

## Supplementary Materials

### Potent tyrosinase inhibitory activity of curcuminoid analogues and inhibition kinetics studies

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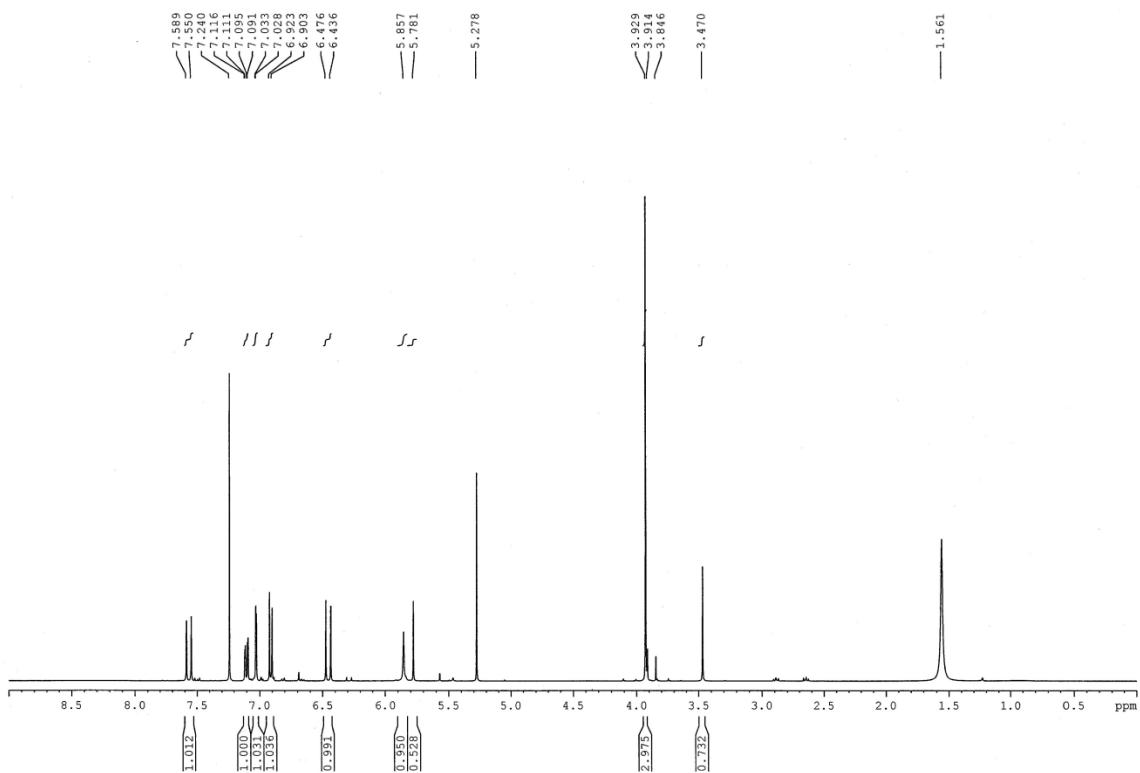


Figure S1  $^1\text{H}$  NMR spectrum of curcumin (**1**) ( $\text{CDCl}_3$ )

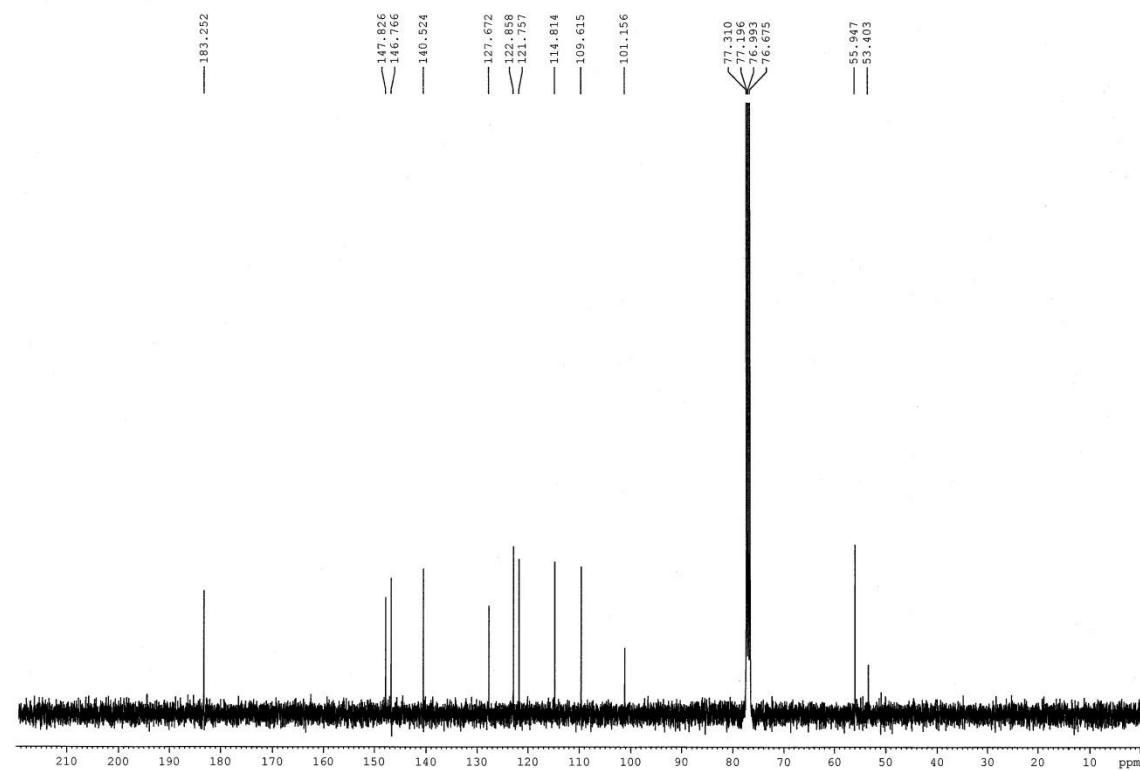


Figure S2  $^{13}\text{C}$  NMR spectrum of curcumin (**1**) ( $\text{CDCl}_3$ )

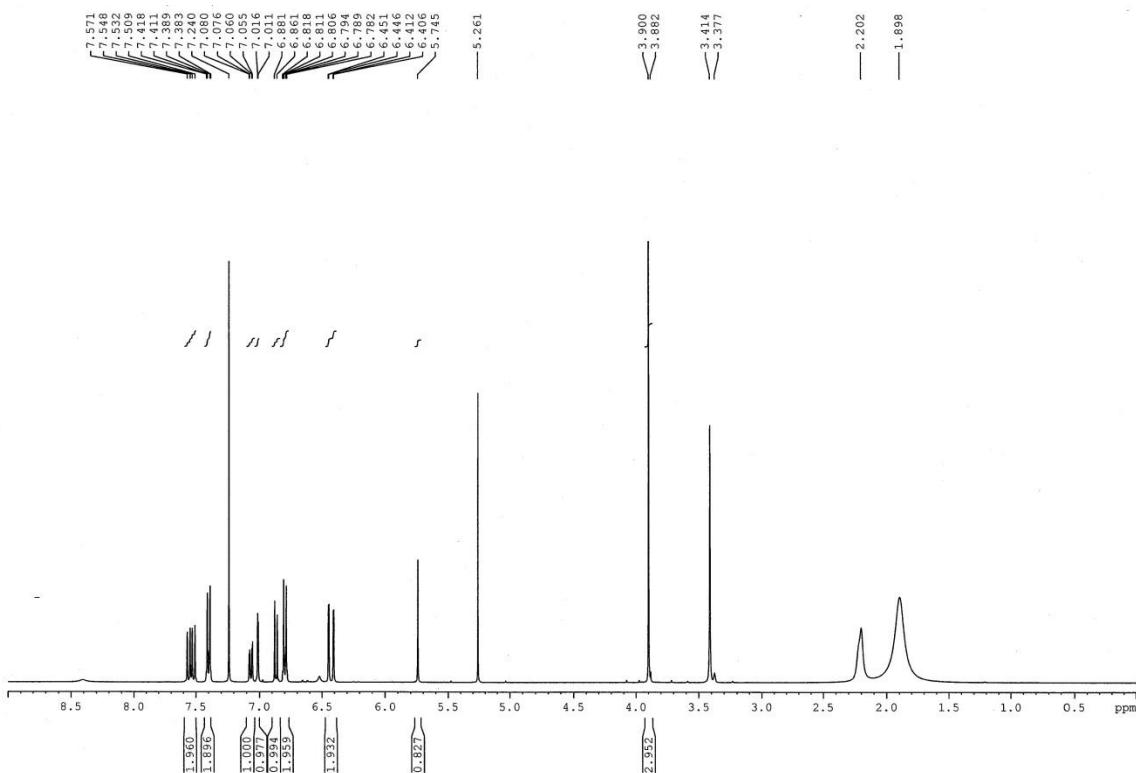


Figure S3  $^1\text{H}$  NMR spectrum of demethoxycurcumin (**2**) ( $\text{CDCl}_3$ )

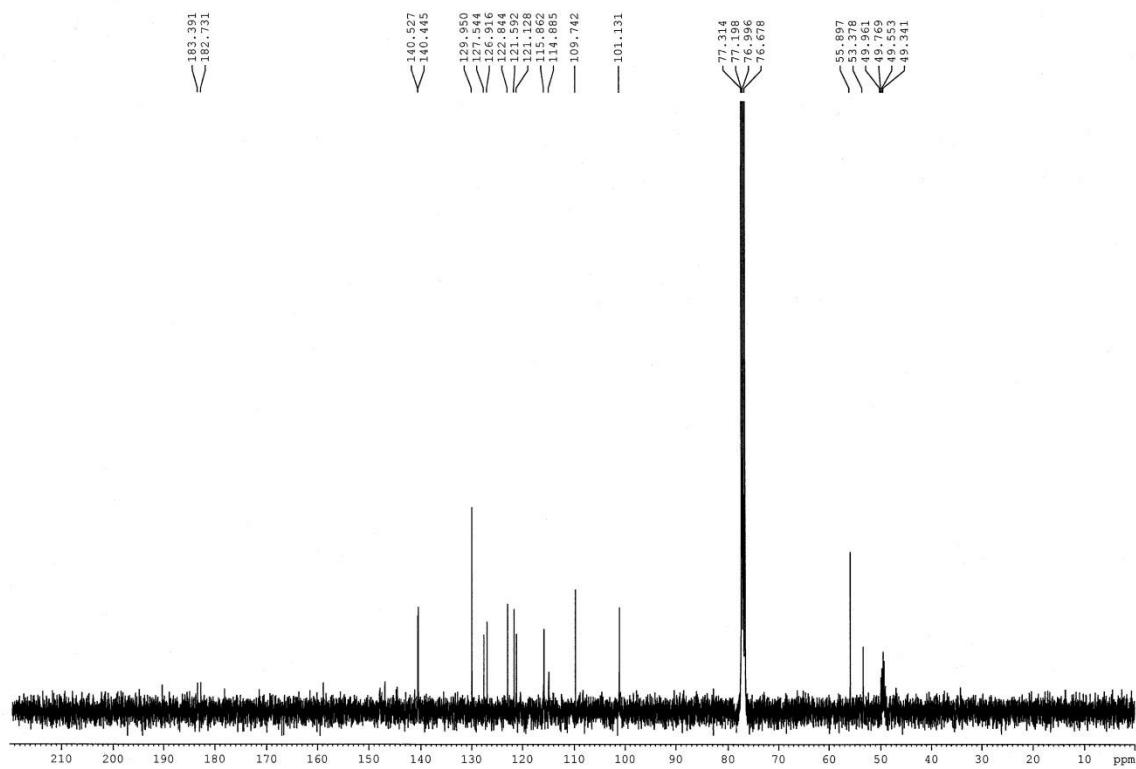


Figure S4  $^{13}\text{C}$  NMR spectrum of demethoxycurcumin (**2**) ( $\text{CDCl}_3$ )

