Supplementary Material

Synthesis and application of a novel bis-1,2,3-triazole ligand containing a 2,2'-bipyrrolidine core

Stephen E. Motika, Xiaodong Shi*

Department of Chemistry, University of South Florida, Tampa, FL 33620, USA
Email: xmshi@usf.edu

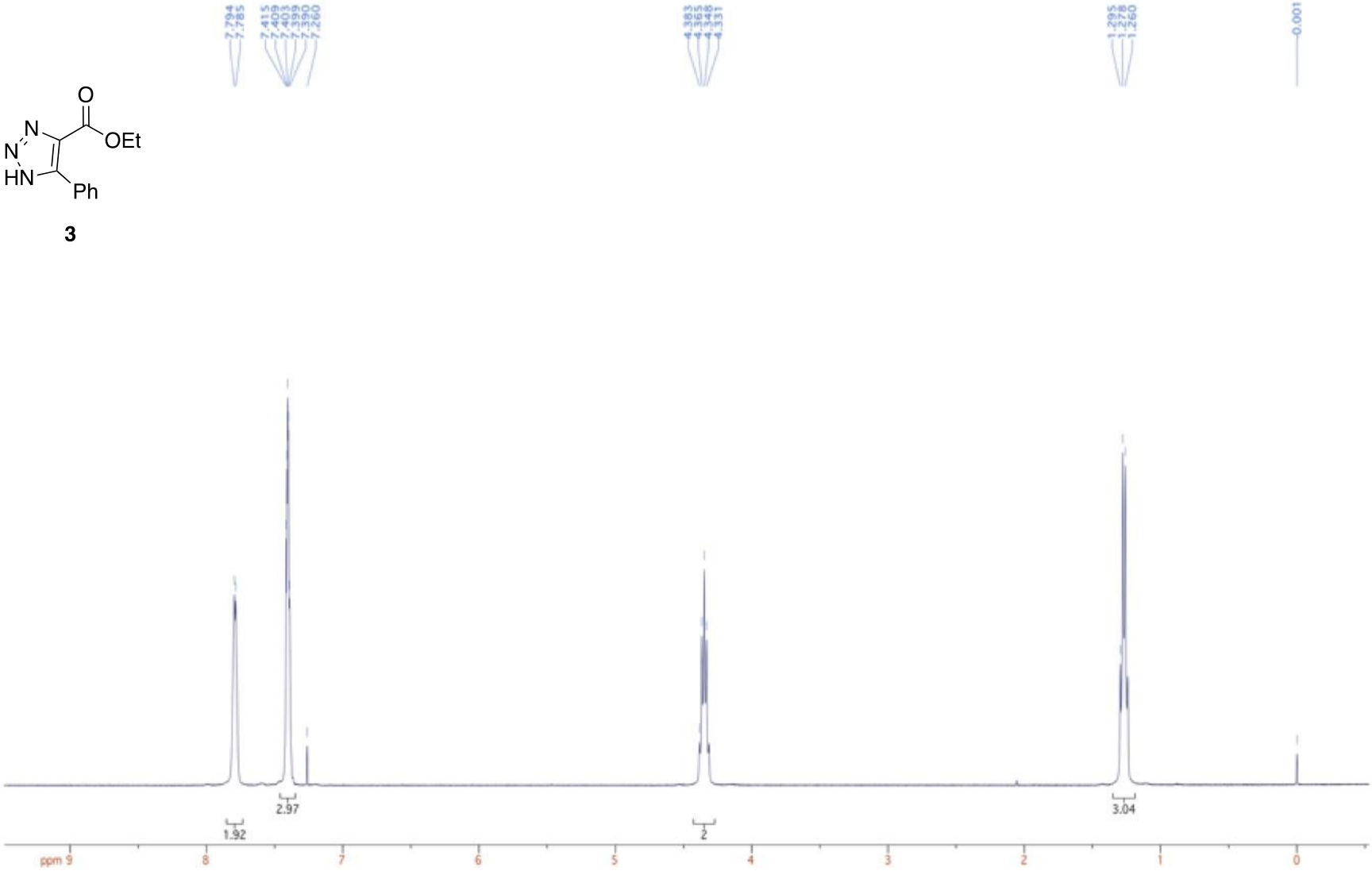
Table of Contents

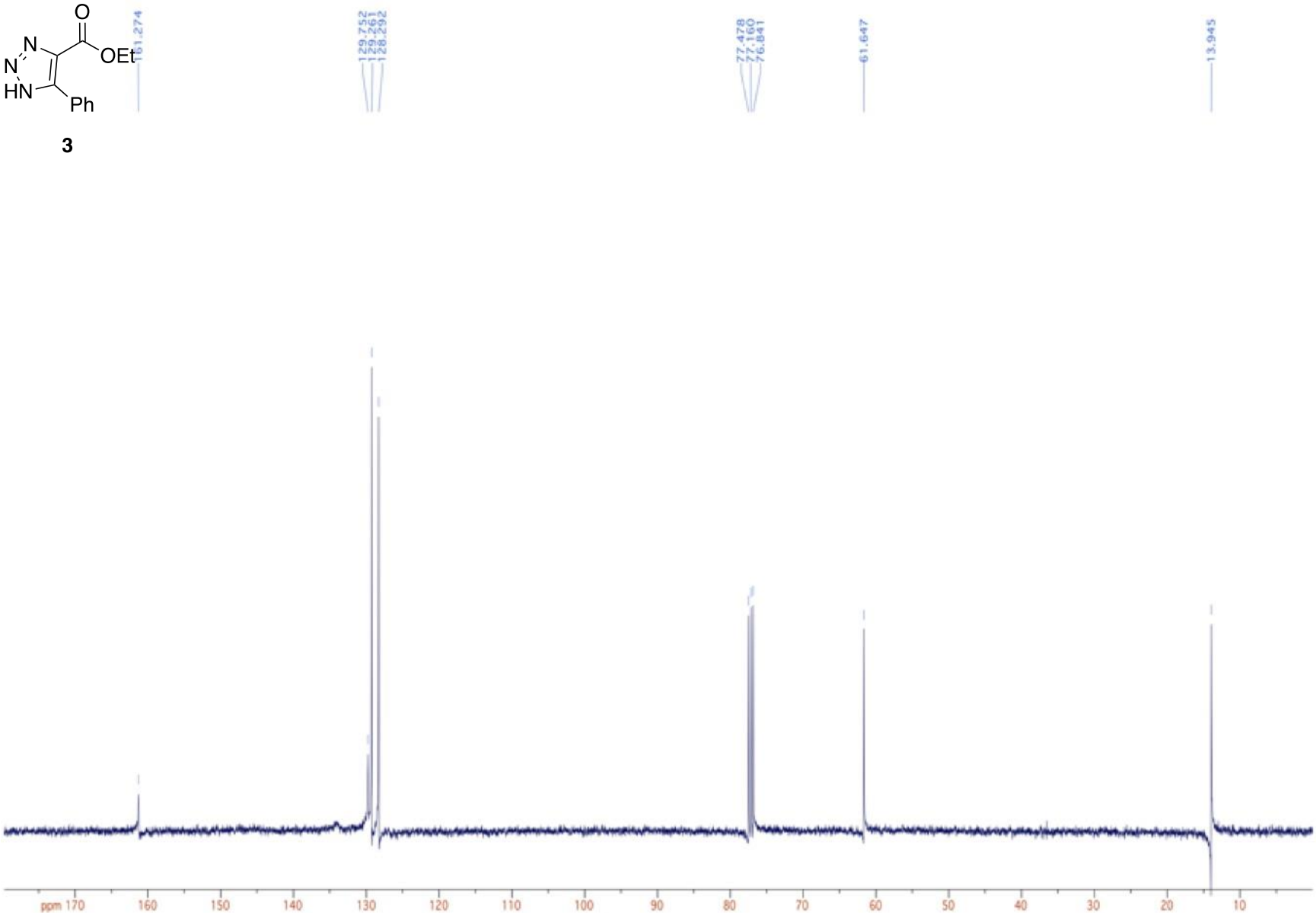
1. General Remarks

^{1}H NMR, ^{13}C NMR and ^{31}P NMR spectra were recorded on an Agilent 400 MHz spectrometers. Chemical shifts for starting materials and products were reported relative to tetramethyl silane (0.00 ppm) or NaOD (4.80 ppm) for ^{1}H NMR data, $CDCl_3$ (77.0 ppm) or CD_3OD (49.9) for ^{13}C NMR and H_3PO_4/D_20 for ^{31}P NMR data.

