

# Syntheses of (-)-Cryptocaryolone and (-)-Cryptocaryolone Diacetate via a Diastereoselective Oxy-Michael Addition and Oxocarbenium Allylation

*Aymara M. M. Albury and Michael P. Jennings\**

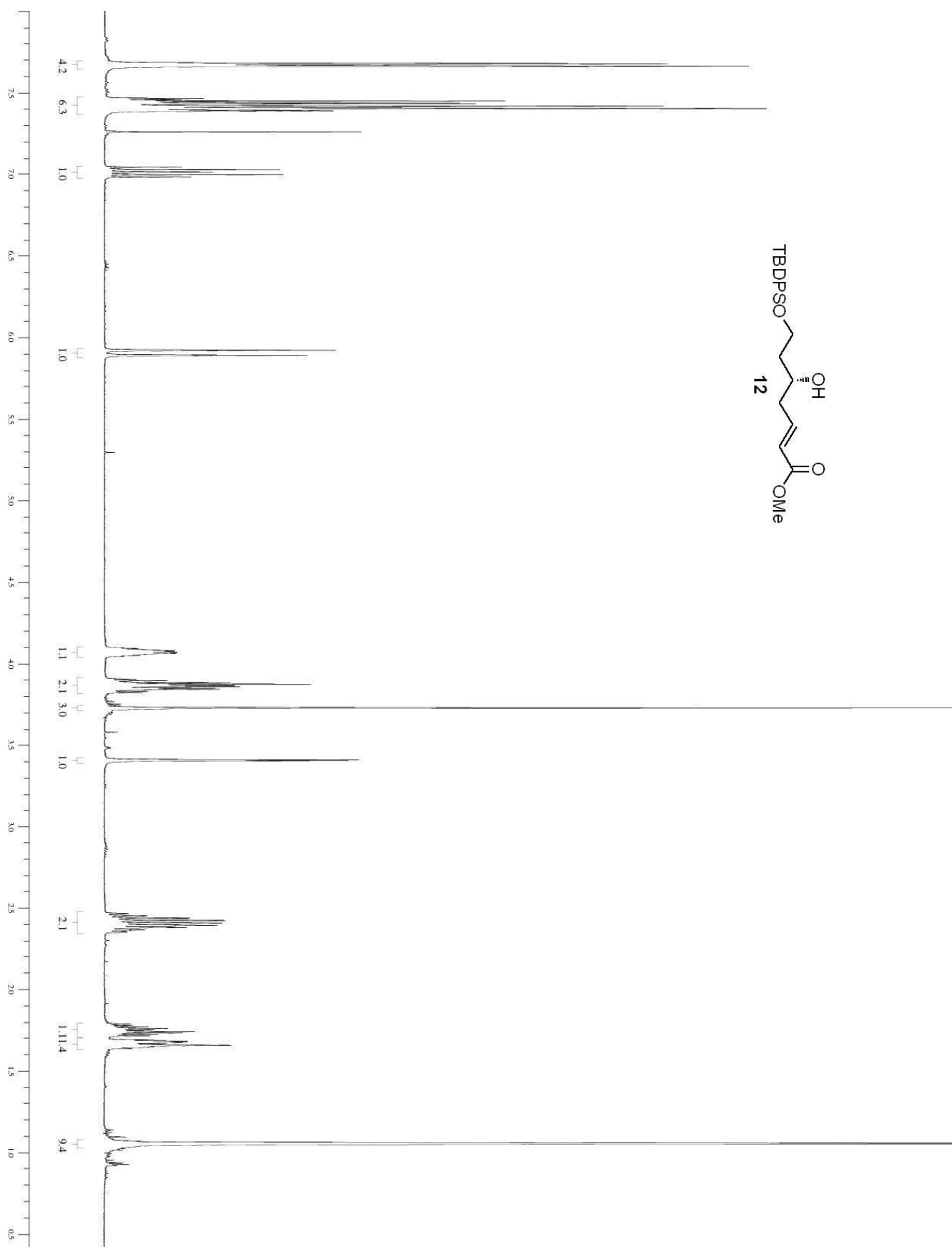
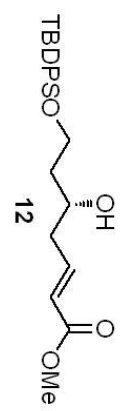
Department of Chemistry, 250 Hackberry Lane, The University of Alabama, Tuscaloosa, AL 35487-0336

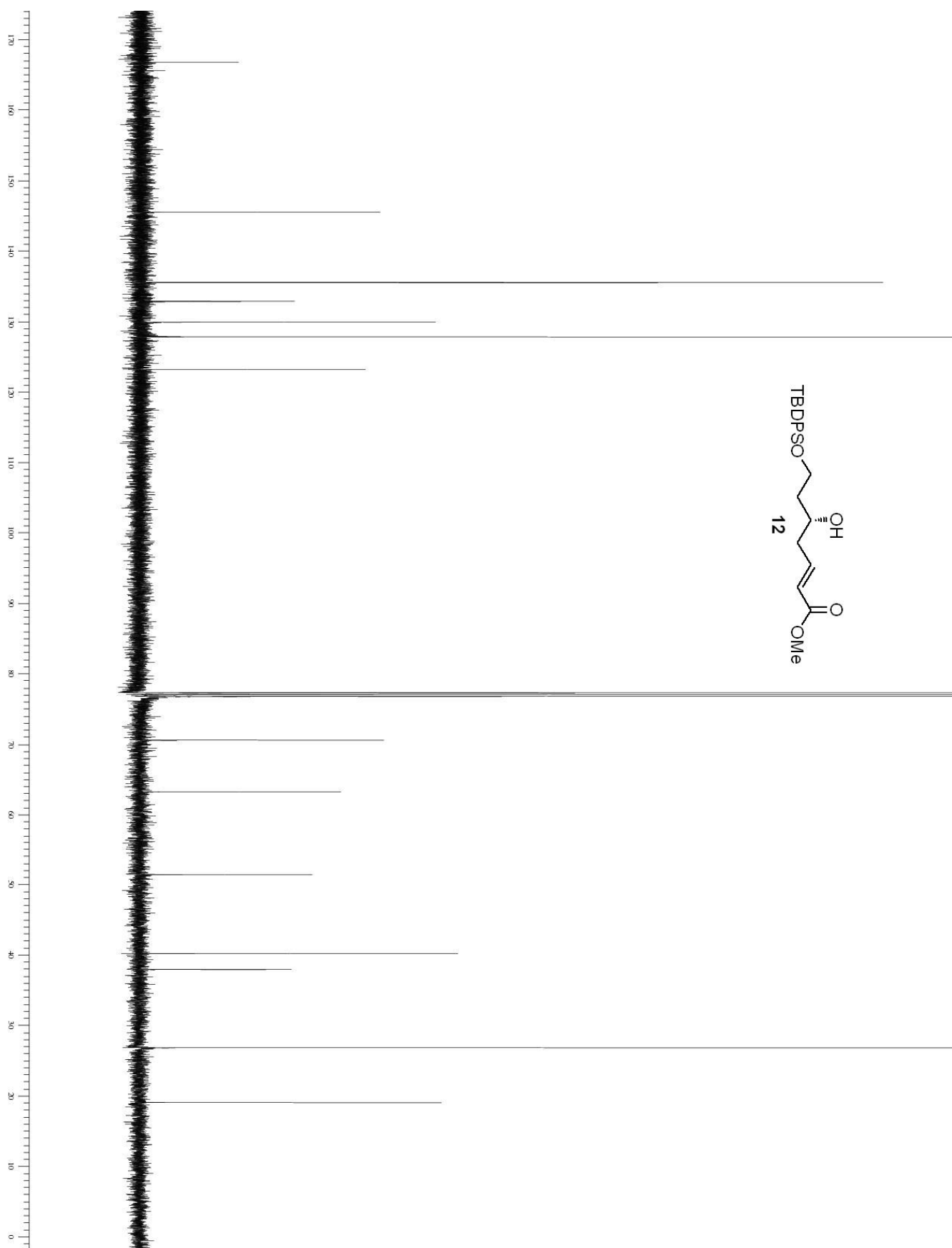
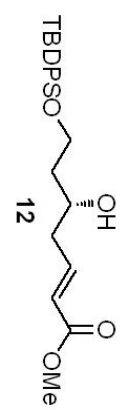
[jenningsm@bama.ua.edu](mailto:jenningsm@bama.ua.edu)

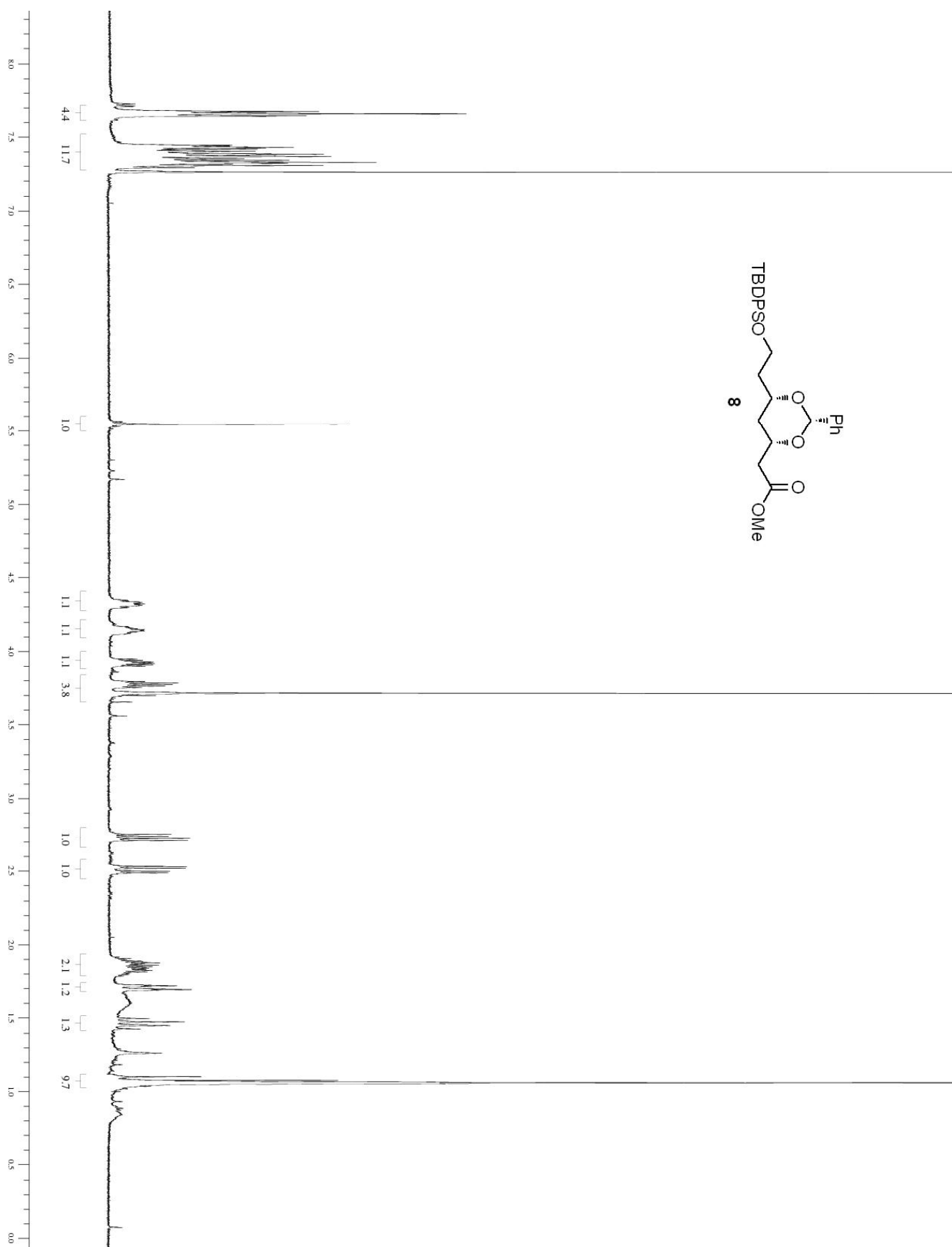
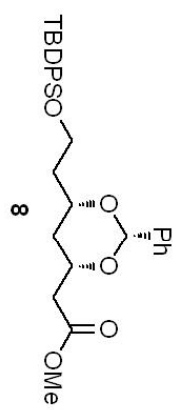
## **Table of Contents:**