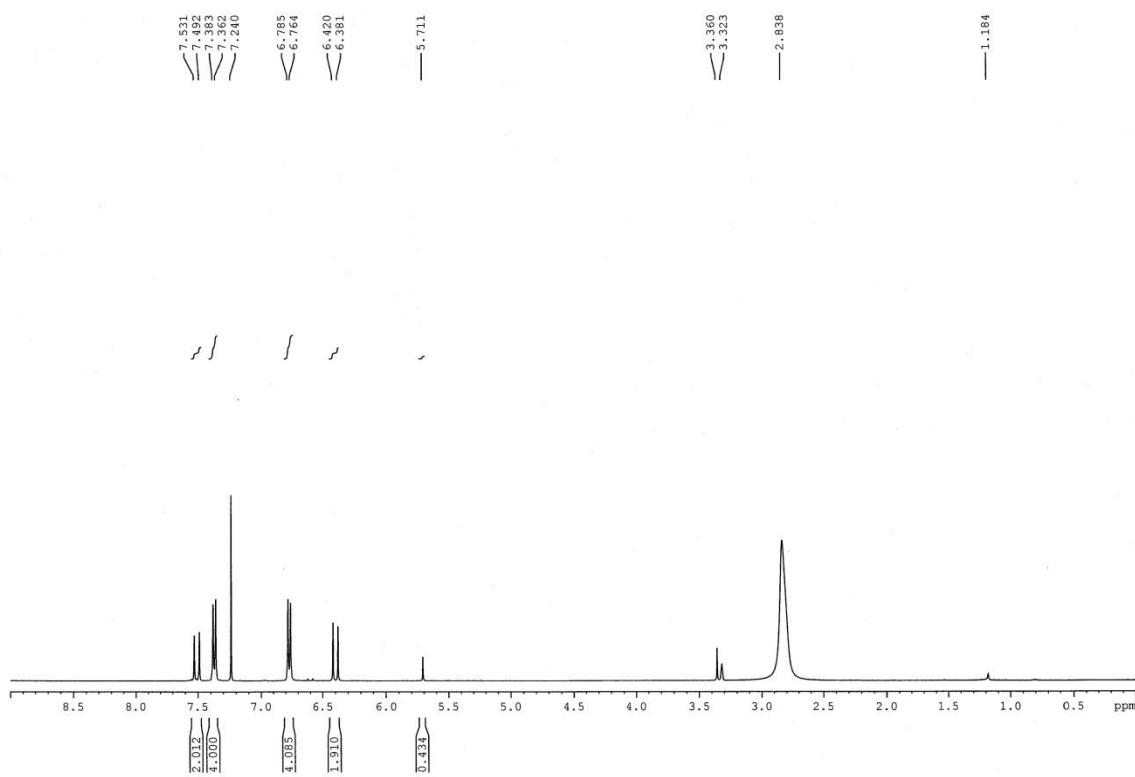


Figure S5 <sup>1</sup>H NMR spectrum of bisdemethoxycurcumin (3) ( $\text{CDCl}_3 + 10$  drops of  $\text{CD}_3\text{OD}$ )

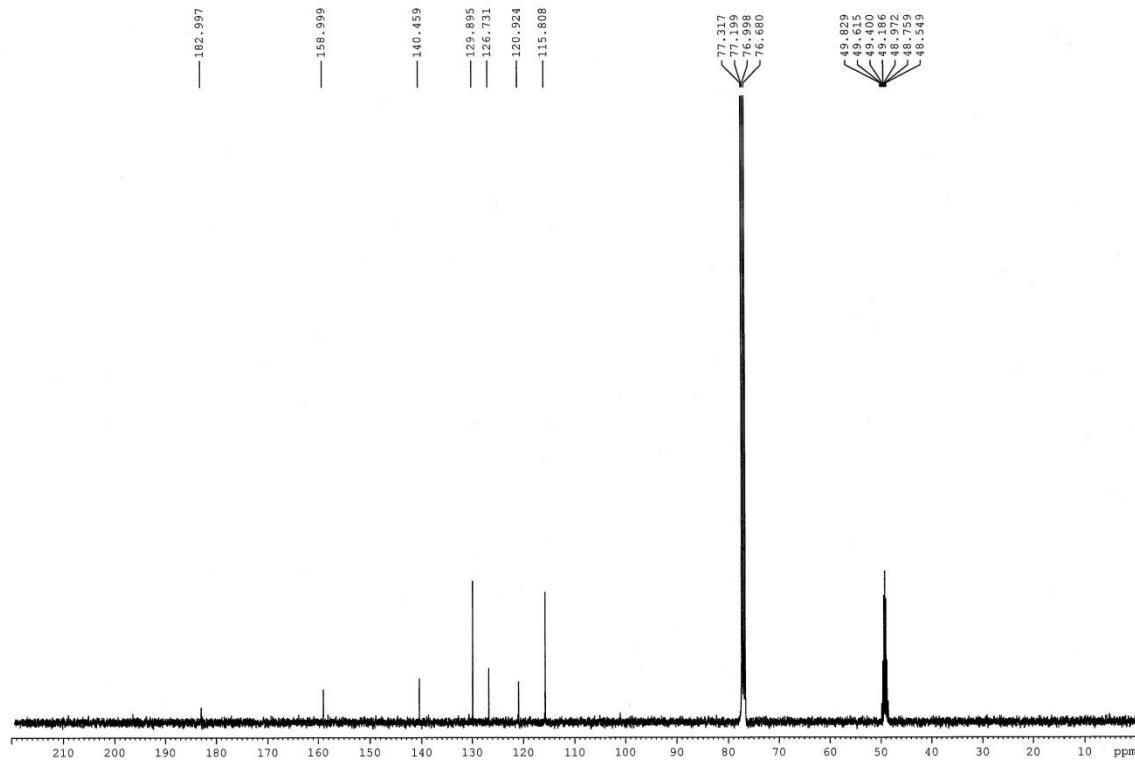


Figure S6 <sup>13</sup>C NMR spectrum of bisdemethoxycurcumin (3) ( $\text{CDCl}_3 + 10$  drops of  $\text{CD}_3\text{OD}$ )

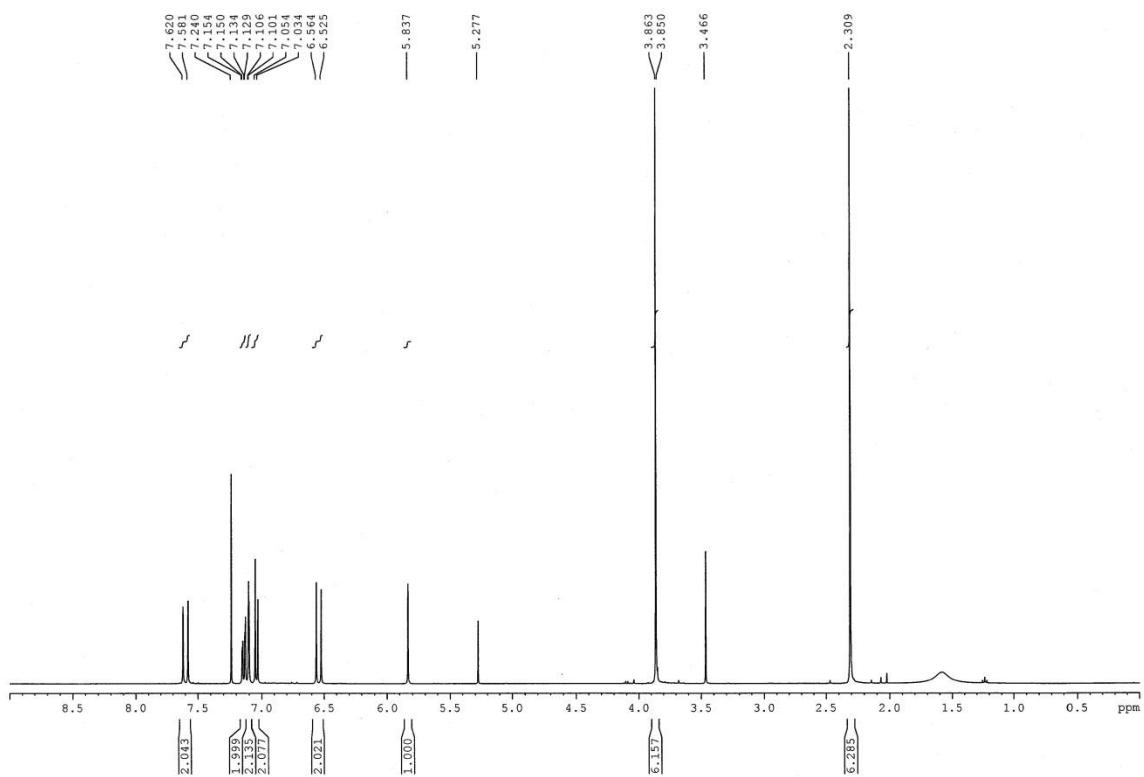


Figure S7  $^1\text{H}$  NMR spectrum of di-*O*-acetylcurcumin (**4**) ( $\text{CDCl}_3$ )

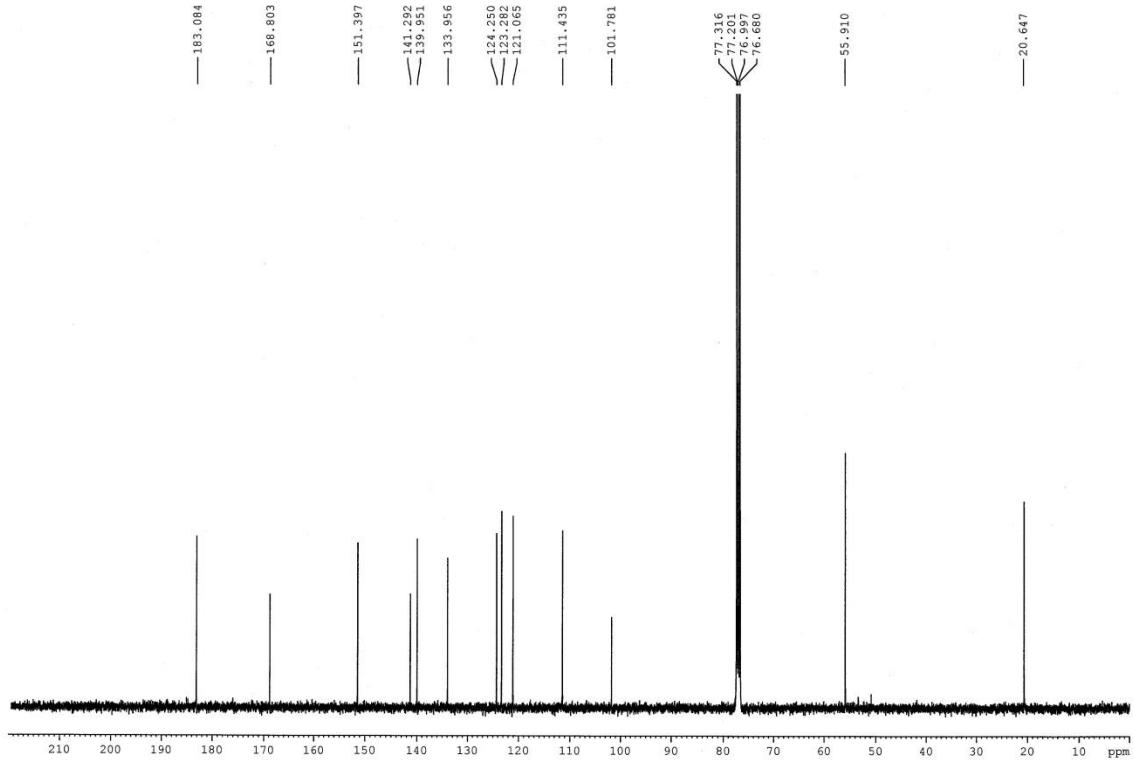


Figure S8  $^{13}\text{C}$  NMR spectrum of di-*O*-acetylcurcumin (**4**) ( $\text{CDCl}_3$ )