2. NMR spectra for title compounds

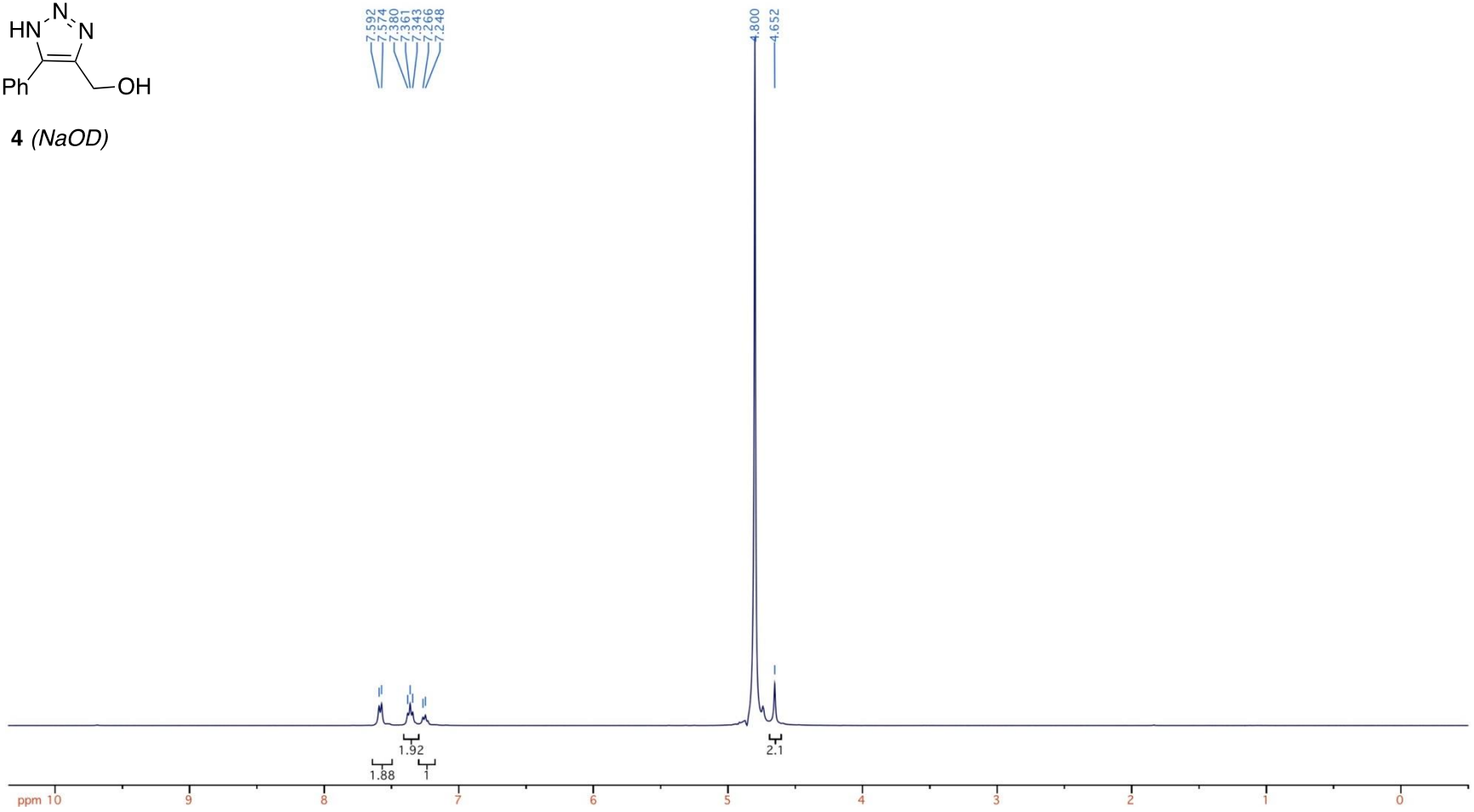
3

