Supporting information
for

Zirconium–MOF catalysed selective synthesis of α-hydroxyamide via transfer hydrogenation of α-ketoamide

Ashish A. Mishra[†] and Bhalchandra M. Bhanage[†]*

[†]Department of Chemistry, Institute of Chemical Technology, Matunga, Mumbai-400019. India.

Tel: +91 22 33612601; Fax: +91 22 33611020.

E-mail: bm.bhanage@gmail.com ; bm.bhanage@ictmumbai.edu.in

INDEX

X-RAY DIFFRACTION OF UiO66 & UiO66-NH_2

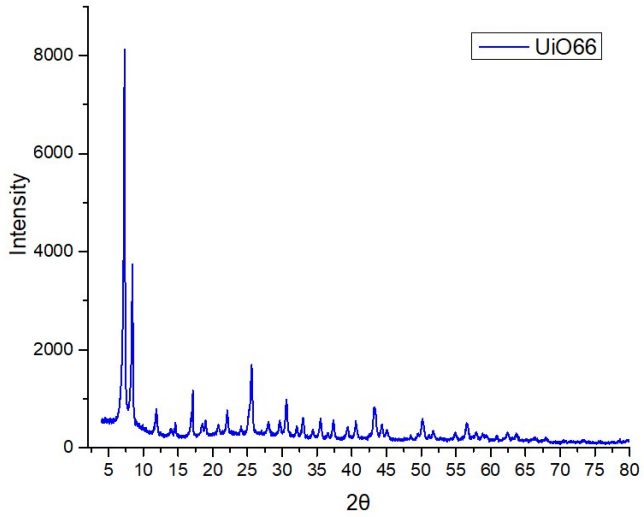


Figure 1: XRD pattern for UiO66

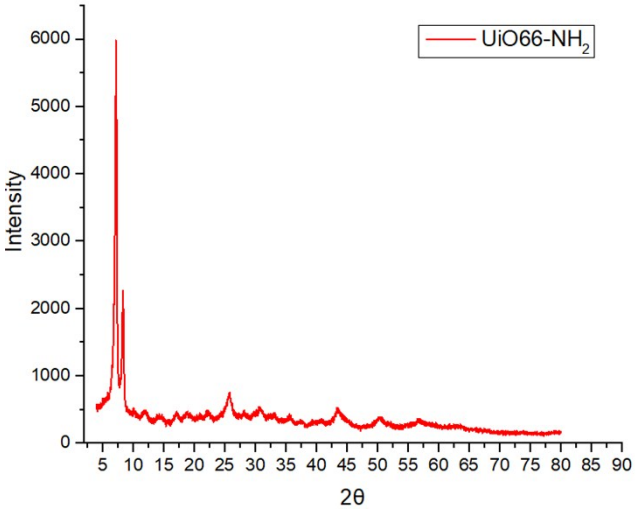


Figure 2: XRD pattern for UiO66-NH_2

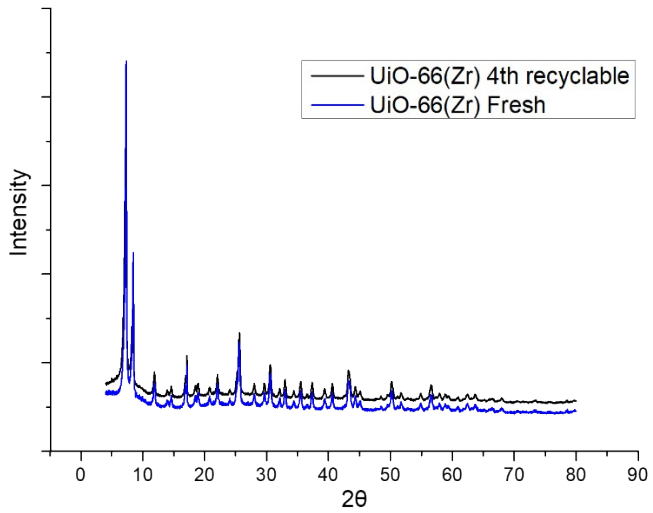


Figure 3: XRD pattern for UiO-66 fresh and 4th recyclable catalyst

