

Figure S1:  $^1\text{H-NMR}$  spectrum of **MUP-C<sub>12</sub>MPC** before photolysis in benzene- $d_6$ . Same as Figure 1a.

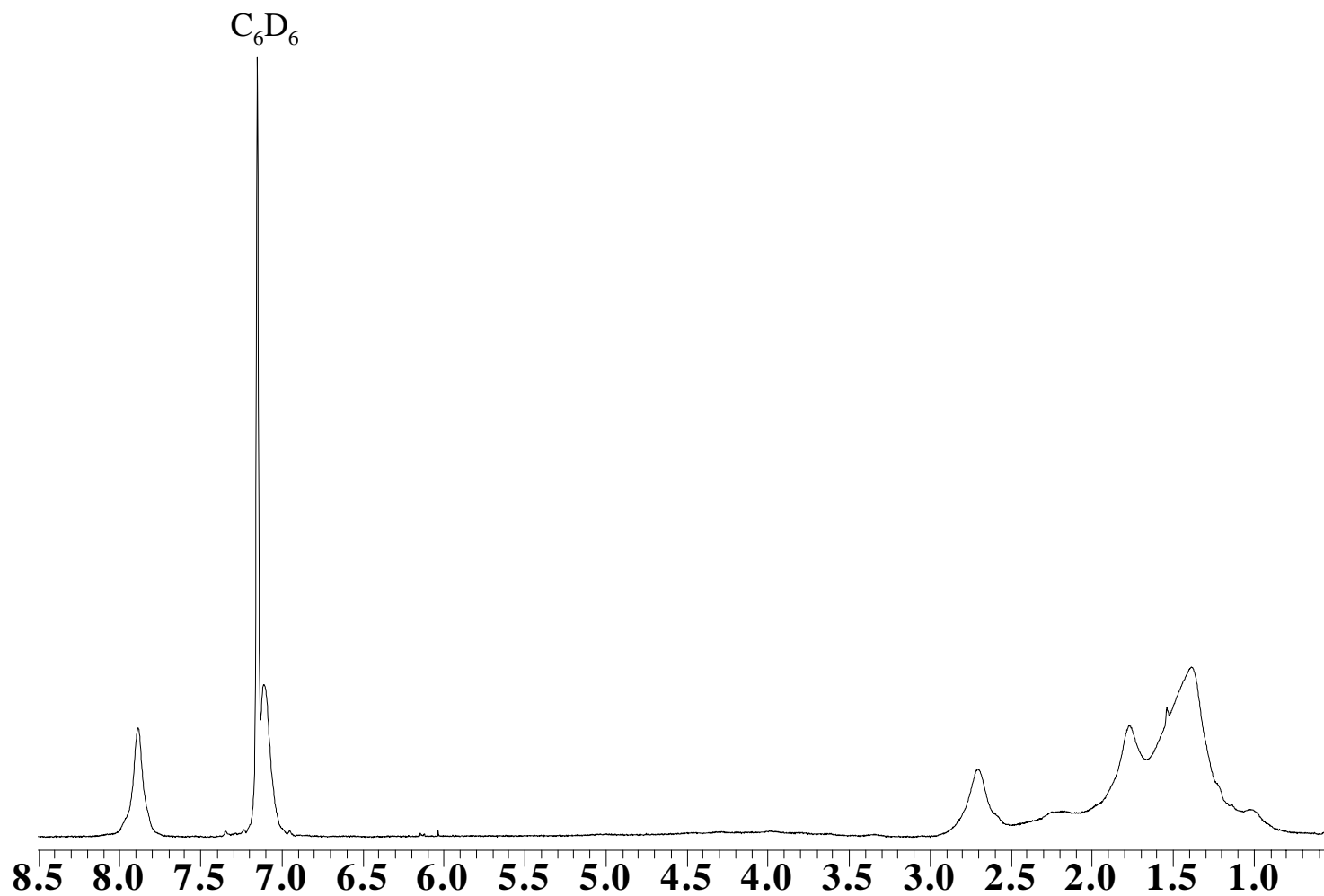


Figure S2:  $^1\text{H-NMR}$  spectrum of **MUP-C<sub>6</sub>MPC** before photolysis in benzene- $d_6$