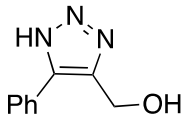




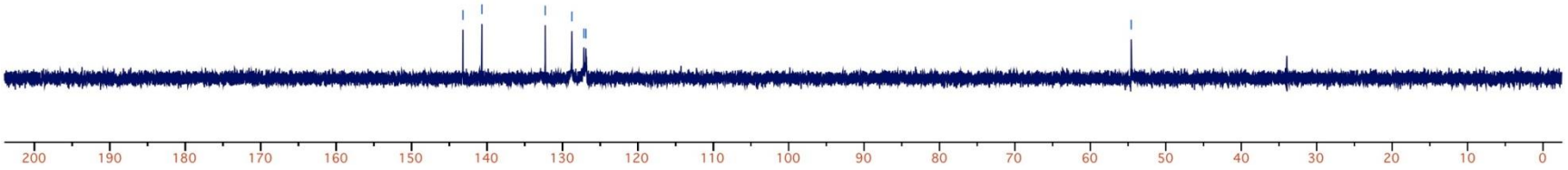
3

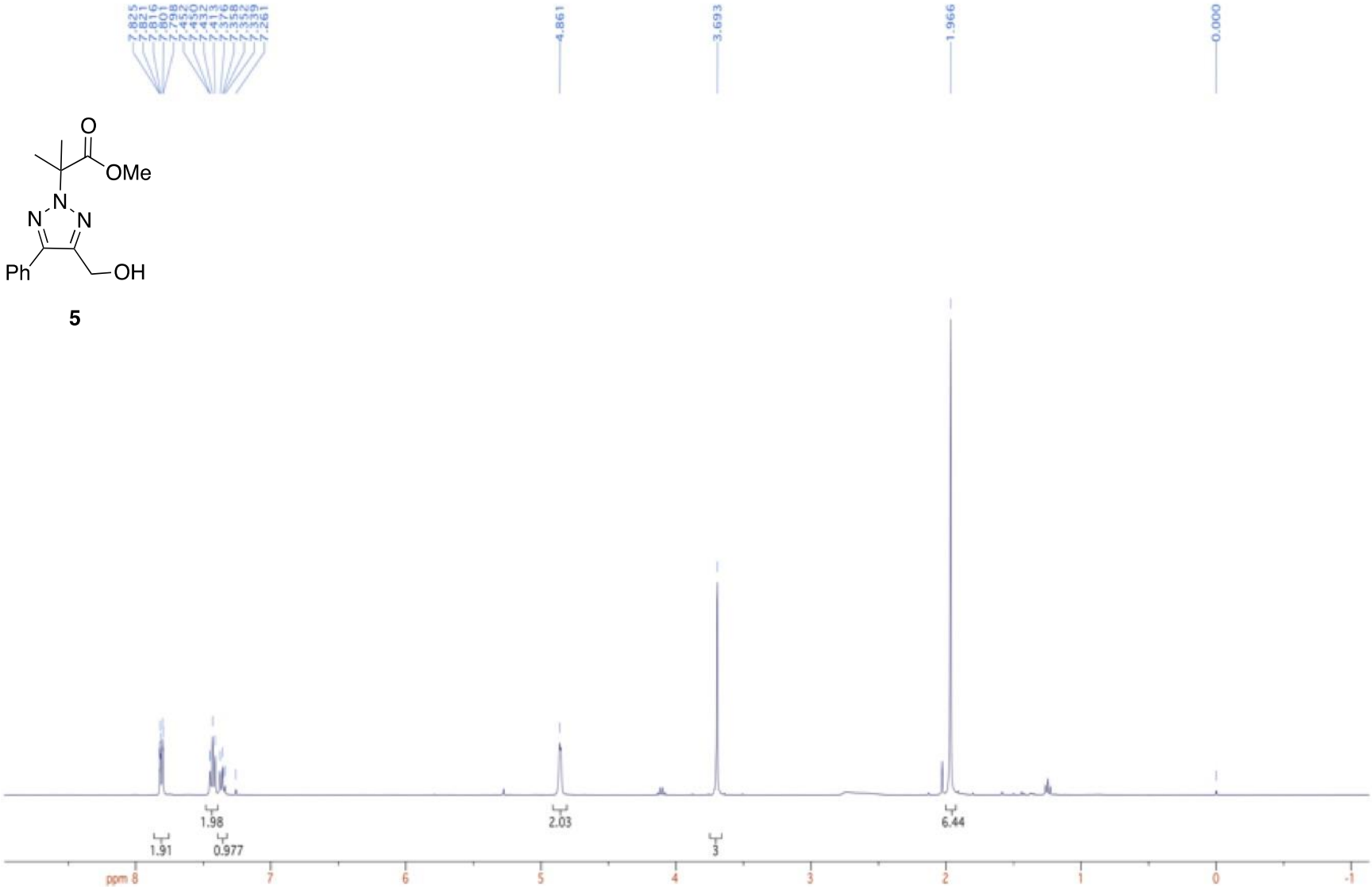