Thermogravimetric analysis

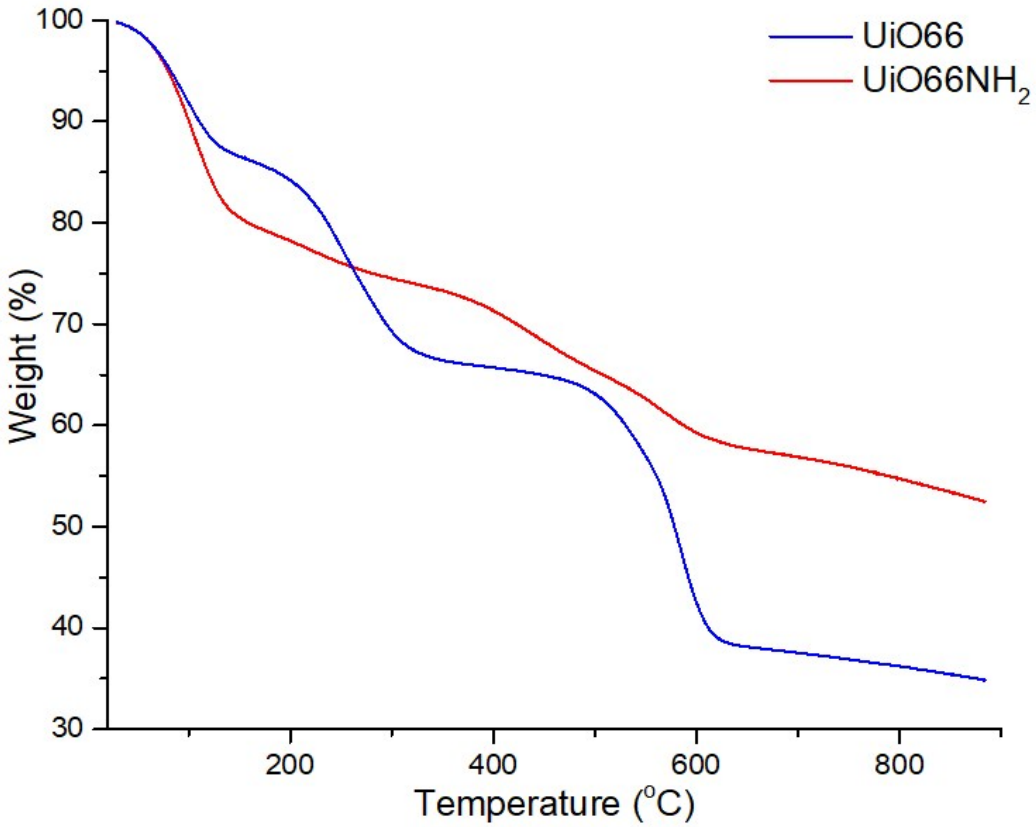


Figure 4: Thermogravimetric analysis of UiO66 and UiO66-NH_2

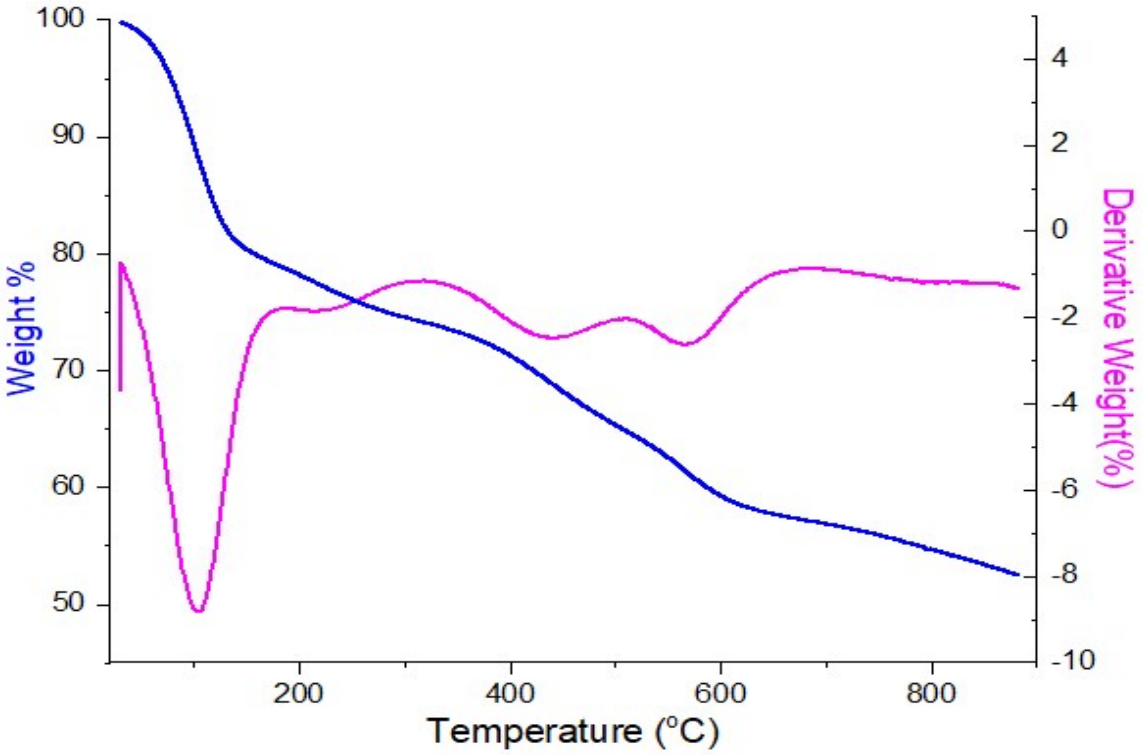


Figure 5: Thermogravimetric analysis and DTA of UiO66-NH_2

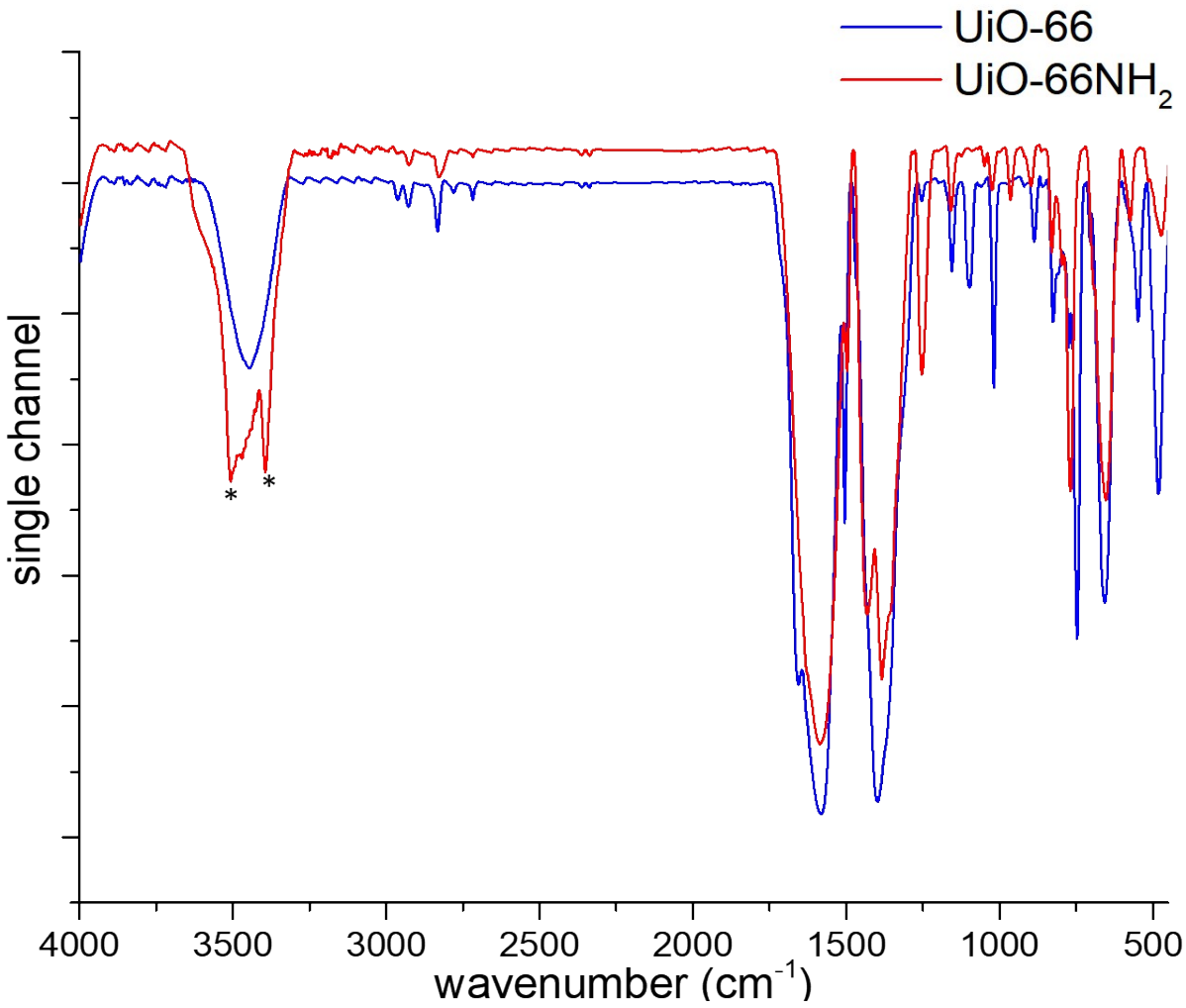
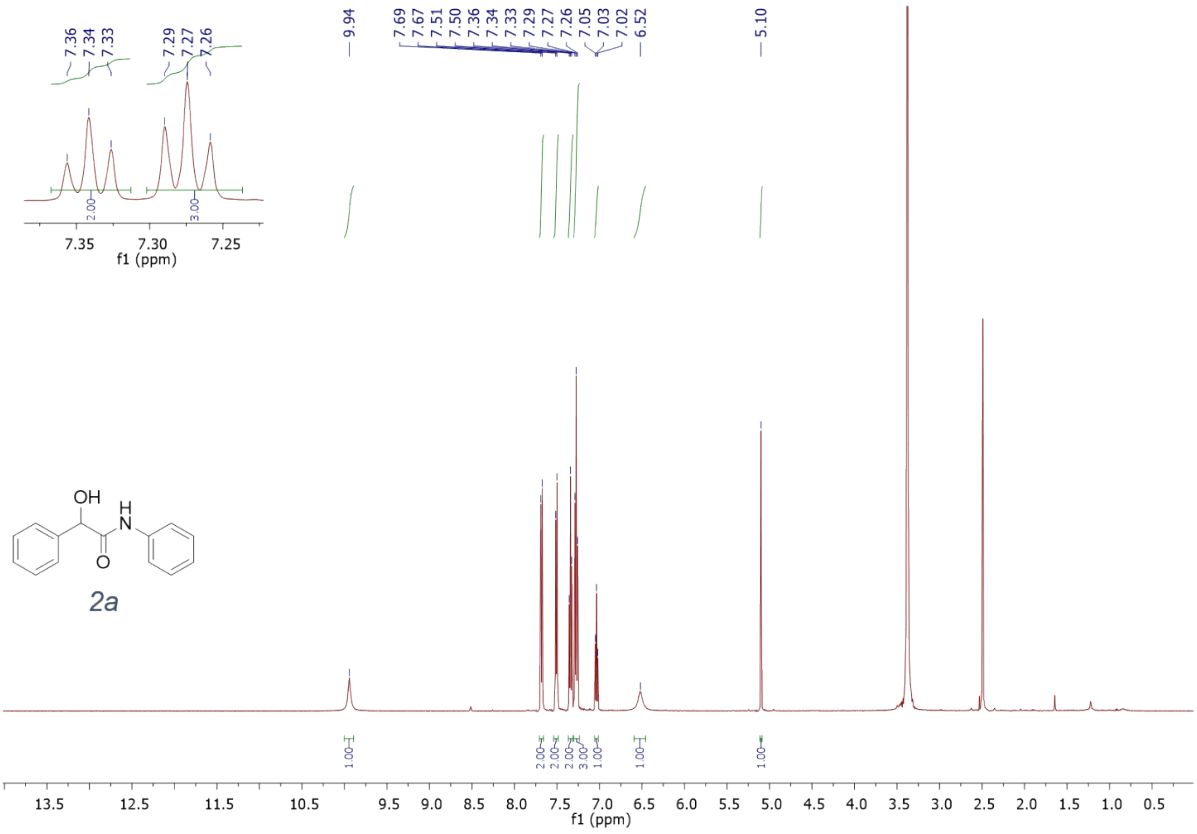