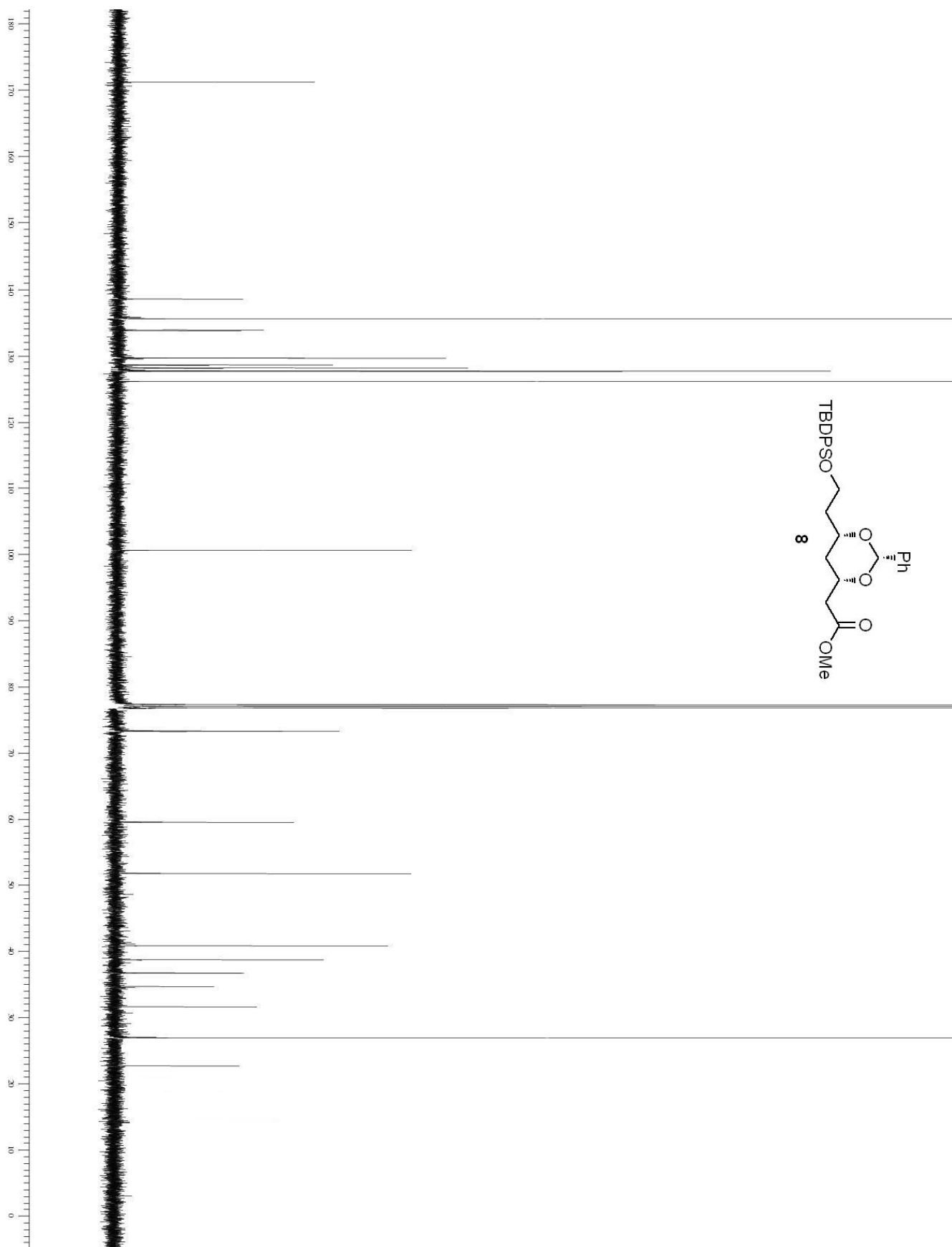
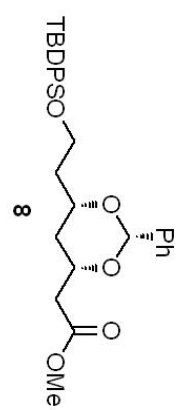
General Procedure	S1
$^1\text{H}$ and $^{13}\text{C}$ NMR spectra of all compounds	S2-S37
References	S38

**General Procedure.**  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra were obtained using either  $\text{CDCl}_3$  or  $\text{C}_6\text{D}_6$  as the solvent with  $\text{CHCl}_3$ : 7.26 ppm or  $\text{C}_6\text{H}_6$ : 7.15 ppm as internal standards. Chemical shifts are given in  $\delta$  (ppm) and coupling constants ( $J$ ) in Hz. All starting materials and solvents were commercially available and were used without further purification. Column chromatography was performed using 60-200  $\mu\text{m}$  silica gel. Analytical thin layer chromatography was performed on silica coated glass plates with F-254 indicator. Visualization was accomplished by UV light (254 nm),  $\text{KMnO}_4$ , or ceric sulfate-PMA stain. Compound **9** has been previously reported.<sup>1</sup>

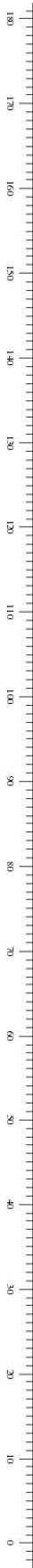














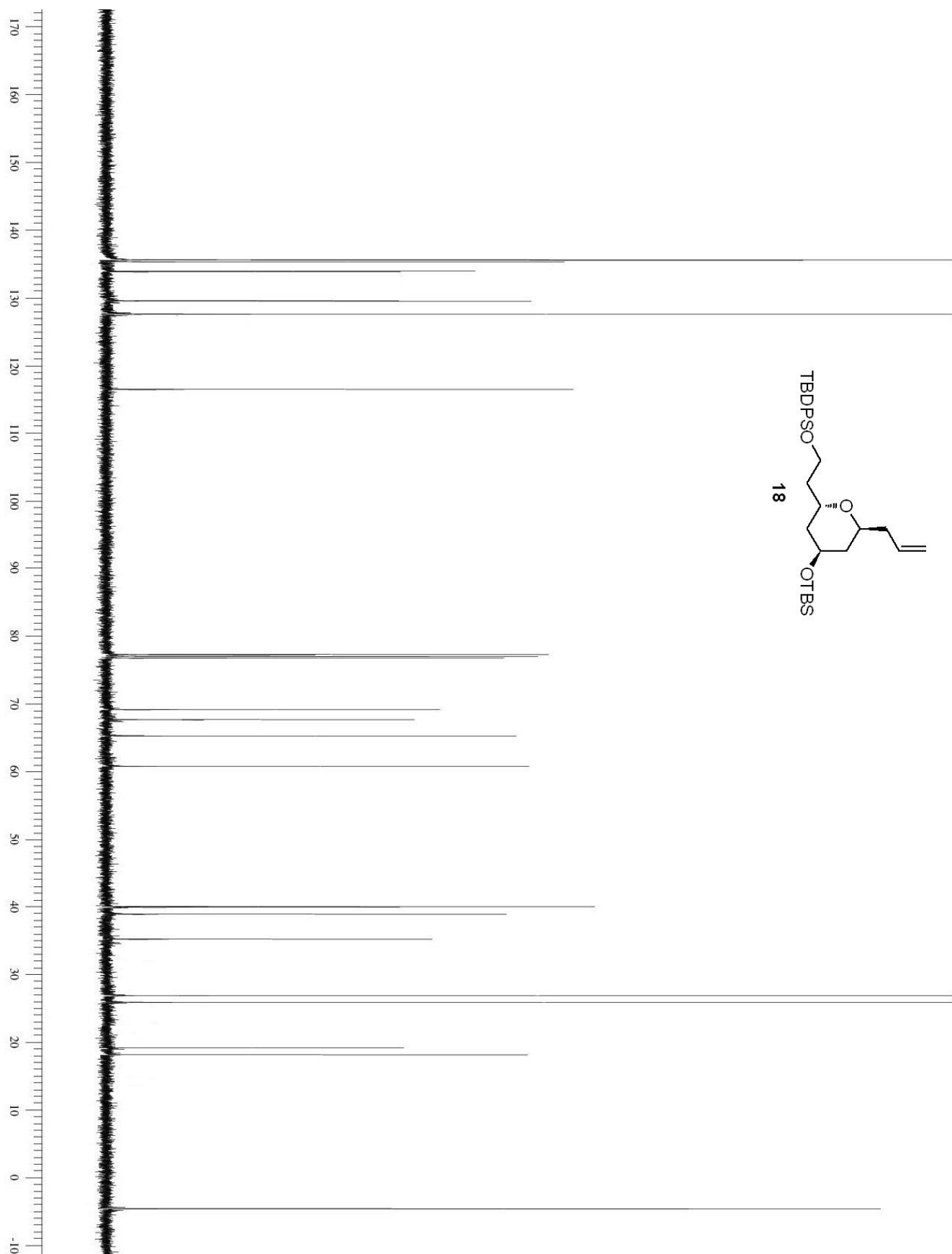
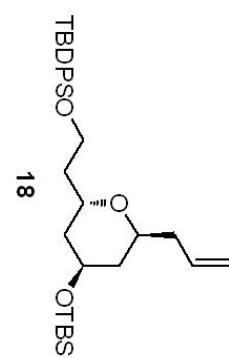