4 *(NaOD)*



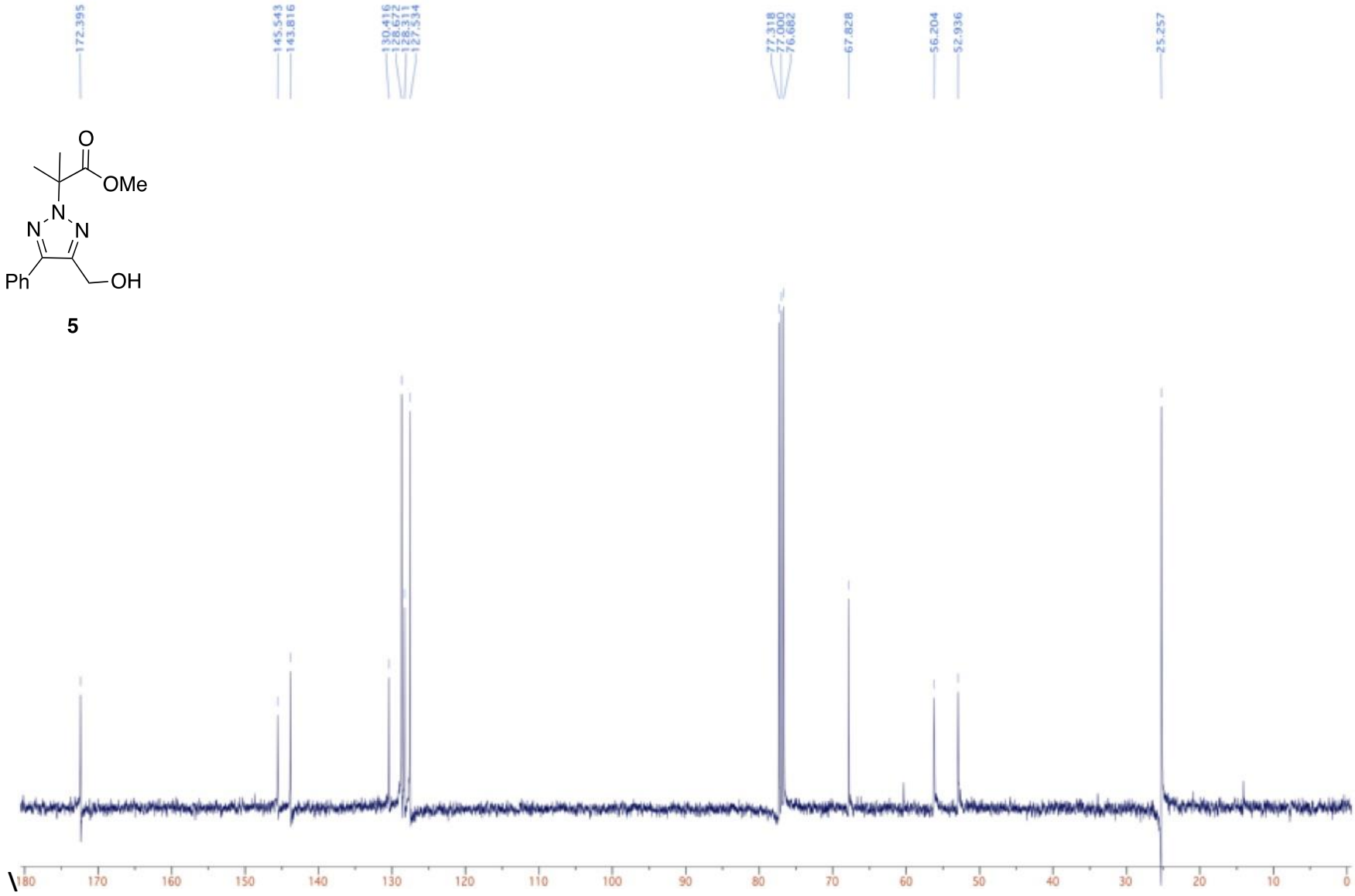


4 *(NaOD)*