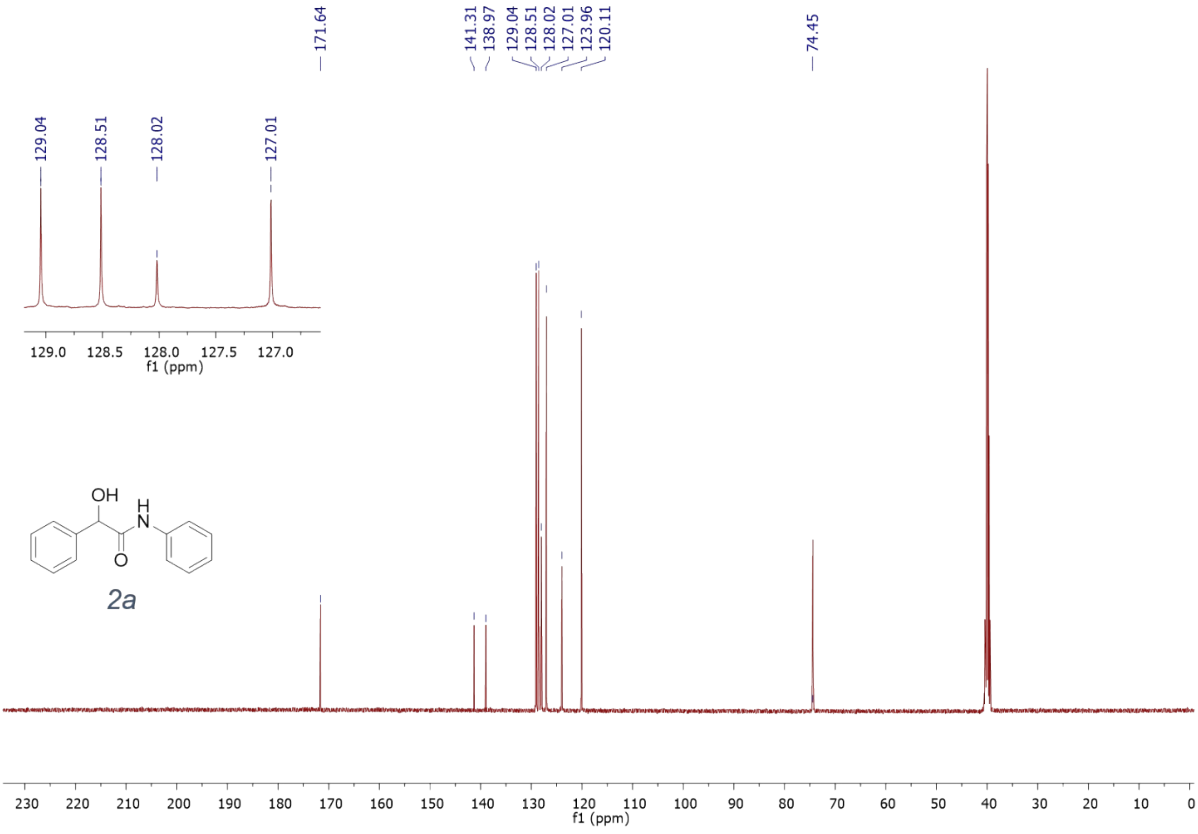
Figure 6: Infra-Red Spectroscopy of UiO66 and UiO66-NH_2