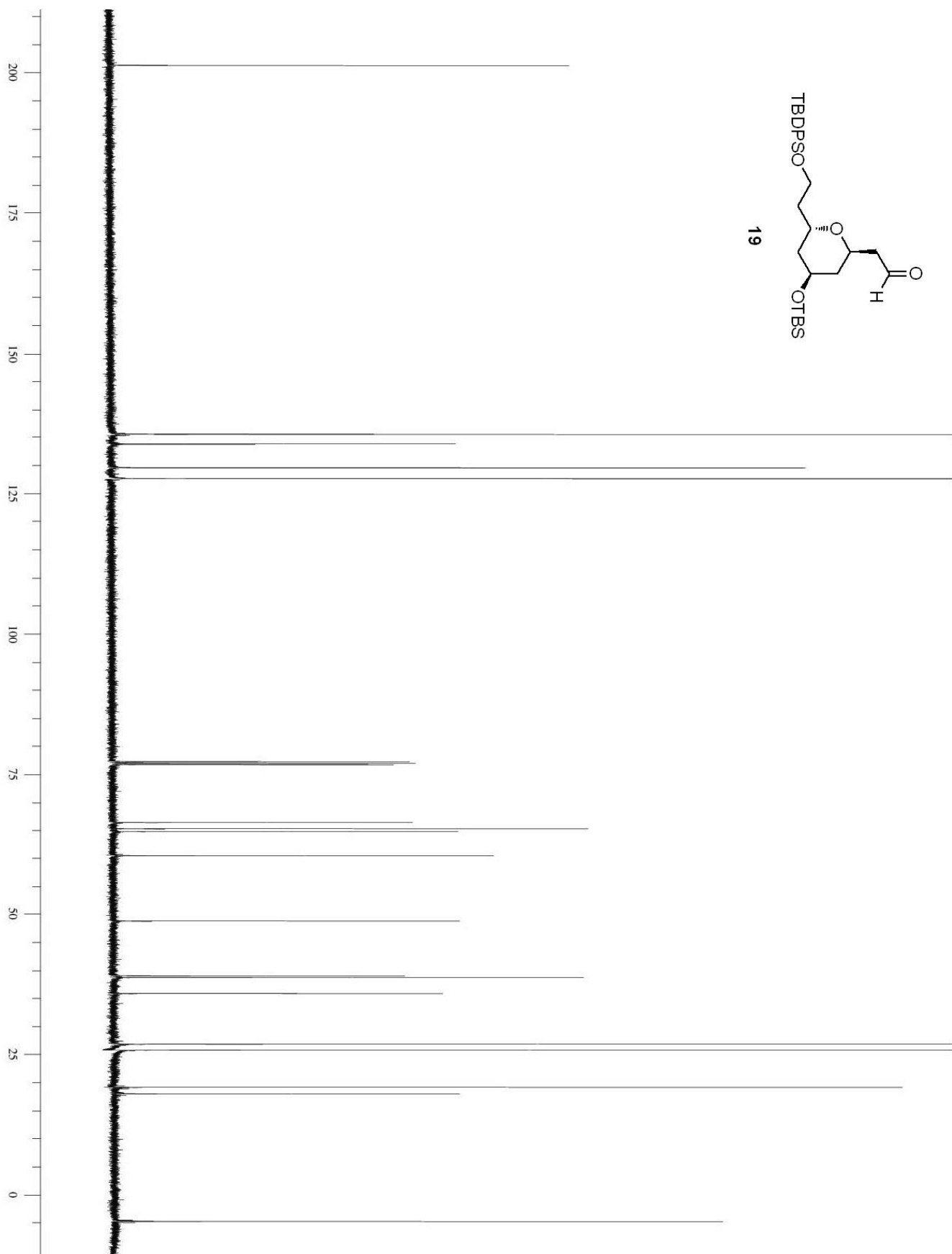
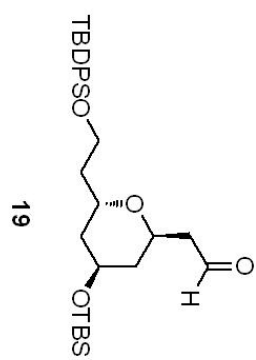
















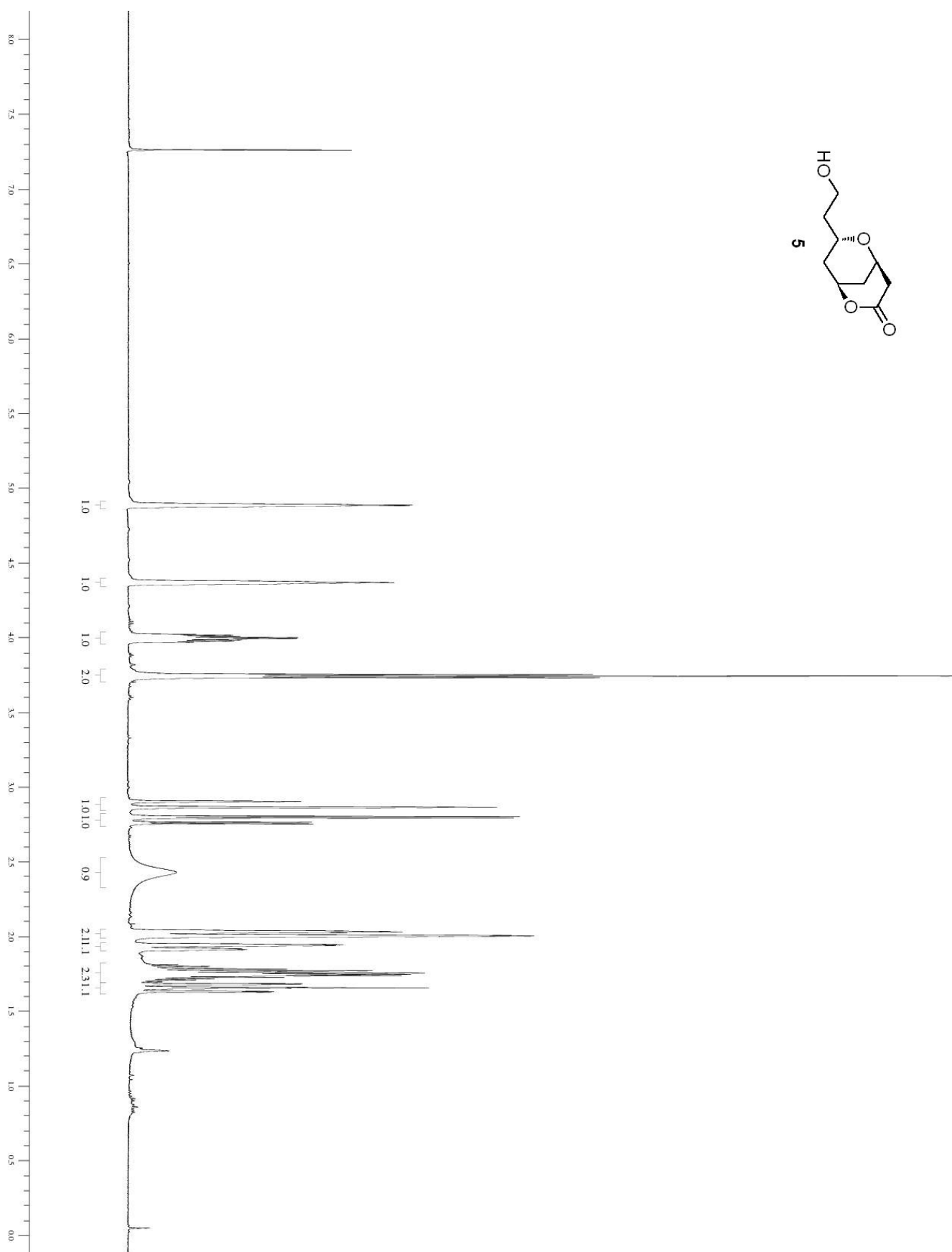
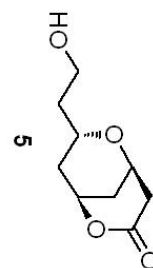


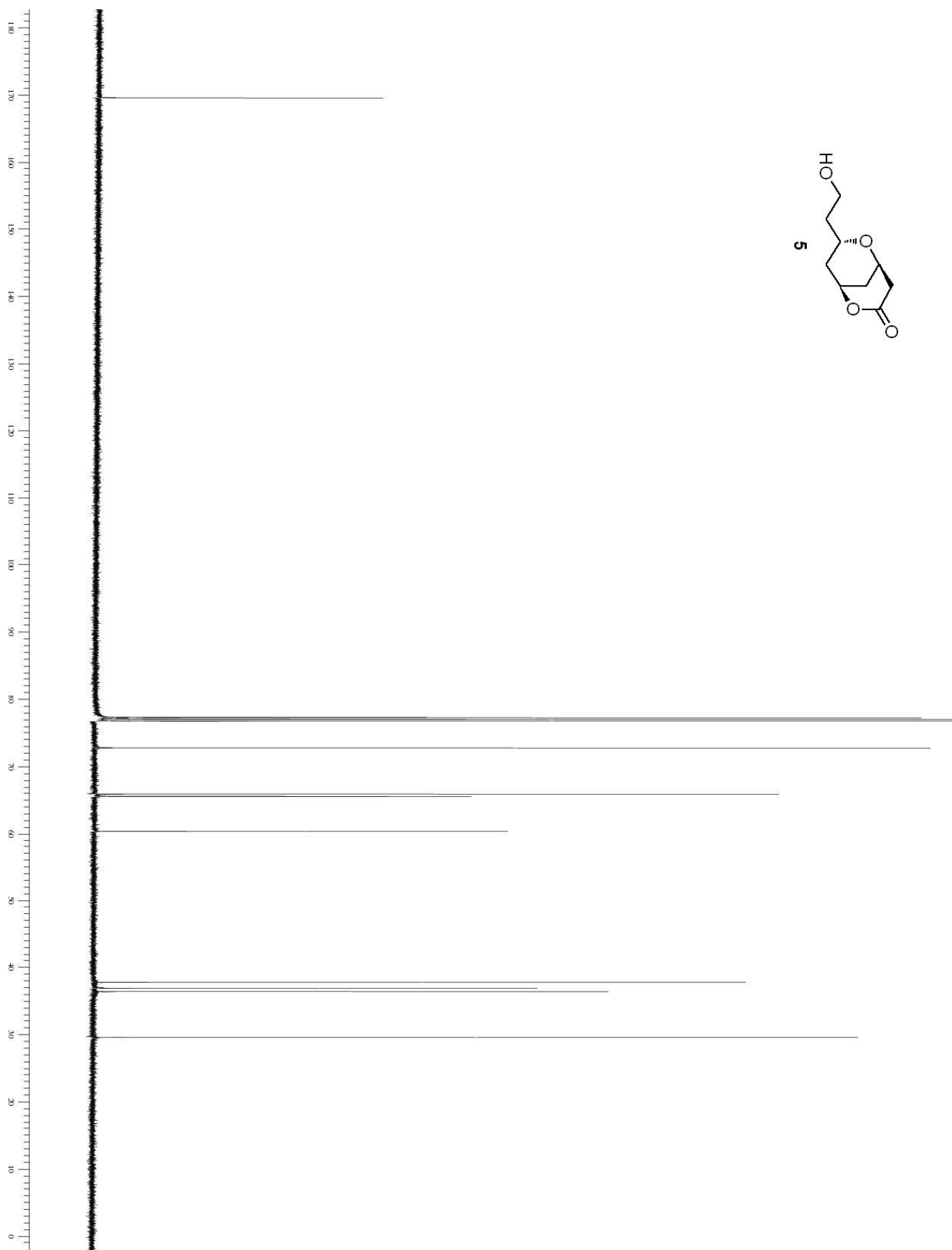
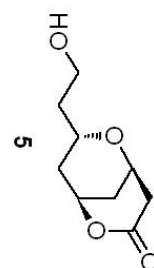