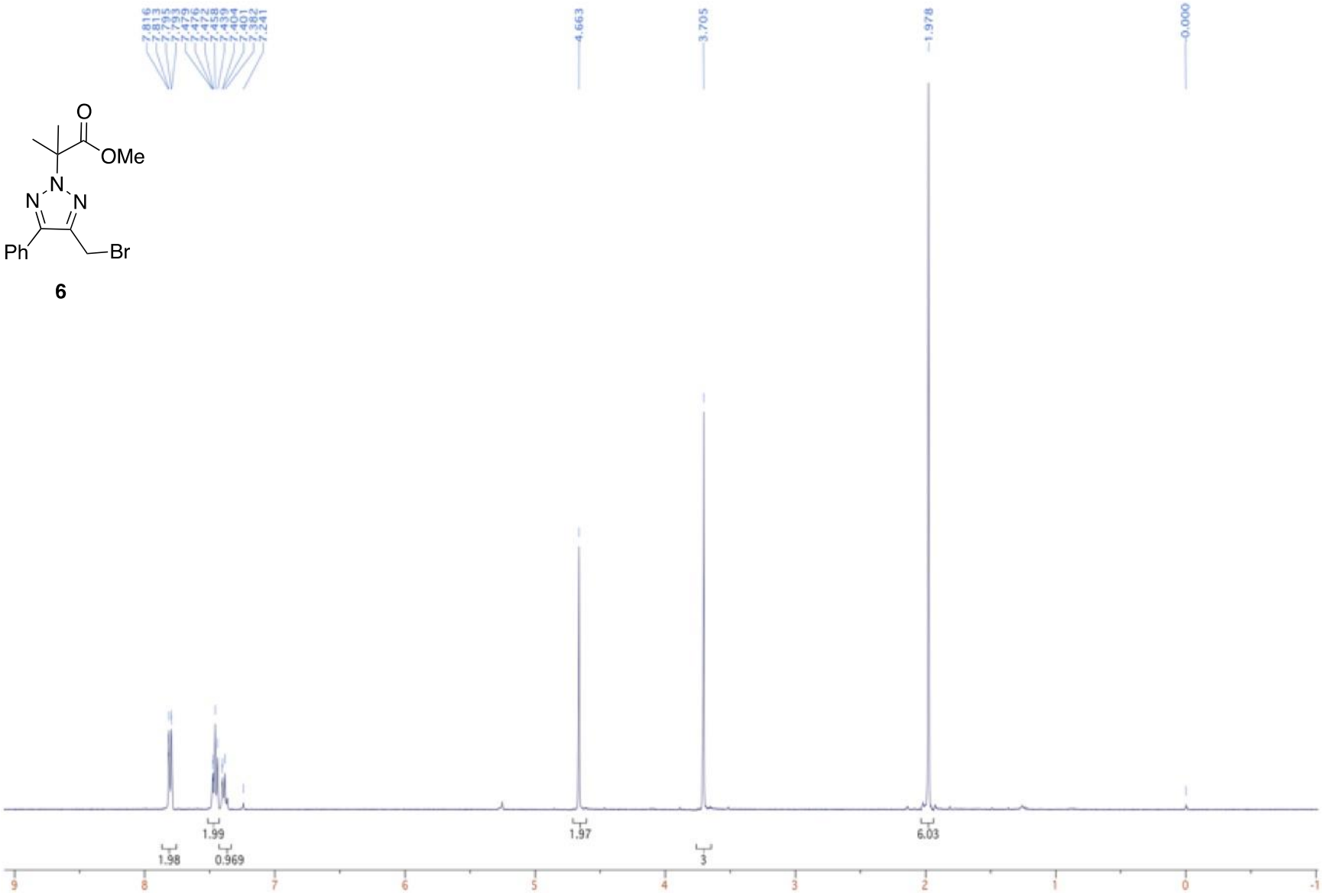




5

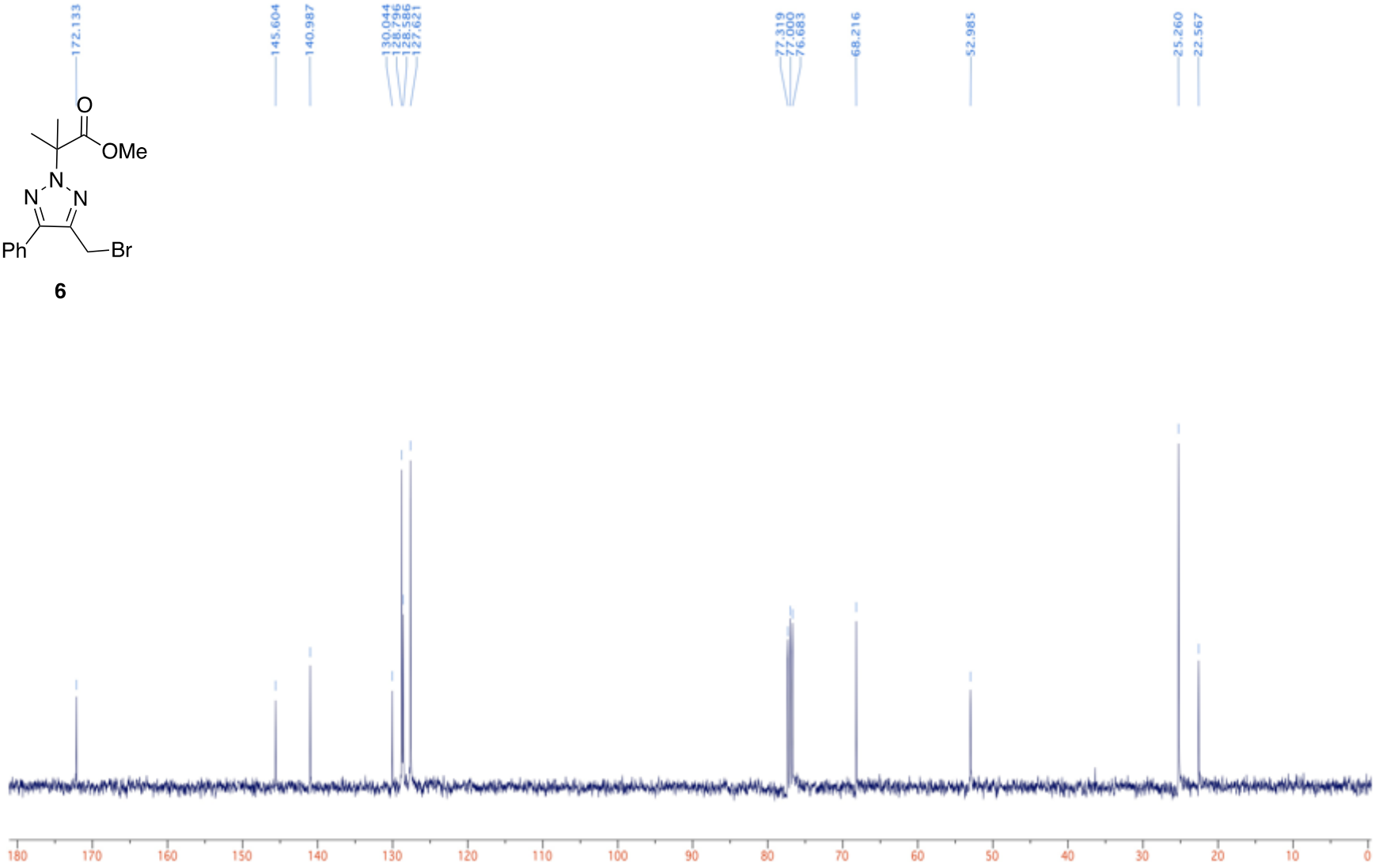


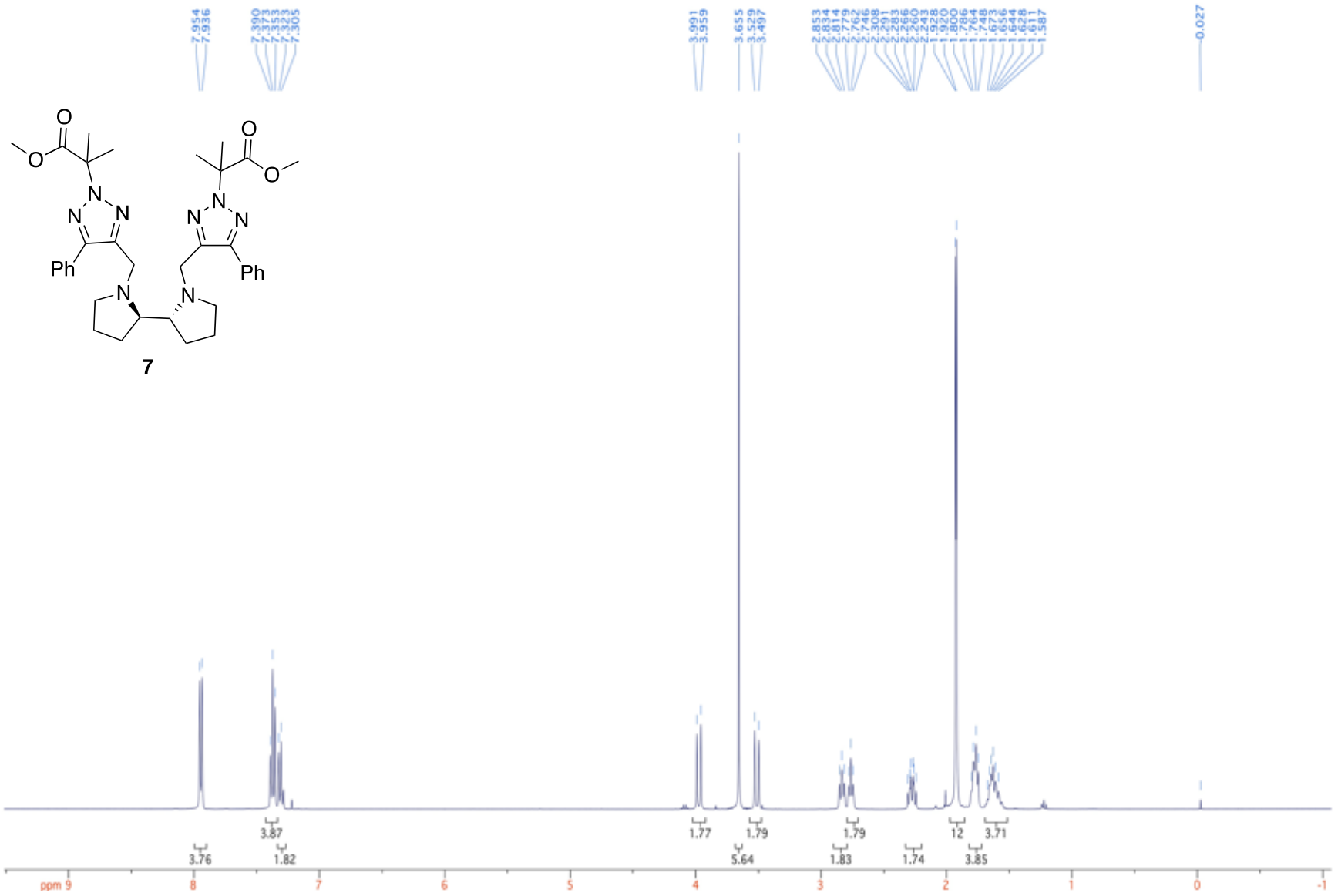
