

## Supplementary Material

### Mild alkaline hydrolysis of hindered esters in non-aqueous solution

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**HPLC chromatograms****(i). L-Glu and L-Asp (Entries 6 and 7):**

Chirobiotic T column

Eluent: water/methanol/formic acid (30:70:0.02)

Flow: 1 mL/min, detection: 205 nm

Detector: Photodiode-array

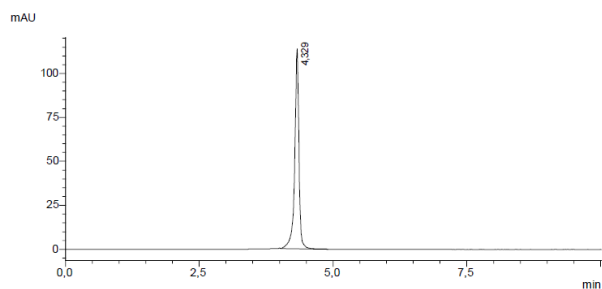


Figure S1. A. HPLC of L-Asp

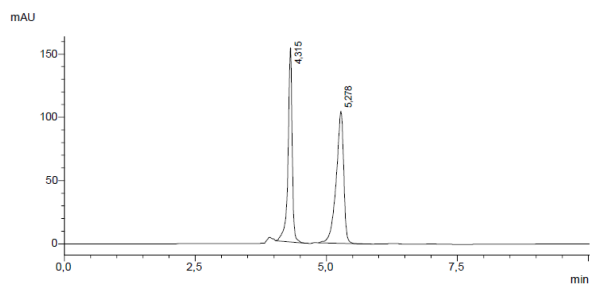


Figure S1. B. HPLC of D,L-Asp (mixture)

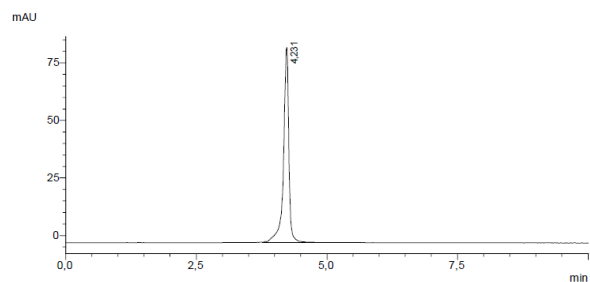


Figure S2. A. HPLC of L-Glu

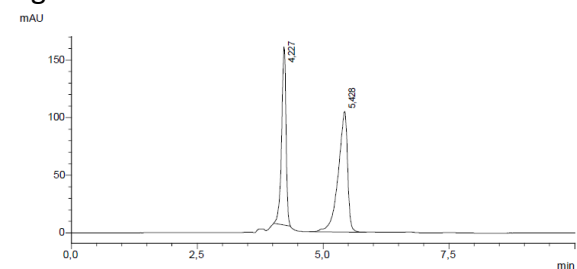


Figure S2. B. HPLC of D,L-Glu (mixture)

**(ii). N-methacryloyl-L-prolinate (Entry 8)**Ultron ES-OVM column (chiral), 50x4.6 mm, 5 $\mu$ mEluent (1): methanol: 0.02 mol/L NaH<sub>2</sub>PO<sub>4</sub>/water (30:70), flow rate=1 mL/min, and 1.5 mL/min

Eluent (2): methanol: 0.02 mol/L NaH<sub>2</sub>PO<sub>4</sub>/water (50:50), flow rate=1 mL/min, and 1.5 mL/min

Detector: Photodiode-array (PDA), 254 nm.

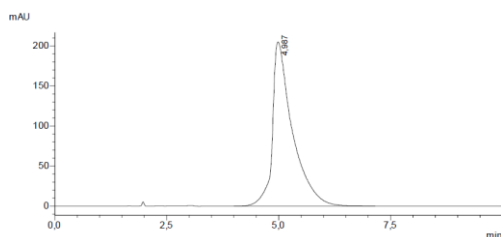


Figure S3. A. HPLC of *N*-methacryloyl-L-proline, Eluent (1): methanol: 0.02 mol/L NaH<sub>2</sub>PO<sub>4</sub>/water (30:70), flow rate=1 mL/min: t= 4.99 min

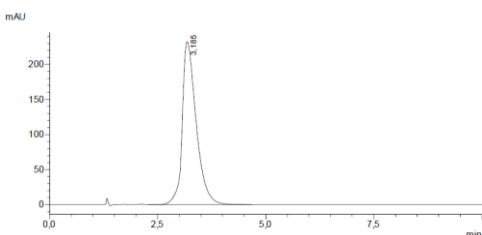


Figure S3. B. HPLC of *N*-methacryloyl-L-proline, Eluent (1): methanol: 0.02 mol/L NaH<sub>2</sub>PO<sub>4</sub>/water (30:70), flow rate=1.5 mL/min: t= 3.19 min

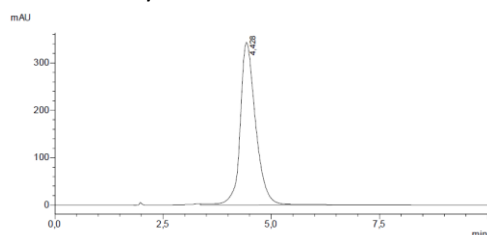


Figure S4. A. HPLC of *N*-methacryloyl-L-proline, Eluent (2): methanol: 0.02 mol/L NaH<sub>2</sub>PO<sub>4</sub>/water (50:50): flow rate=1 mL/min: t= 4.43 min