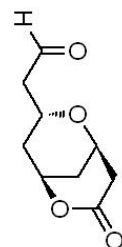




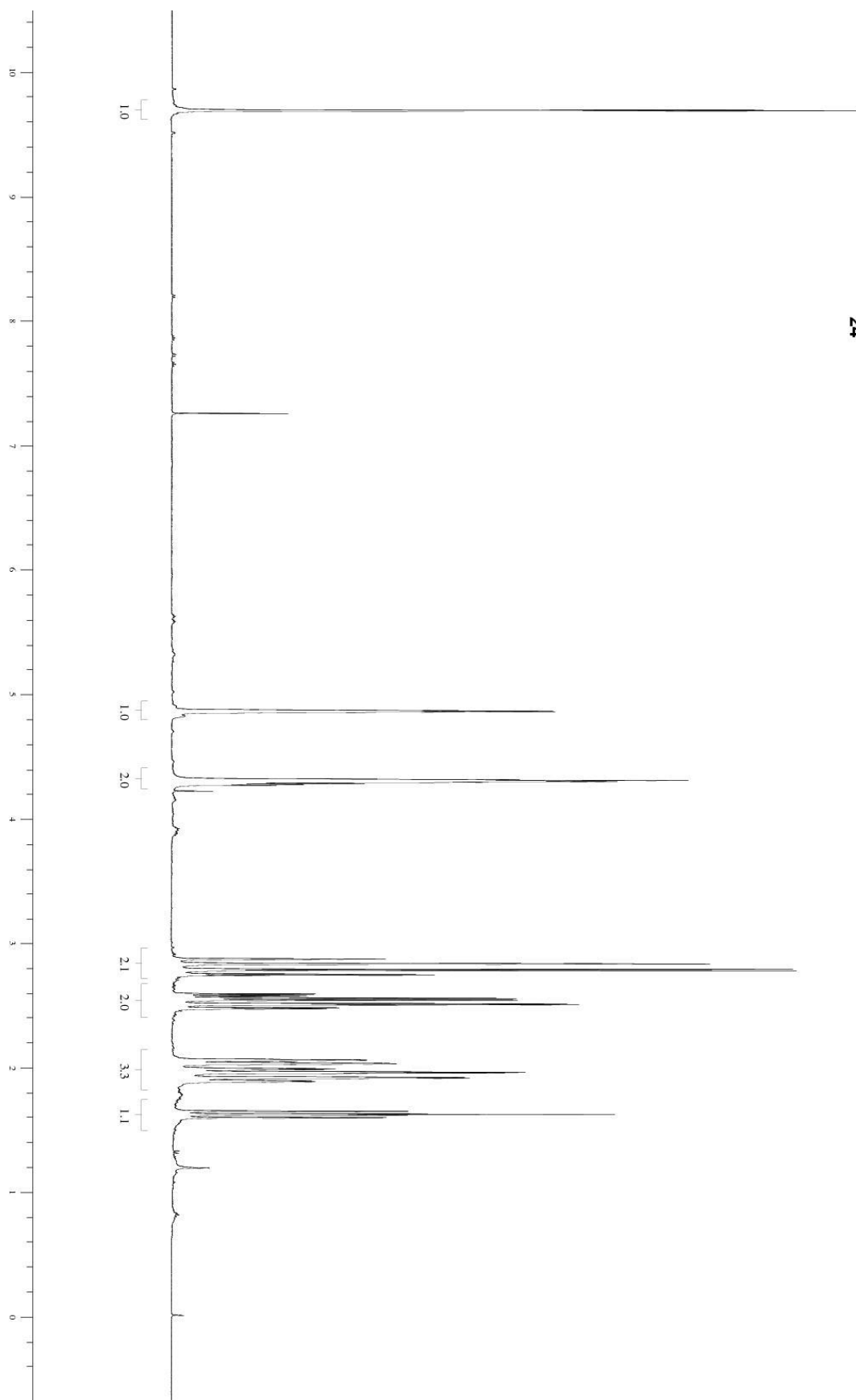






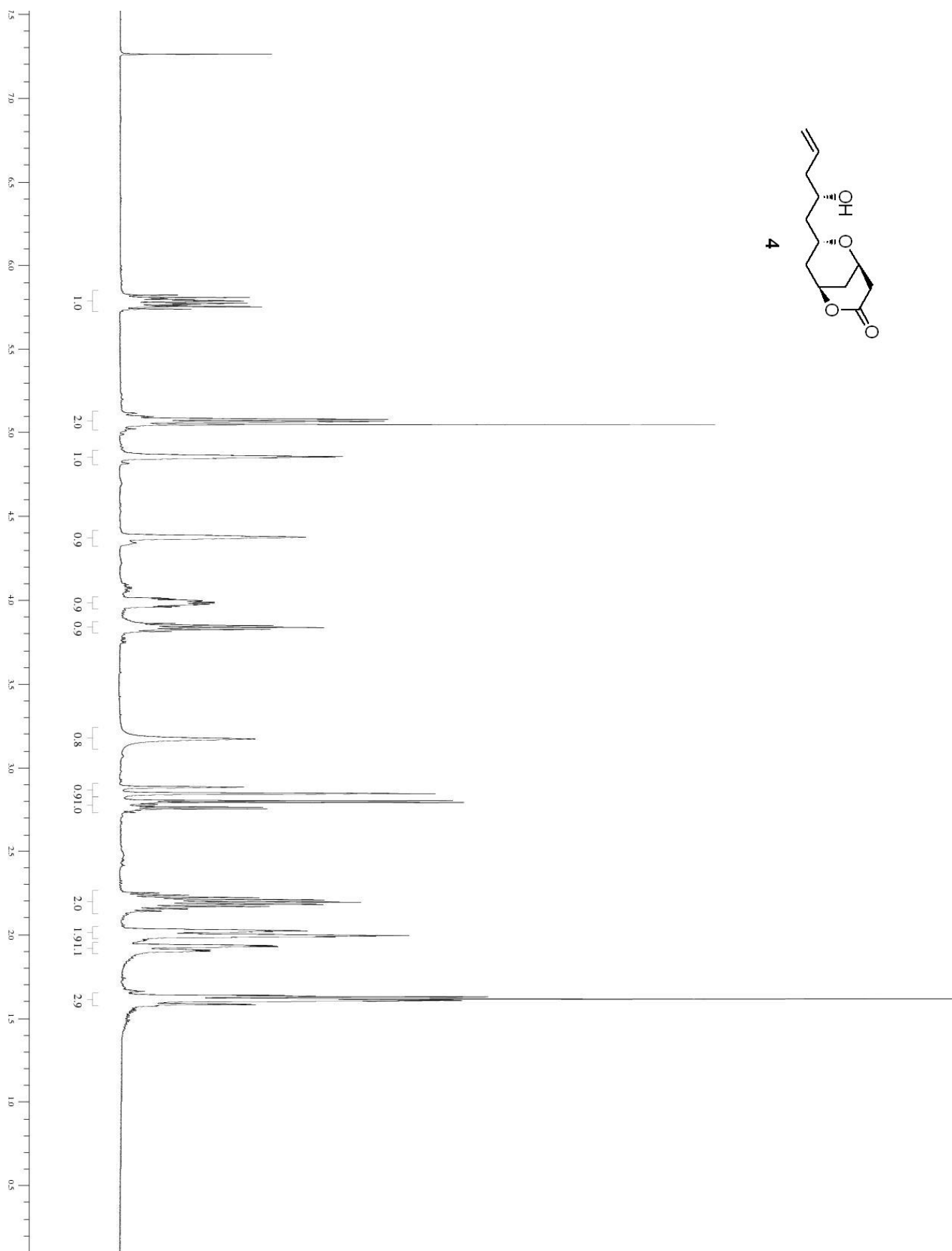
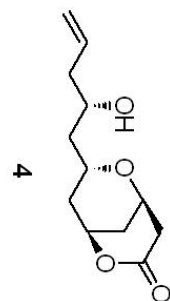