5



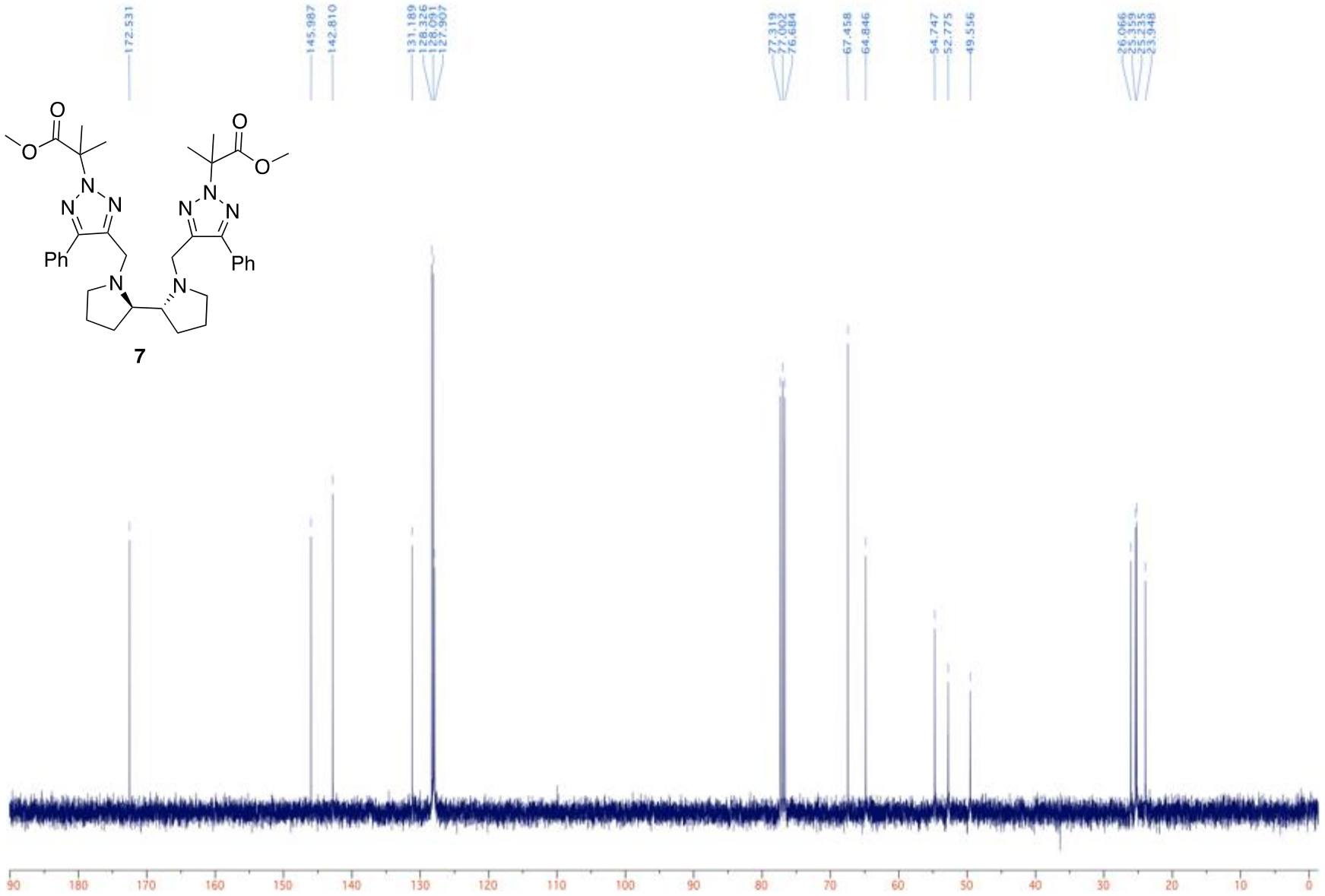
6

6

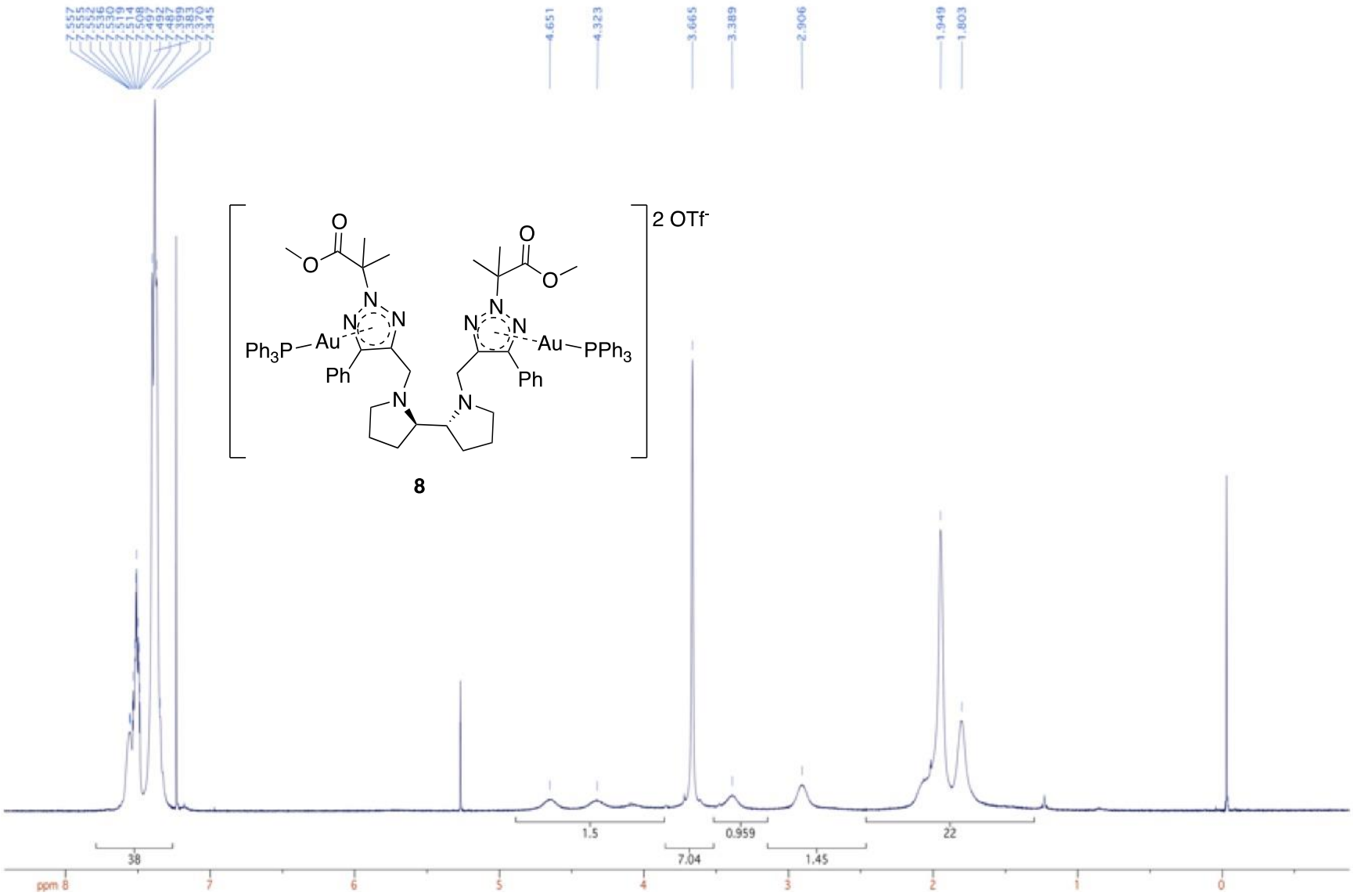




