

Supporting information

A new cost-effective Ru-chloramphenicol base derivative catalyst for the asymmetric transfer hydrogenation/dynamic kinetic resolution of *N*-Boc α -amino- β -ketoesters and its application to the synthesis of the chiral core of vancomycin

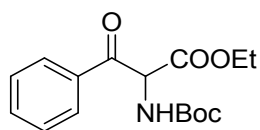
Xinlong Wang,^[a] Lingjun Xu,^[a] Fangjun Xiong,^[a] Yan Wu^{*[a]} and Fener Chen^{*[a]}

Department of Chemistry, Fudan University, 220 Handan Road, Shanghai, 200433, People's Republic of China

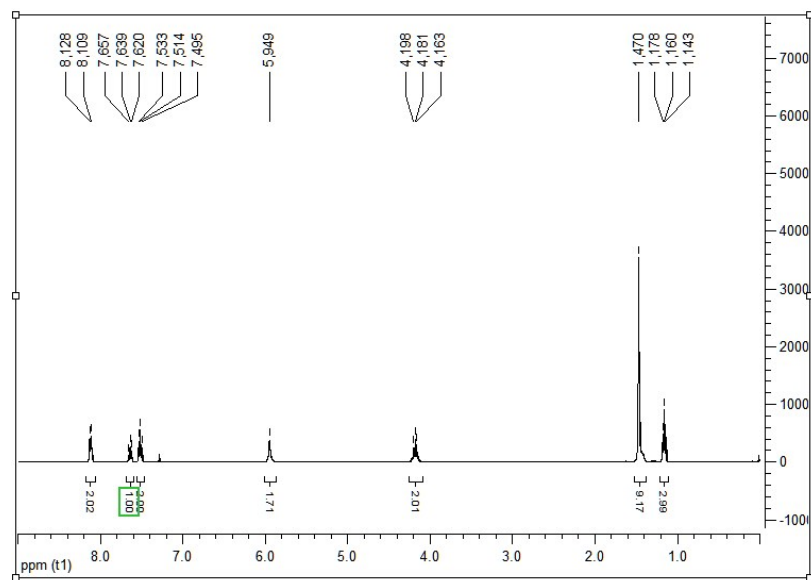
* E-mail: rfchen@fudan.edu.cn (Fener Chen)

* E-mail: wywin8@163.com (Yan Wu).

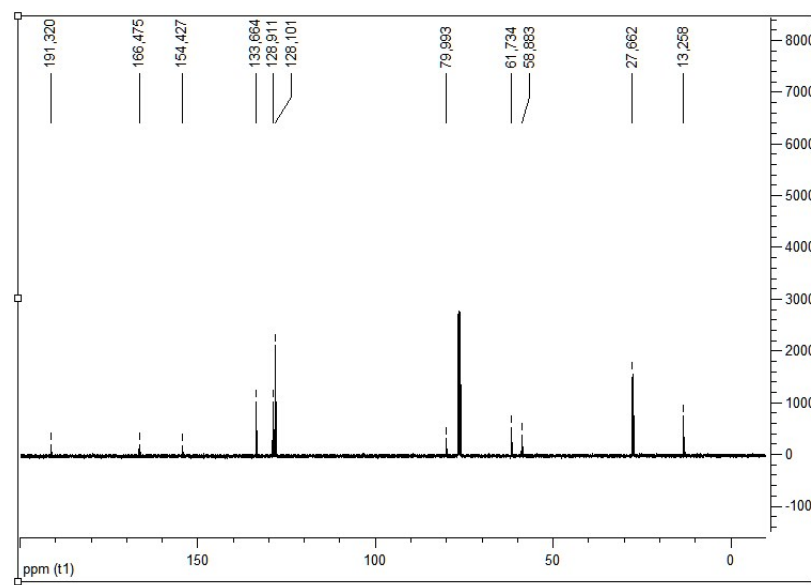
Spectral Data of the substrates 1a-m (¹H NMR and ¹³C NMR)

