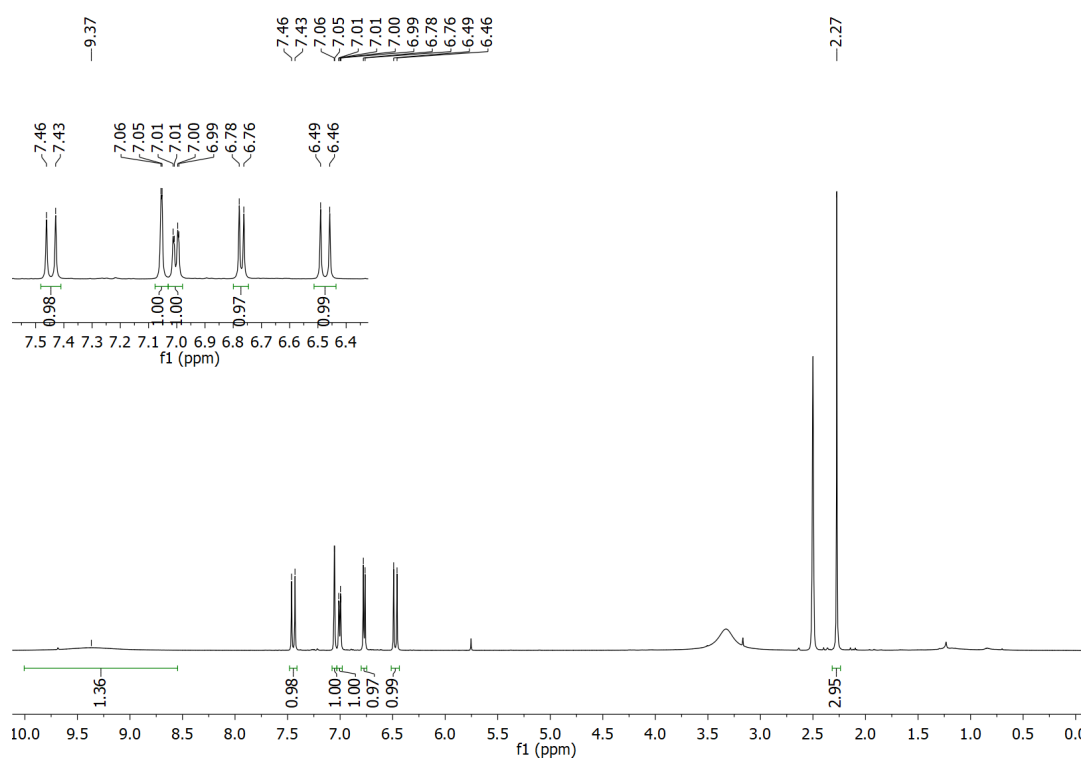


Figure S29. ¹H NMR spectrum of compound (E)-4-(3,4-dihydroxyphenyl)but-3-en-2-one **7a** in DMSO-*d*₆.

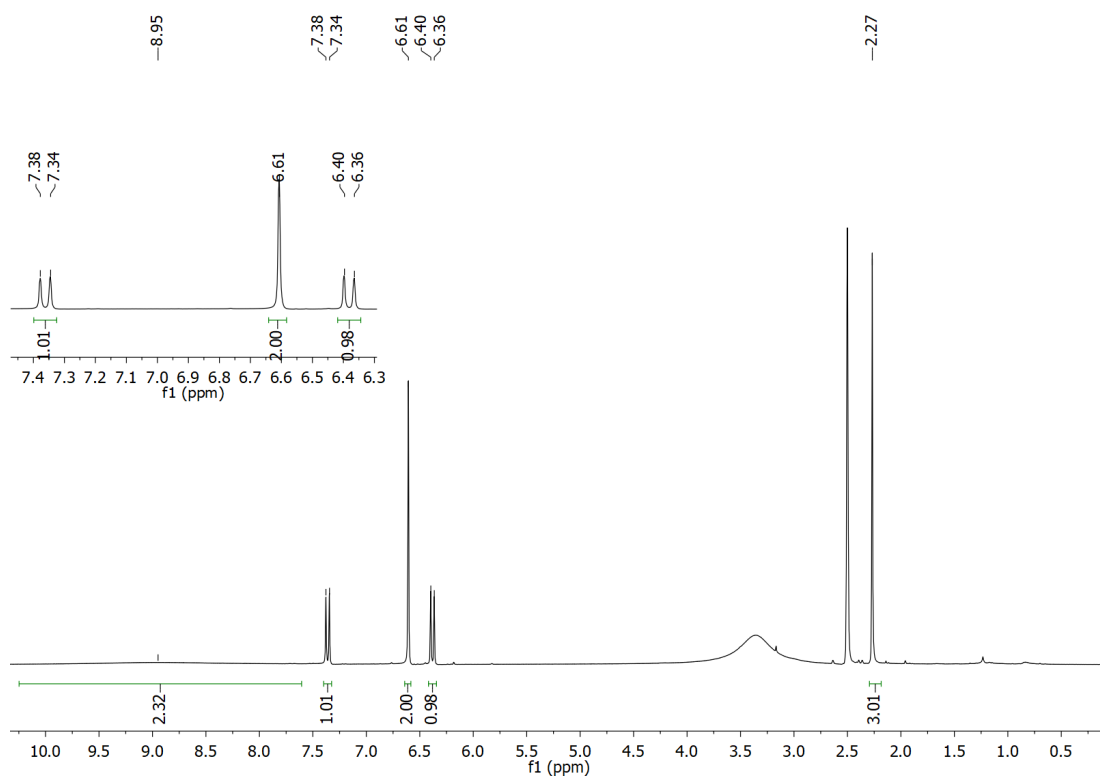


Figure S30. ¹H NMR spectrum of compound (E)-4-(3,4,5-trihydroxyphenyl)but-3-en-2-one **7b** in DMSO-*d*₆.