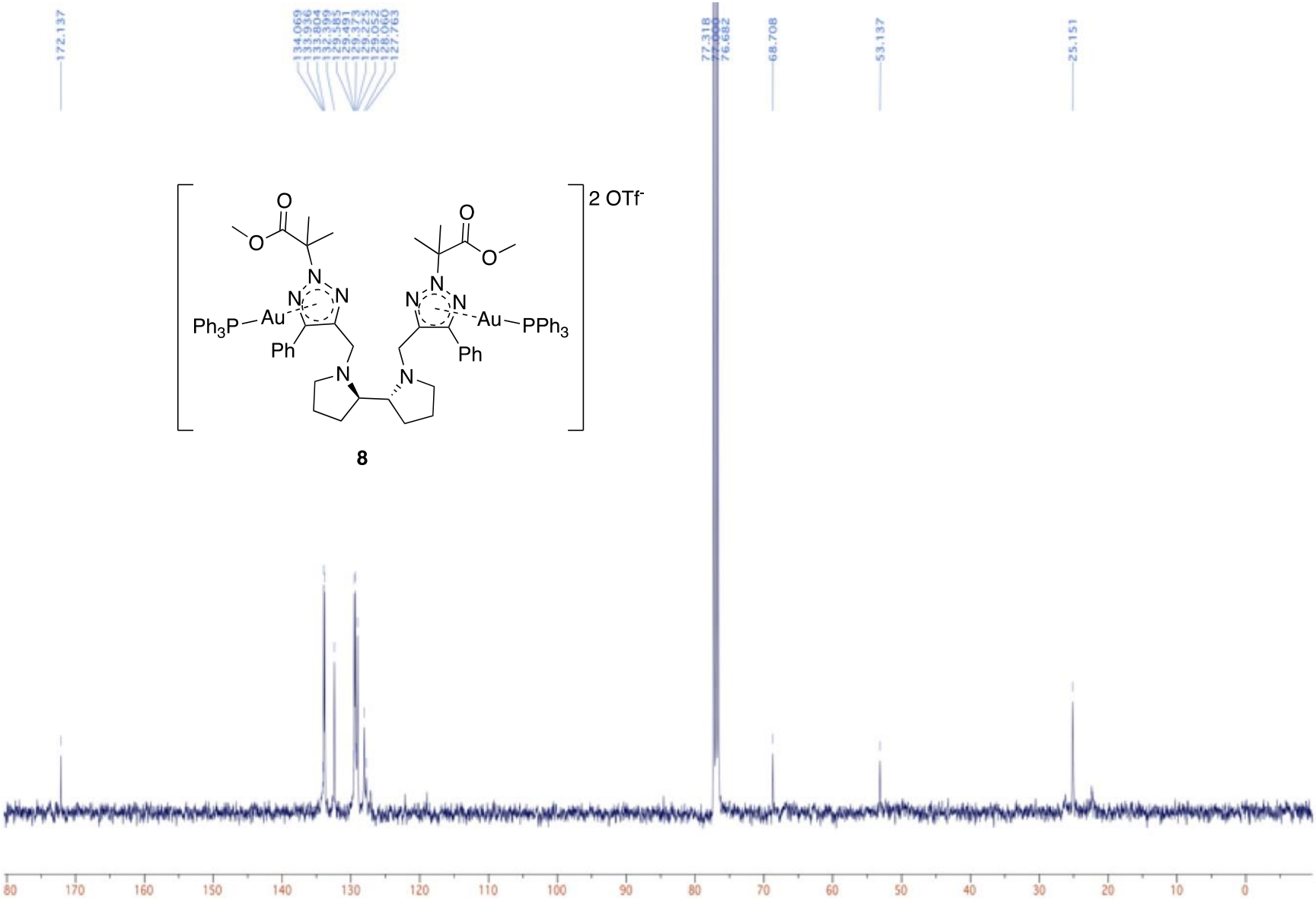
7



7



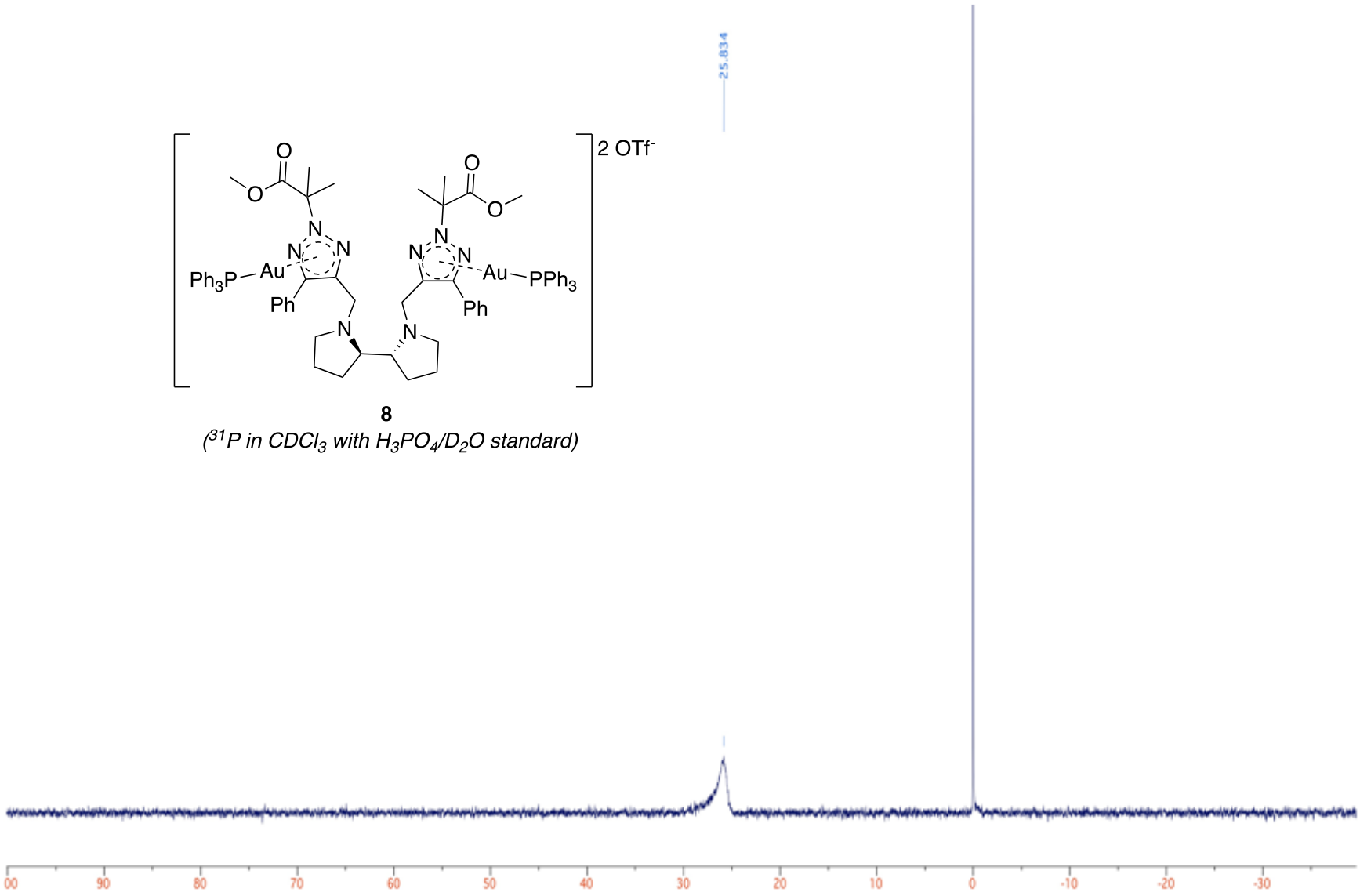
8



8

8

(^{31}P in $CDCl_3$ with H_3PO_4/D_2O standard)



3. 1D NOE Analysis of Compound 5