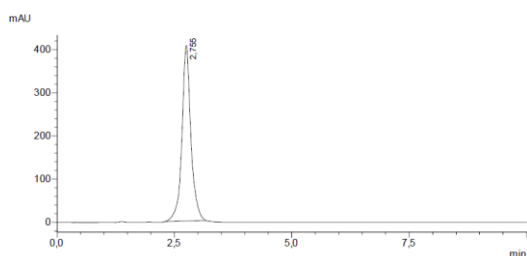
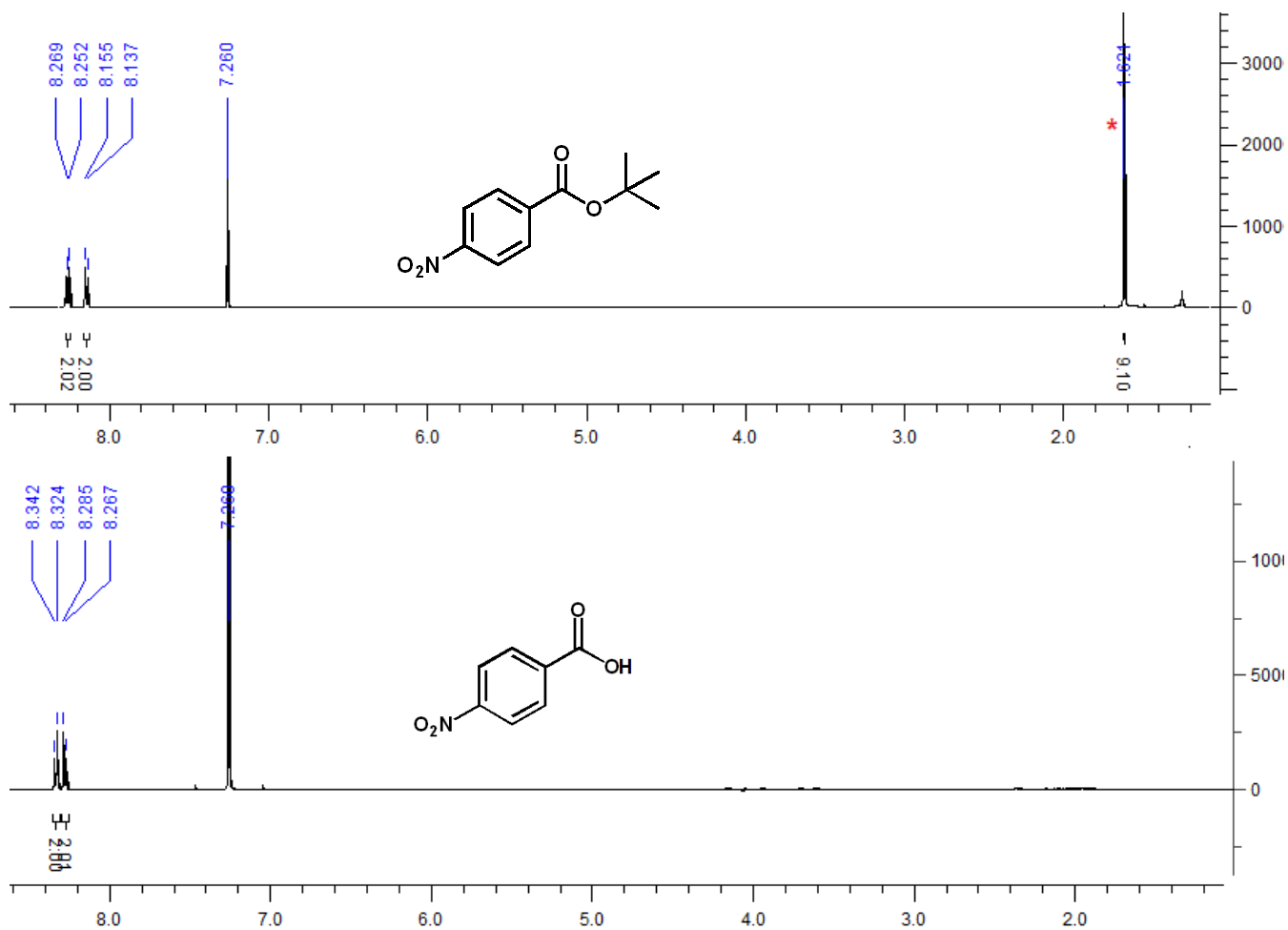


Figure S4. B. HPLC of *N*-methacryloyl-L-proline, Eluent (2): methanol: 0.02 mol/L NaH<sub>2</sub>PO<sub>4</sub>/water (50:50): flow rate=1.5 mL/min: t= 2.75 min.

Copies of  $^1\text{H}$  NMR spectra: comparison of starting compounds and products.

(The asterisk denotes the peaks that disappear after the hydrolysis)

Figure S5.  $^1\text{H}$  NMR (500 MHz,  $\text{CDCl}_3$ ) spectra of *t*-butyl *p*-nitrobenzoate and *p*-nitrobenzoic acid (1)