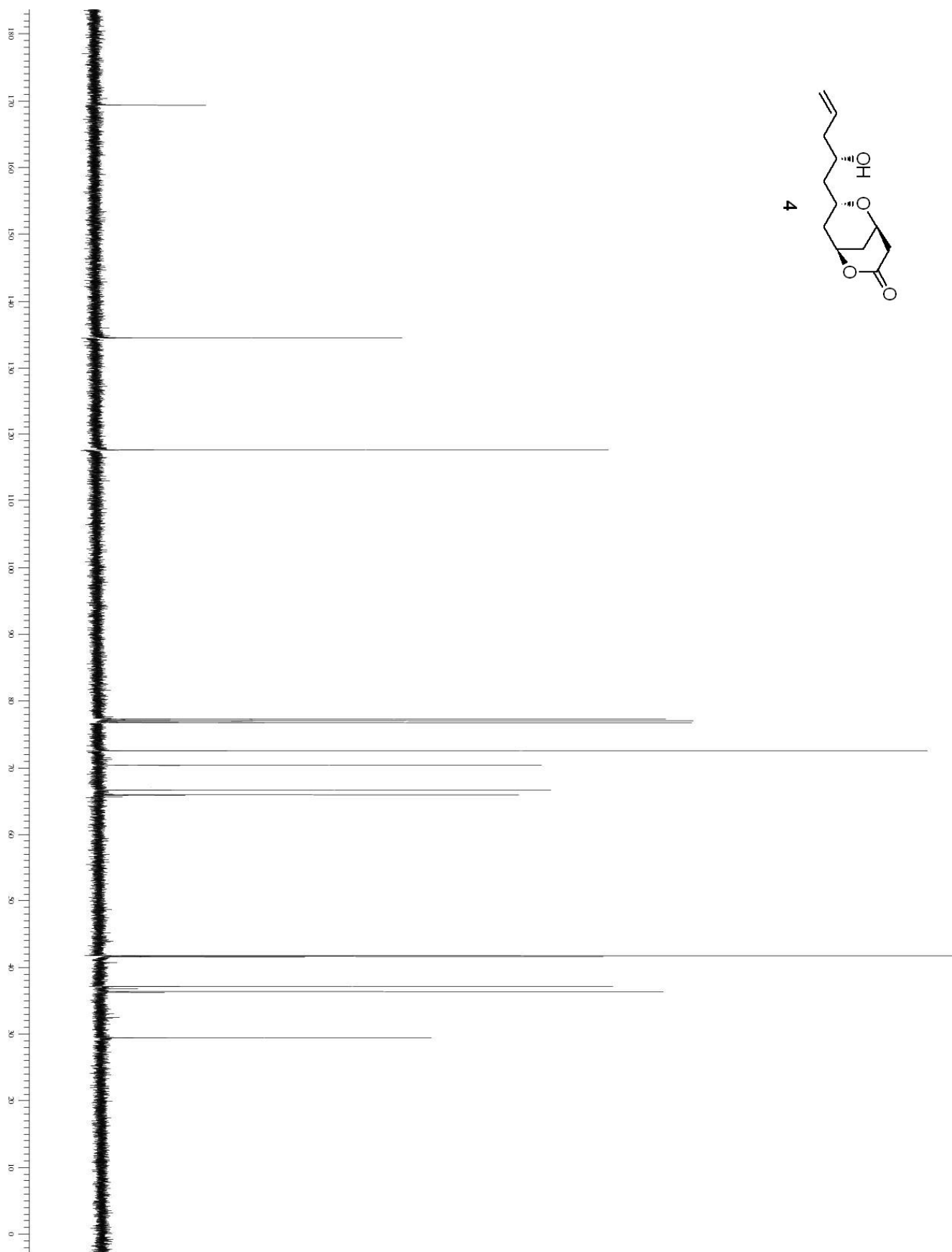
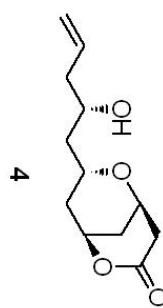
24