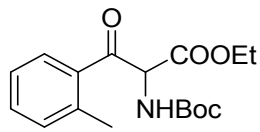


¹H NMR

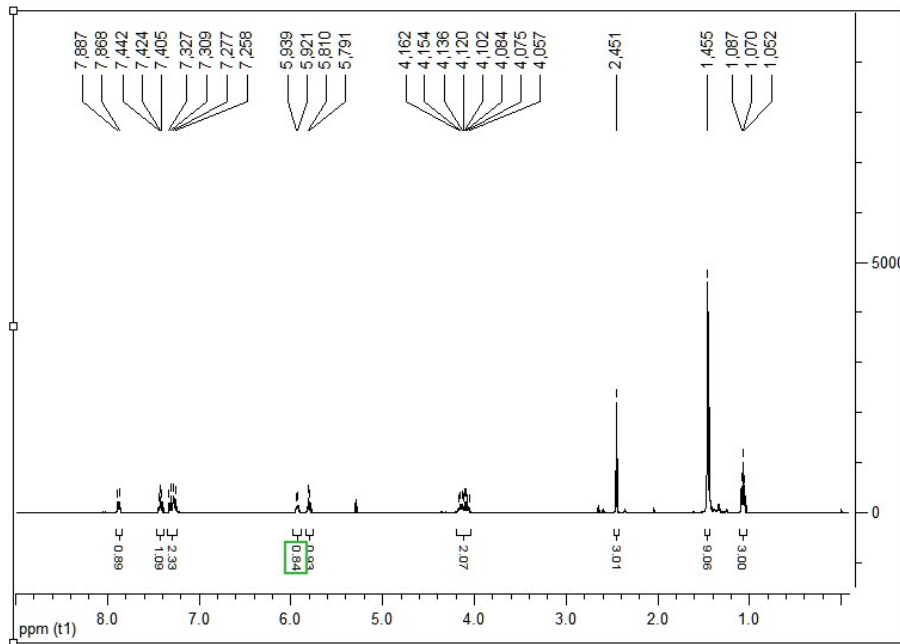


¹³C NMR

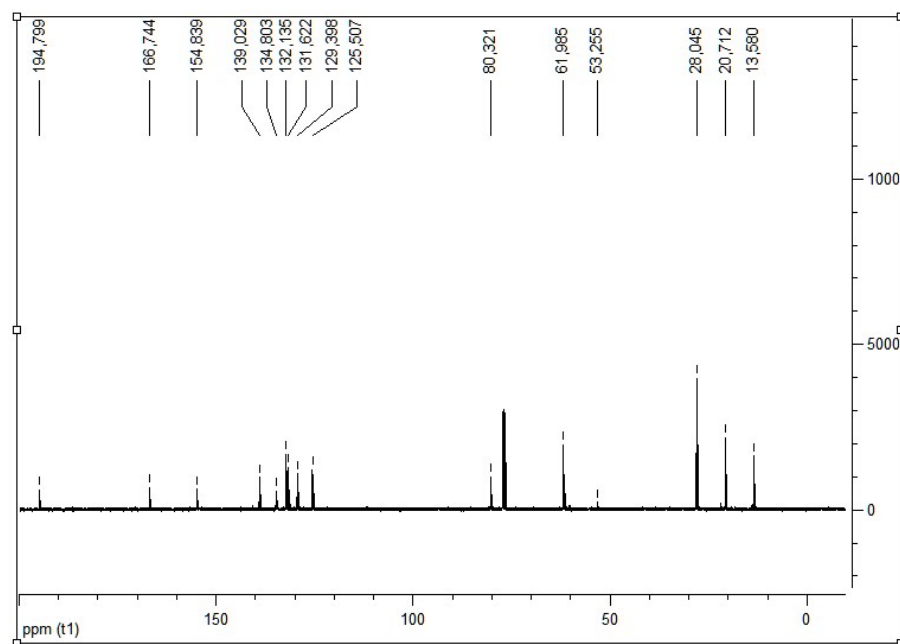


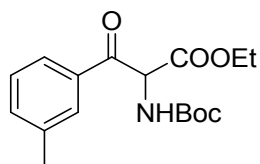


¹H NMR

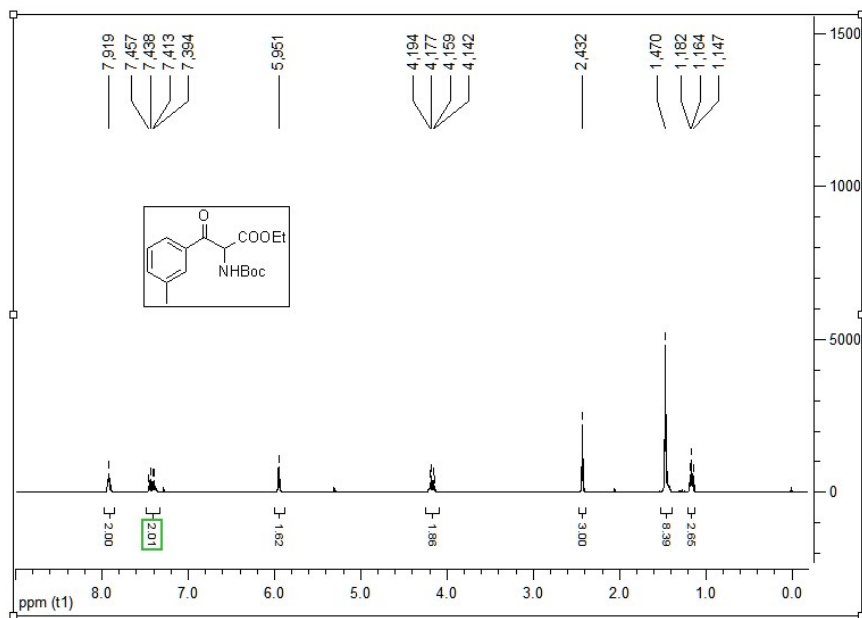


¹³C NMR

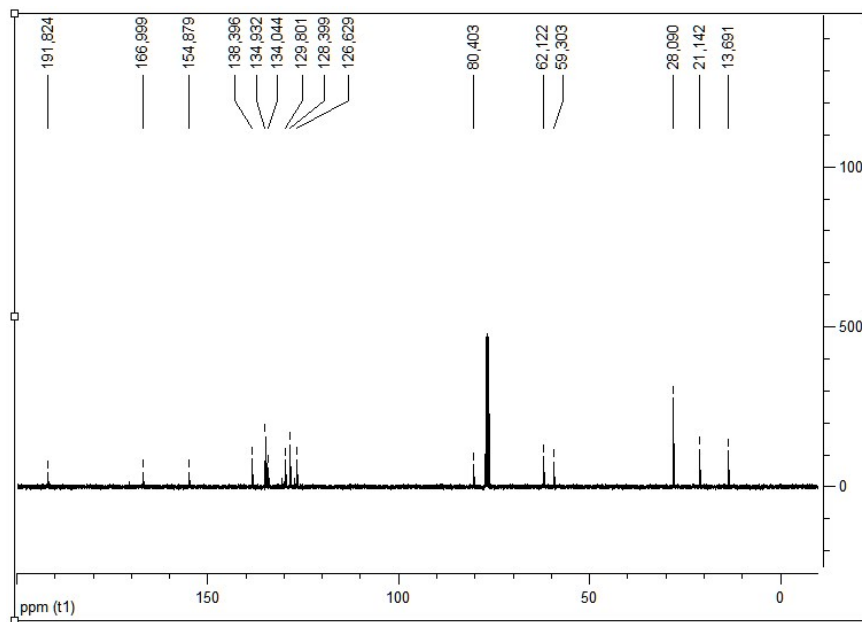


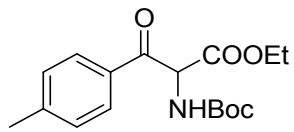


¹H NMR

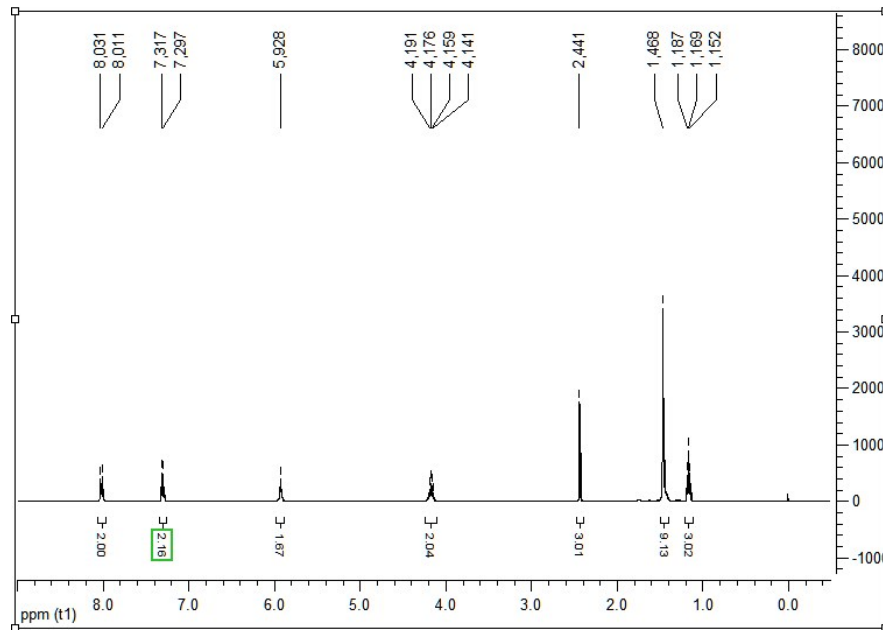


¹³C NMR

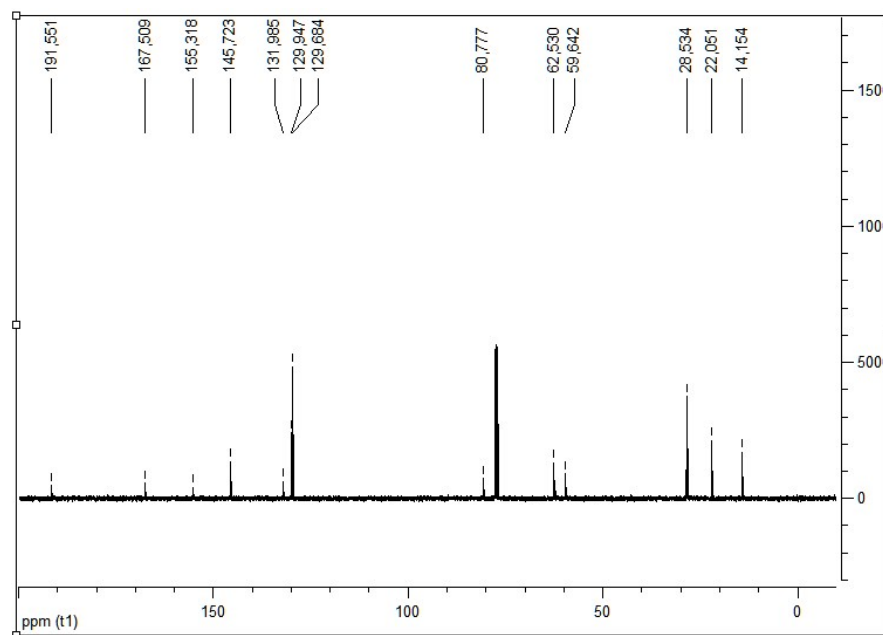


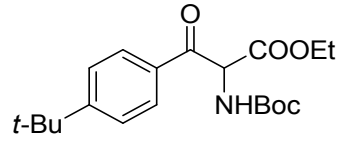


¹H NMR

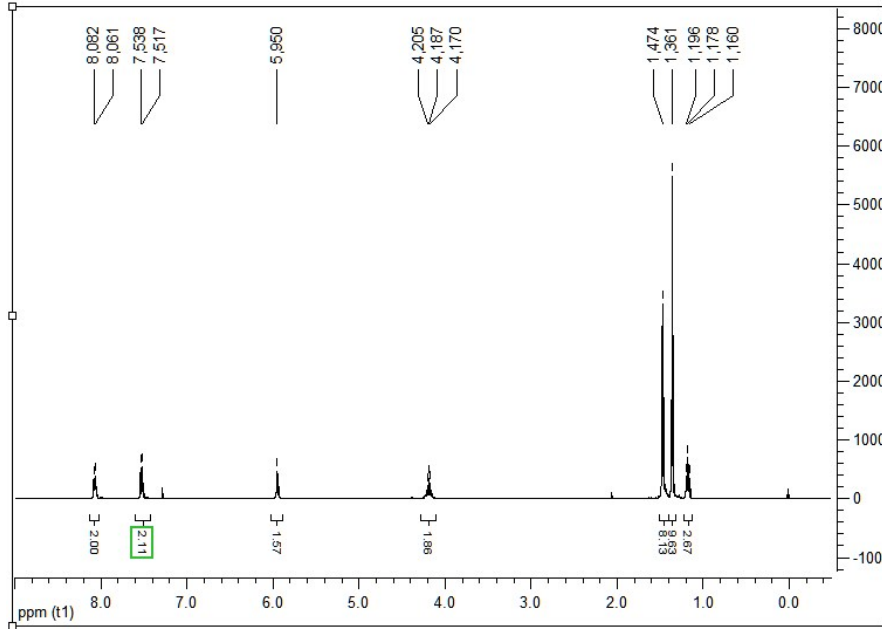


¹³C NMR

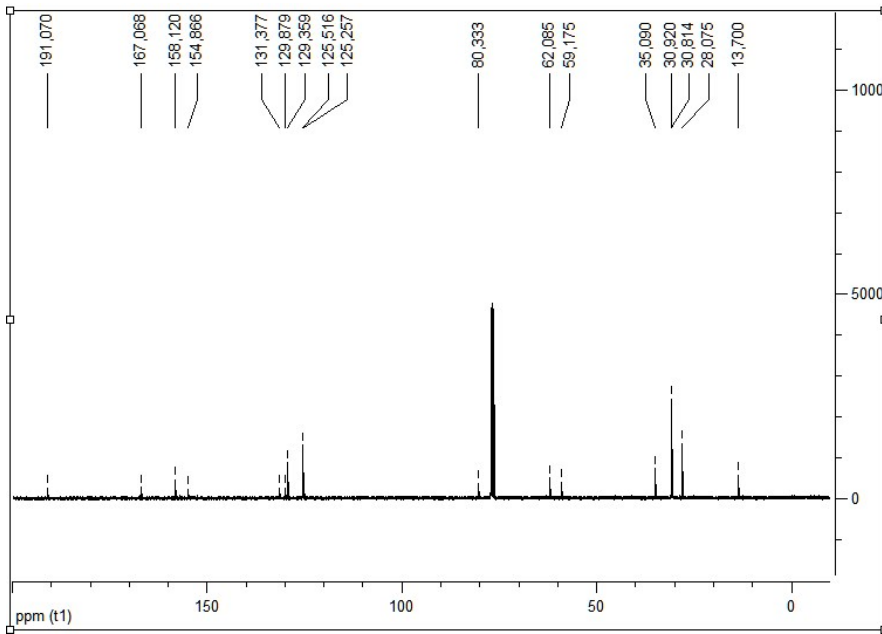


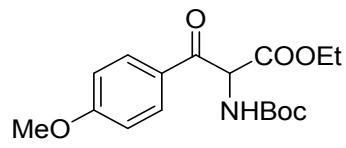


¹H NMR