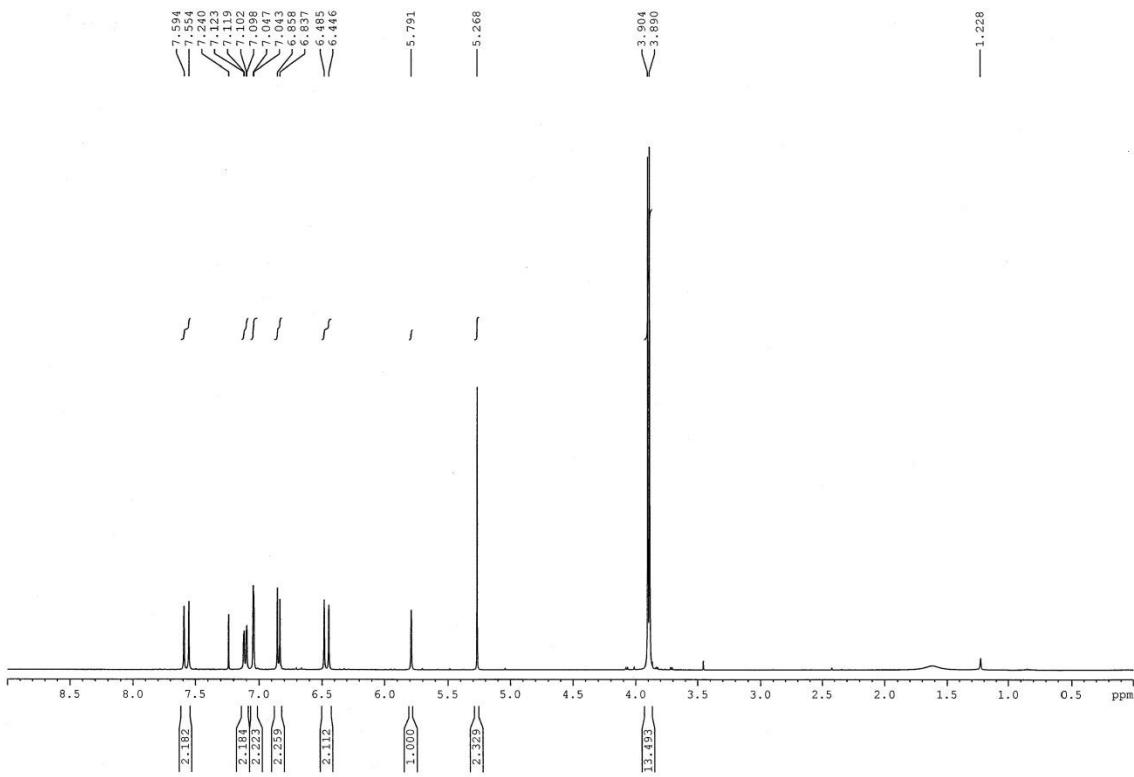


Figure S9  $^1\text{H}$  NMR spectrum of di-*O*-methylcurcumin (**5**) ( $\text{CDCl}_3$ )

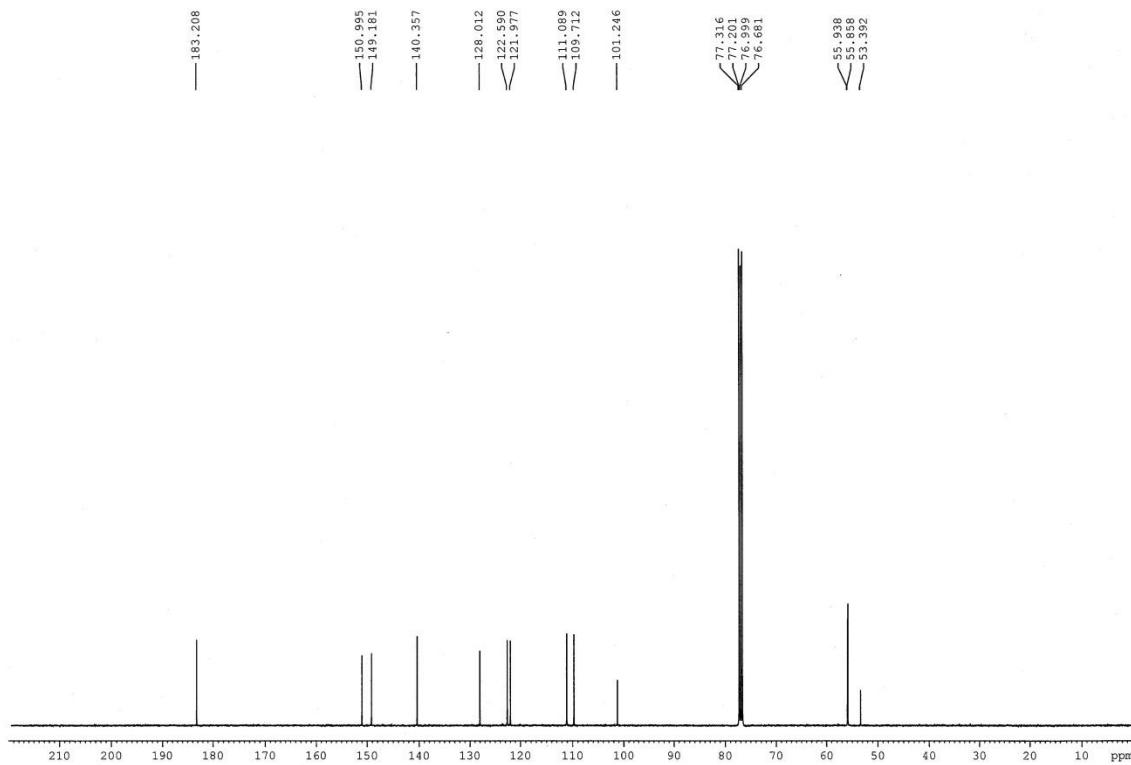


Figure S10  $^{13}\text{C}$  NMR spectrum of di-*O*-methylcurcumin (**5**) ( $\text{CDCl}_3$ )

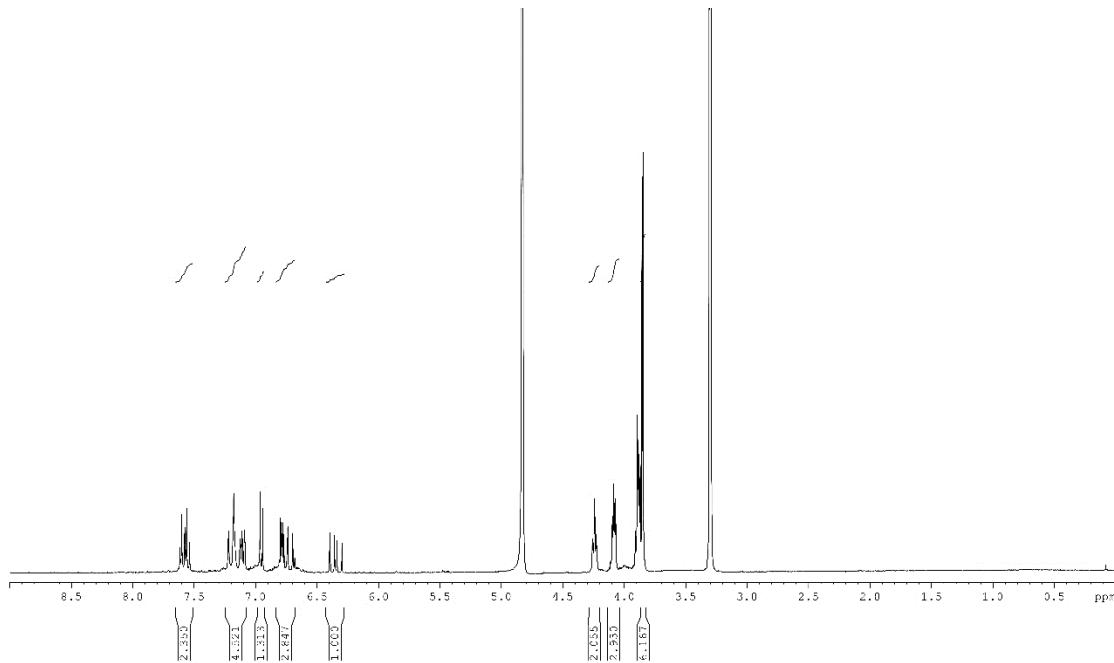


Figure S11  $^1\text{H}$  NMR spectrum of di-*O*-(2-hydroxyethyl)curcumin (**6**) ( $\text{CD}_3\text{OD}$ )

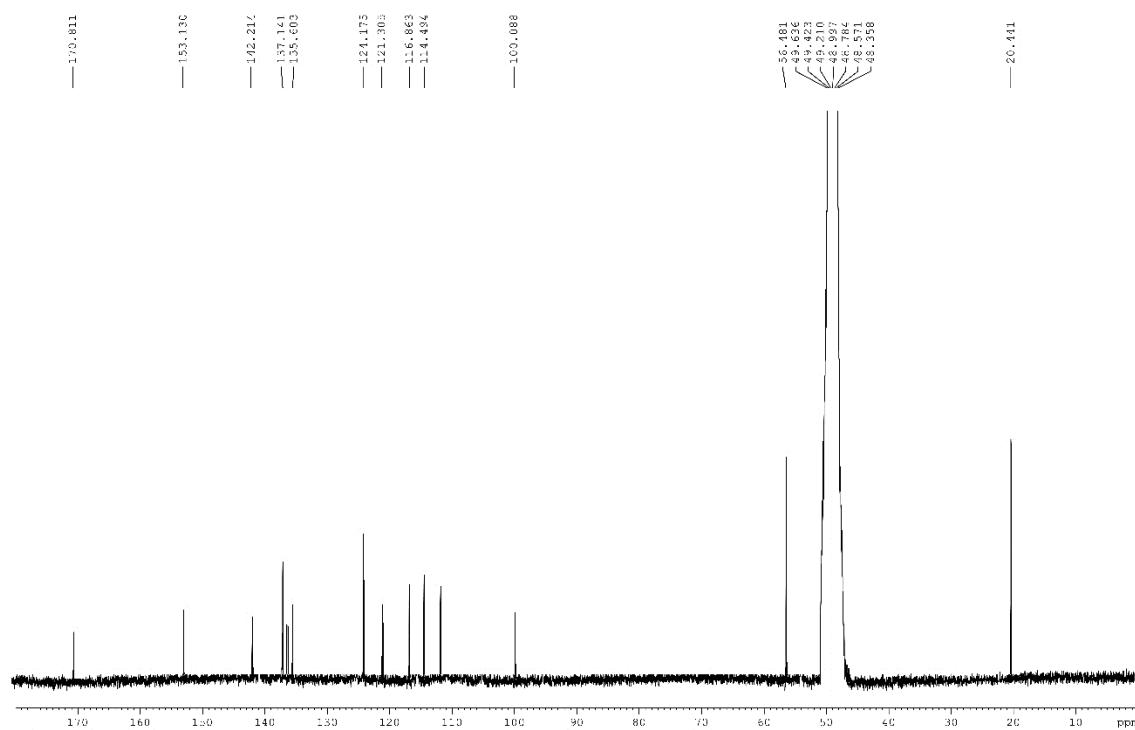


Figure S12  $^{13}\text{C}$  NMR spectrum of di-*O*-(2-hydroxyethyl)curcumin (**6**) ( $\text{CD}_3\text{OD}$ )