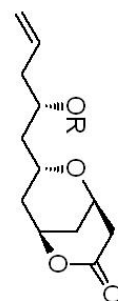




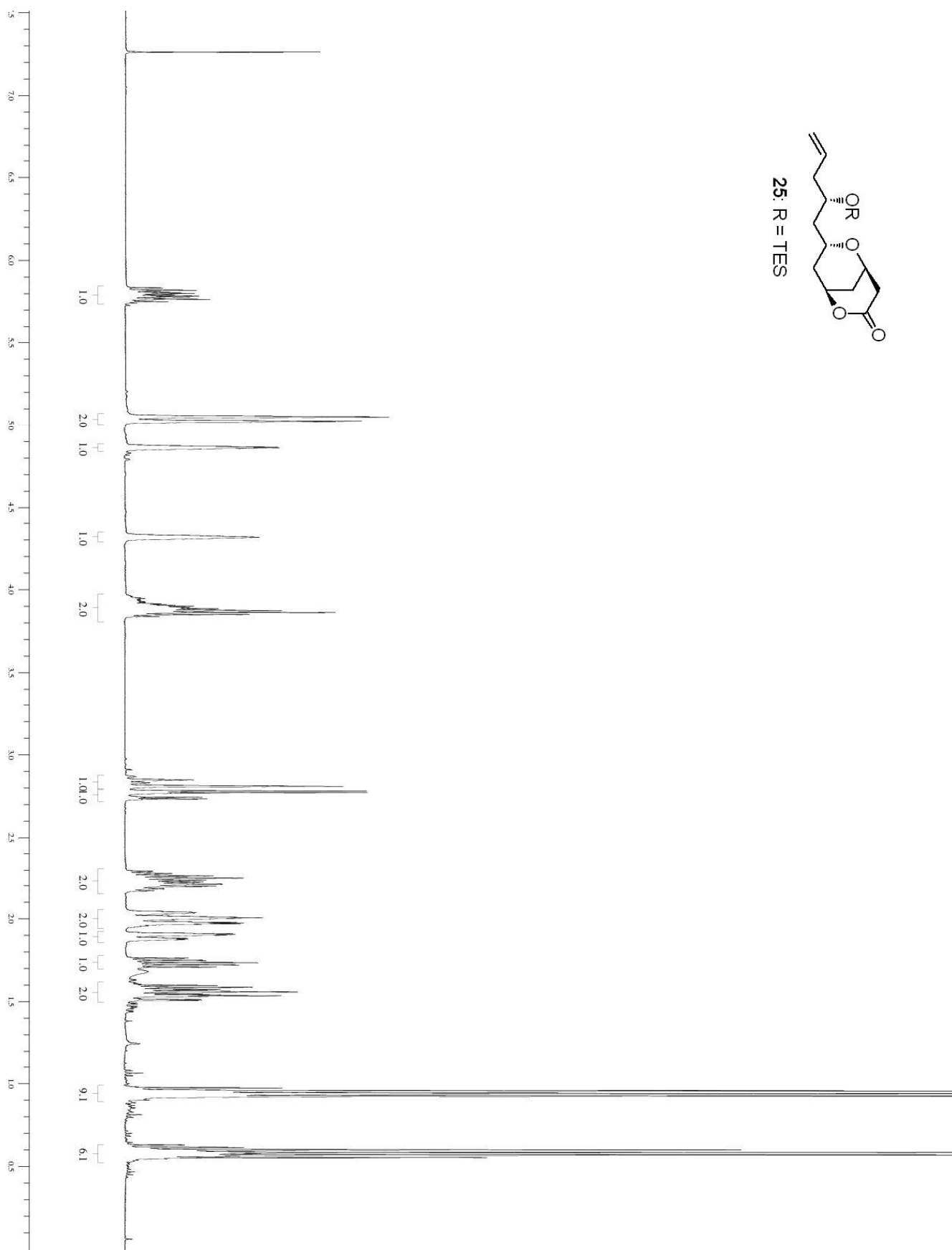


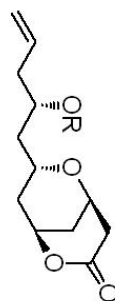




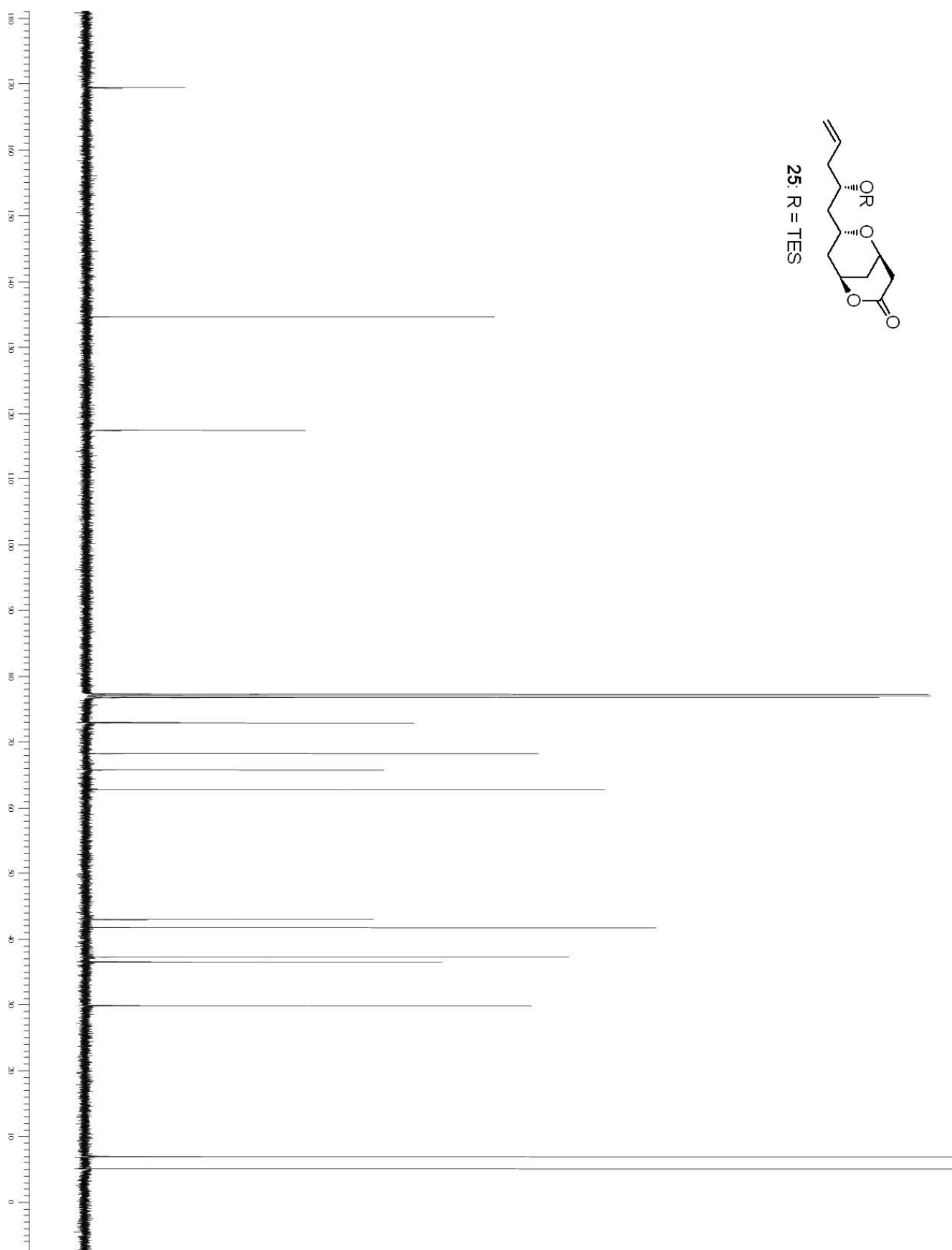


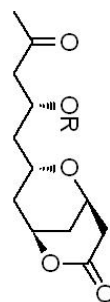
25: R = TES



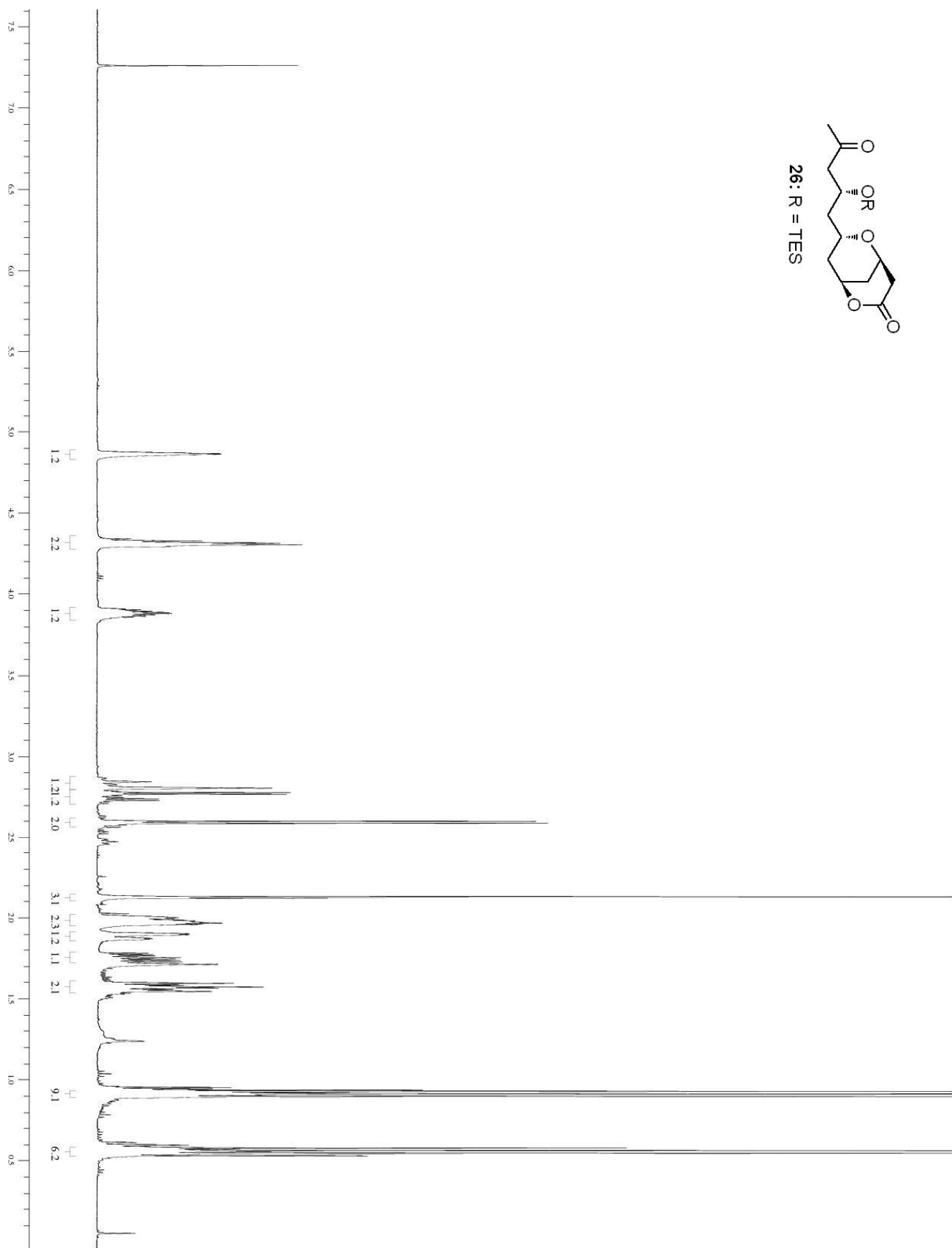


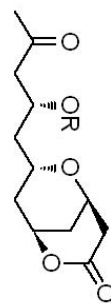
25: R = TES



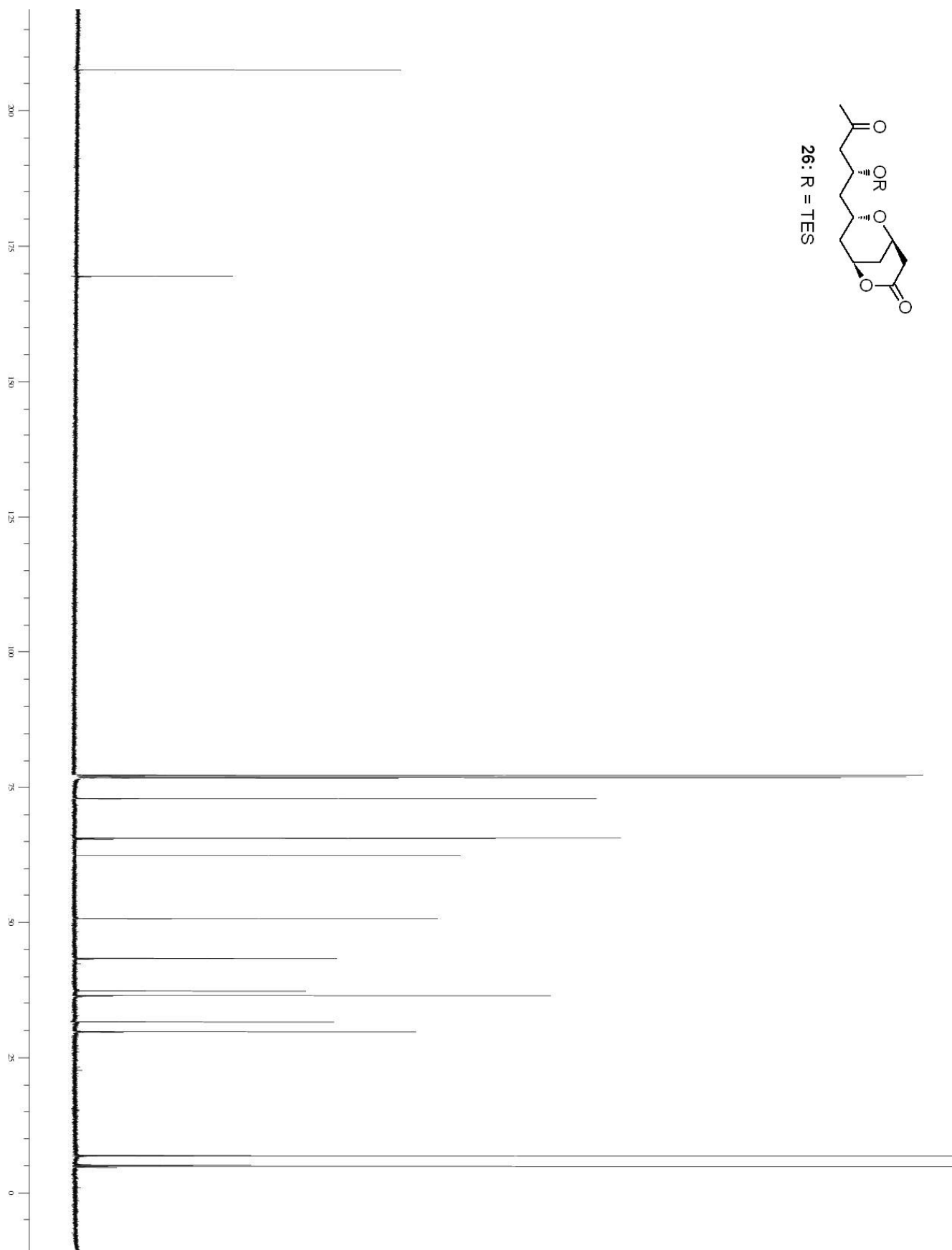


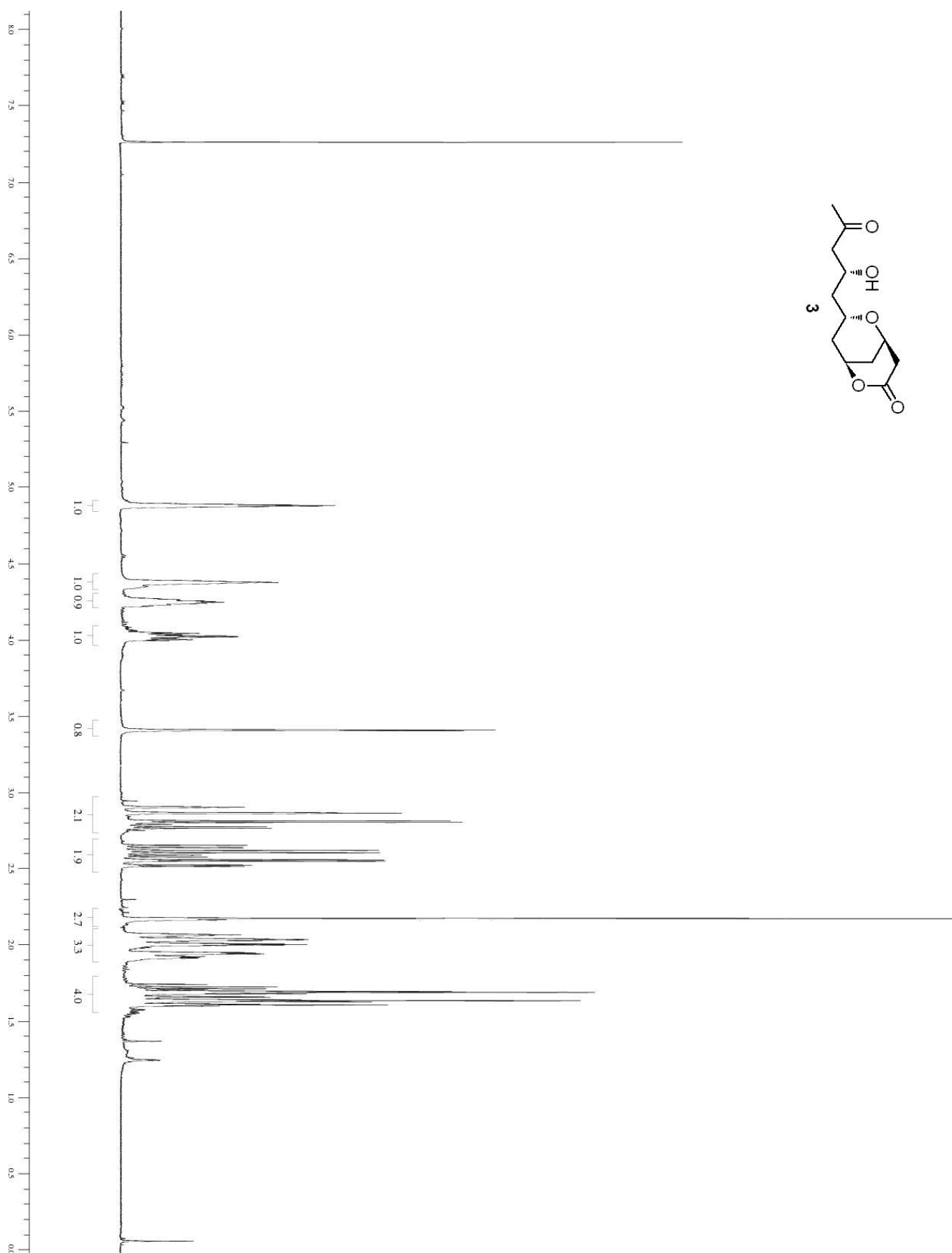
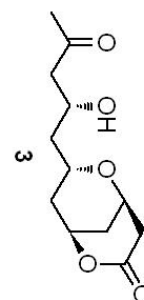
26: R = TES