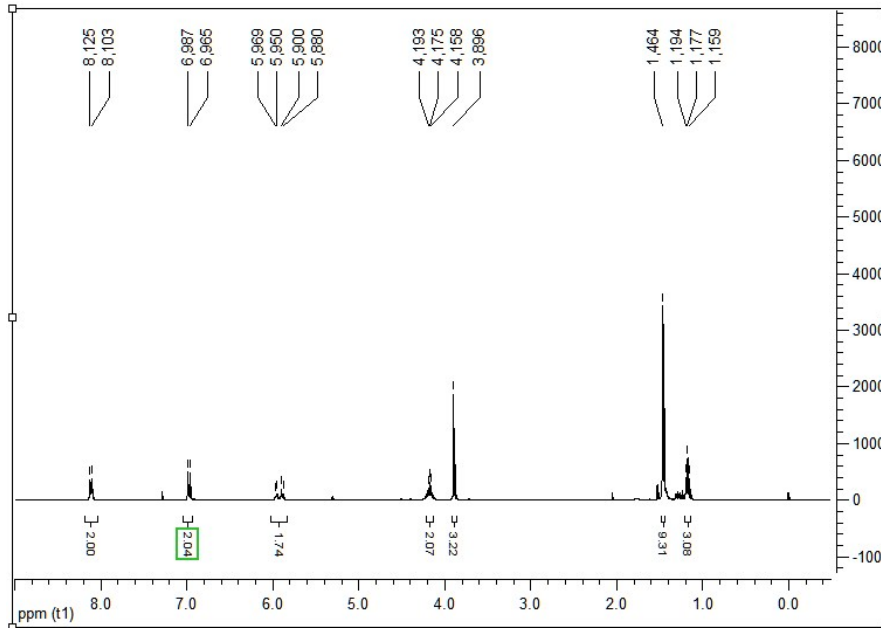


¹³C NMR

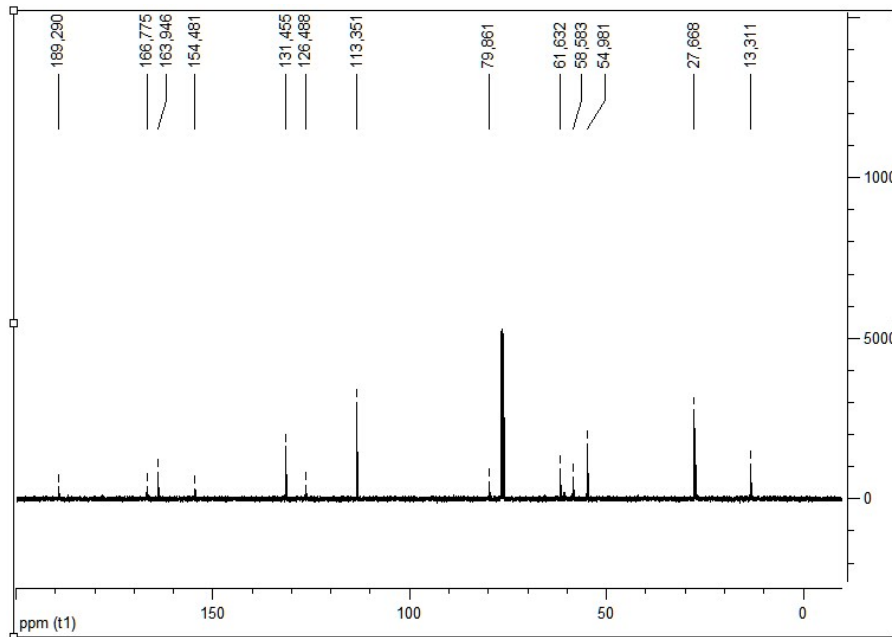


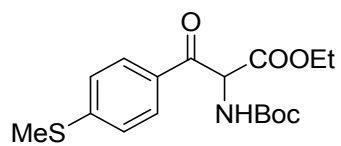


¹H NMR

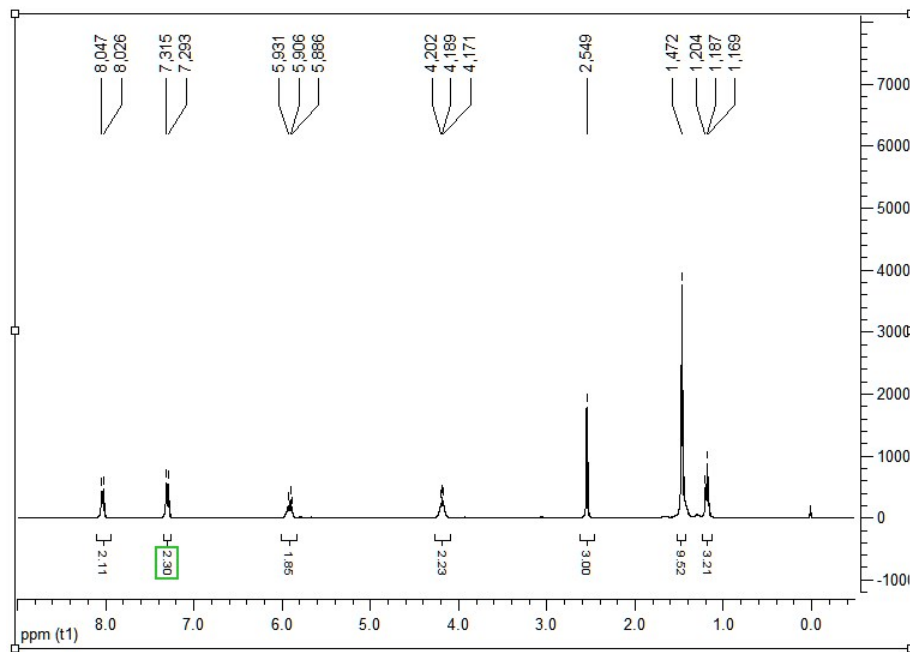


¹³C NMR

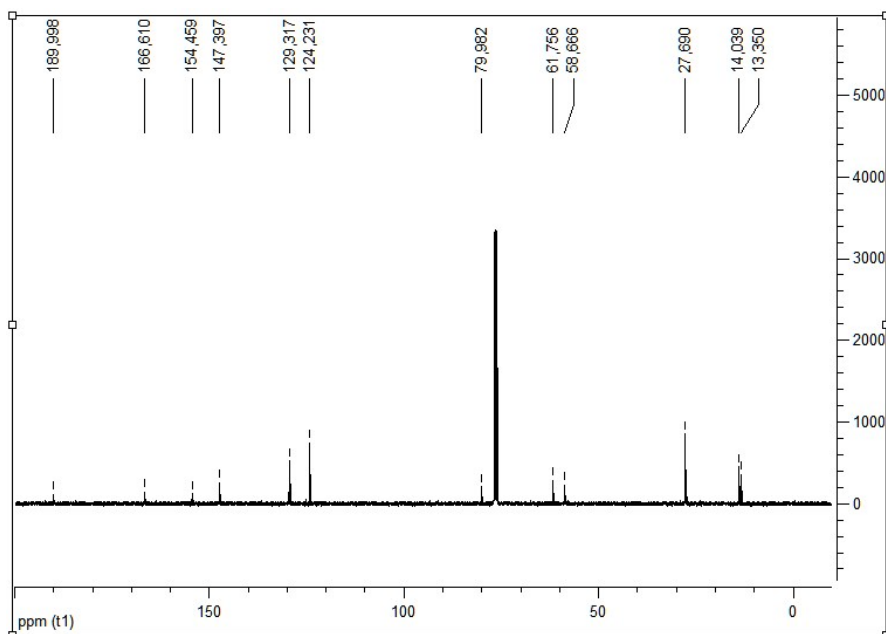


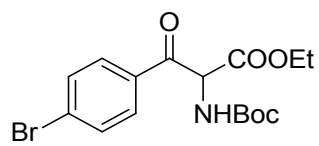


¹H NMR

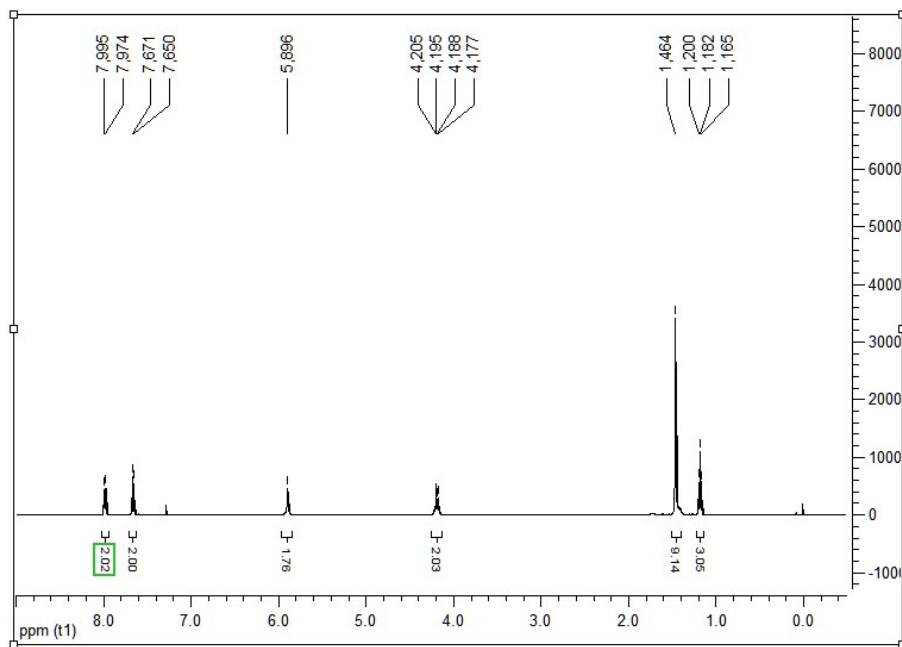


¹³C NMR

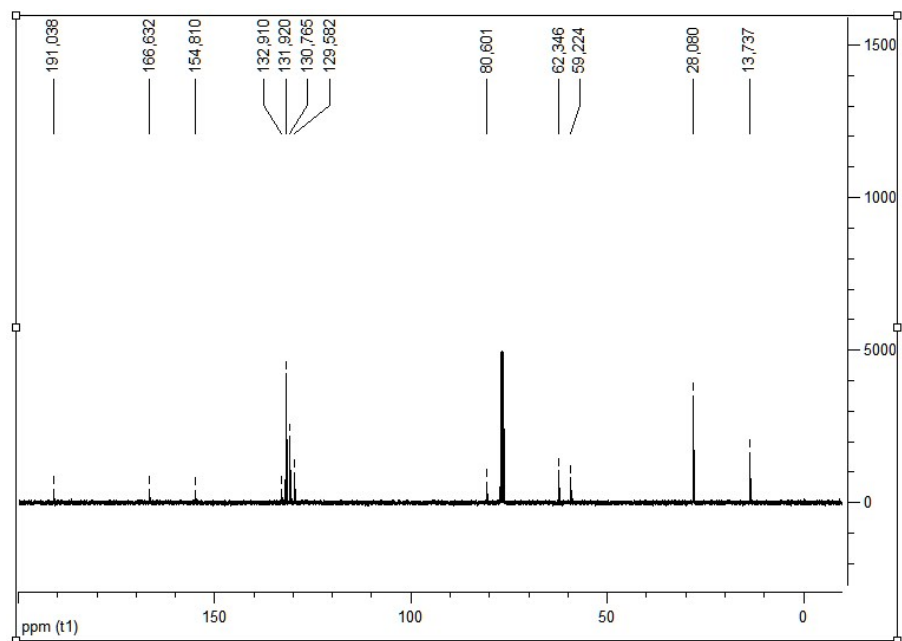


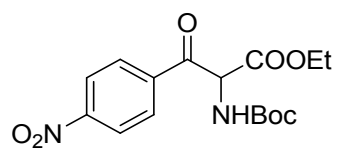


¹H NMR

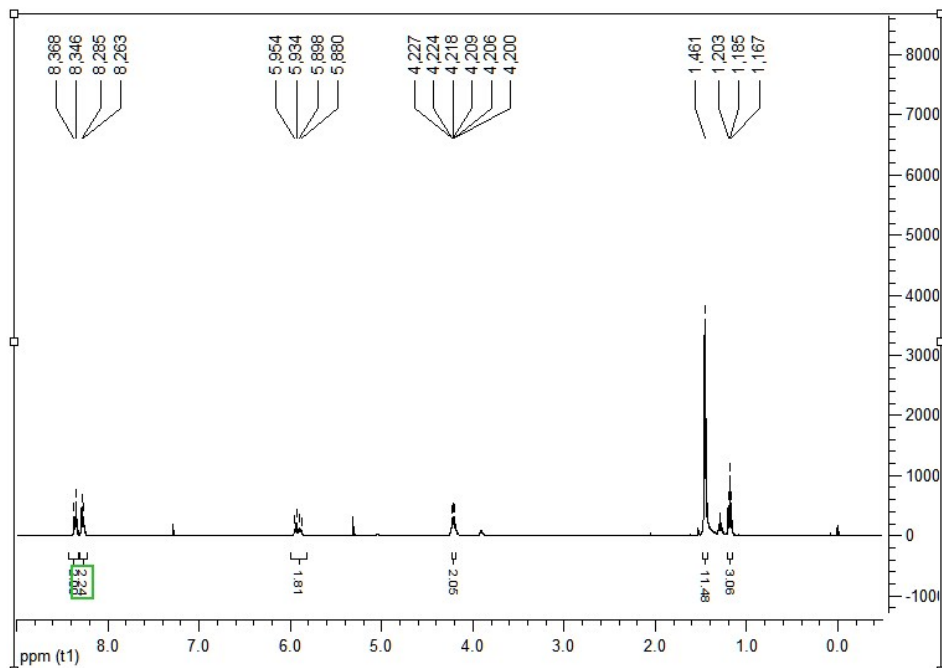


¹³C NMR

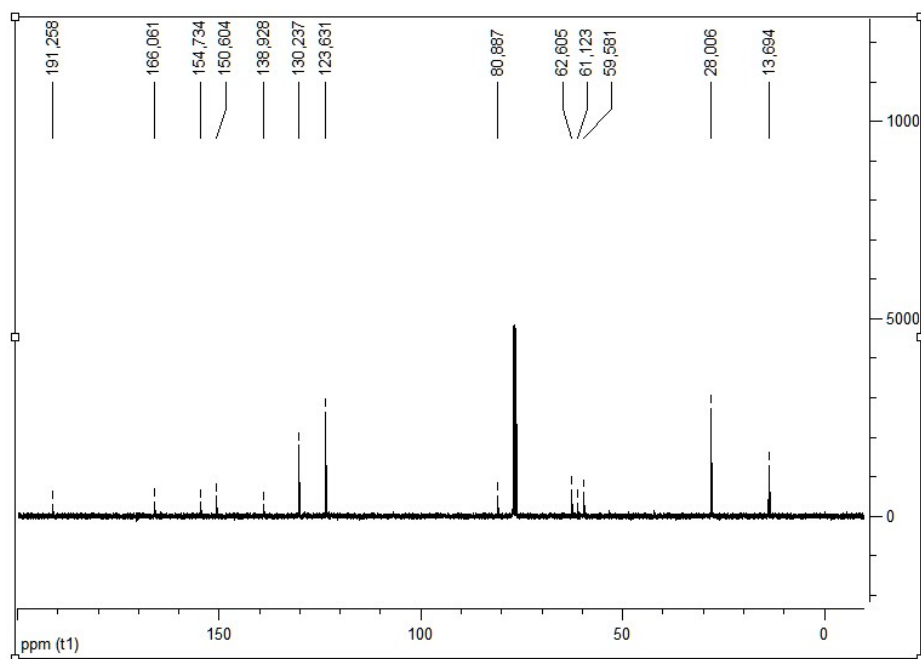


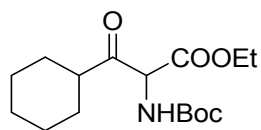


¹H NMR

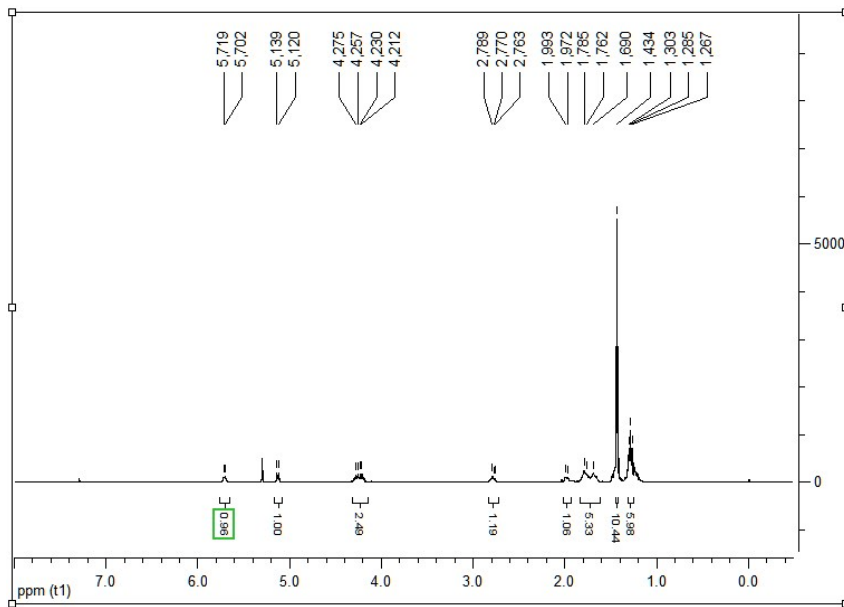


¹³C NMR

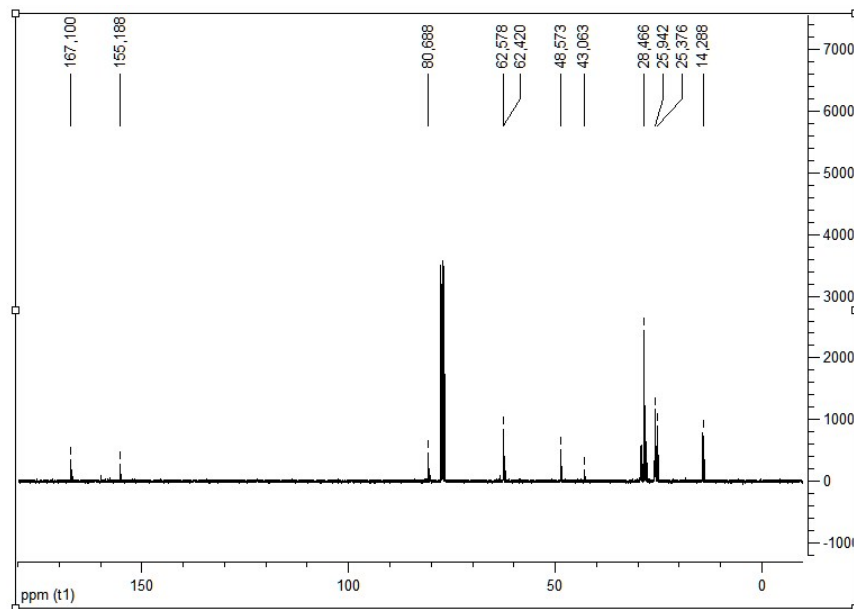