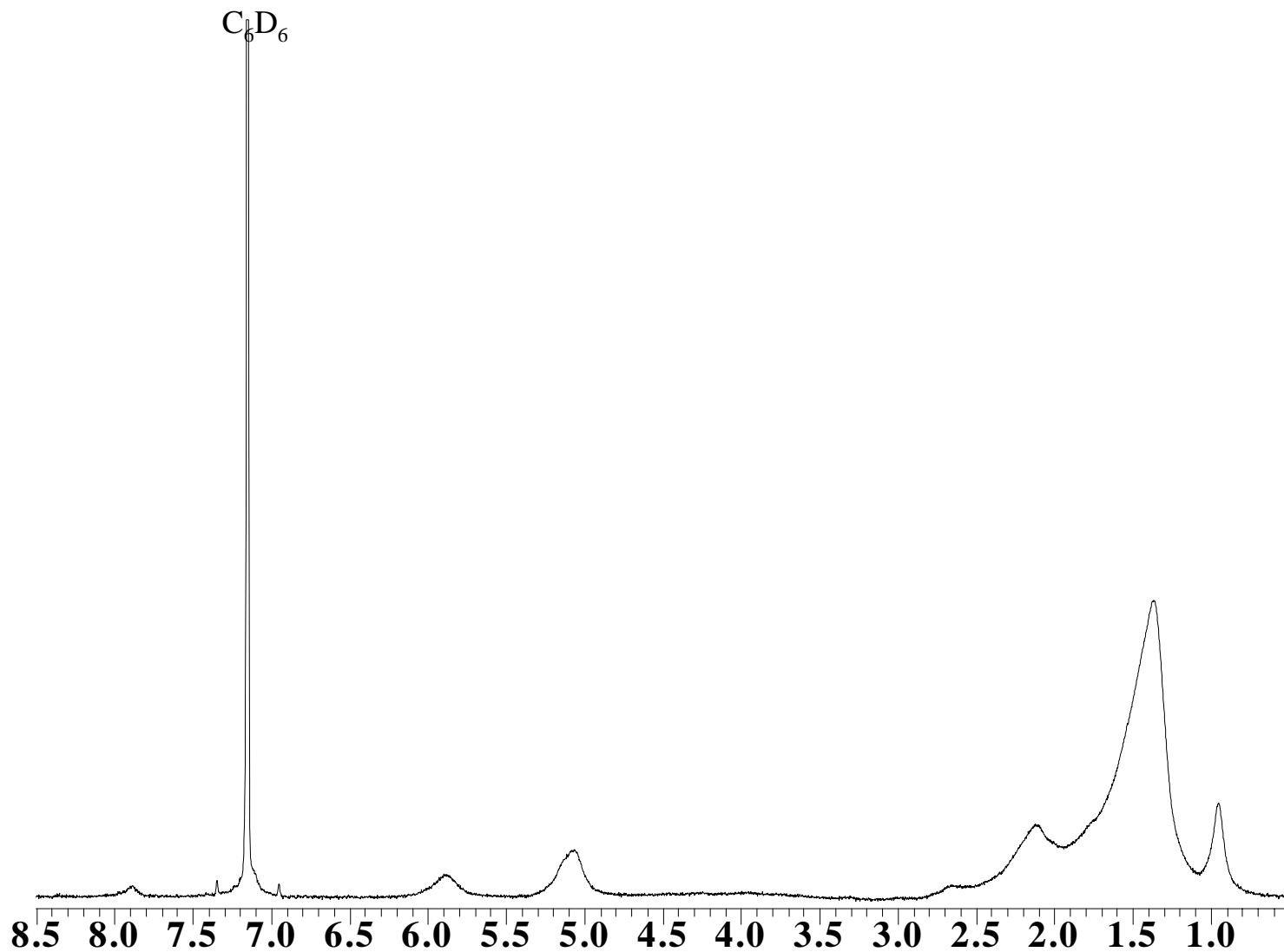


Figure S3:  $^1\text{H-NMR}$  spectrum of photolyzed **MUP-C<sub>12</sub>MPC** that has been washed to remove liberated acetophenone in benzene- $d_6$