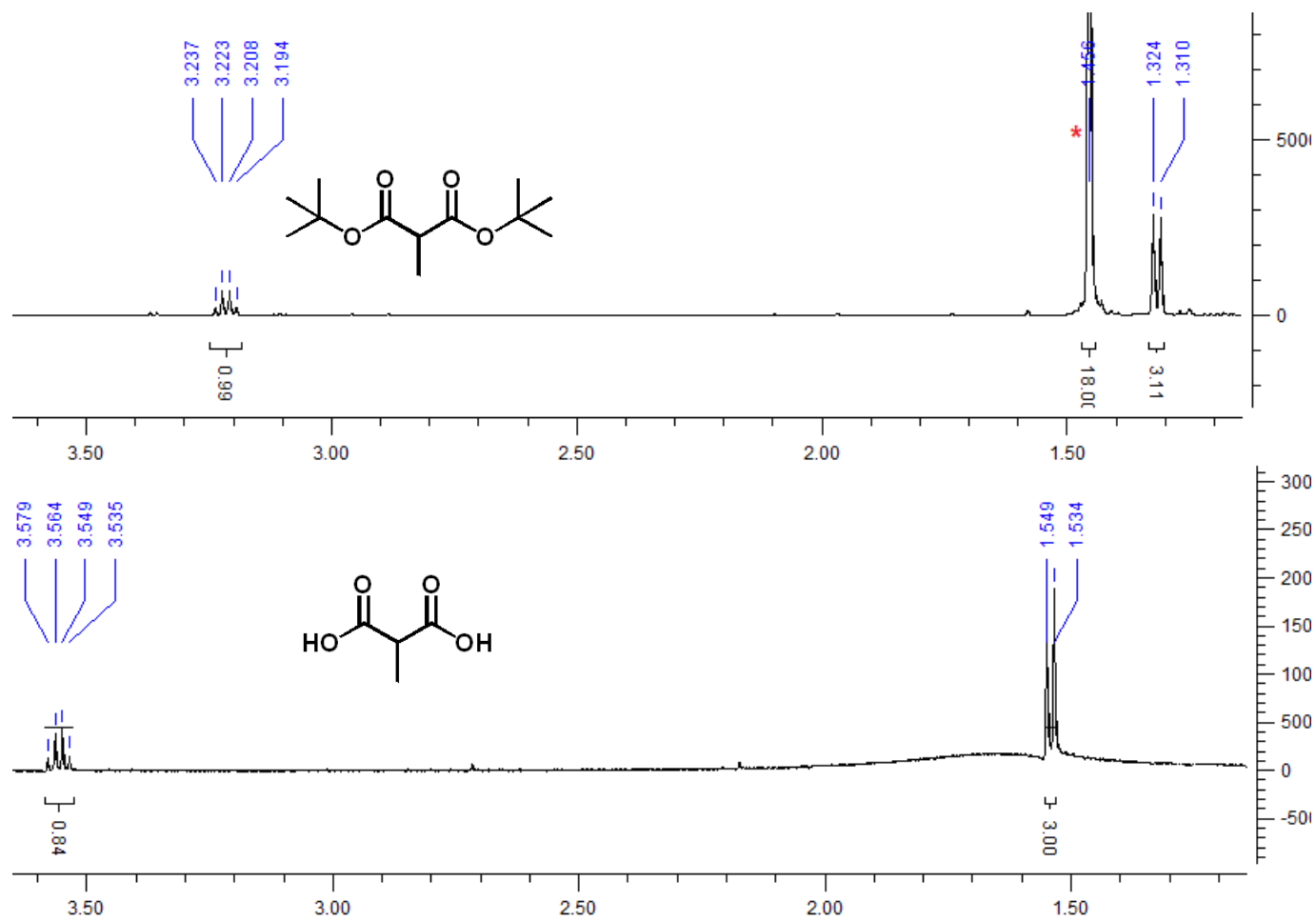


Figure S6.  $^1\text{H}$  NMR (500 MHz,  $\text{CDCl}_3$ ) spectra of di-*t*-butyl 2-methylmalonate and 2-methylmalonic acid (2)

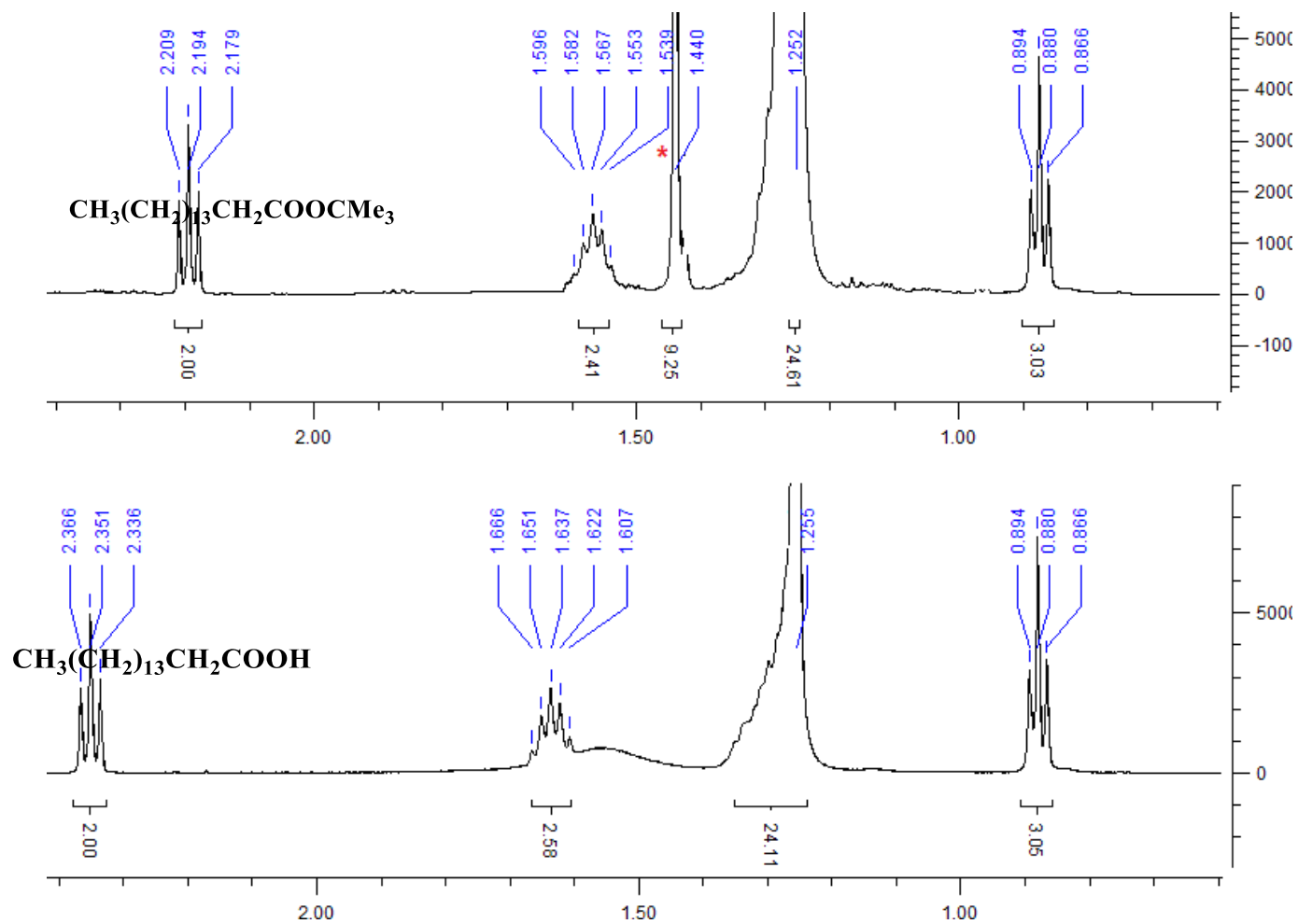


Figure S7. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of *t*-butyl palmitate and palmitic acid (3)