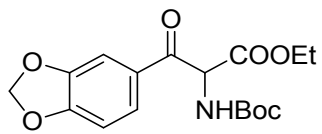


¹H NMR

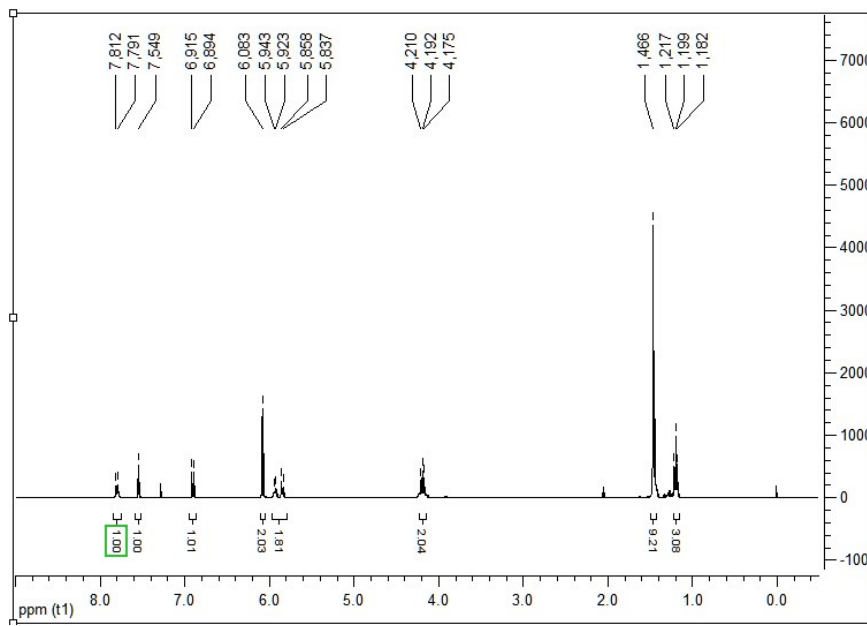


¹³C NMR

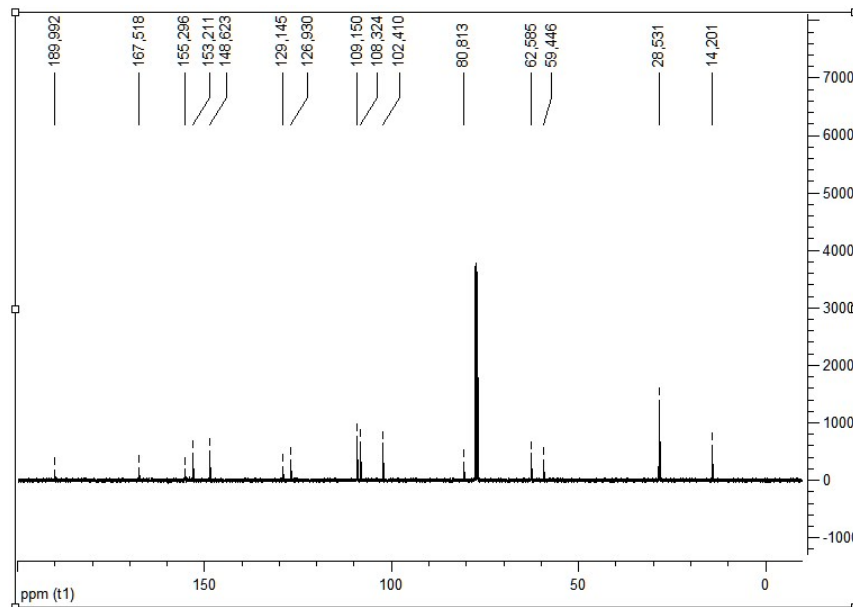


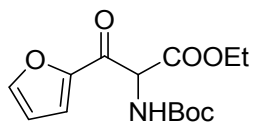


¹H NMR

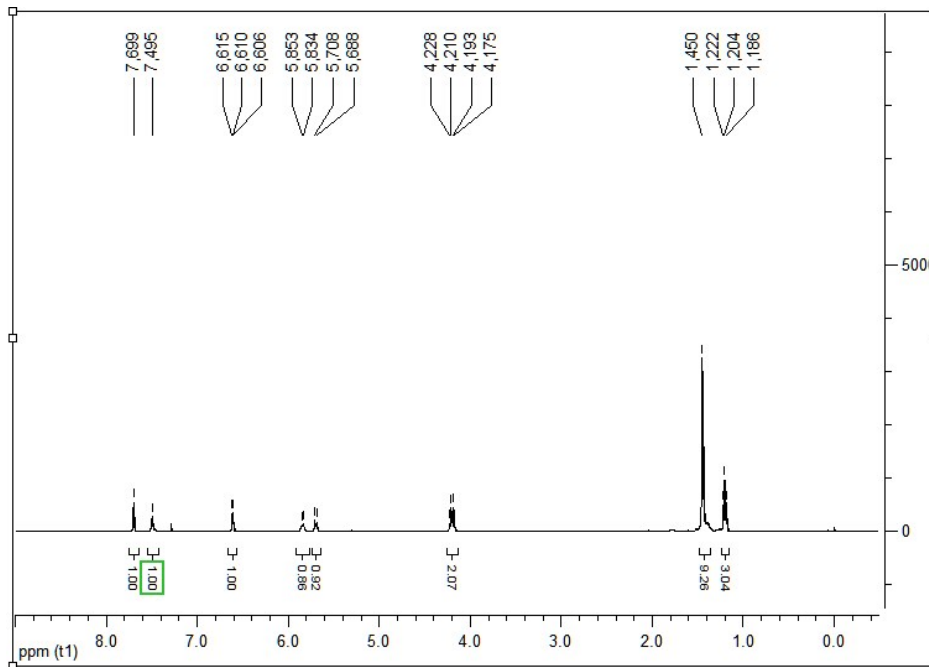


¹³C NMR

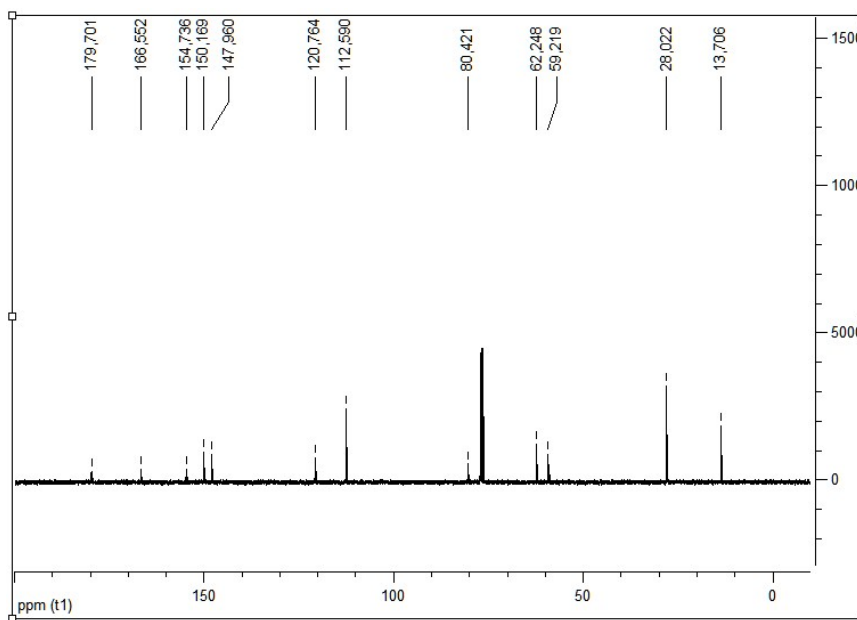


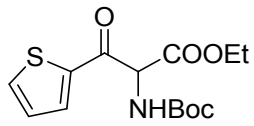


¹H NMR

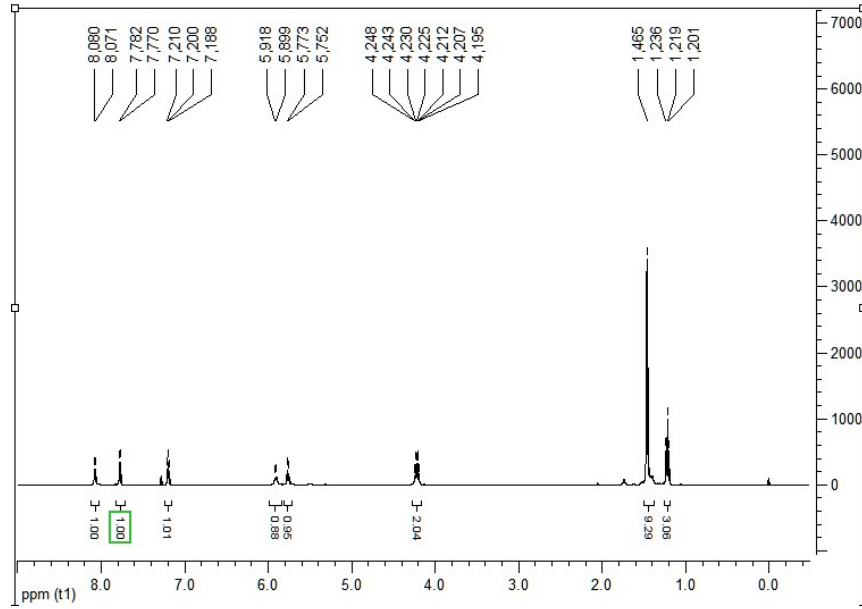


¹³C NMR

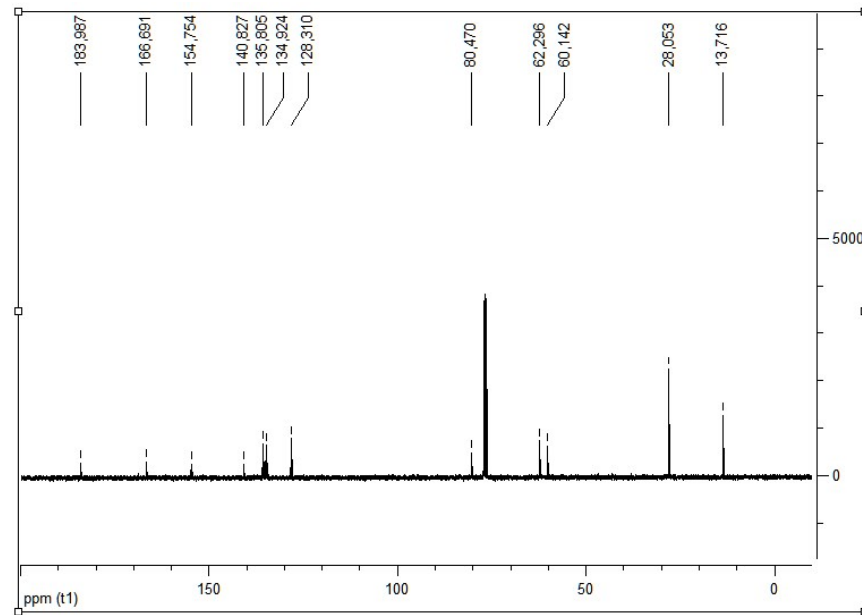




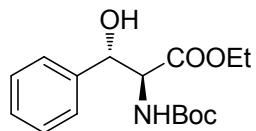
¹H NMR



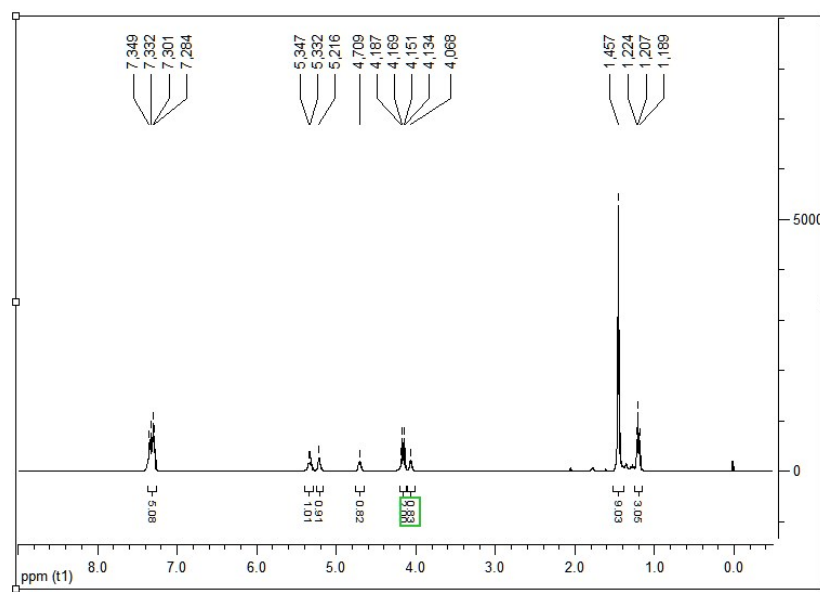
¹³C NMR



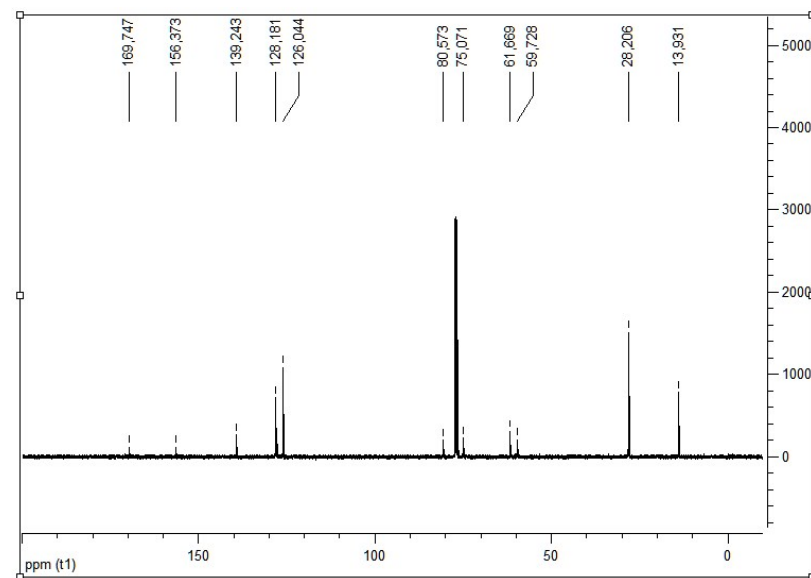
Spectral data of the products (¹H NMR and ¹³C NMR).