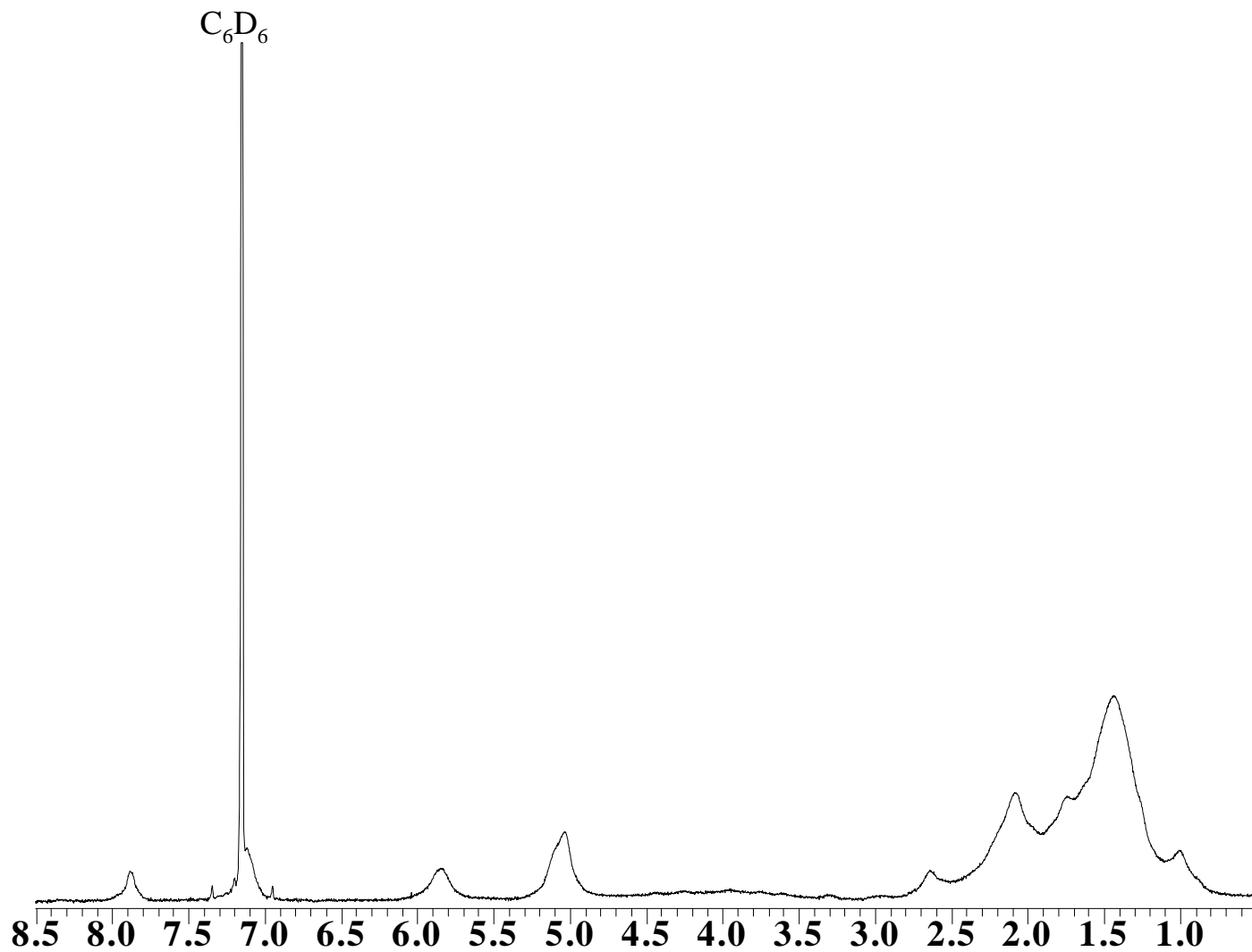


Figure S4:  $^1\text{H-NMR}$  spectrum of photolyzed **MUP-C<sub>6</sub>MPC** that has been washed to remove liberated acetophenone in benzene- $d_6$