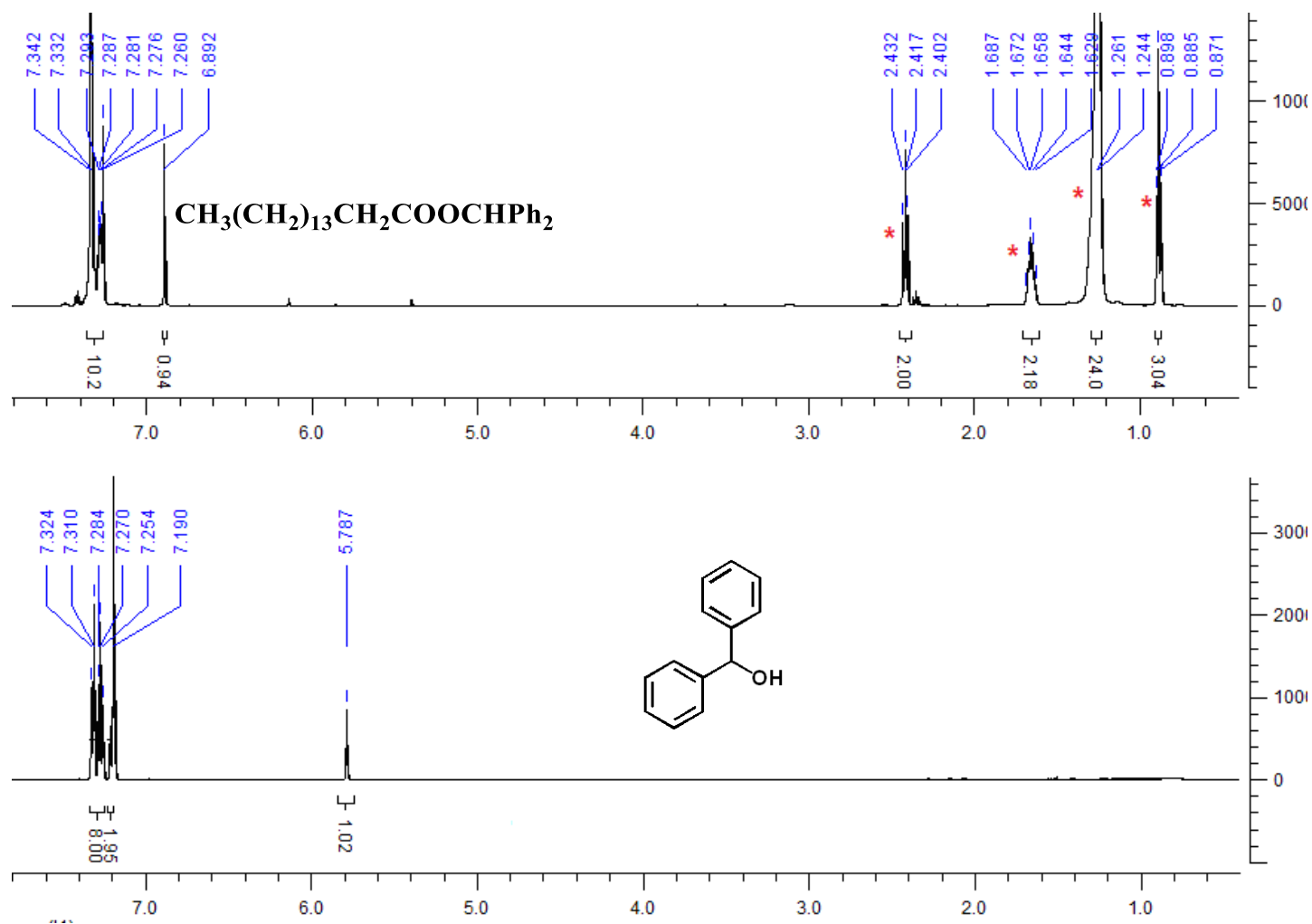


Figure S8. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of **diphenylmethyl palmitate** and **diphenylmethanol (4)**