Figure 7: Catalytic Cycle

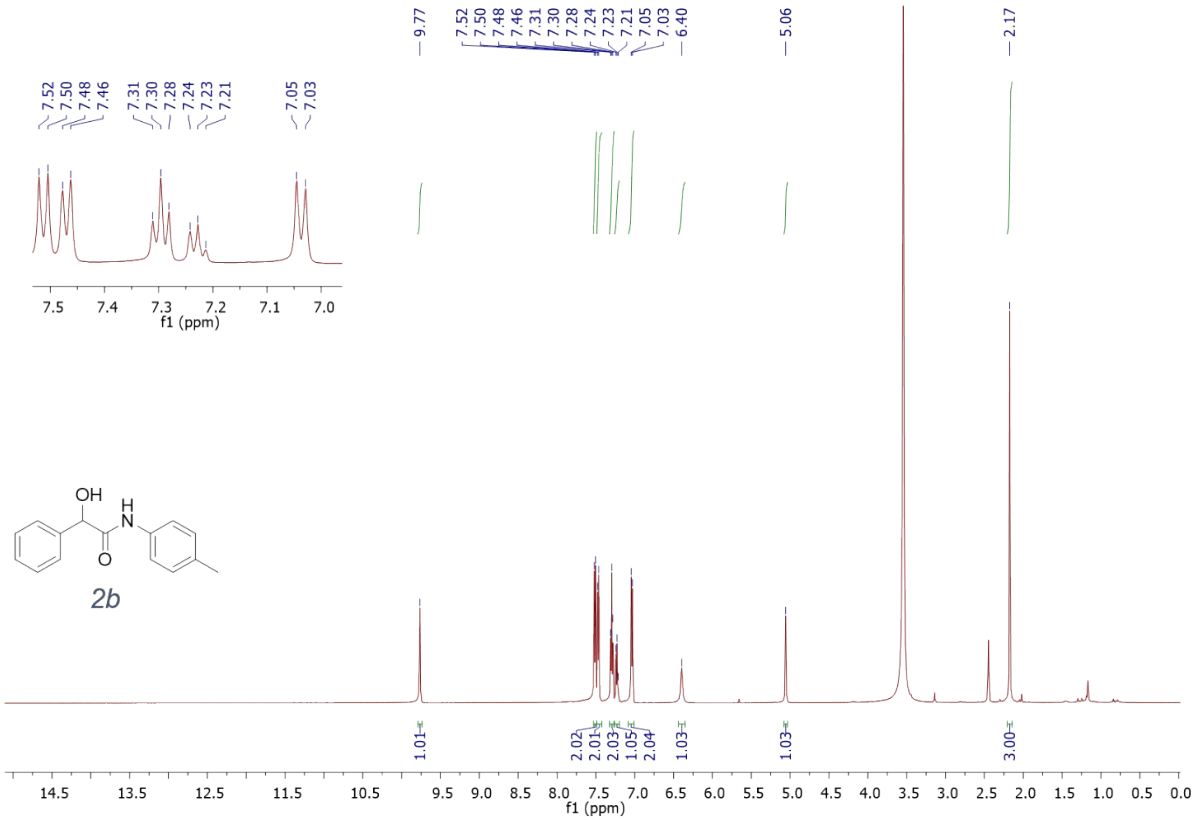
^{1}H and ^{13}C NMR of α-hydroxyamide and its derivative