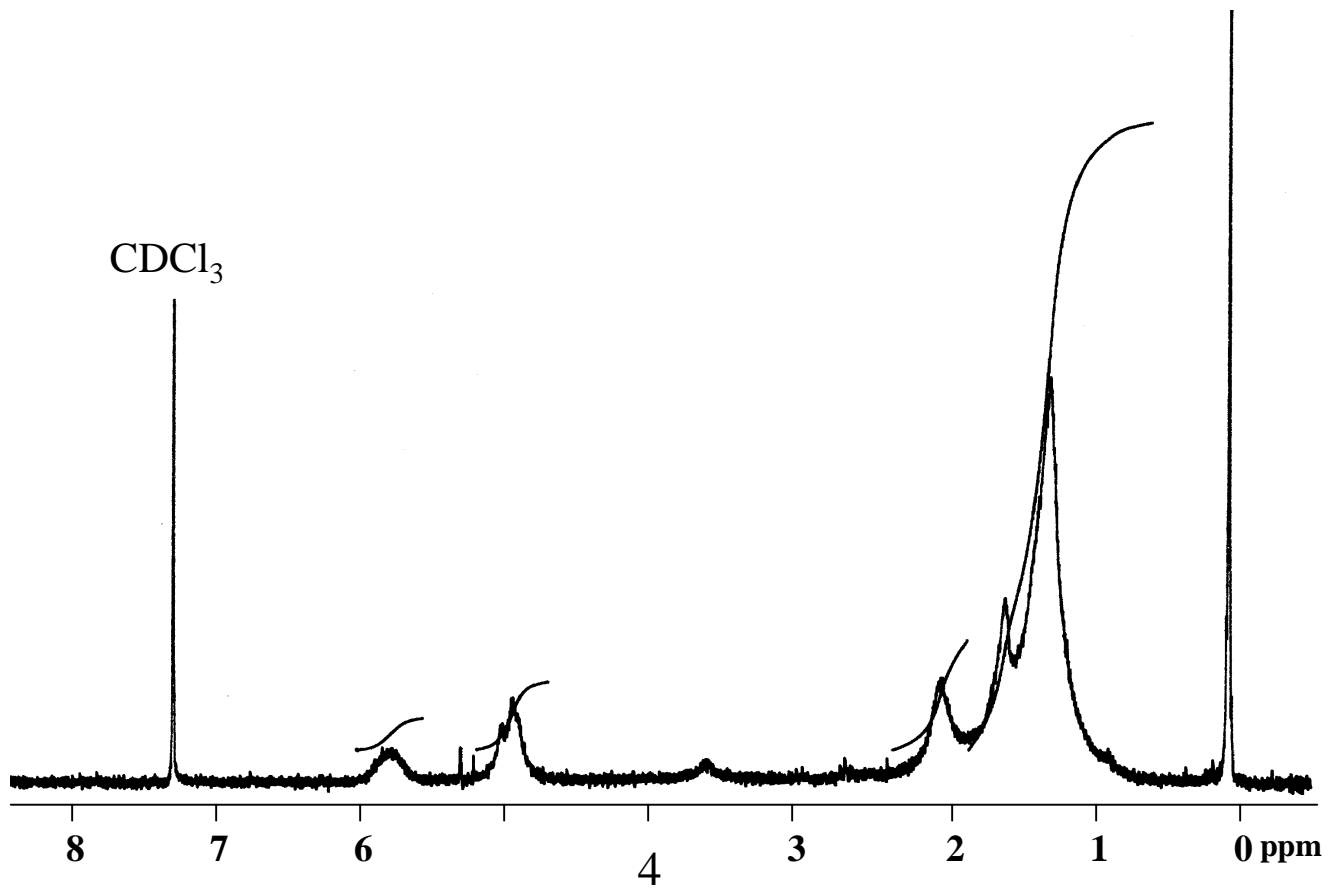


Figure S5:  $^1\text{H-NMR}$  spectrum of 11-mercaptoundecene MPC in  $\text{CDCl}_3$ .