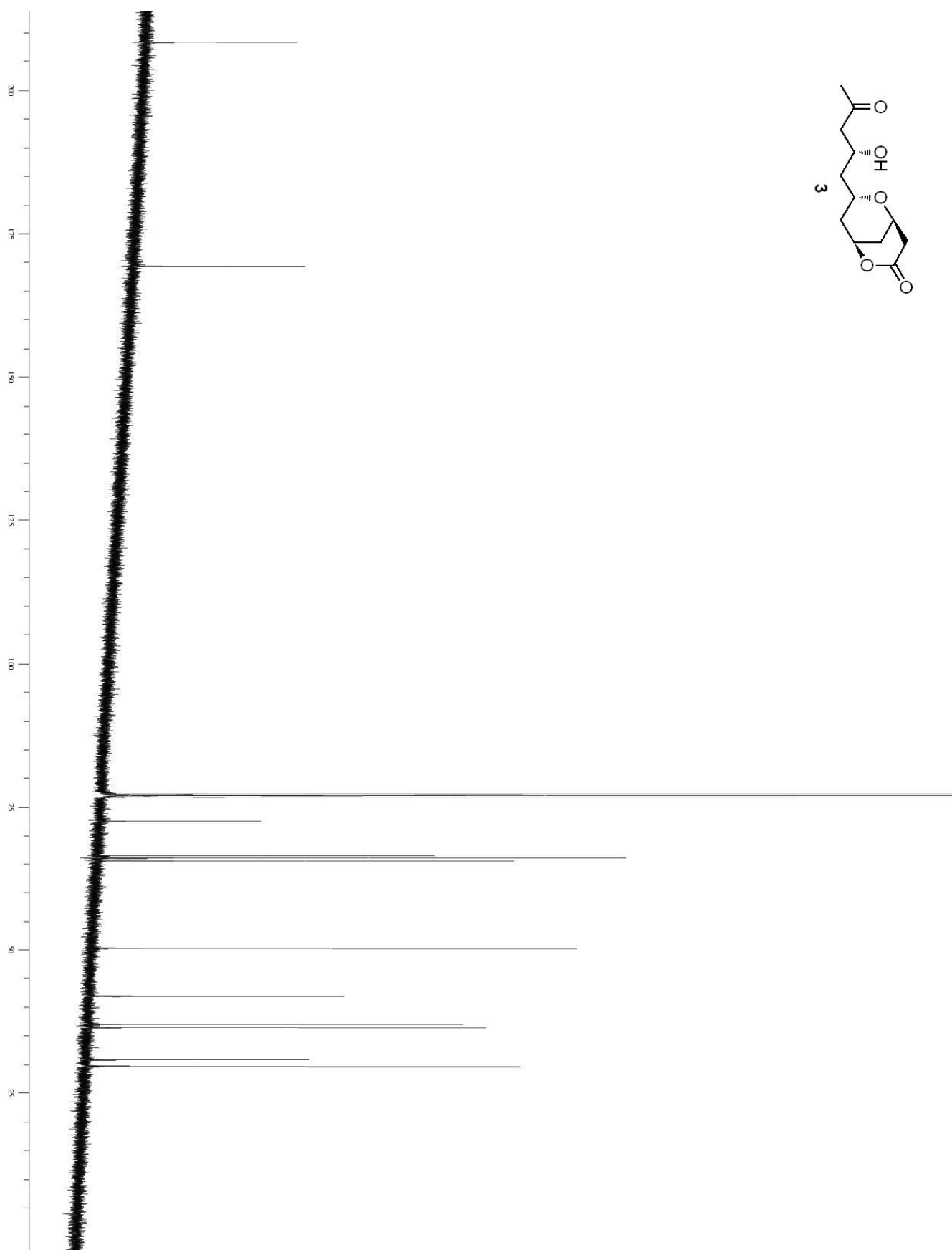
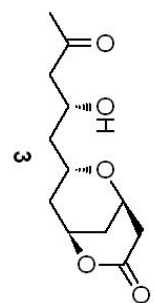


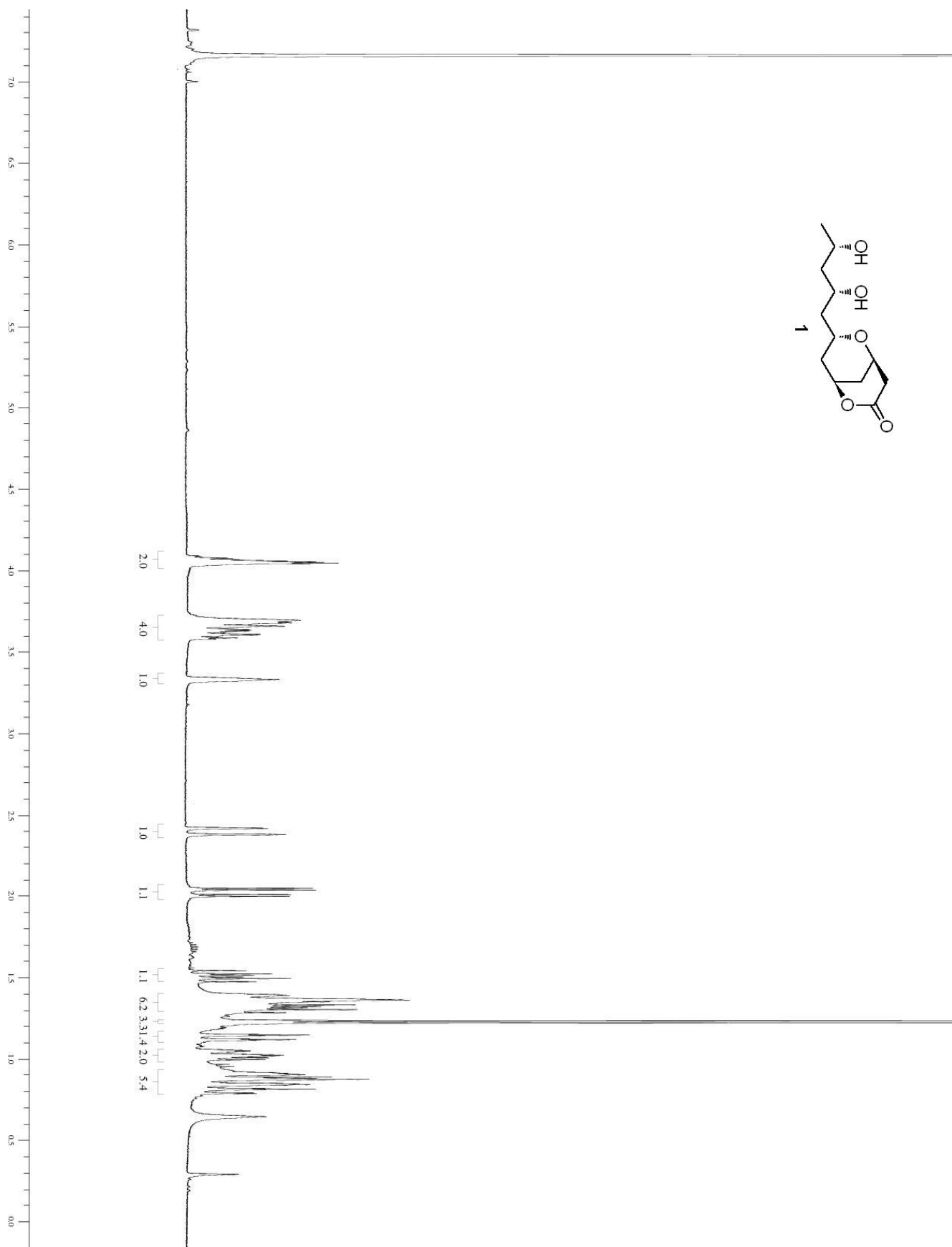
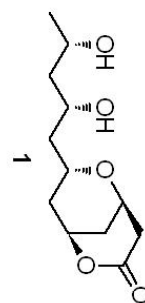
26: R = TES