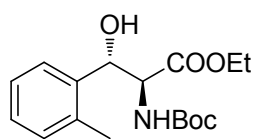


¹H NMR

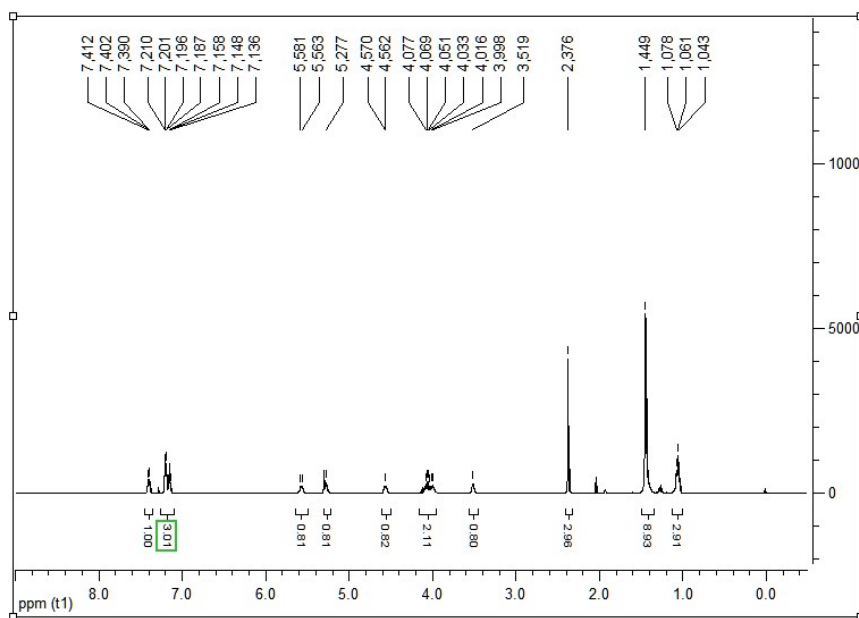


¹³C NMR

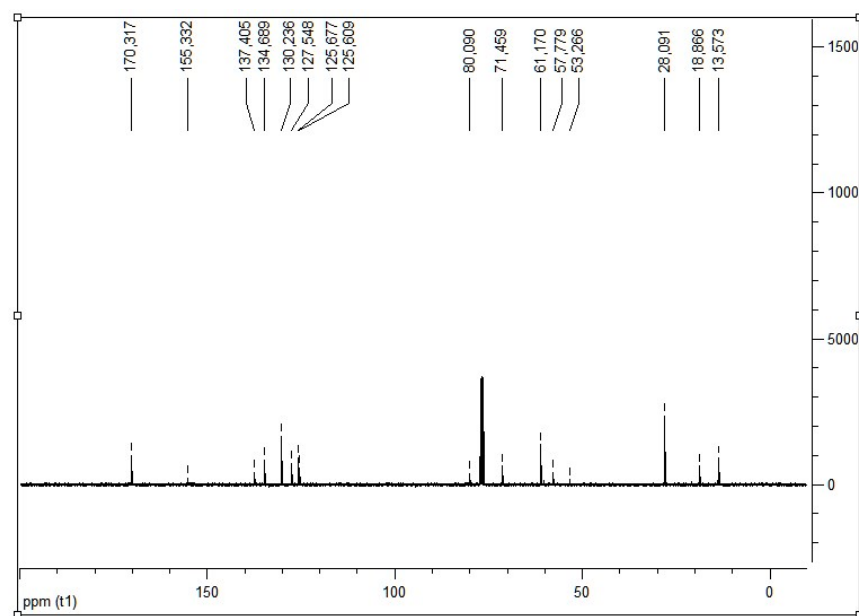


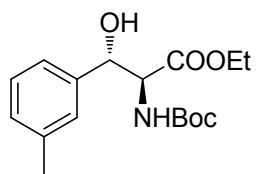


¹H NMR

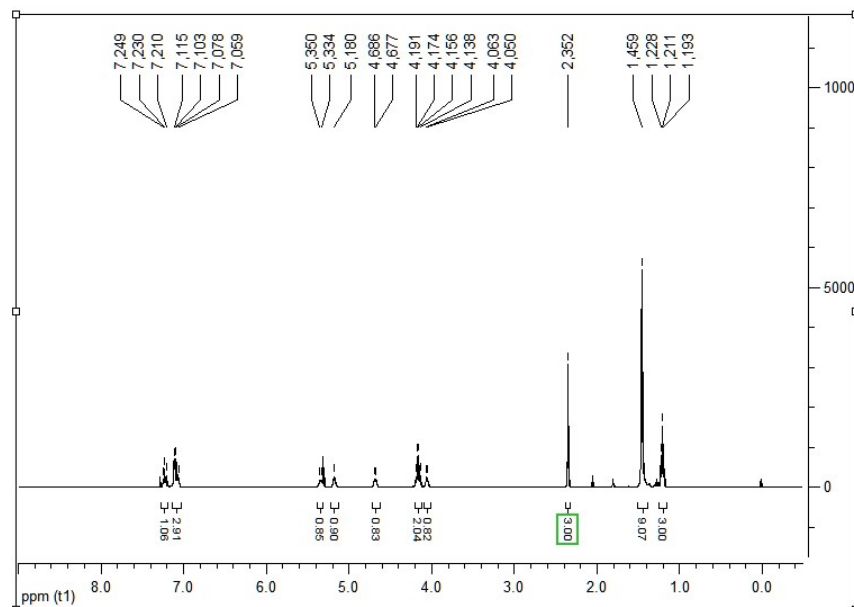


¹³C NMR

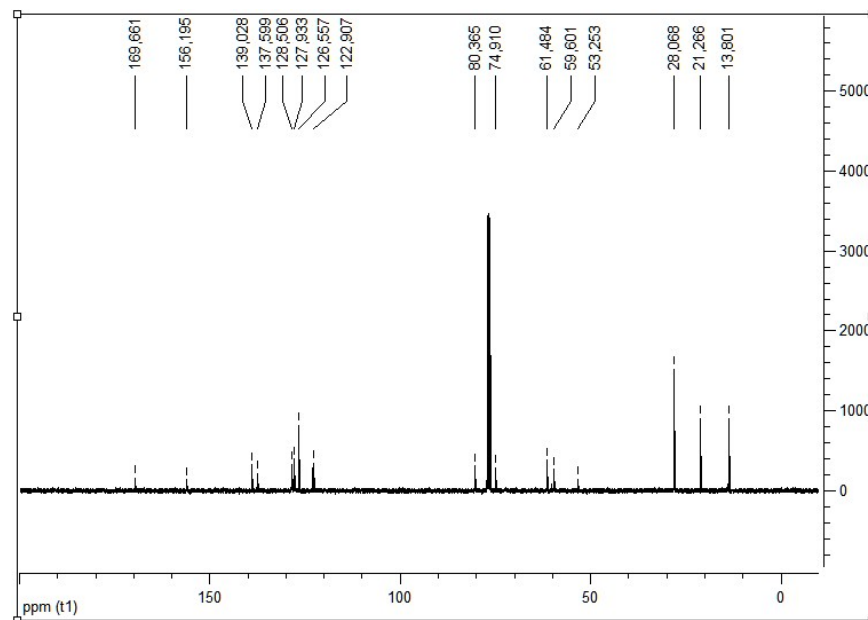


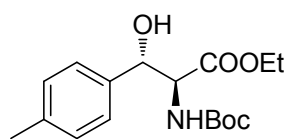


¹H NMR

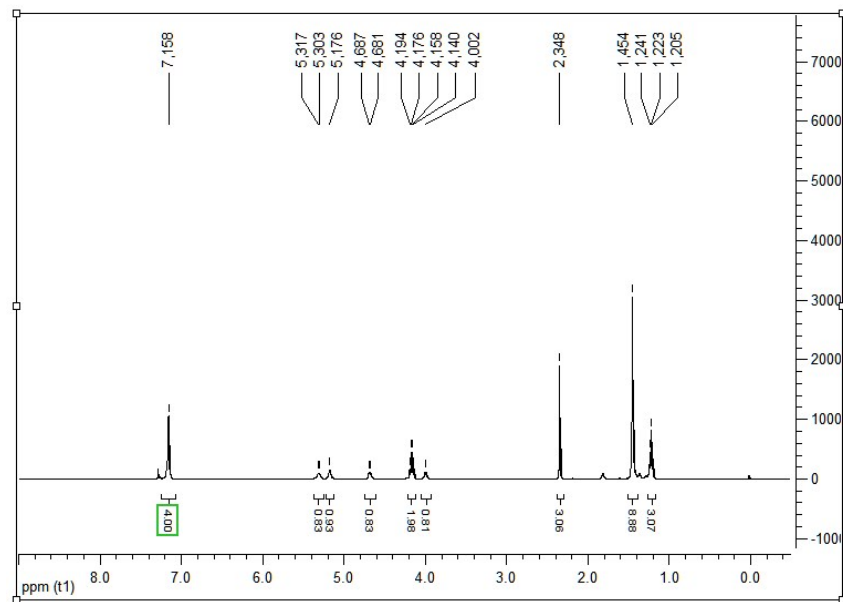


¹³C NMR

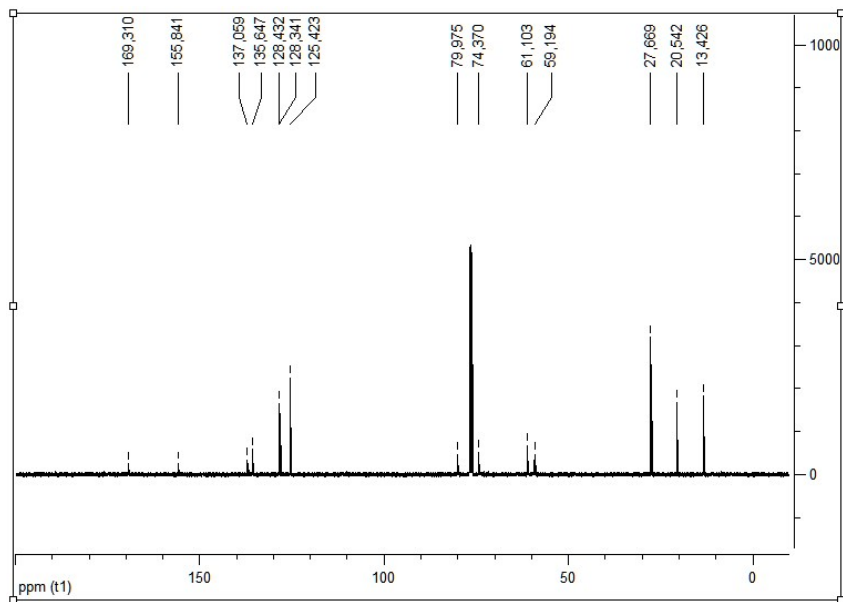


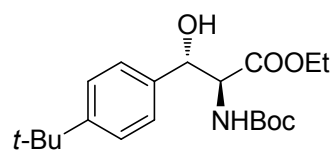


¹H NMR

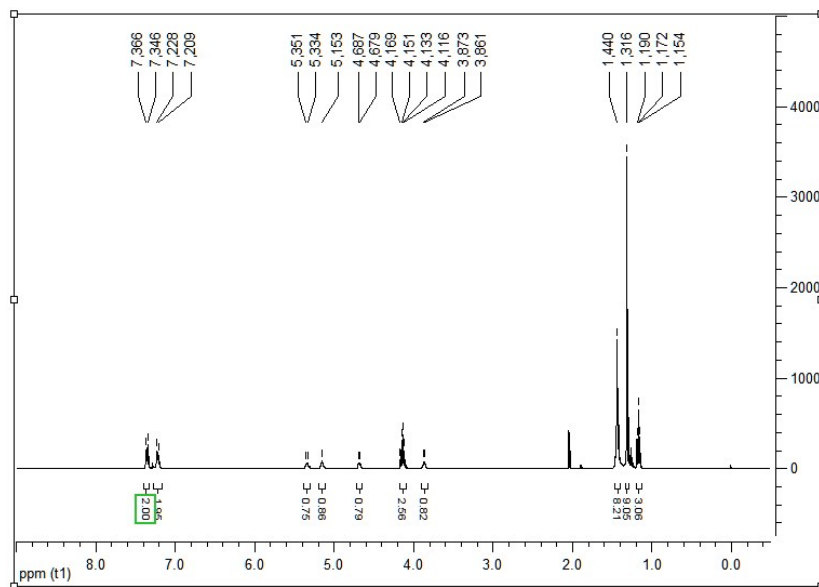


¹³C NMR

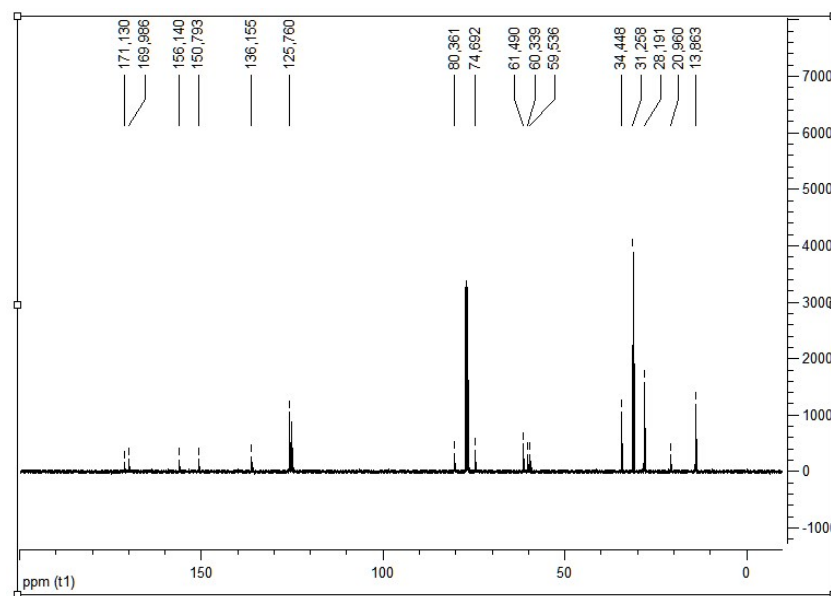


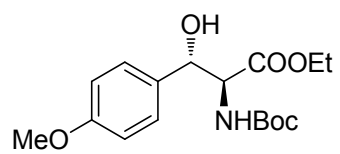