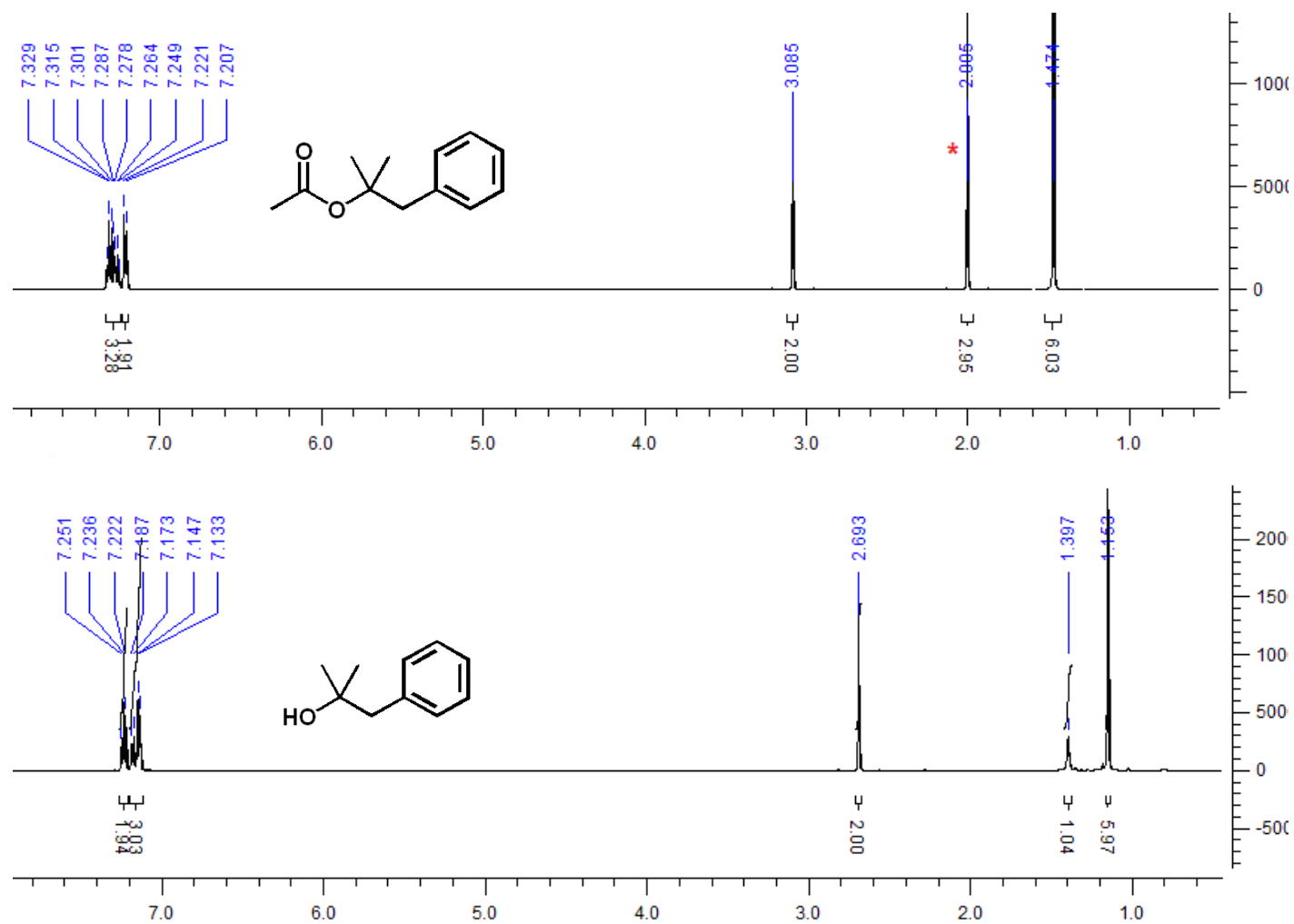


Figure S9. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of **dimethylbenzylcarbonyl acetate** and **dimethylbenzylcarbinol** (5)