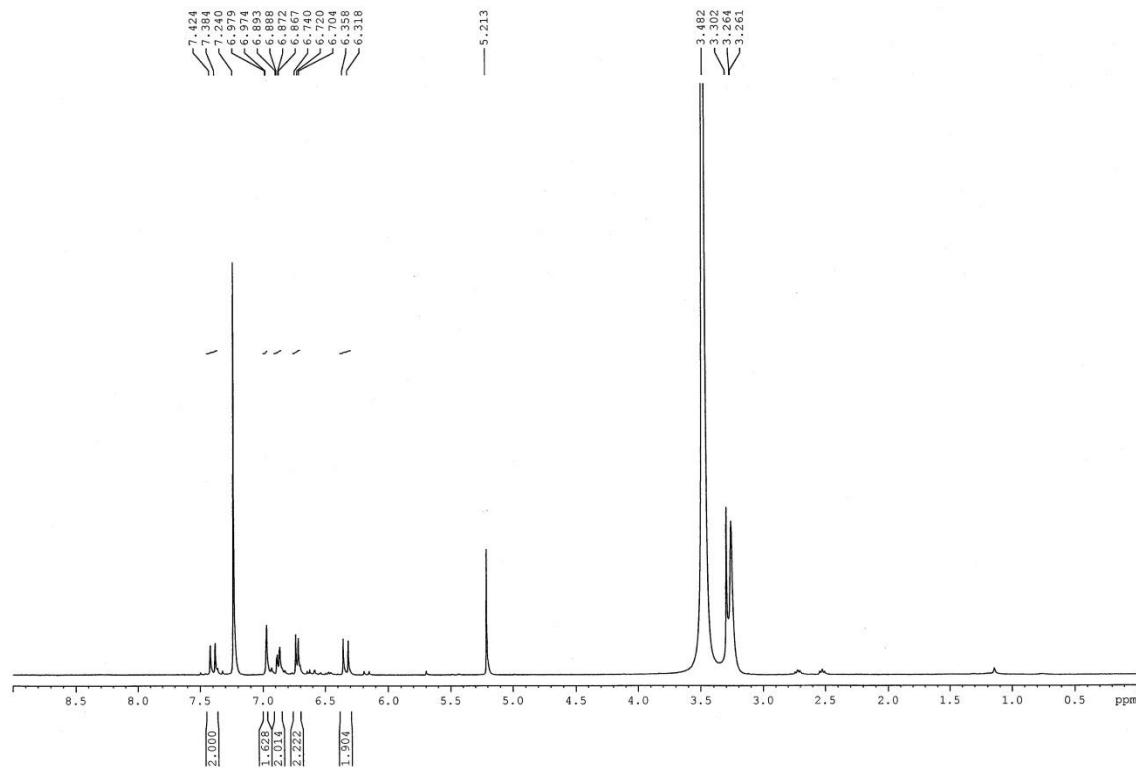


Figure S13  $^1\text{H}$  NMR spectrum of di-*O*-demethylcurcumin (7) ( $\text{CDCl}_3 + 10$  drops of  $\text{CD}_3\text{OD}$ )

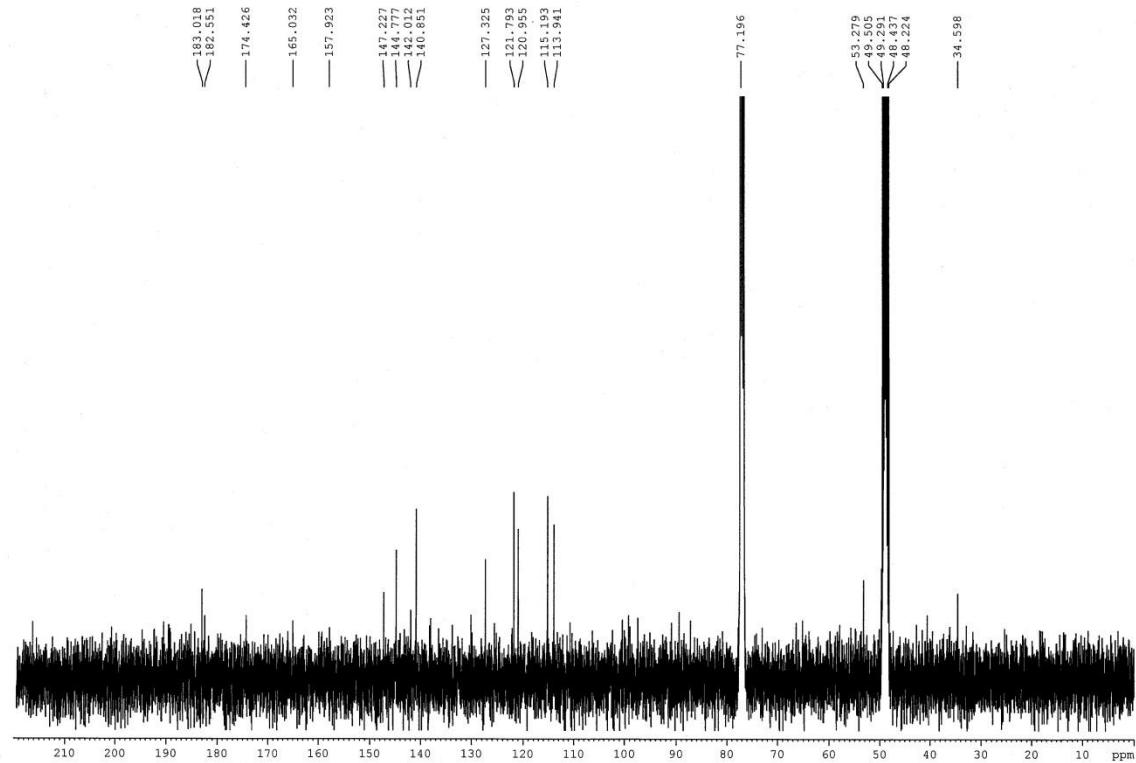


Figure S14  $^{13}\text{C}$  NMR spectrum of di-*O*-demethylcurcumin (7) ( $\text{CDCl}_3 + 10$  drops of  $\text{CD}_3\text{OD}$ )

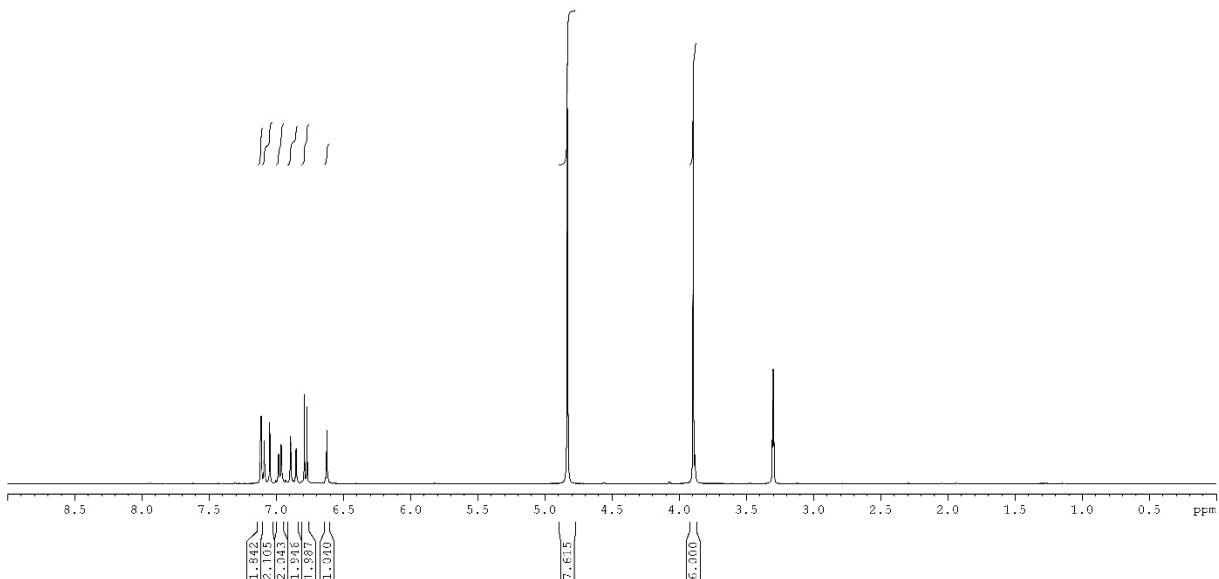


Figure S15  $^1\text{H}$  NMR spectrum of curcumin pyrazole (8) ( $\text{CD}_3\text{OD}$ )

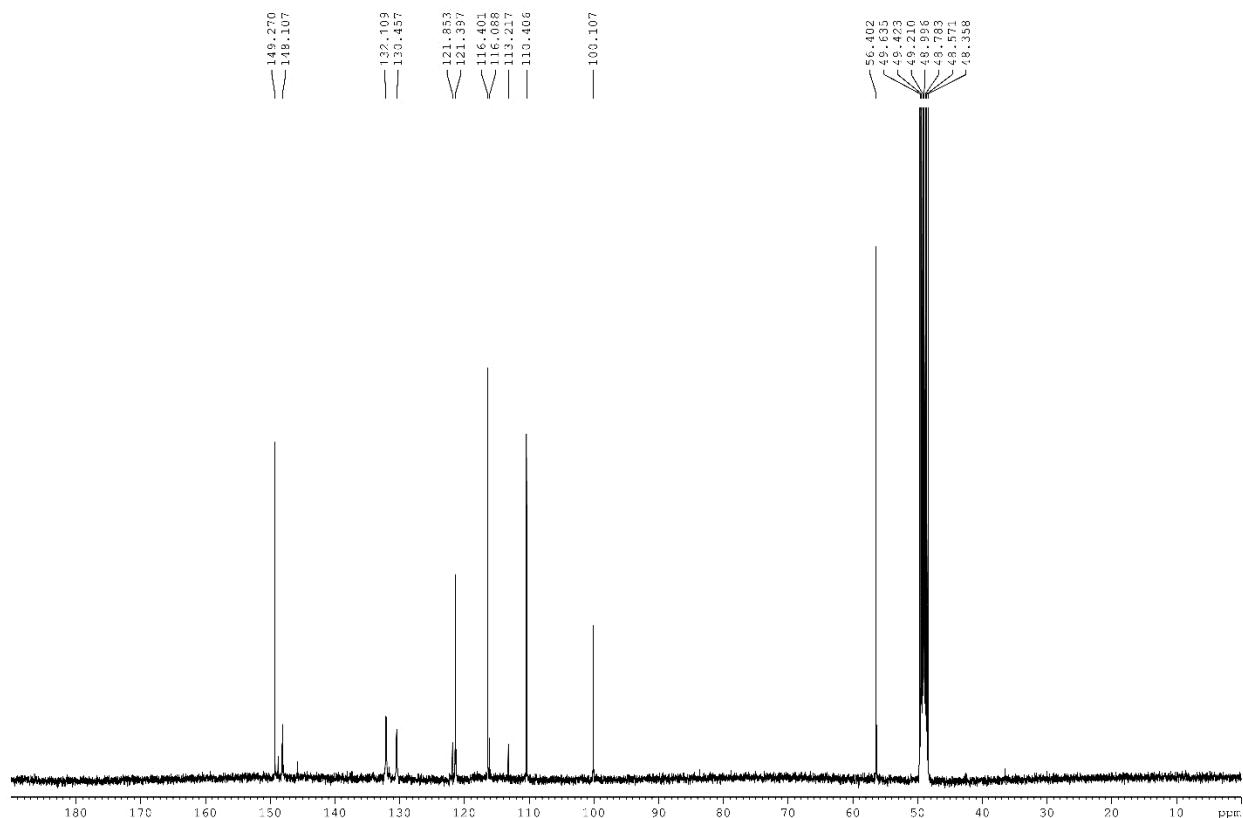


Figure S16  $^{13}\text{C}$  NMR spectrum of curcumin pyrazole (8) ( $\text{CD}_3\text{OD}$ )

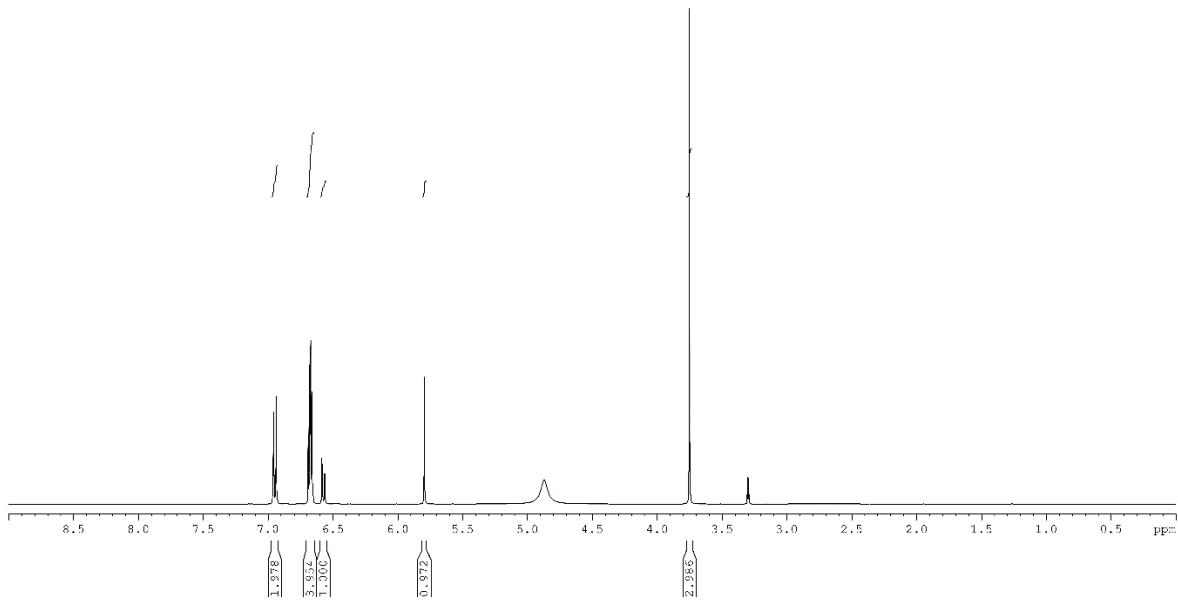


Figure S17  $^1\text{H}$  NMR spectrum of demethoxycurcumin pyrazole (**9**) ( $\text{CD}_3\text{OD}$ )