¹H NMR

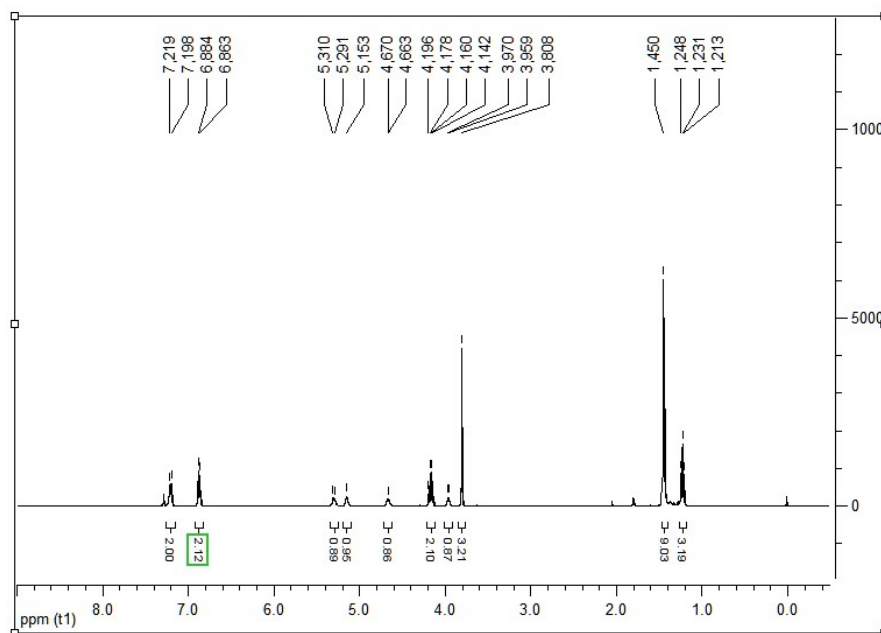


¹³C NMR

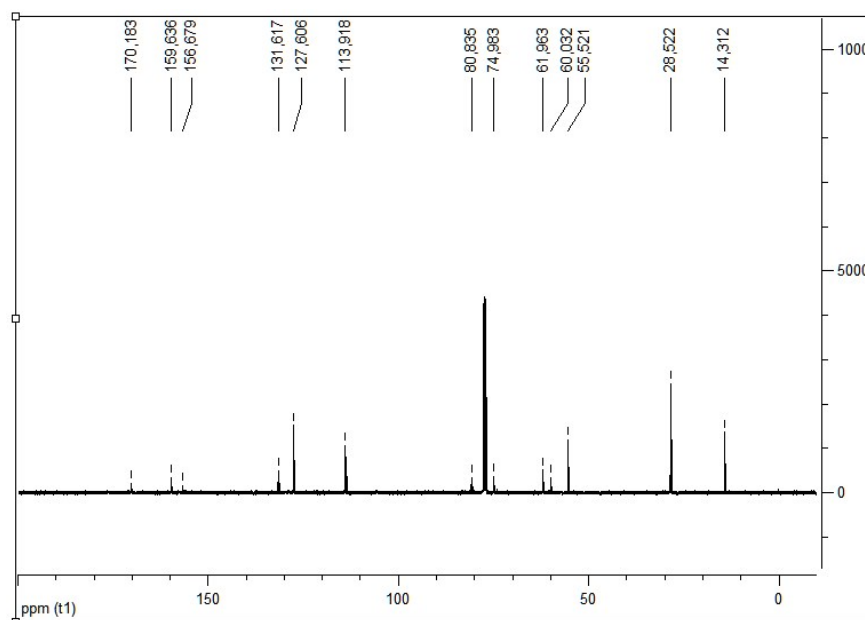


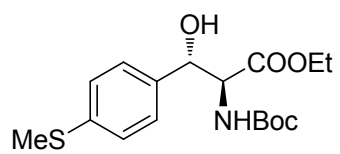


¹H NMR

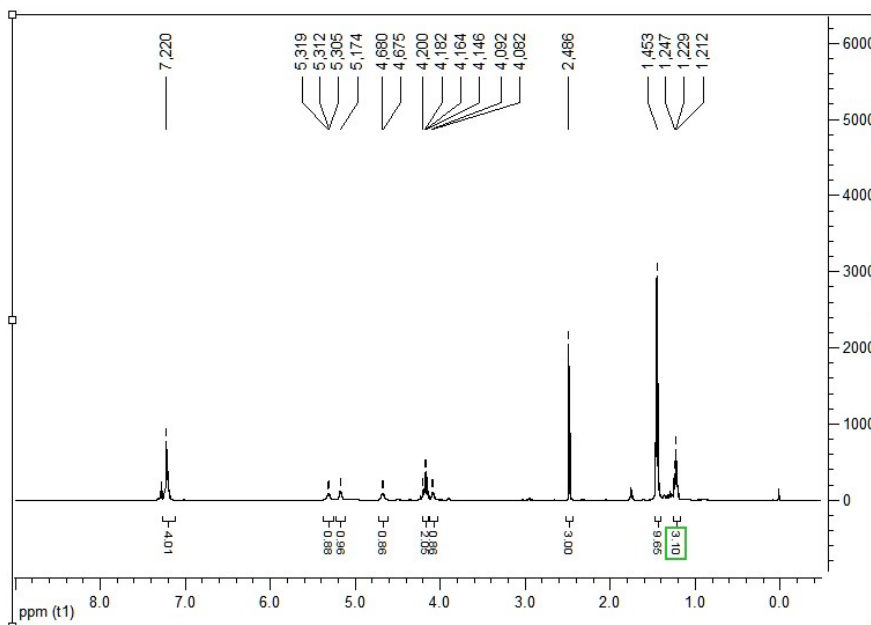


¹³C NMR

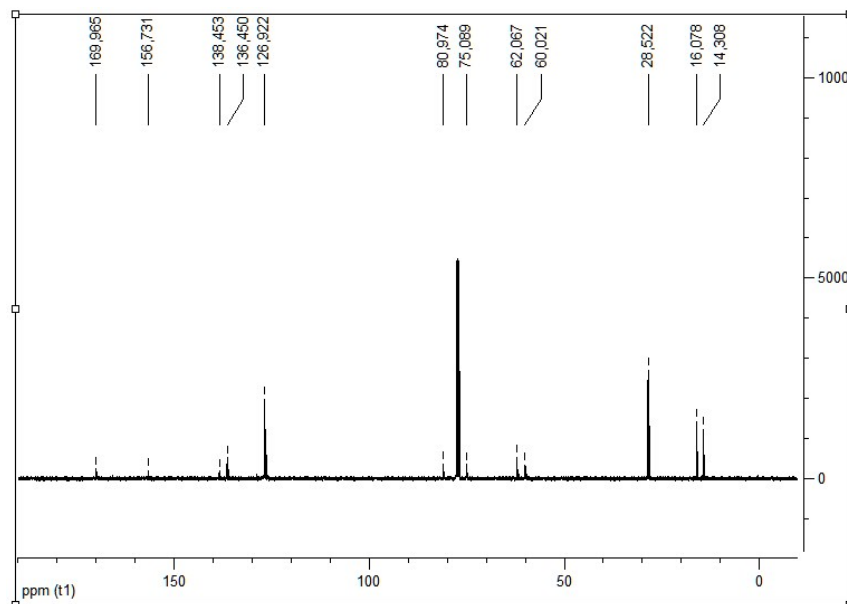


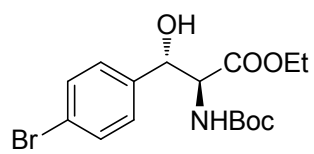


¹H NMR

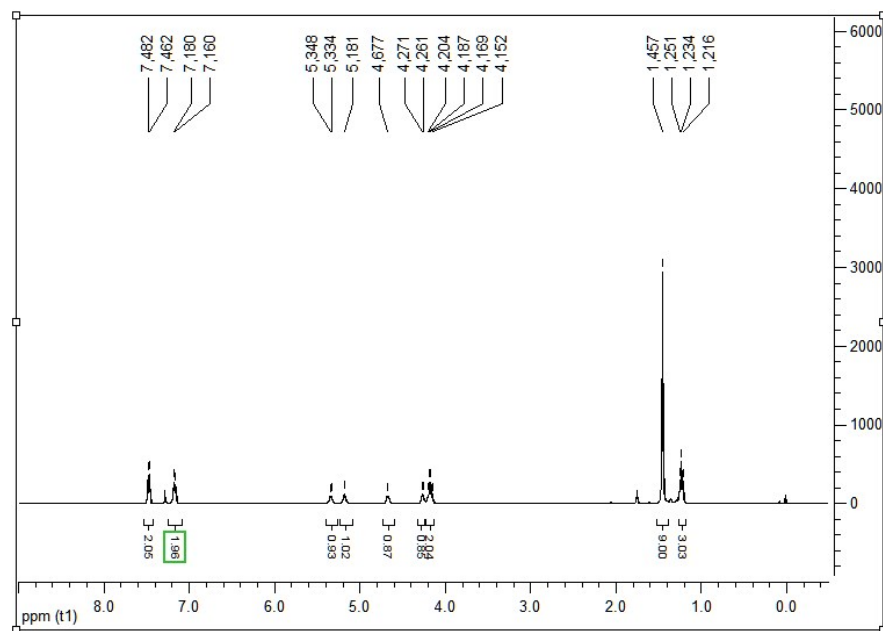


¹³C NMR

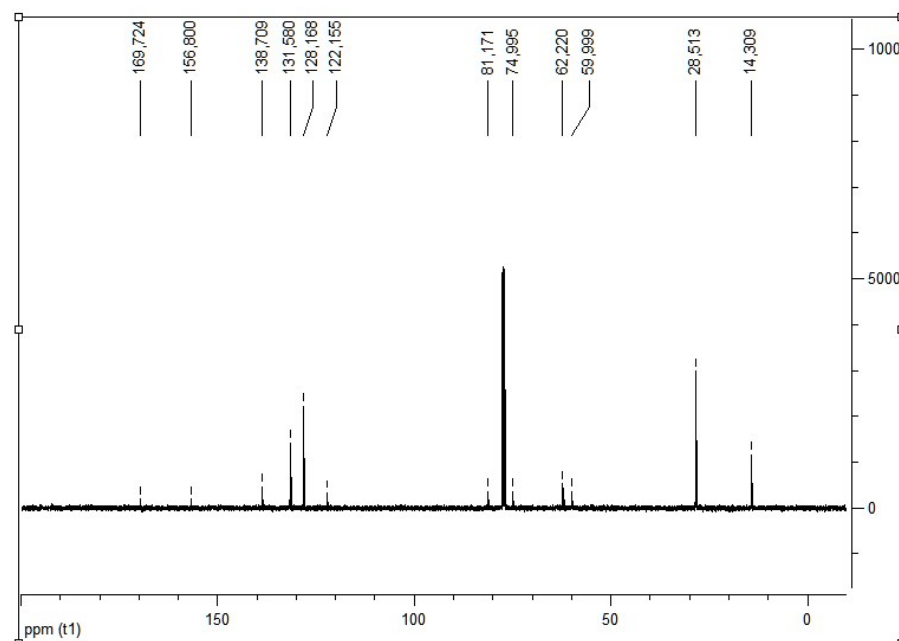


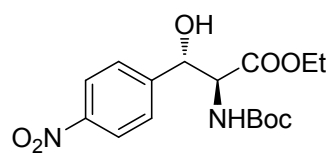


¹H NMR

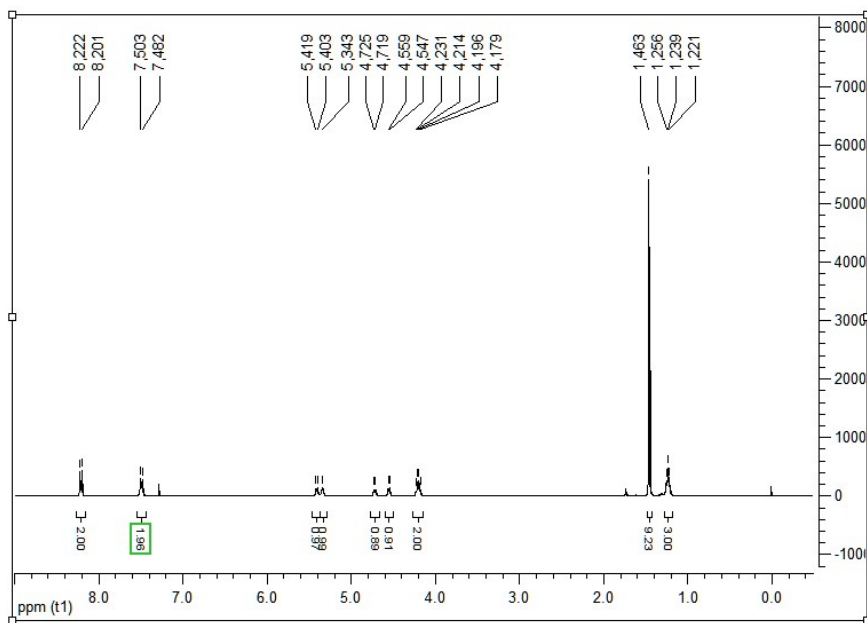


¹³C NMR

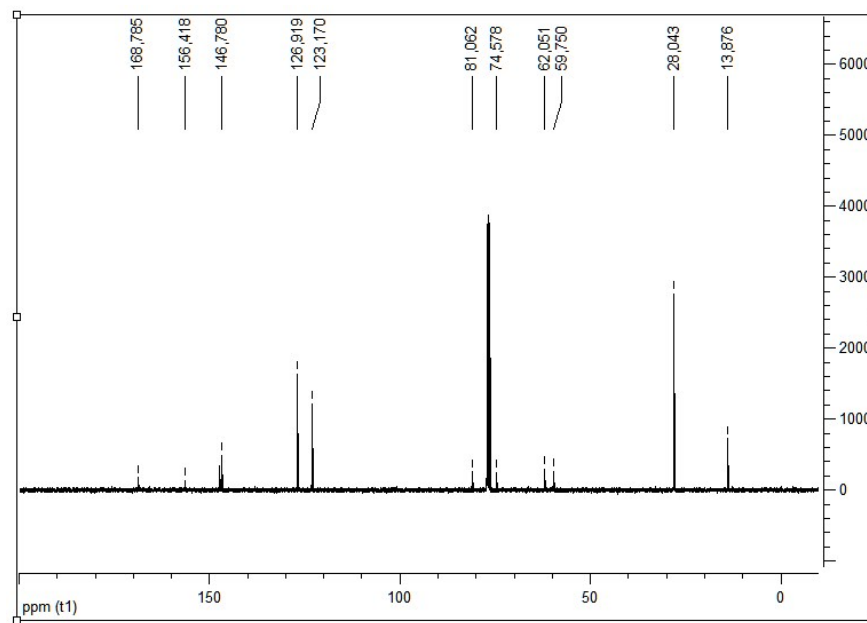


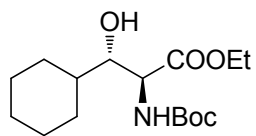