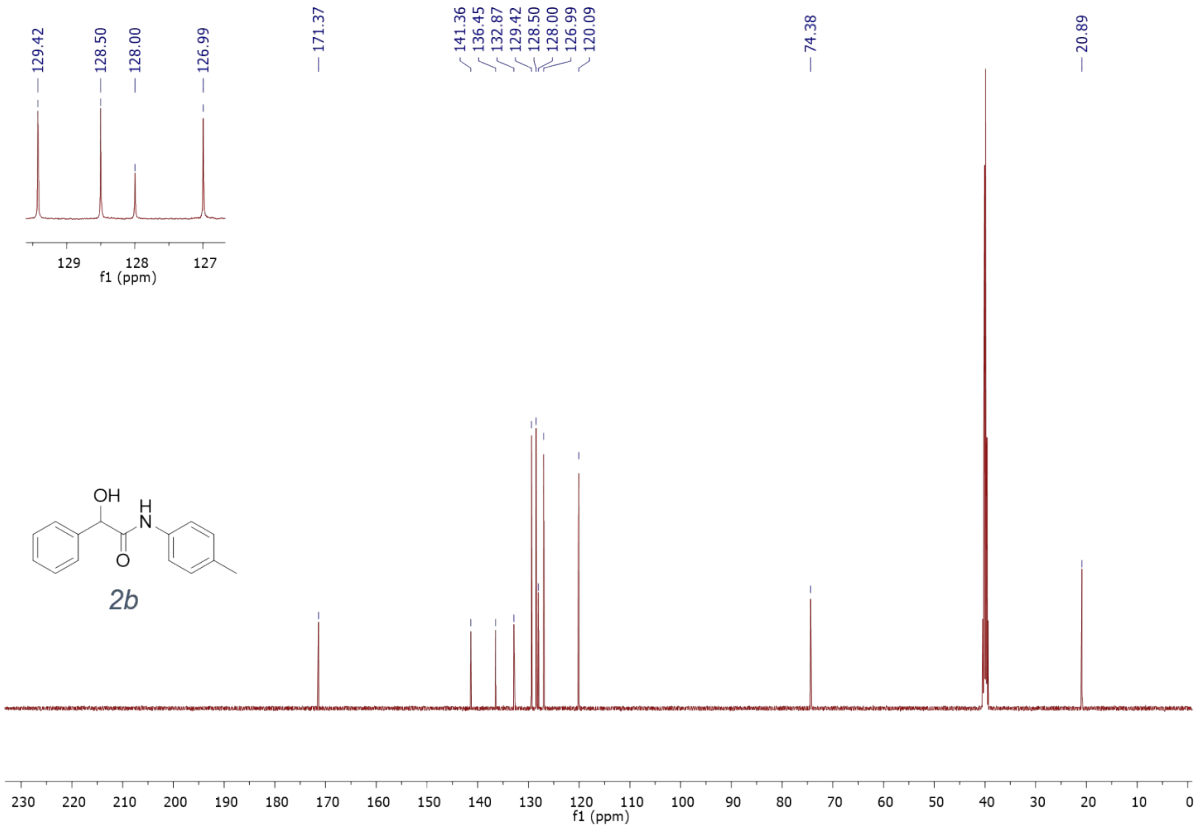
500 MHz ^{1}H-NMR spectra of 2a in DMSO-d_6



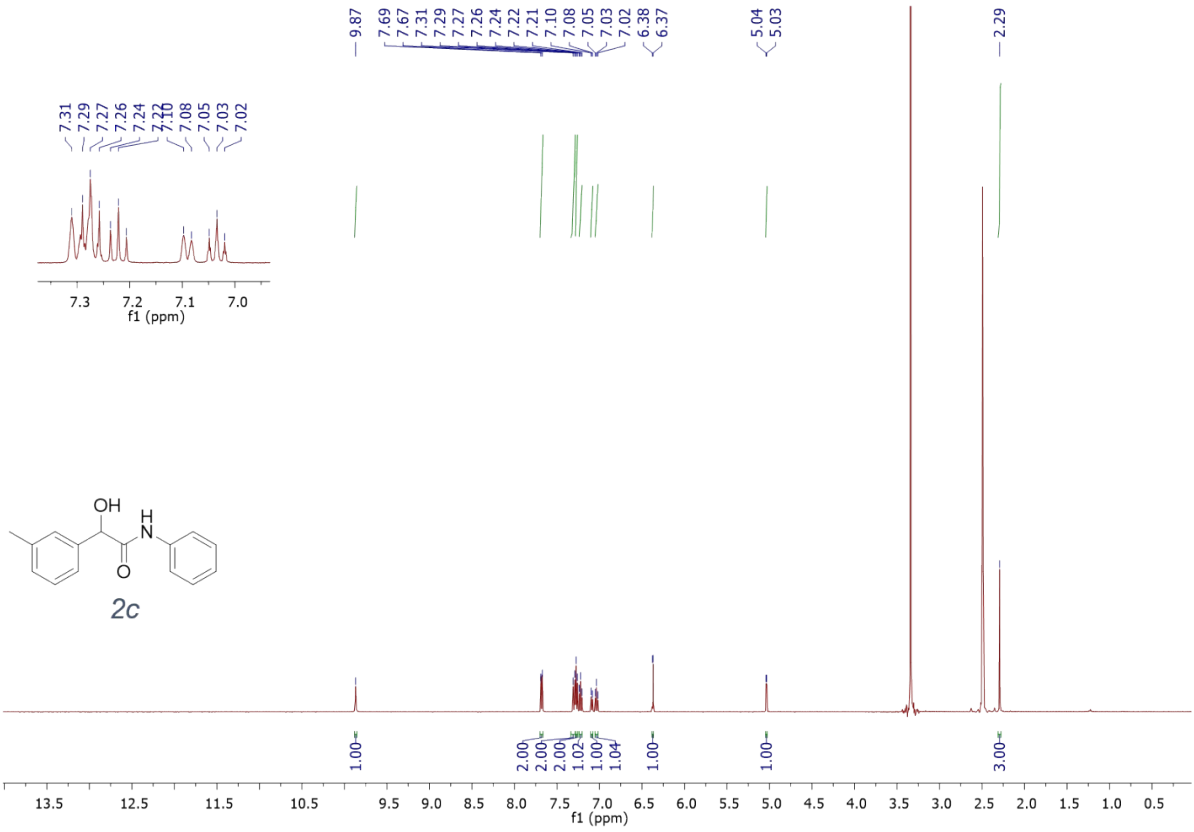
126 MHz ^{13}C-NMR spectra of 2a in DMSO-d_6