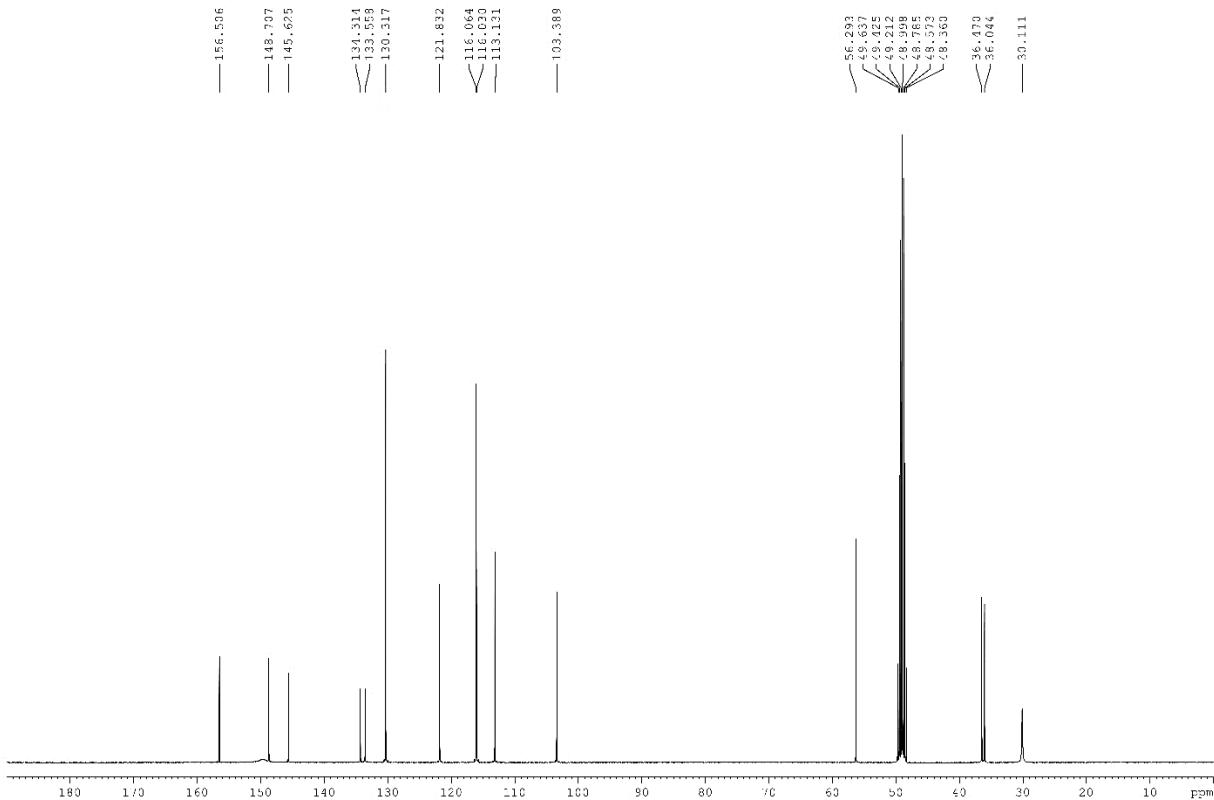


Figure S18  $^{13}\text{C}$  NMR spectrum of demethoxycurcumin pyrazole (**9**) ( $\text{CD}_3\text{OD}$ )

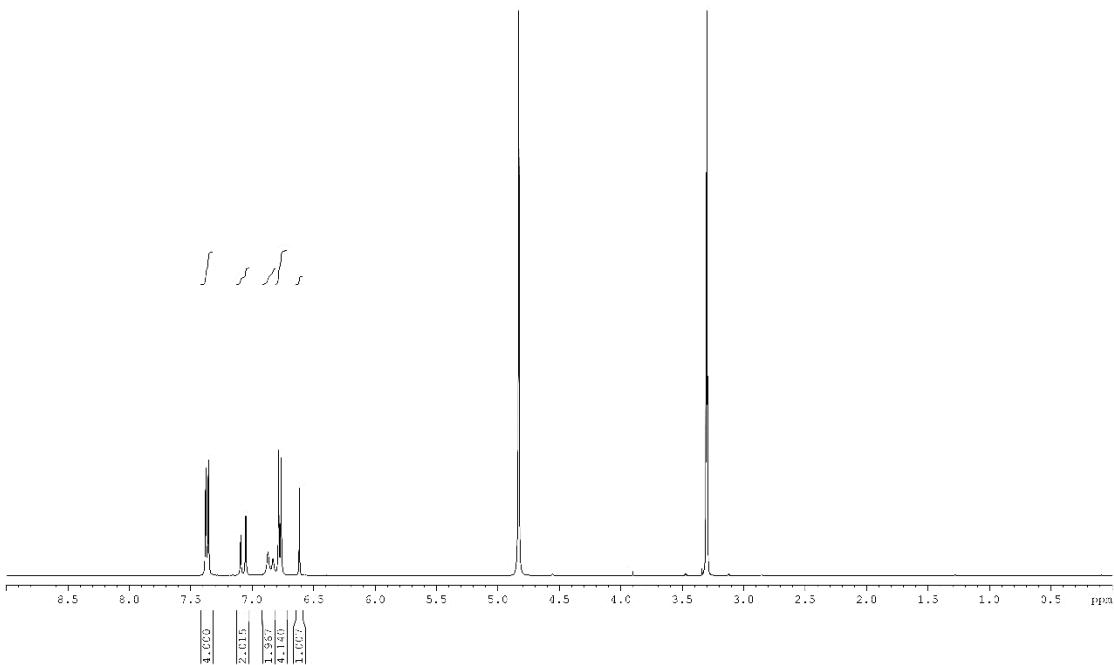


Figure S19 <sup>1</sup>H NMR spectrum of bisdemethoxycurcumin pyrazole (**10**) (CD<sub>3</sub>OD)

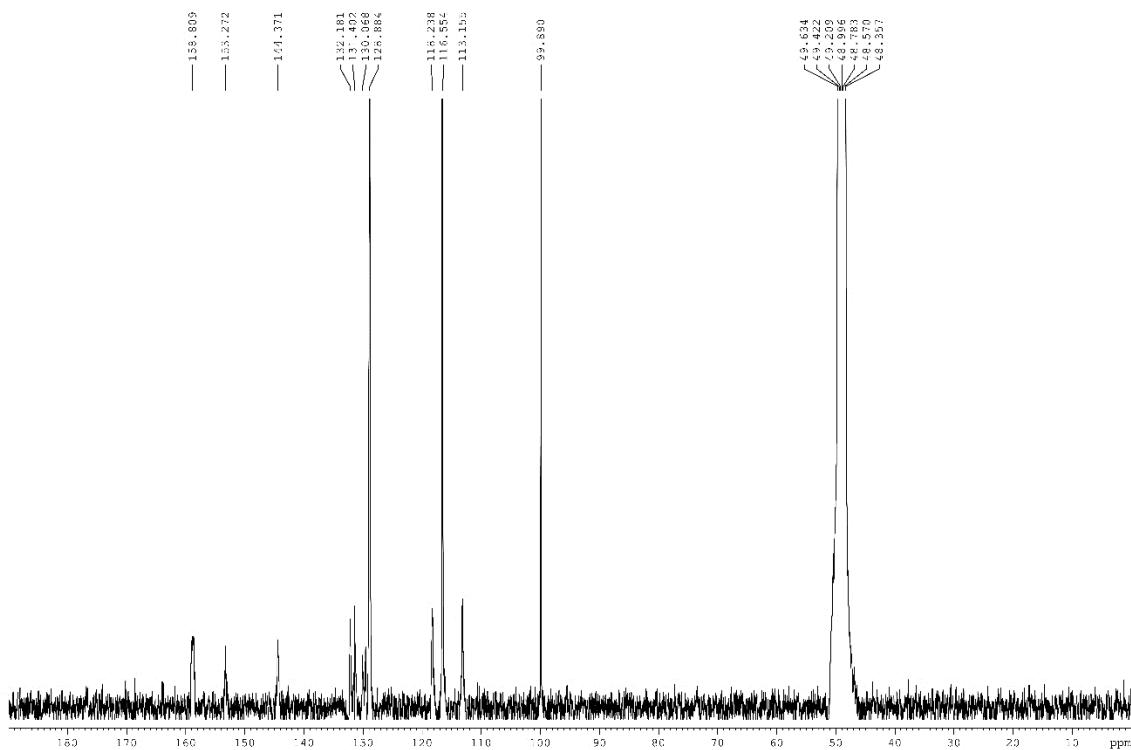


Figure S20 <sup>13</sup>C NMR spectrum of bisdemethoxycurcumin pyrazole (**10**) (CD<sub>3</sub>OD)

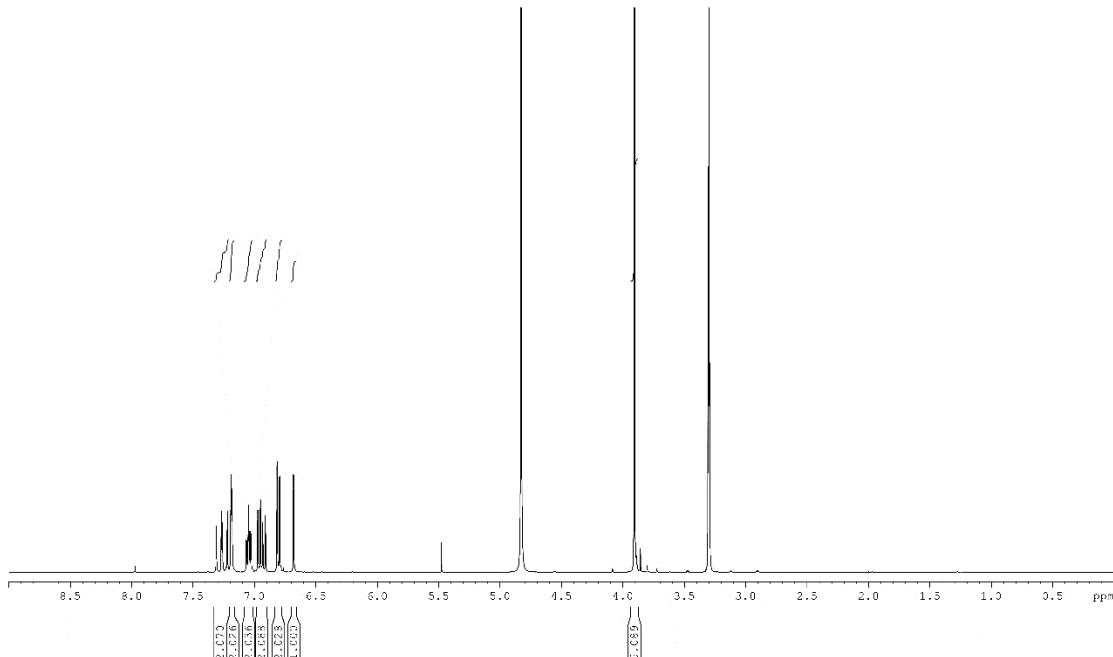


Figure S21  $^1\text{H}$  NMR spectrum of curcumin isoxazole (**11**) ( $\text{CD}_3\text{OD}$ )