¹H NMR

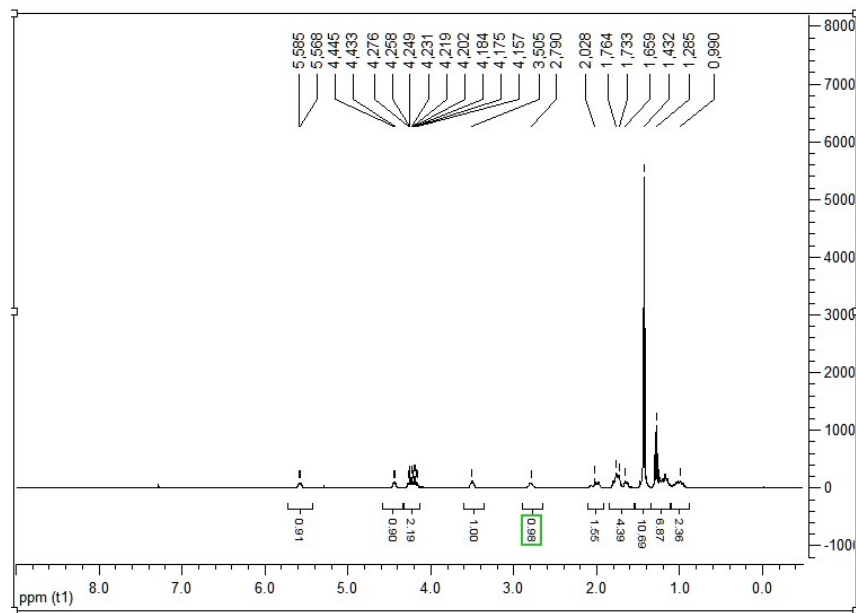


¹³C NMR

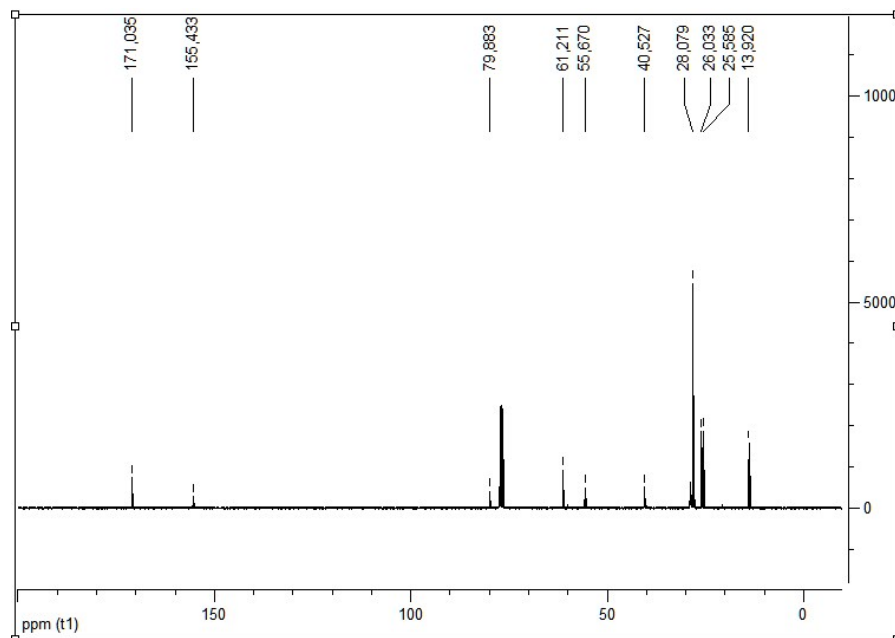


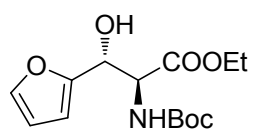


¹H NMR

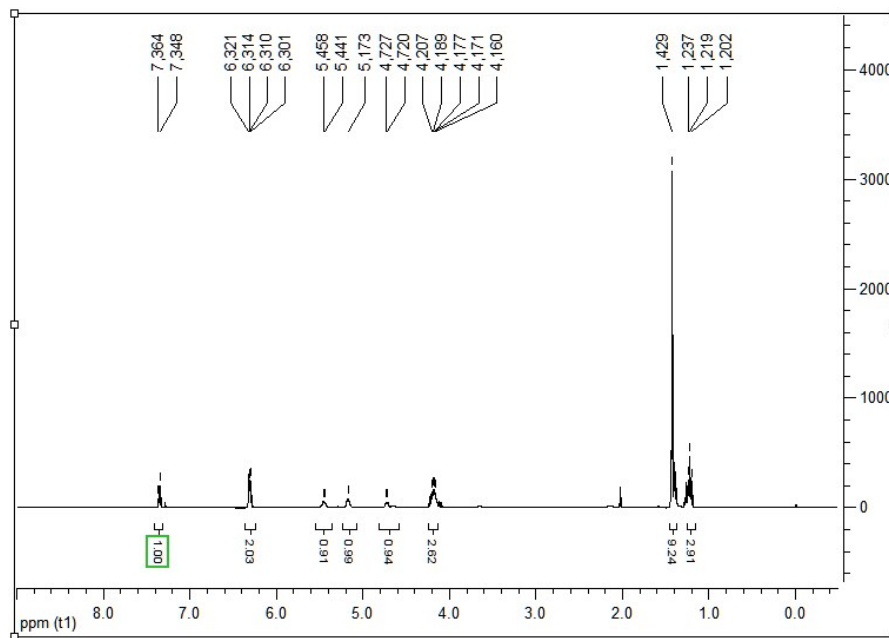


¹³C NMR

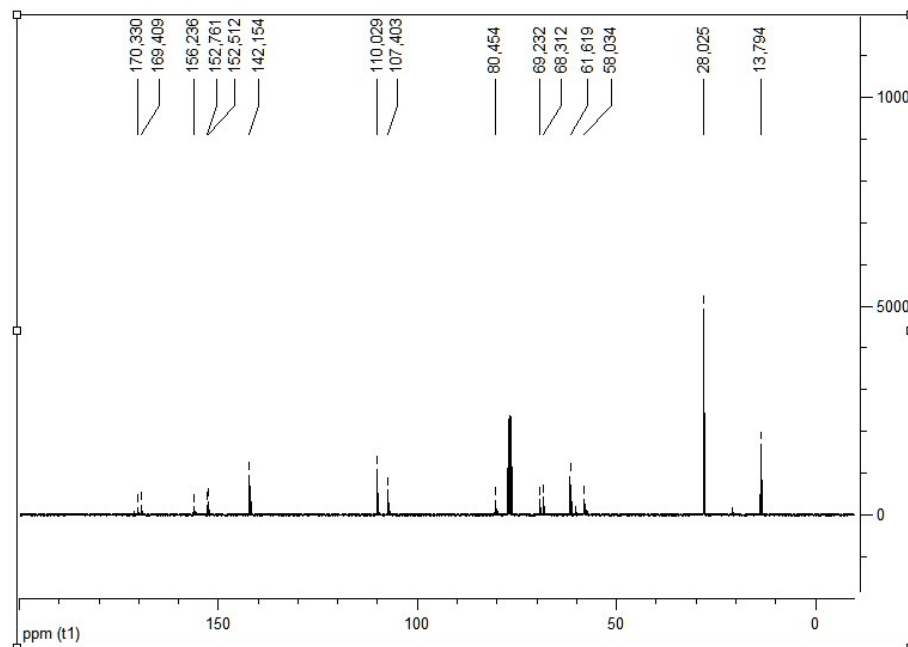


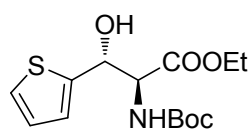


¹H NMR

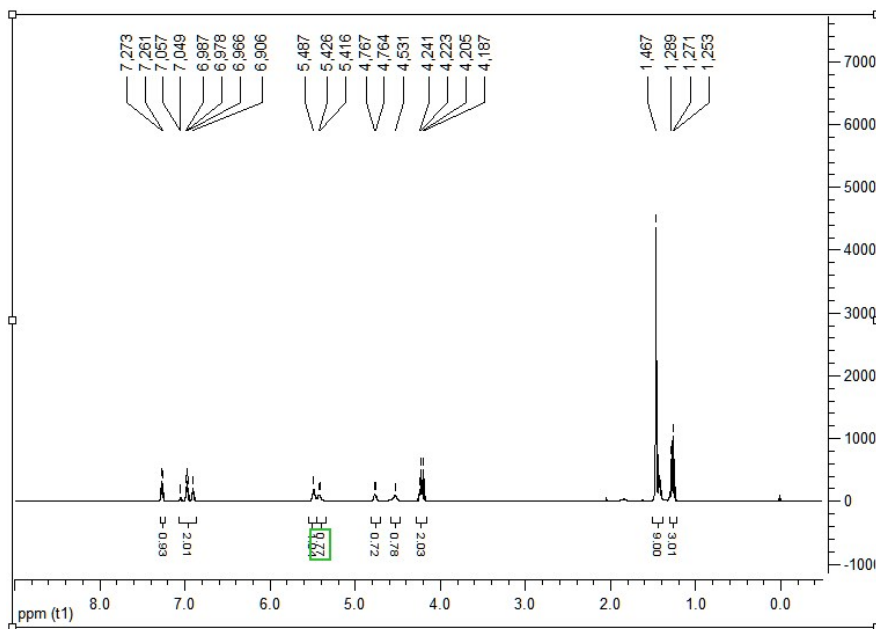


¹³C NMR

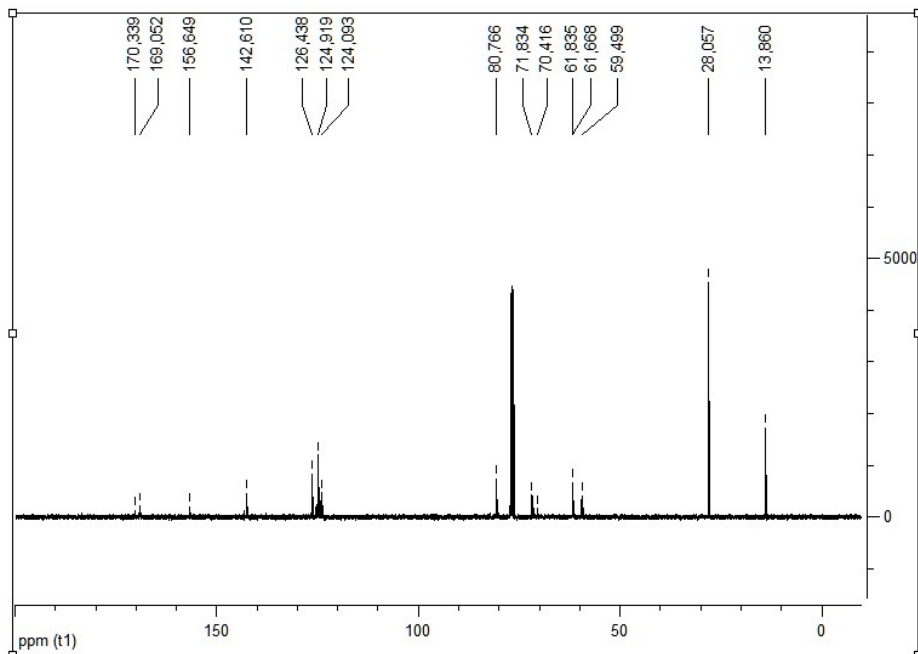




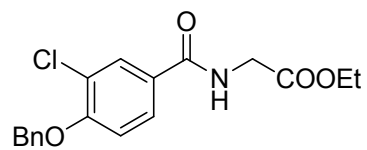
¹H NMR



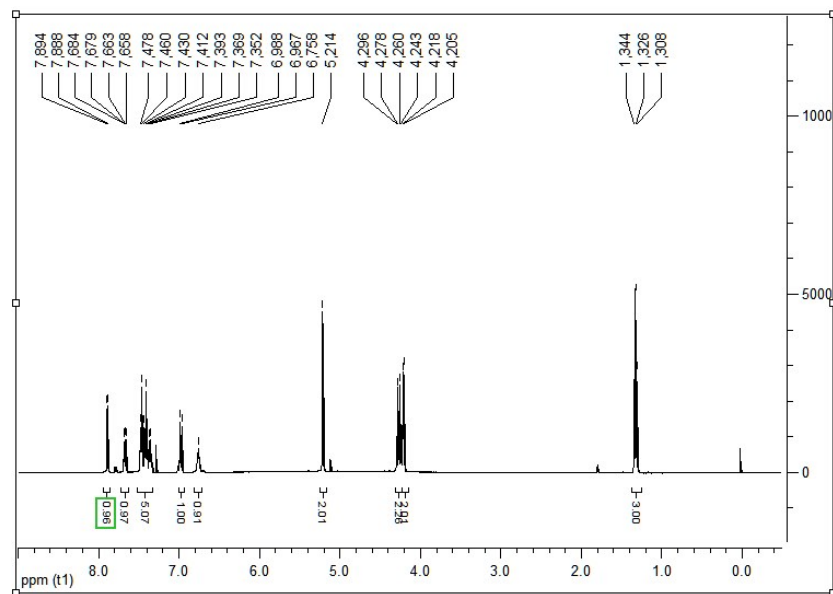
¹³C NMR



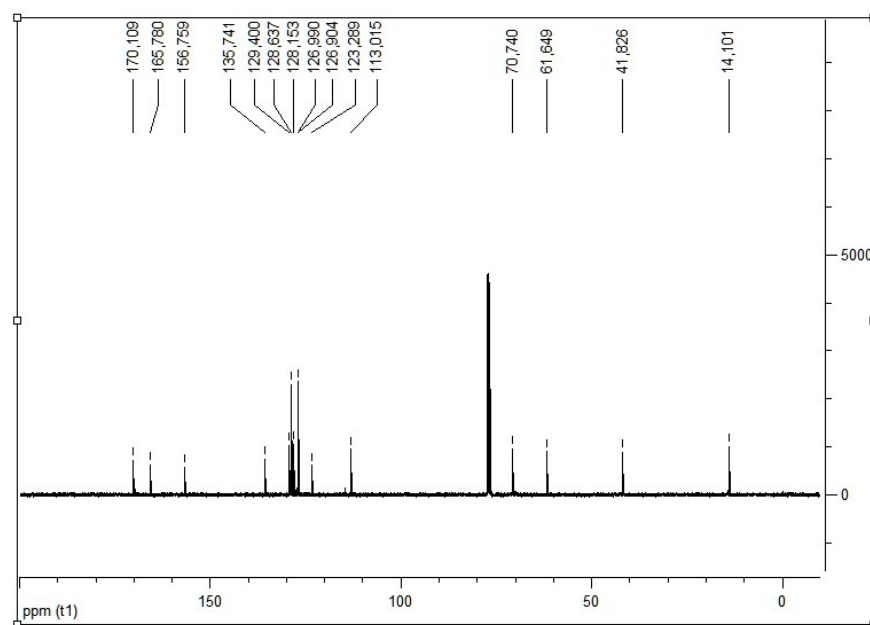
Spectral data of the immediate of vancomycin (¹H NMR and ¹³C NMR).