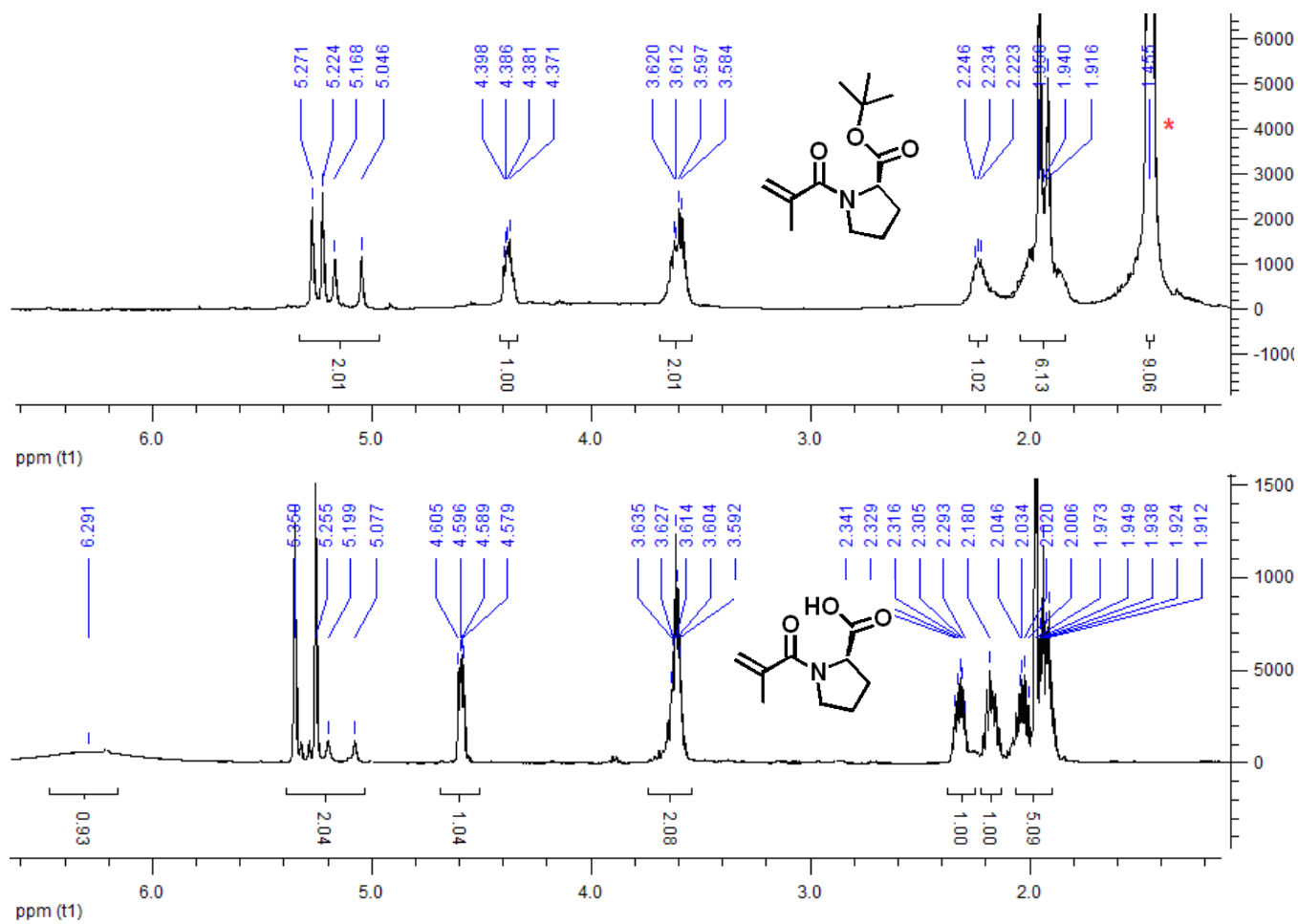
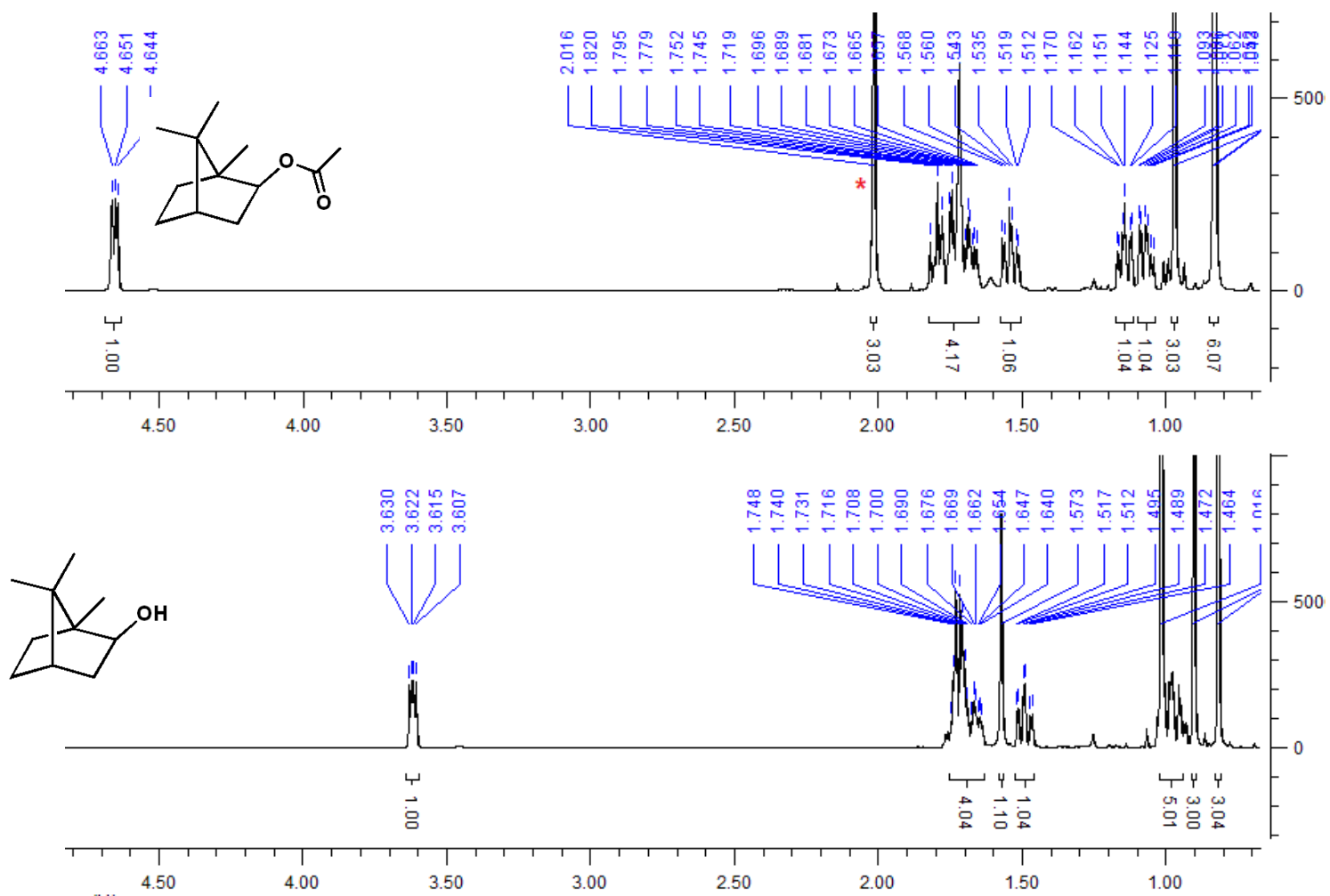
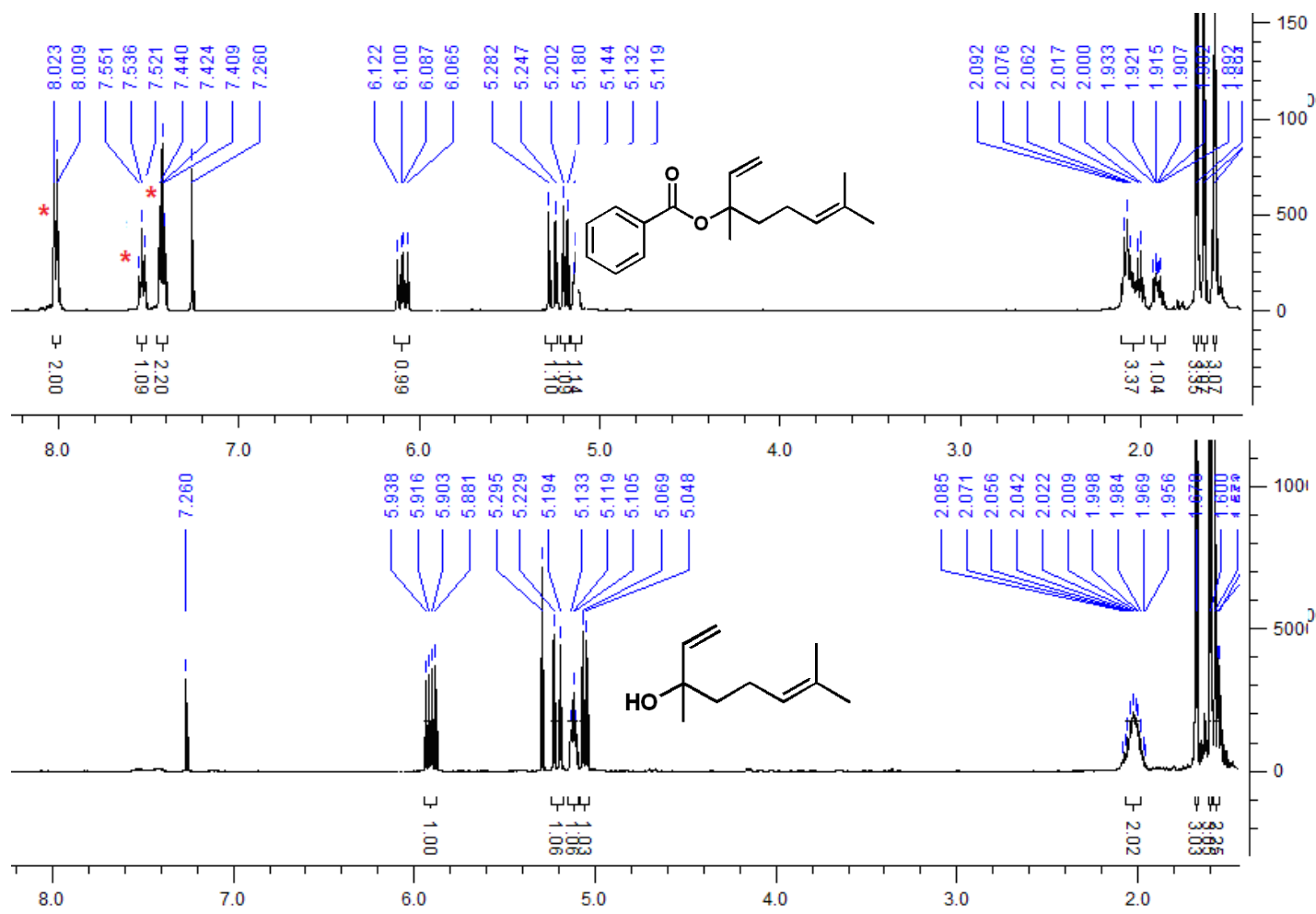