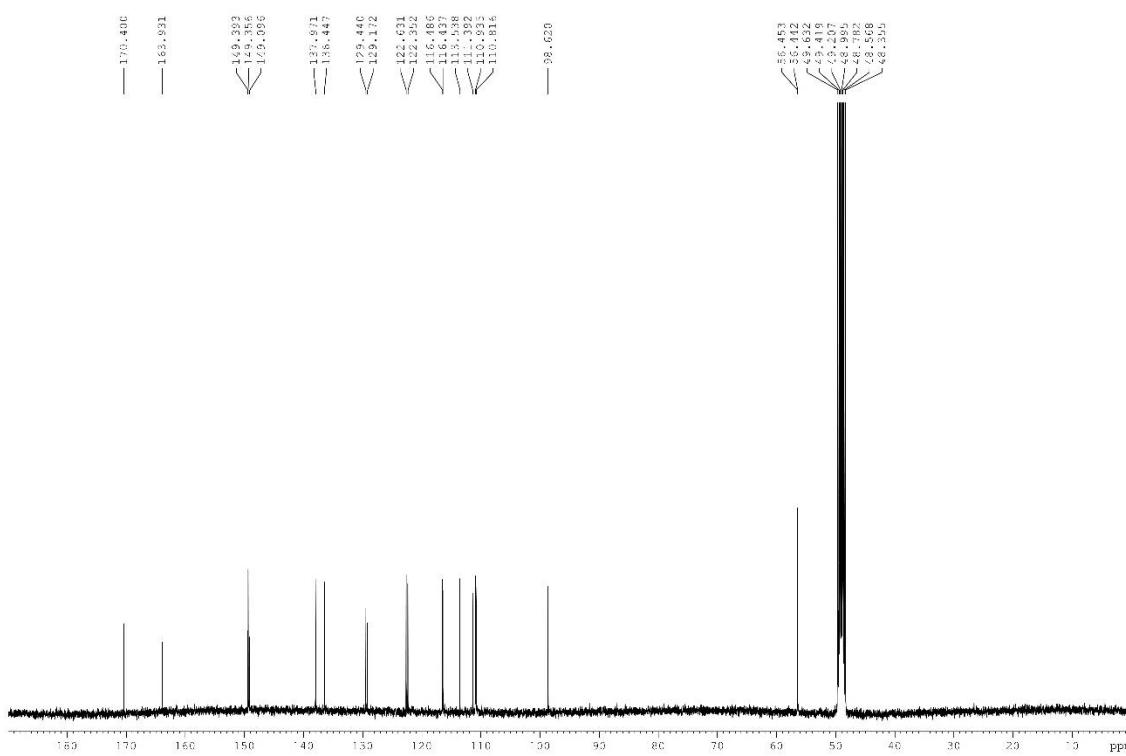


Figure S22  $^{13}\text{C}$  NMR spectrum of curcumin isoxazole (**11**) ( $\text{CD}_3\text{OD}$ )

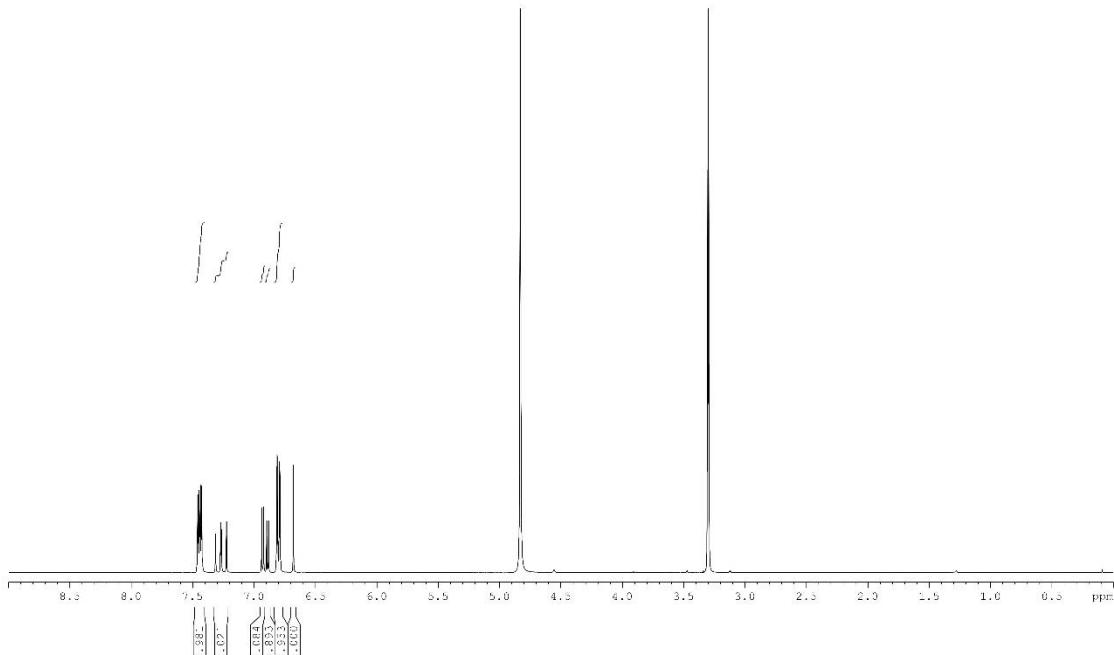


Figure S23  $^1\text{H}$  NMR spectrum of bisdemethoxycurcumin isoxazole (**12**) ( $\text{CD}_3\text{OD}$ )

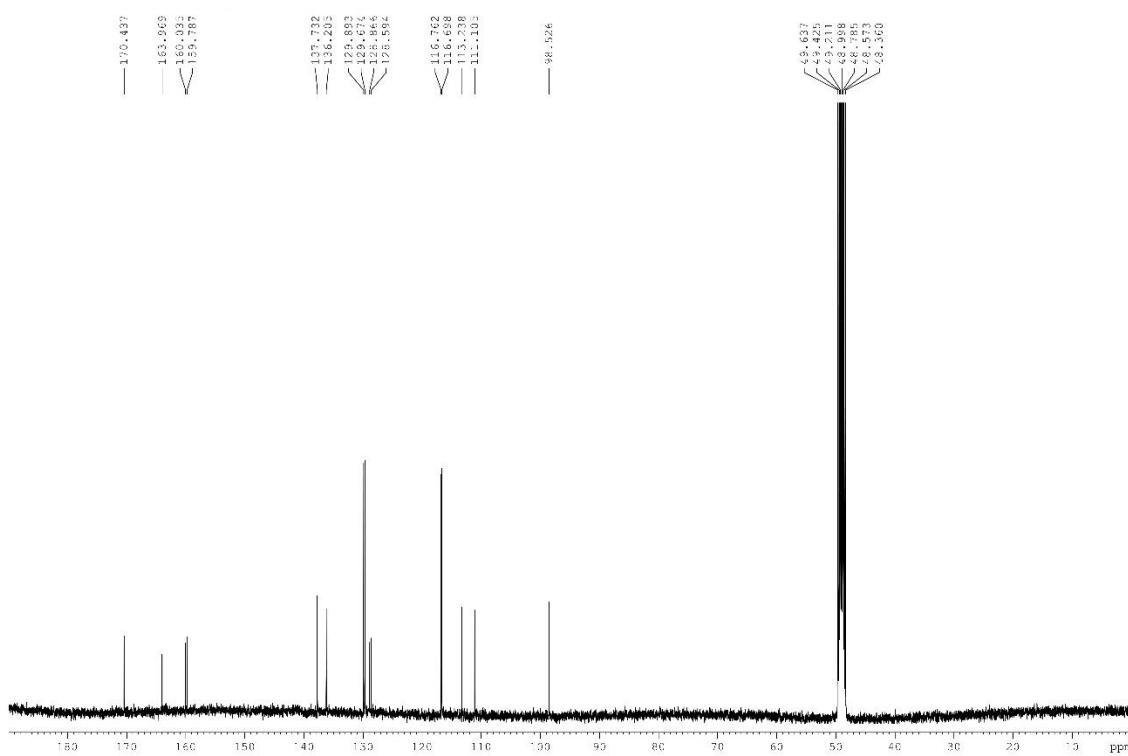


Figure S24  $^{13}\text{C}$  NMR spectrum of bisdemethoxycurcumin isoxazole (**12**) ( $\text{CD}_3\text{OD}$ )

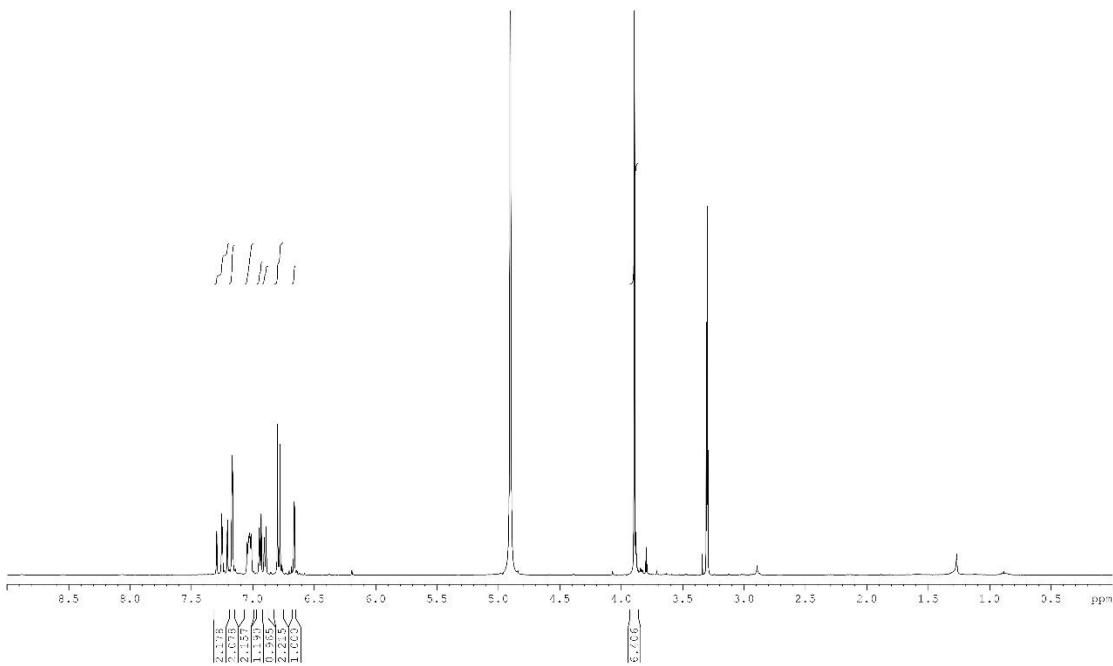


Figure S25  $^1\text{H}$  NMR spectrum of di-*O*-methylcurcumin isoxazole (**13**) ( $\text{CD}_3\text{OD}$ )

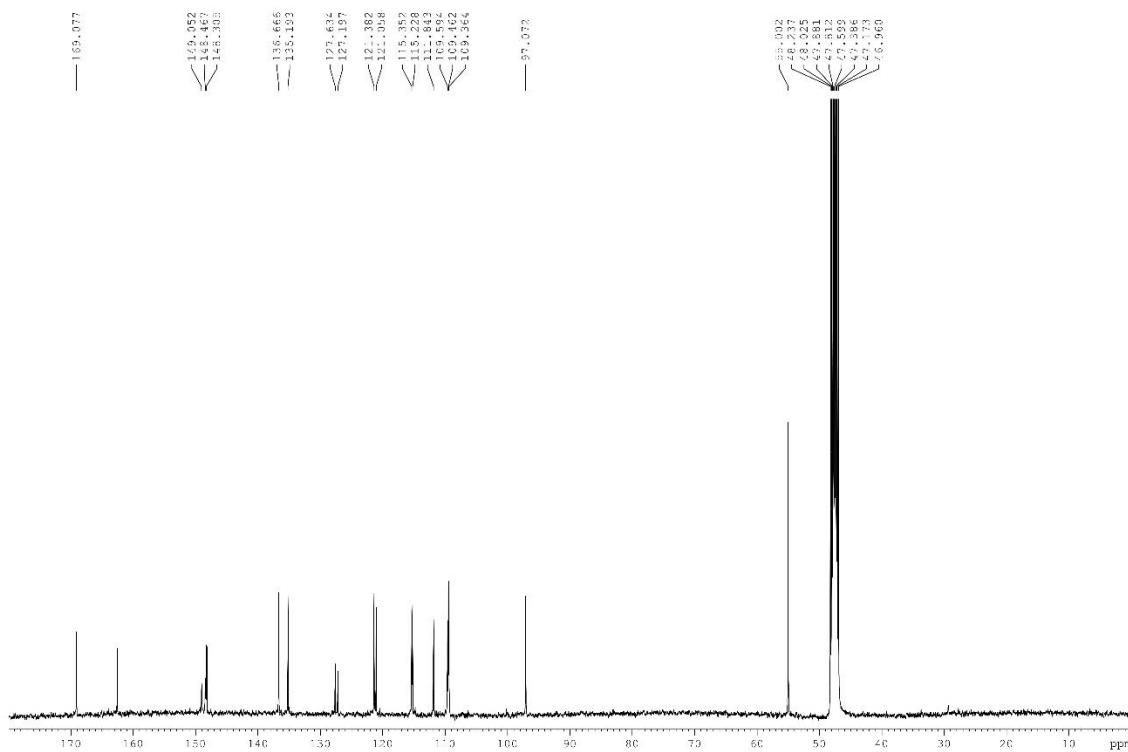


Figure S26  $^{13}\text{C}$  NMR spectrum of di-*O*-methylcurcumin isoxazole (**13**) ( $\text{CD}_3\text{OD}$ )