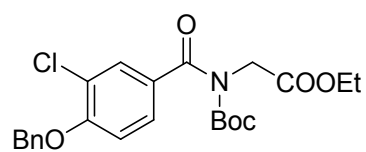


¹H NMR

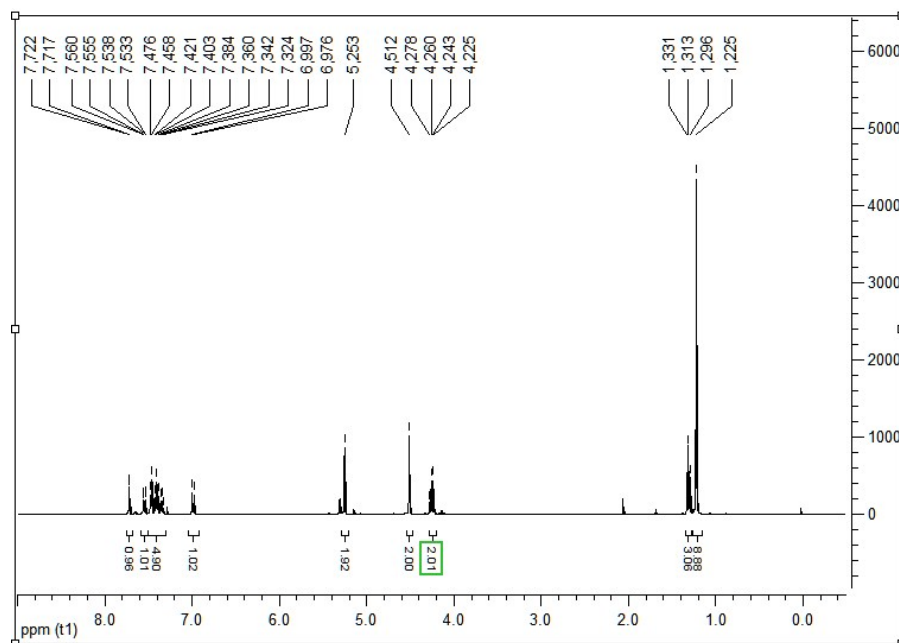


¹³C NMR

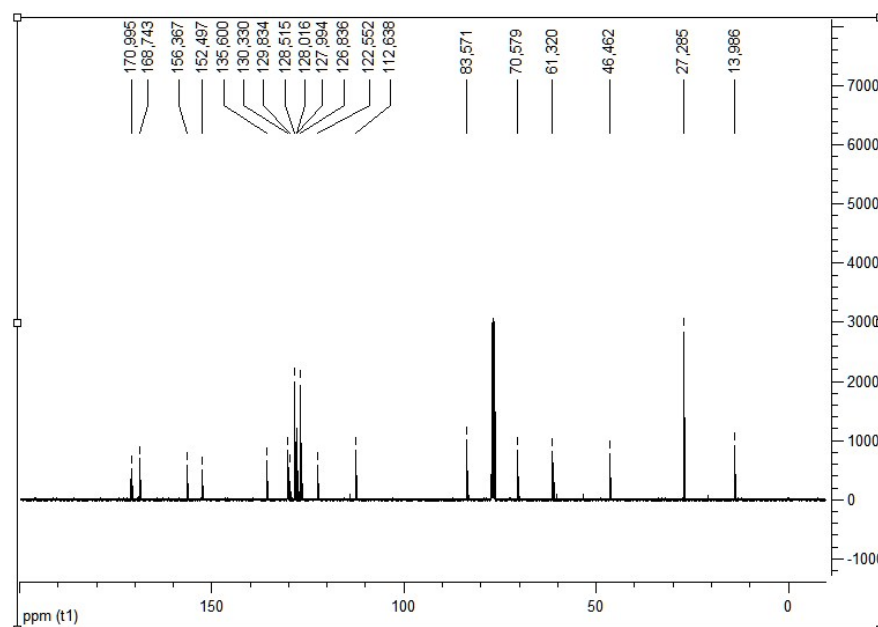


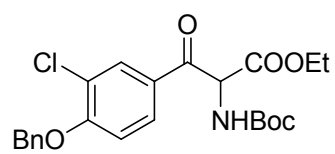


¹H NMR

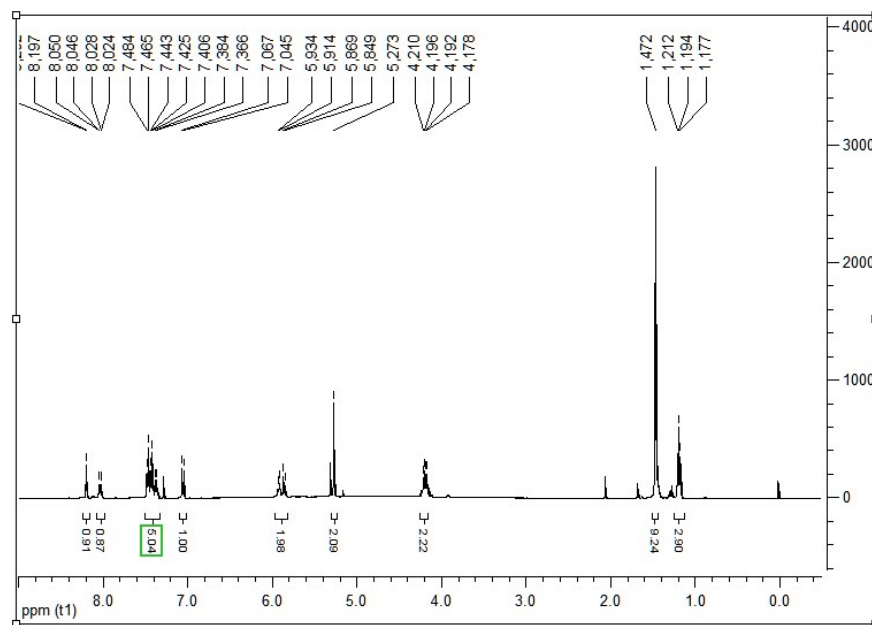


¹³C NMR

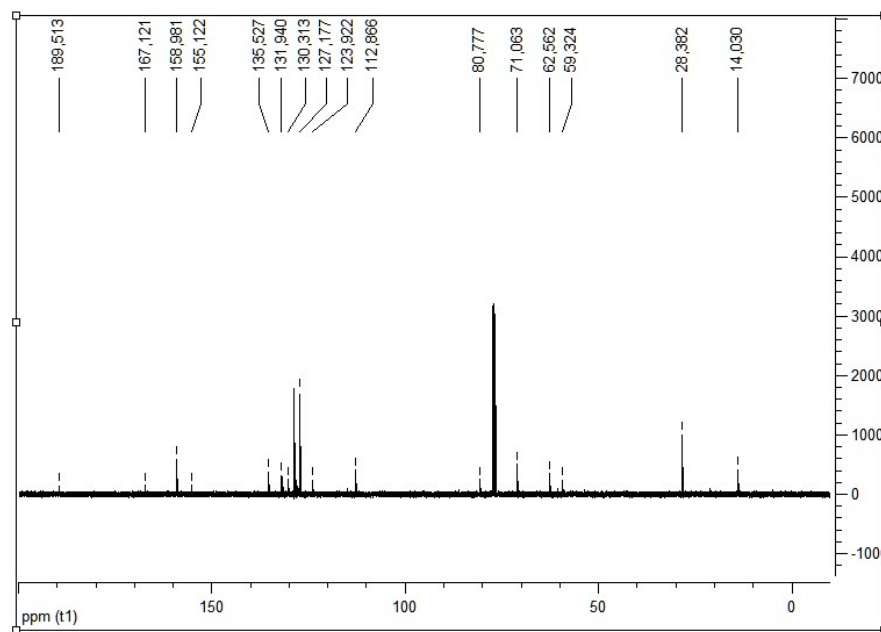


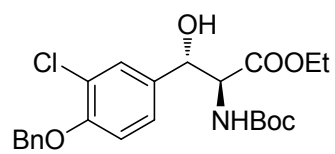


¹H NMR

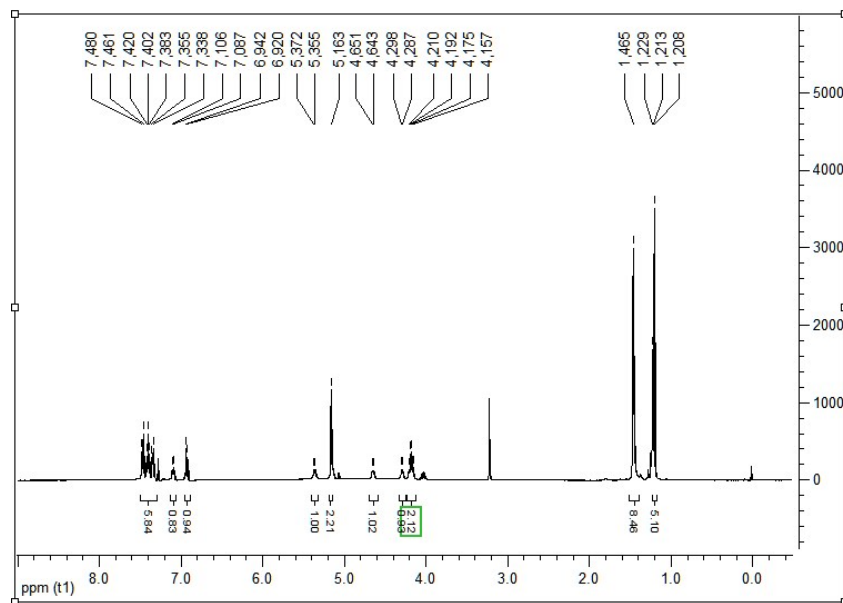


¹³C NMR

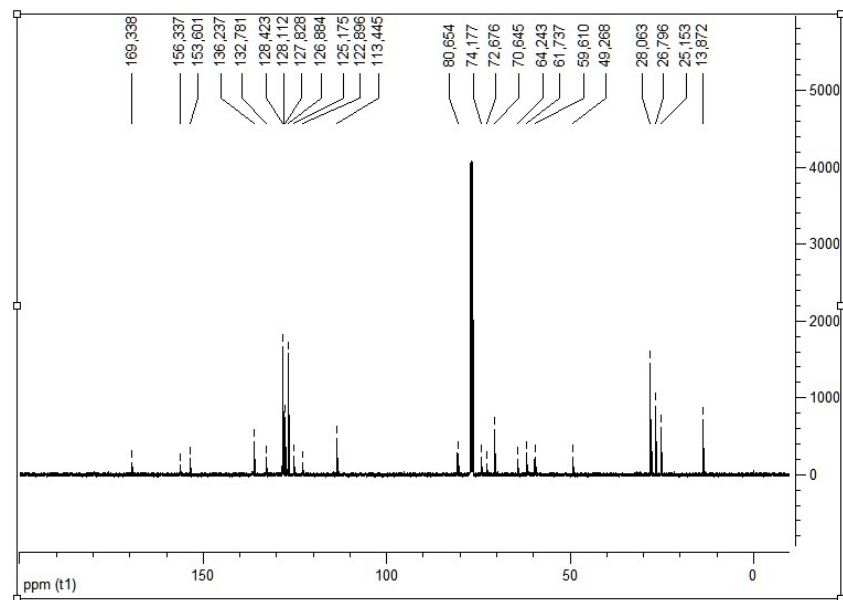


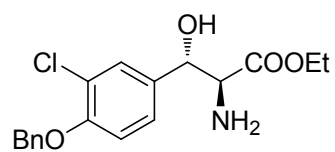


¹H NMR

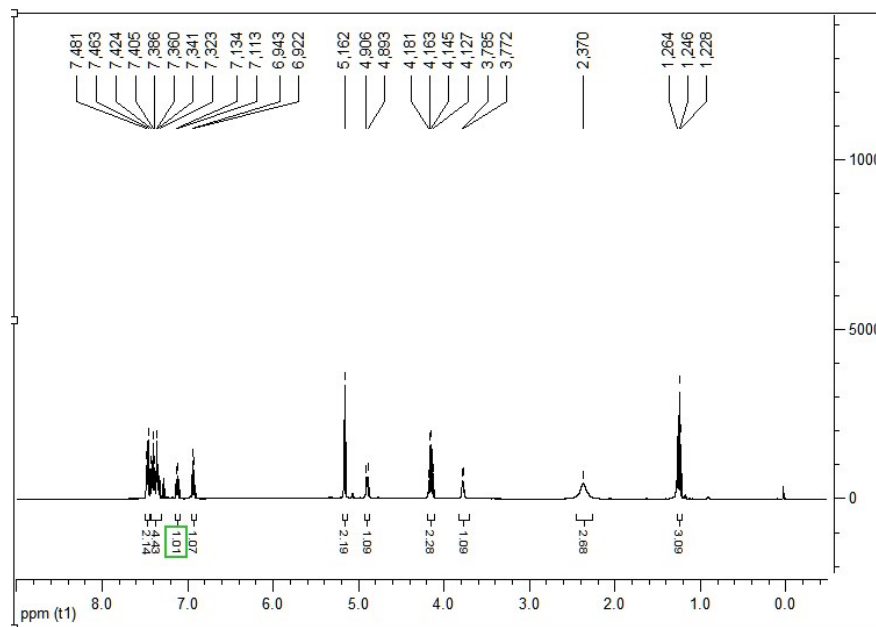


¹³C NMR

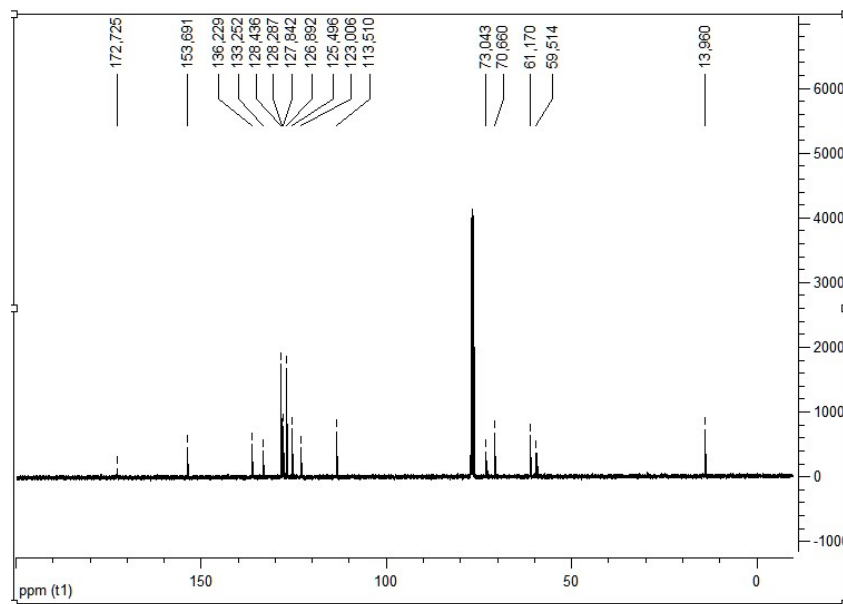


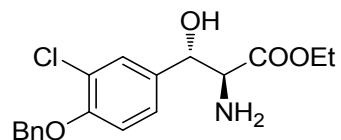


¹H NMR



¹³C NMR





The HPLC of compound **3**

The *anti*-amino alcohol was prepared following Somai's procedures: TsDPEN ligand and $[\text{RuCl}_2(\text{p-cymene})]_2$ catalyst in $\text{HCOOH-Et}_3\text{N}$ complex (5:2) at 45°C for 2 h. (*Org. Lett.* 2010, **12** (22), 5274-5277).