Figure S10. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of t-butyl N-methacryloyl-L-prolinate and N-methacryloyl-L-proline (8)

Figure S11. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of **isobornyl acetate** and **isborneol (9)**

Figure S12. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of linalyl benzoate and linalool (10)



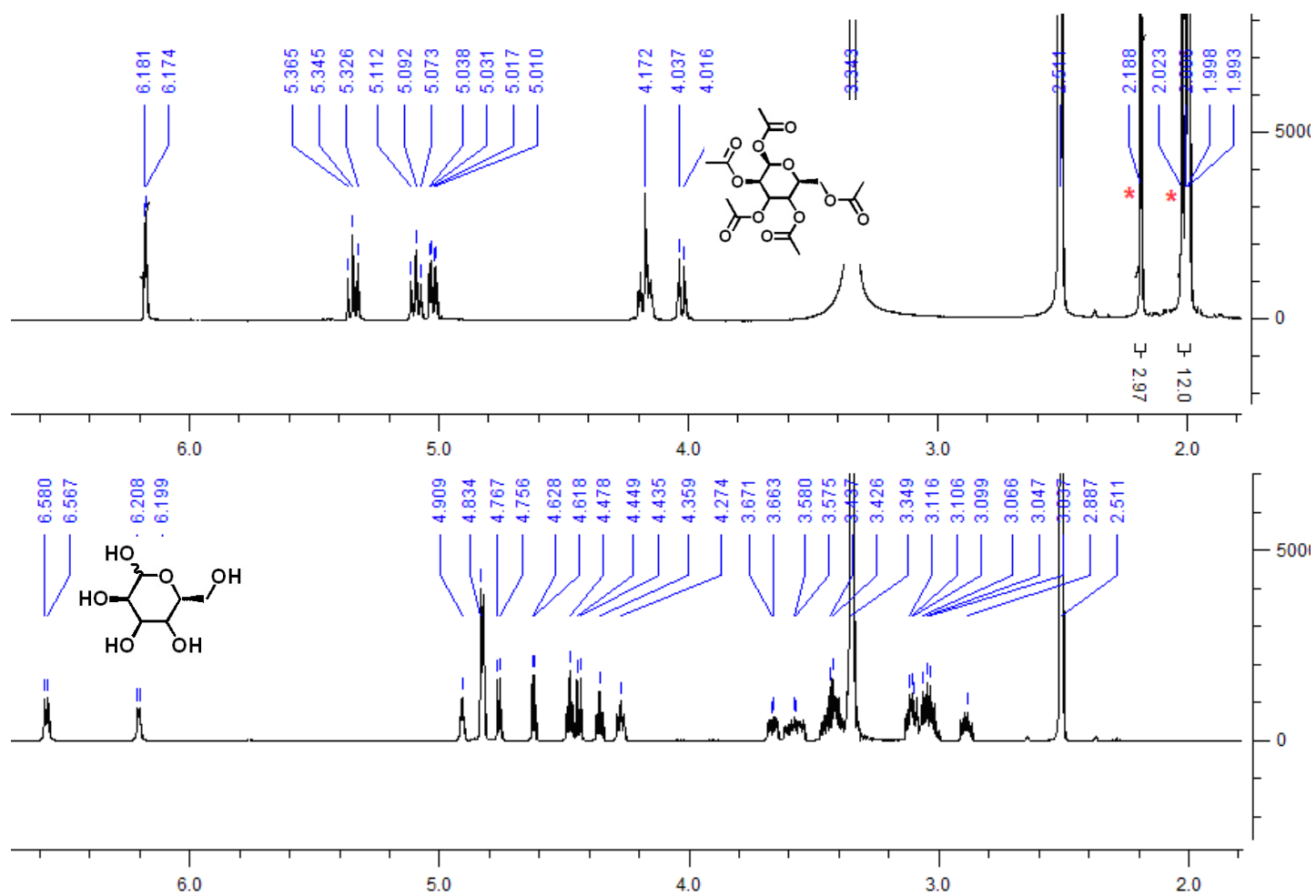


Figure S14. <sup>1</sup>H NMR (500 MHz, DMSO-d<sub>6</sub>) spectra of  $\alpha$ -D(+)-glucose pentaacetate and D-glucose (12)