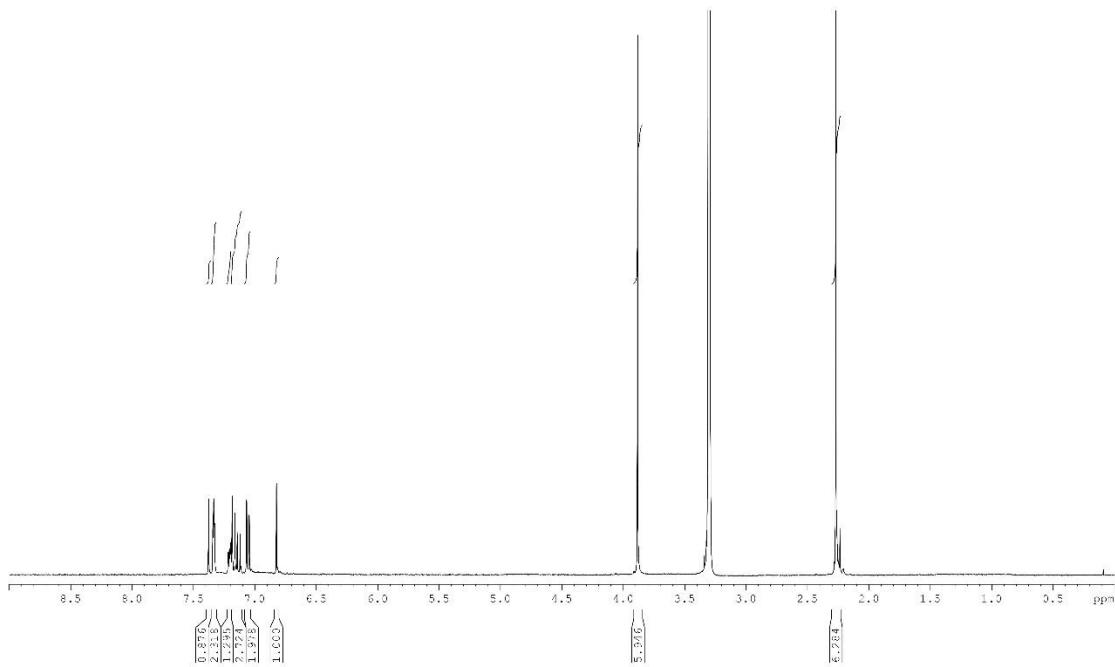


Figure S27  $^1\text{H}$  NMR spectrum of di-*O*-acetylcurcumin isoxazole (**14**) ( $\text{CD}_3\text{OD}$ )

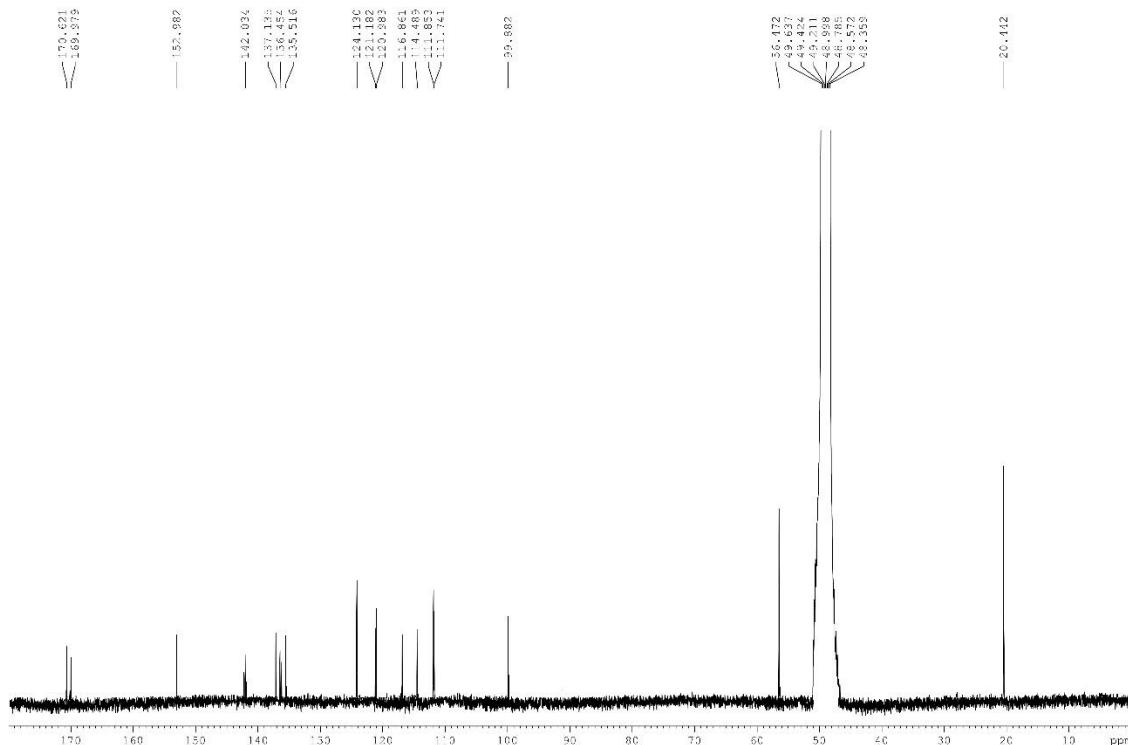


Figure S28  $^{13}\text{C}$  NMR spectrum of di-*O*-acetylcurcumin isoxazole (**14**) ( $\text{CD}_3\text{OD}$ )

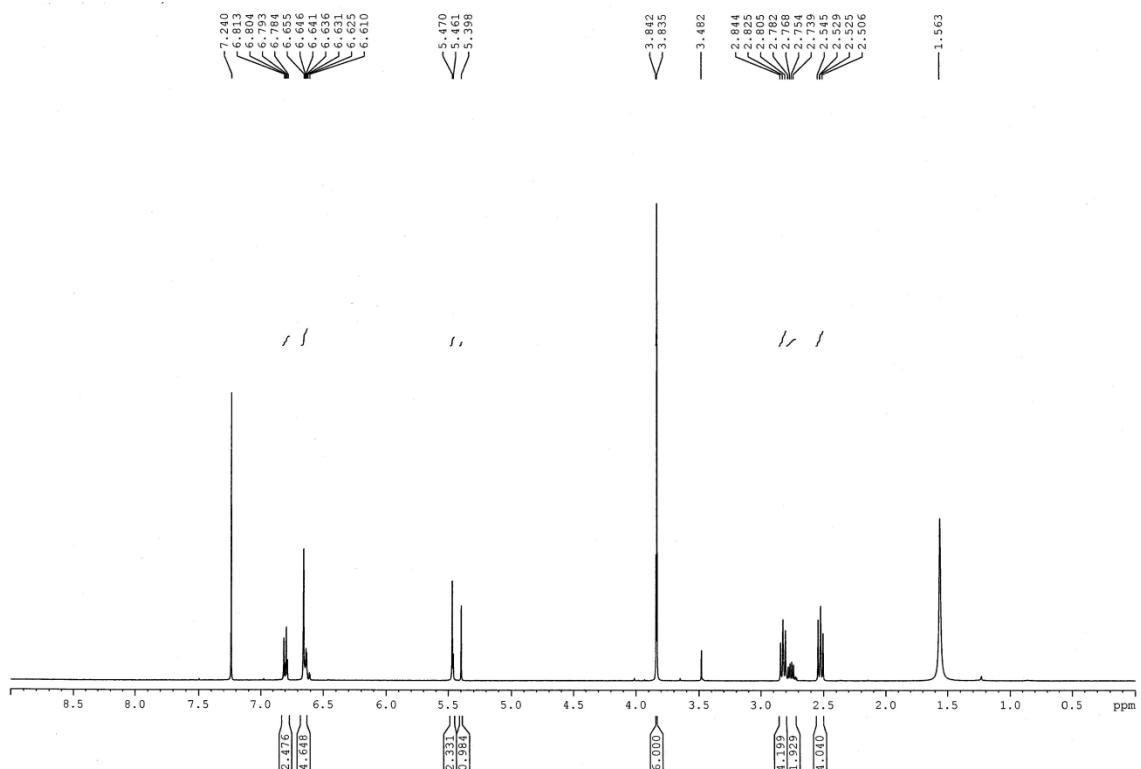


Figure S29  $^1\text{H}$  NMR spectrum of tetrahydrocurcumin (**15**) ( $\text{CDCl}_3$ )