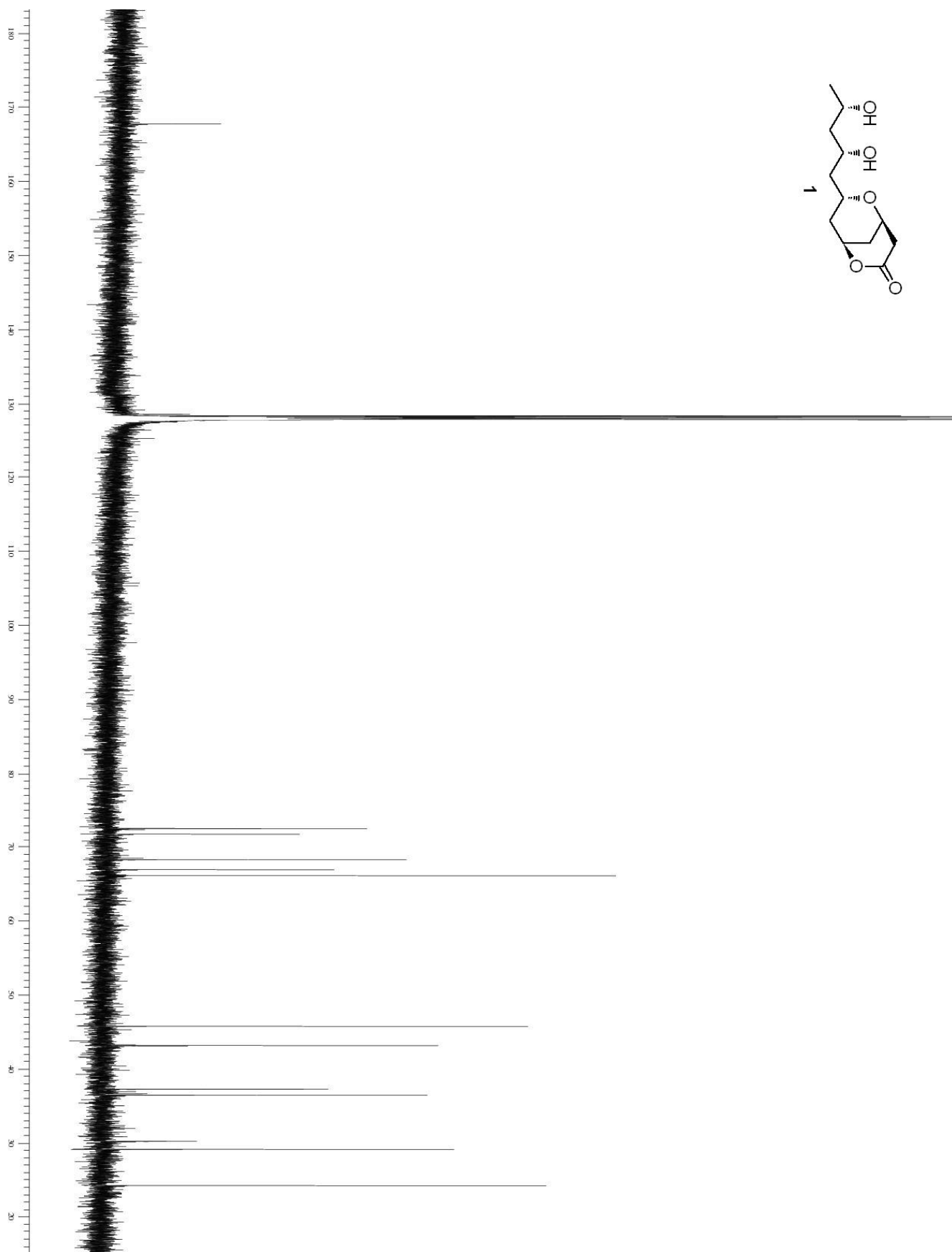
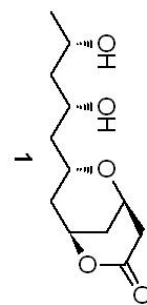


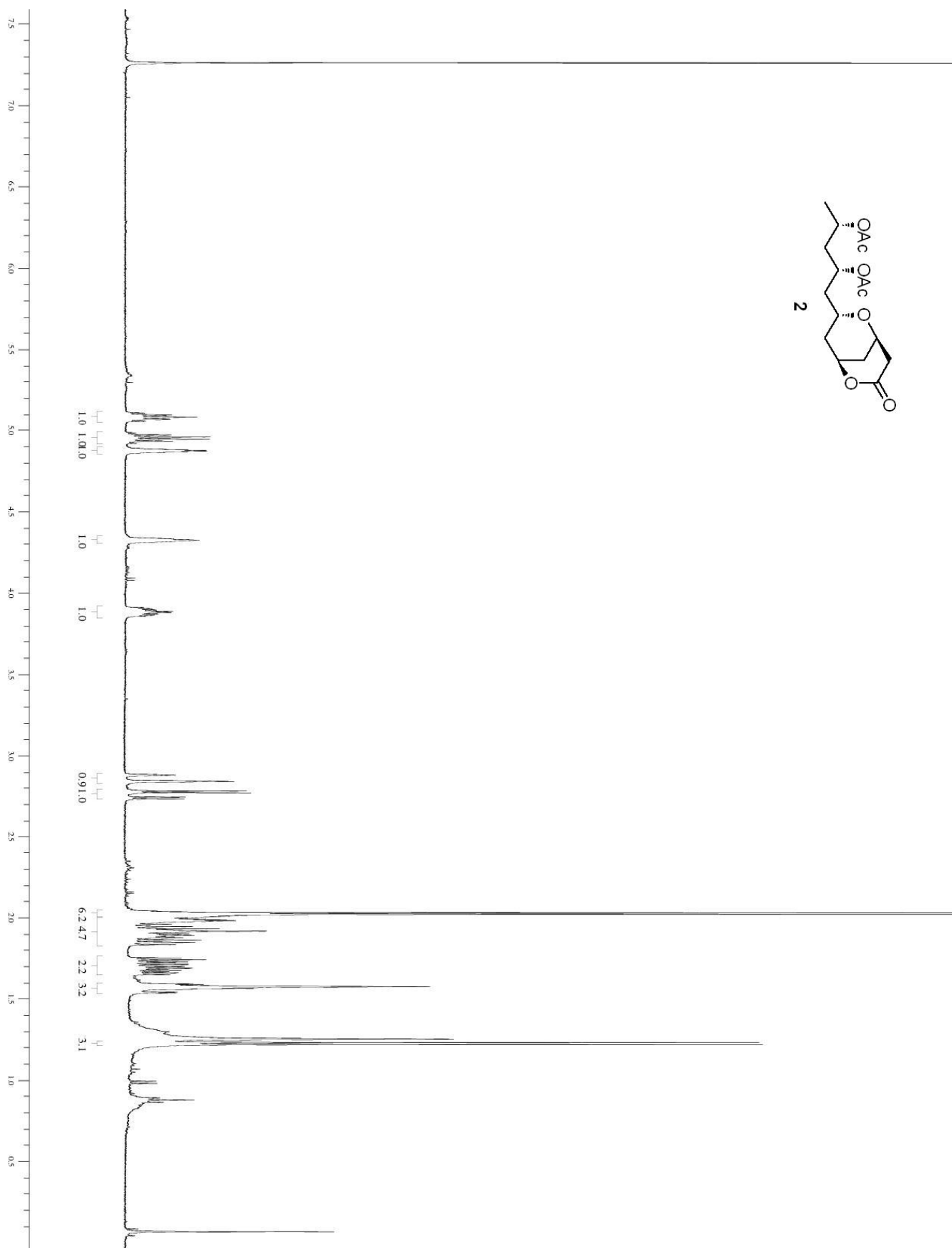
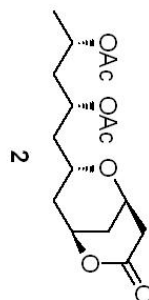


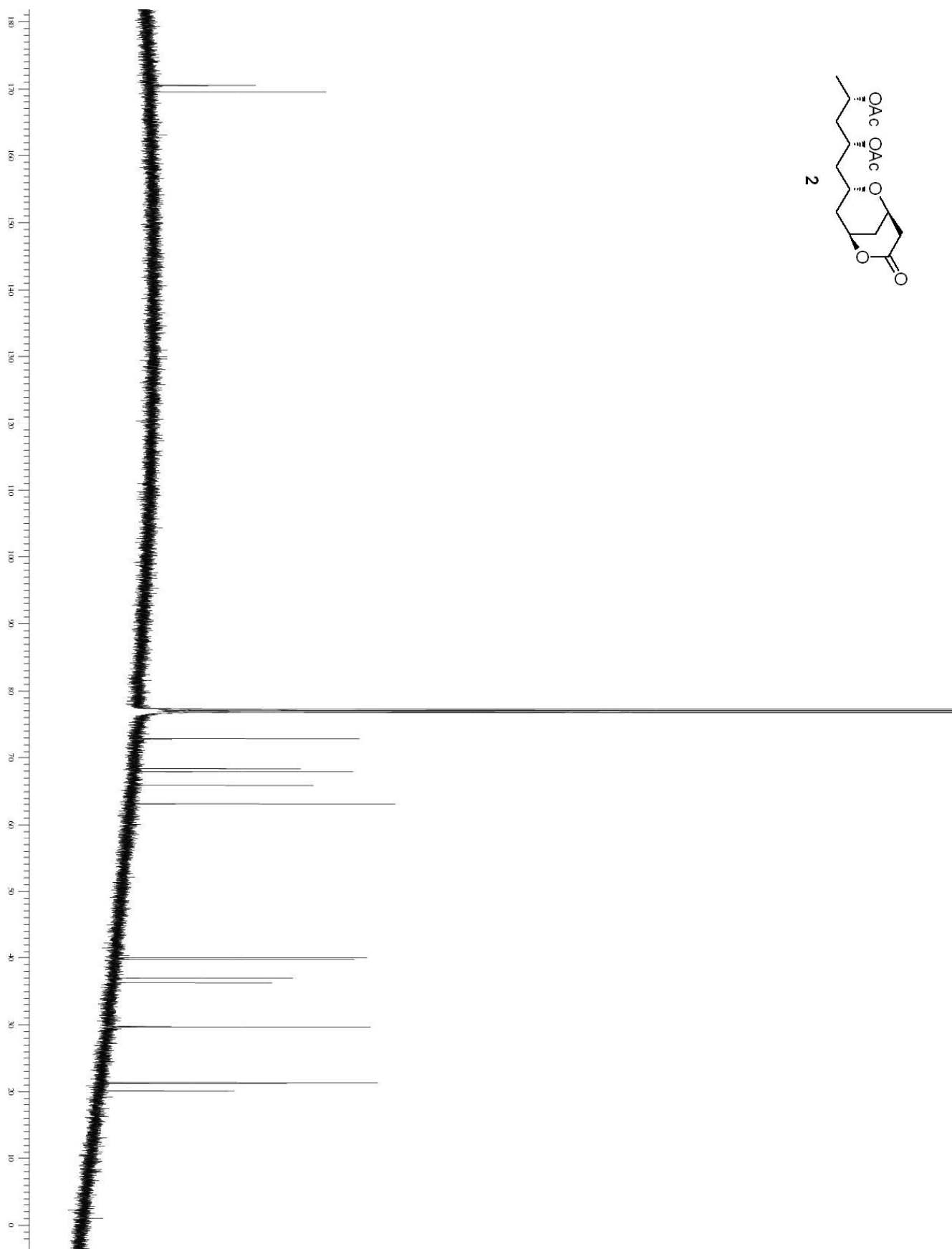
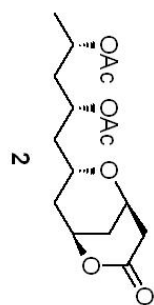












## References:

1. Smith, A. B., III; Minbirole, K. P.; Verhoest, P. R.; Schelhaas, M. *J. Am. Chem. Soc.* **2001**, *123*, 10942.