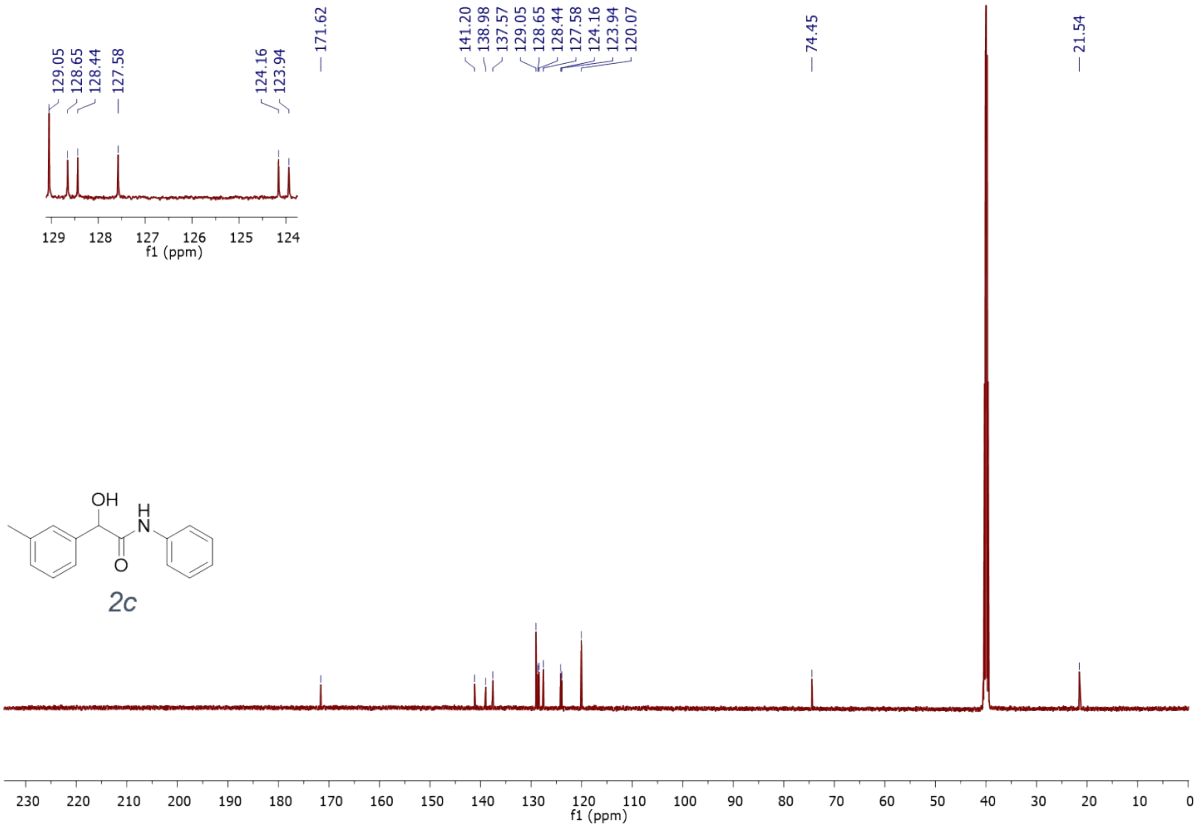
500 MHz ^{1}H-NMR spectra of 2b in DMSO-d_6