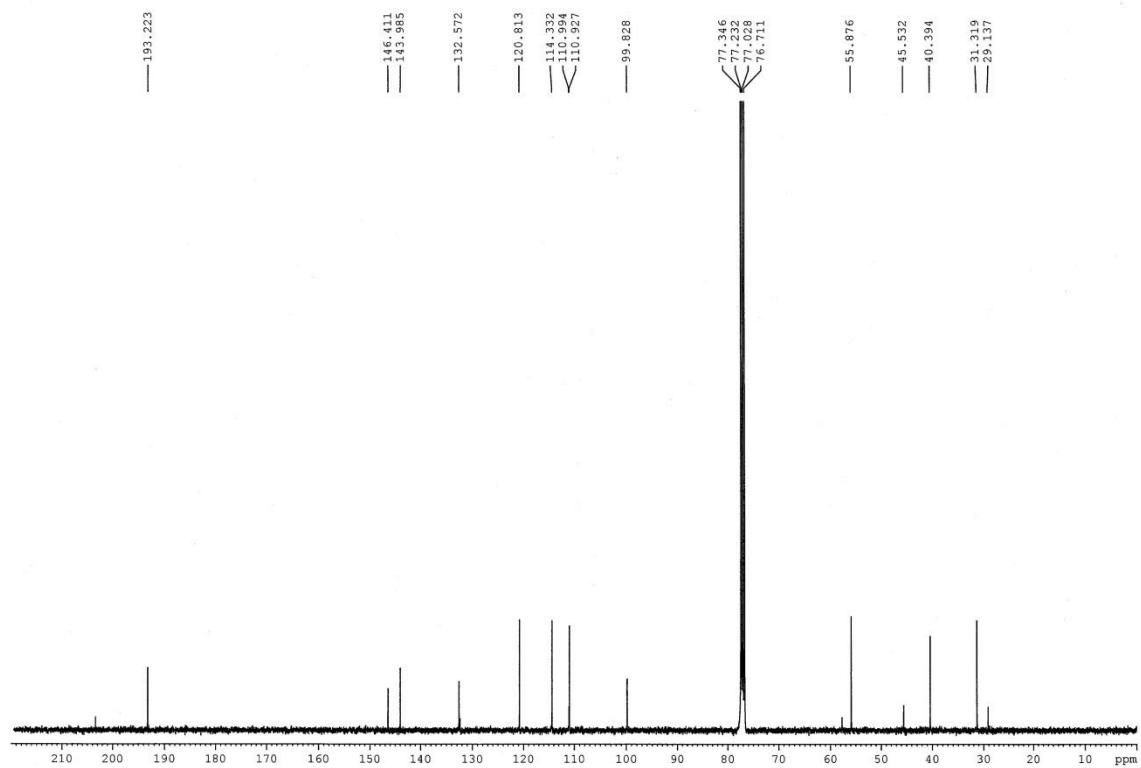
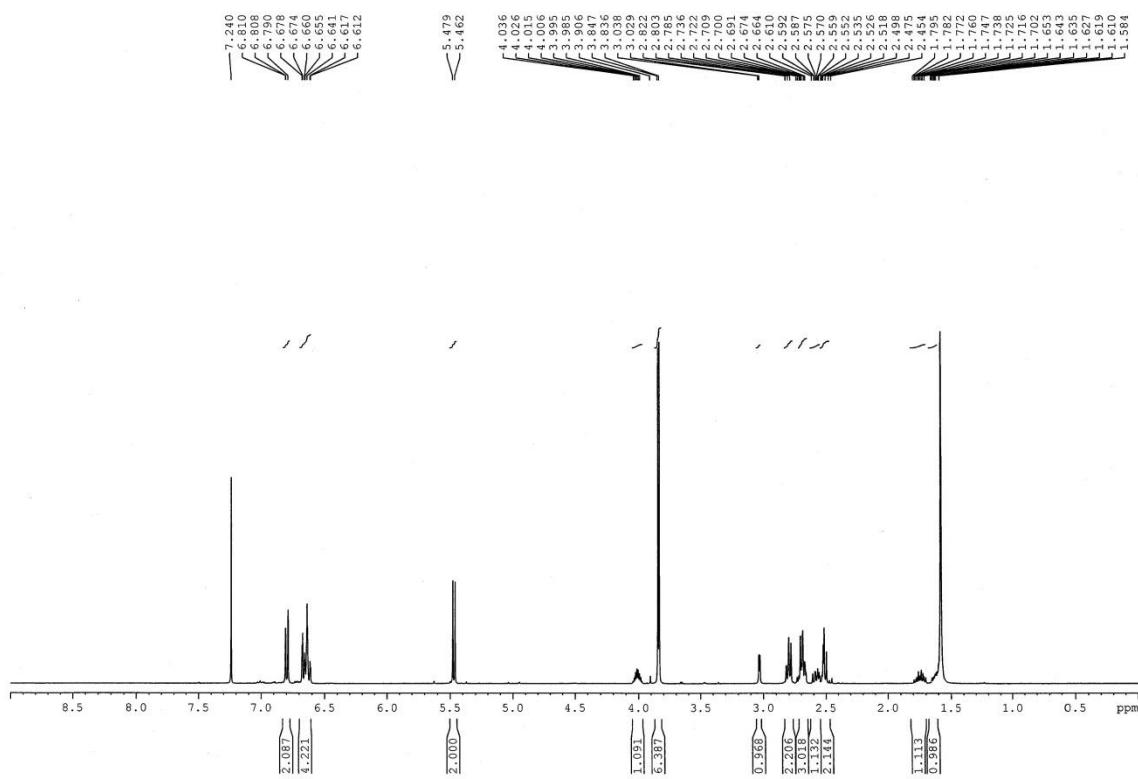
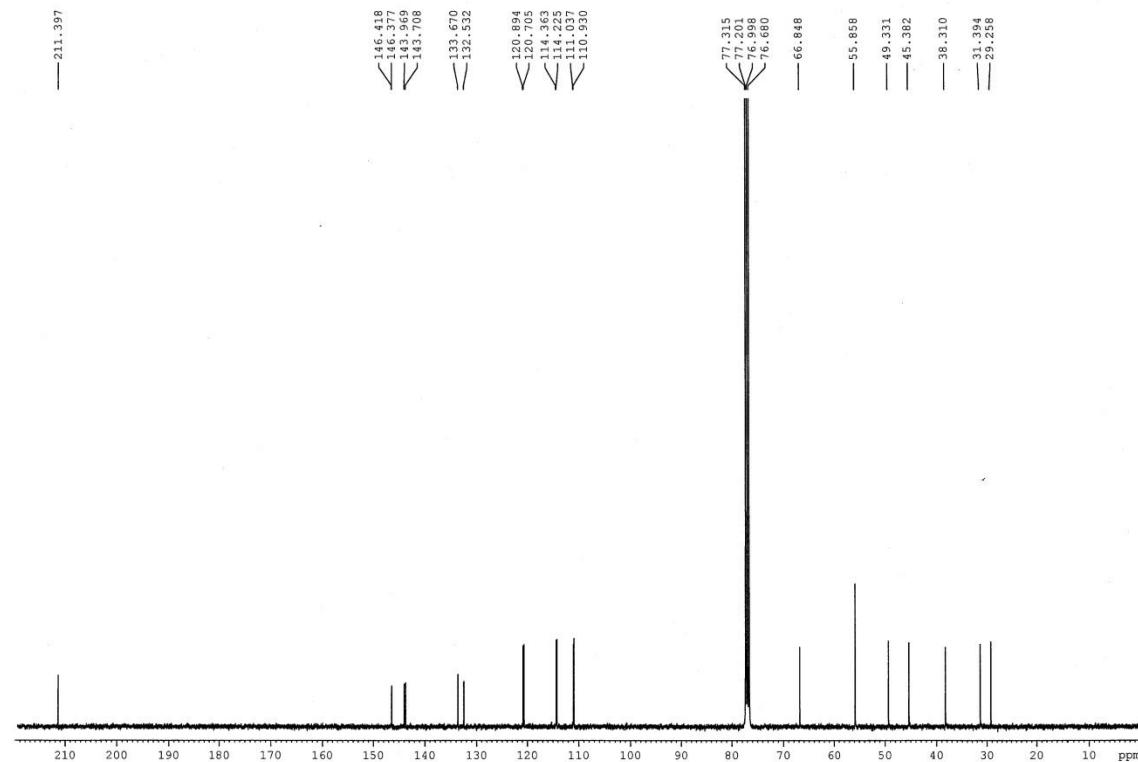


Figure S30  $^{13}\text{C}$  NMR spectrum of tetrahydrocurcumin (**15**) ( $\text{CDCl}_3$ )

Figure S31  $^1\text{H}$  NMR spectrum of hexahydrocurcumin (**16**) ( $\text{CDCl}_3$ )Figure S32  $^{13}\text{C}$  NMR spectrum of hexahydrocurcumin (**16**) ( $\text{CDCl}_3$ )

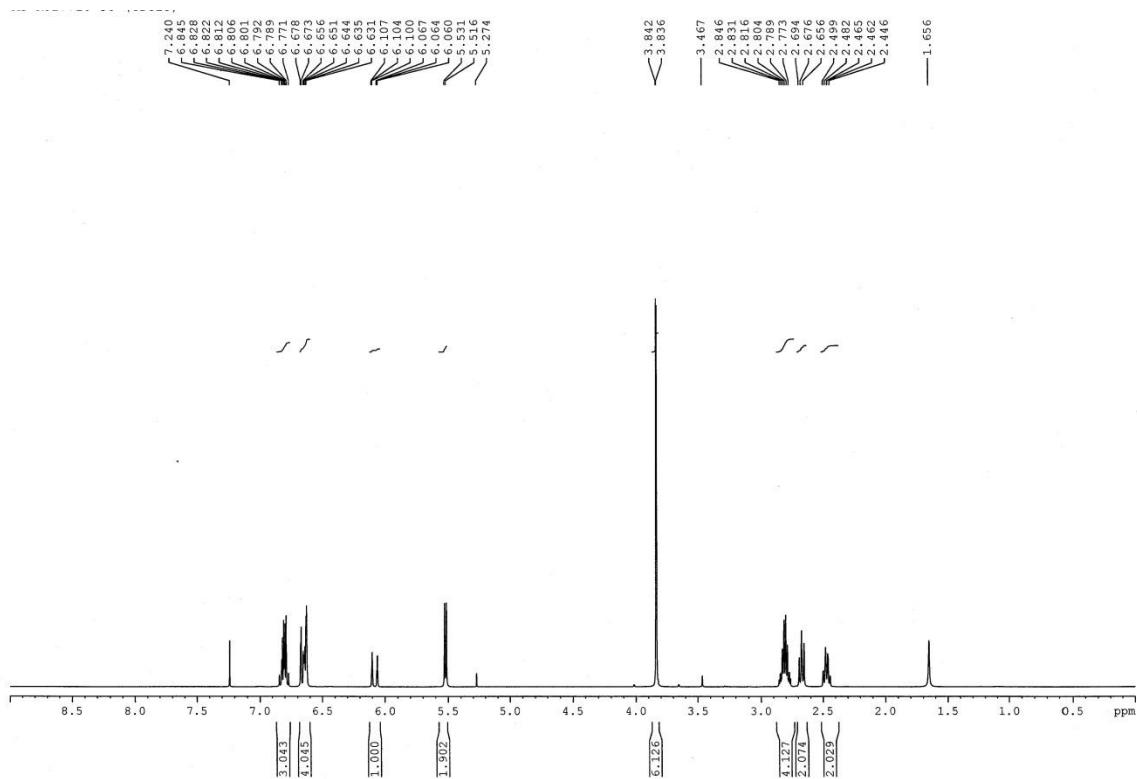


Figure S33  $^1\text{H}$  NMR spectrum of 1,7-bis(4-hydroxy-3-methoxyphenyl)hept-4-en-3-one (**17**) ( $\text{CDCl}_3$ )

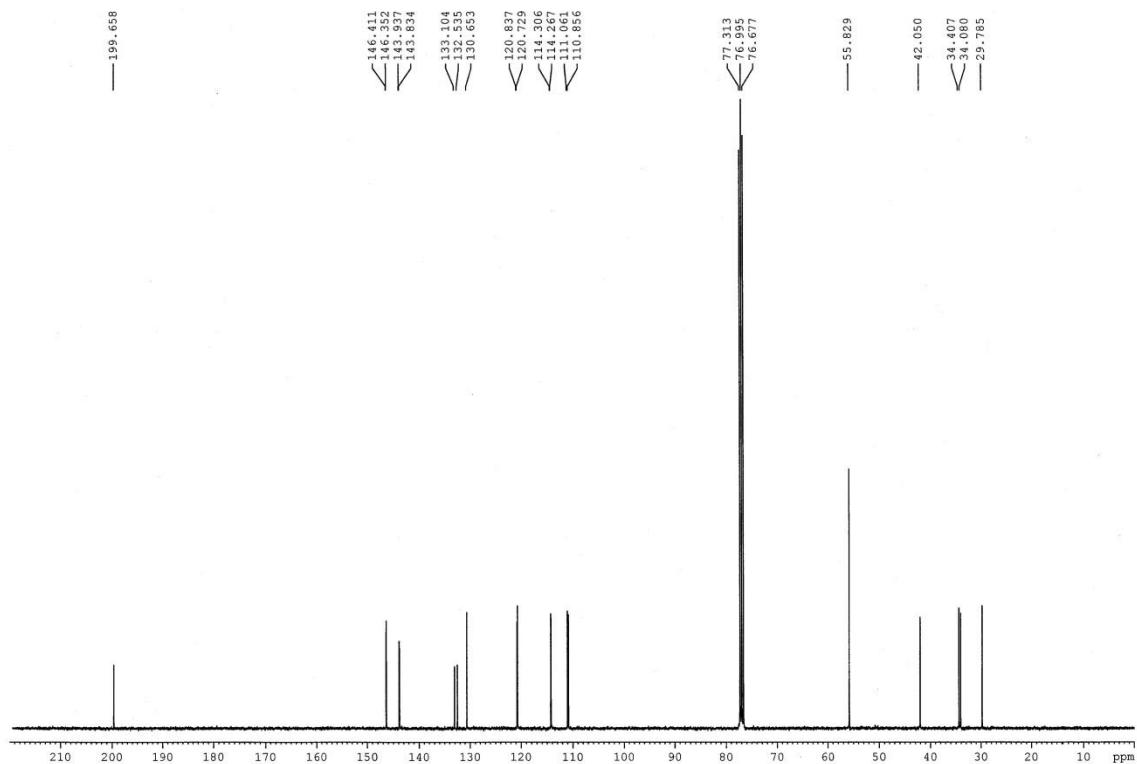


Figure S34  $^{13}\text{C}$  NMR spectrum of 1,7-bis(4-hydroxy-3-methoxyphenyl)hept-4-en-3-one (**17**) ( $\text{CDCl}_3$ )