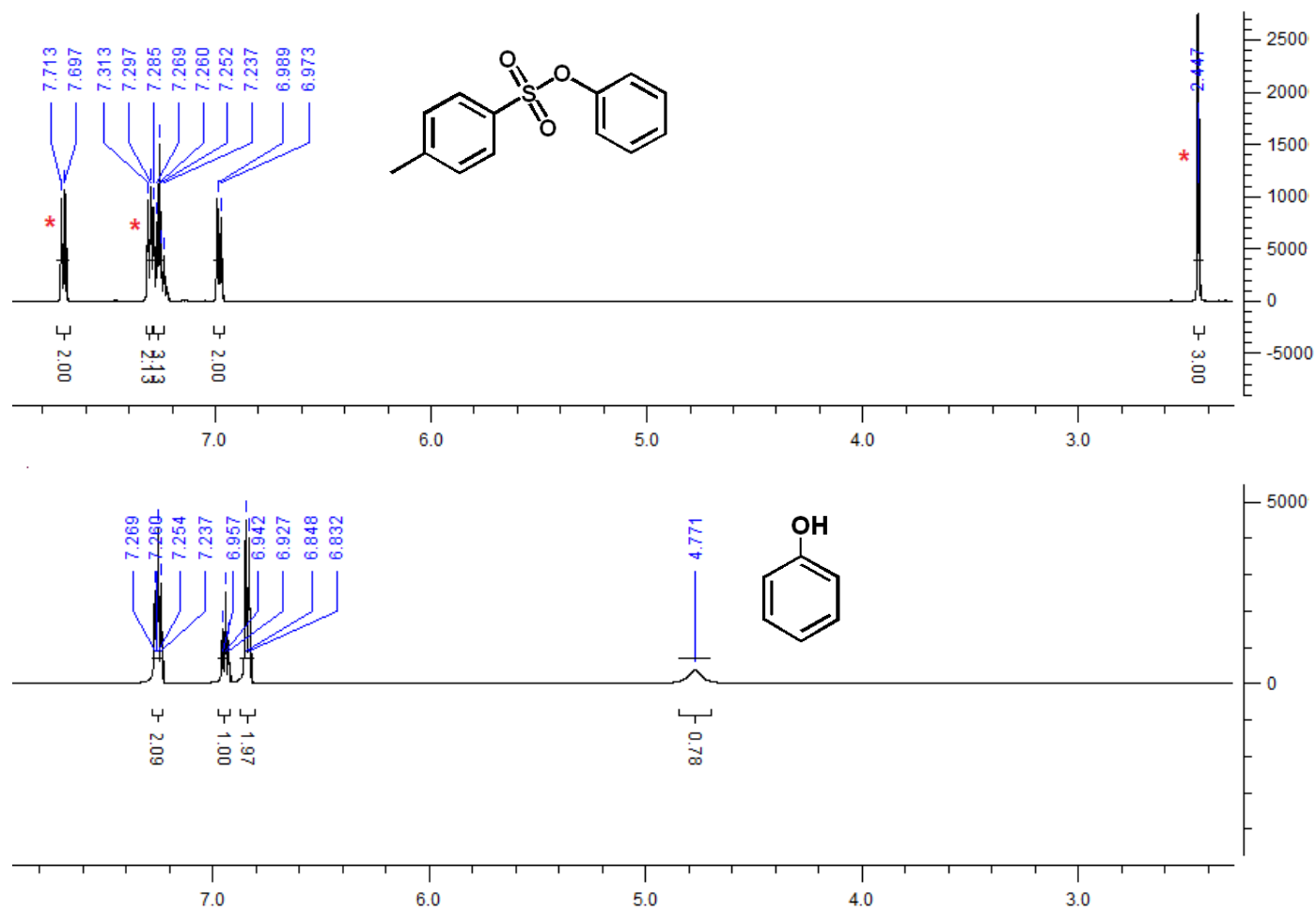


Figure S15. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of **phenyl tosylate** and **phenol (13)**

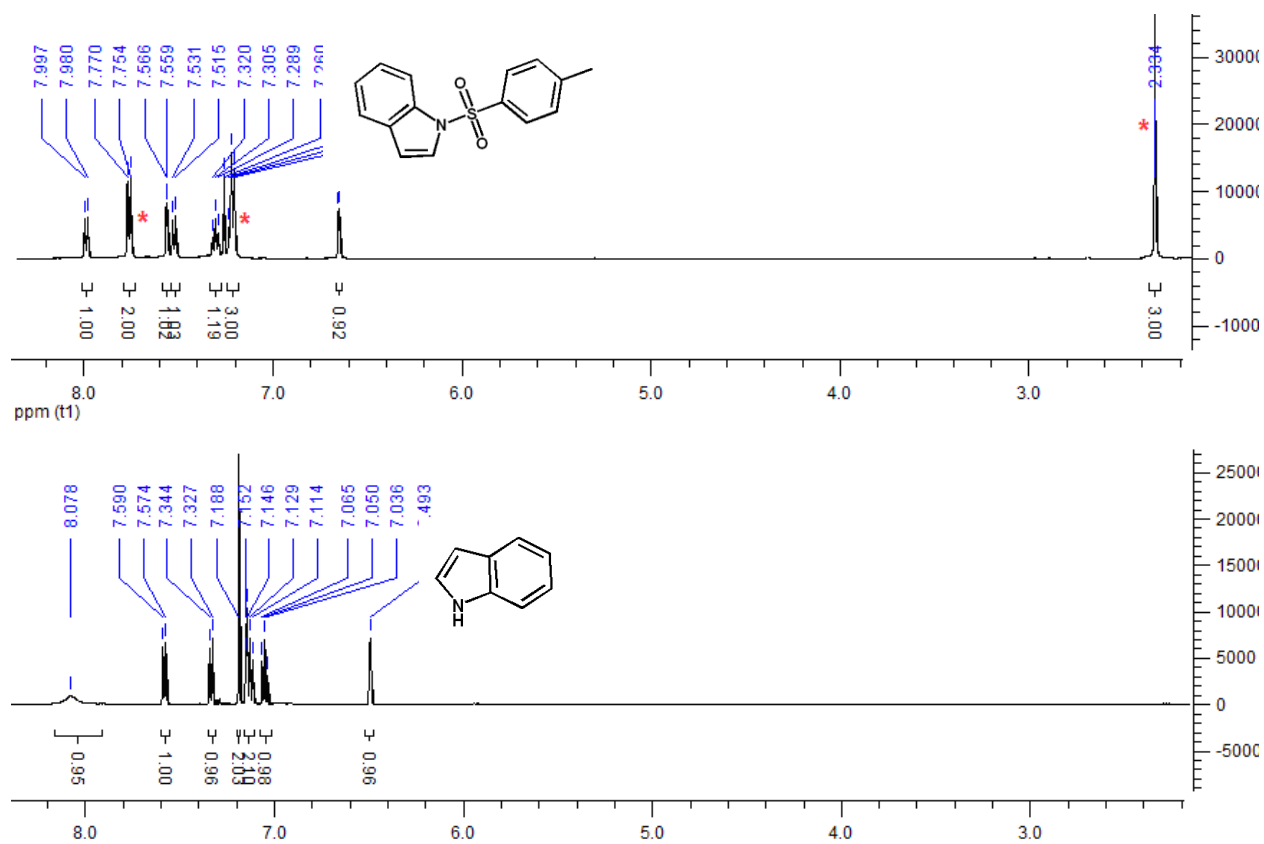


Figure S16. <sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>) spectra of *N*-tosyl indole and indole (16)