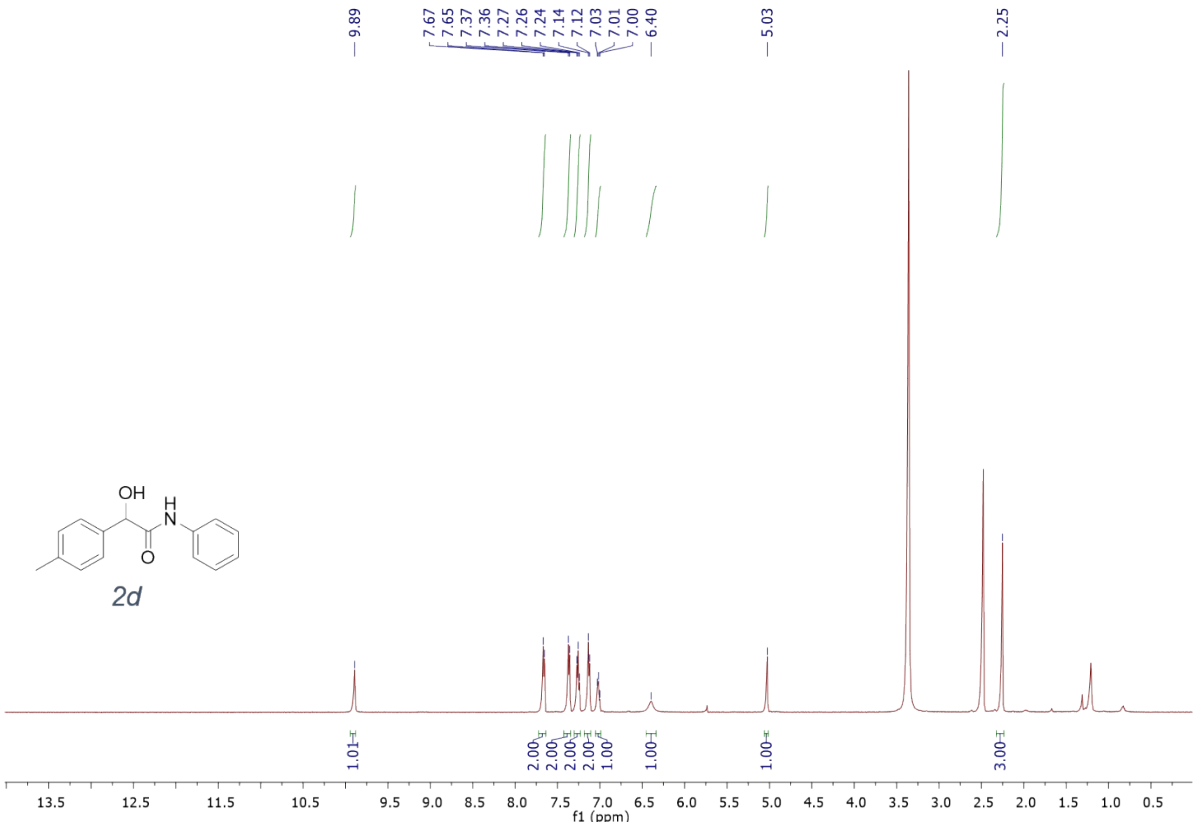
126 MHz ^{13}C-NMR spectra of 2b in DMSO-d_6



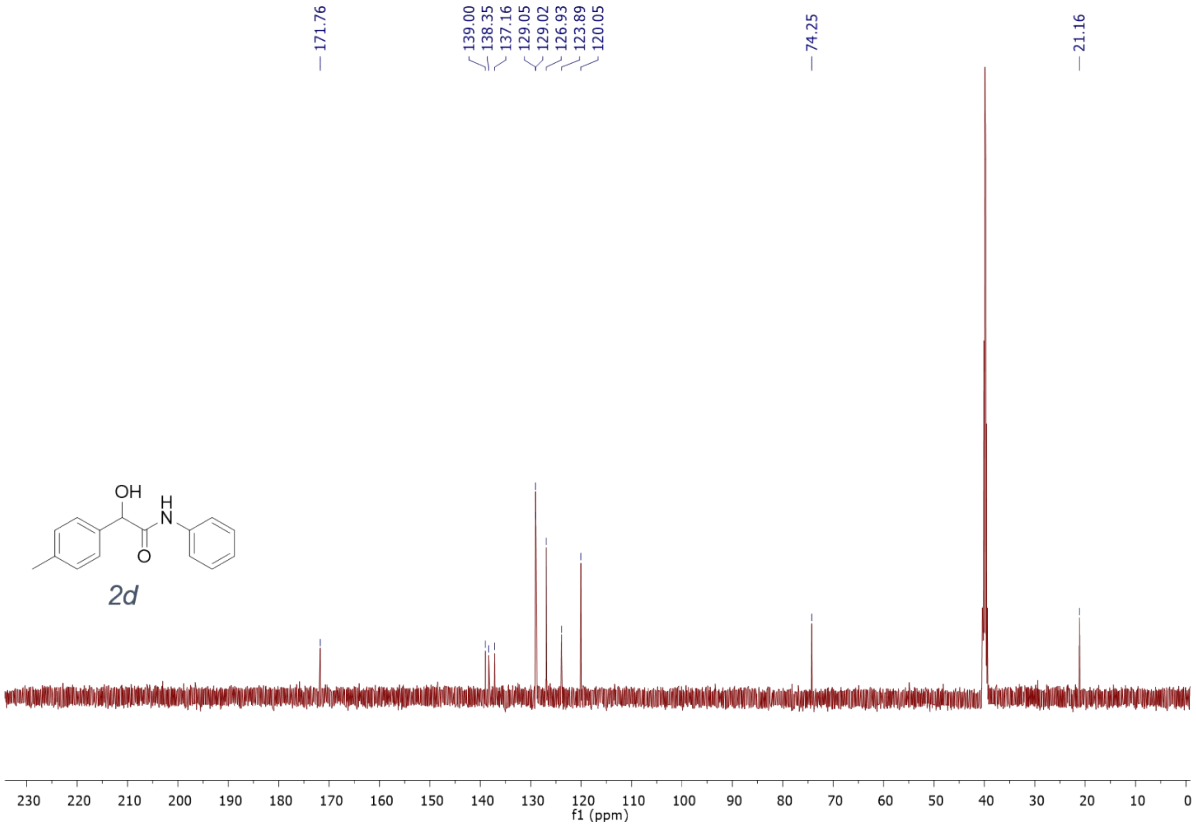
500 MHz ^{1}H-NMR spectra of 2c in DMSO-d_6



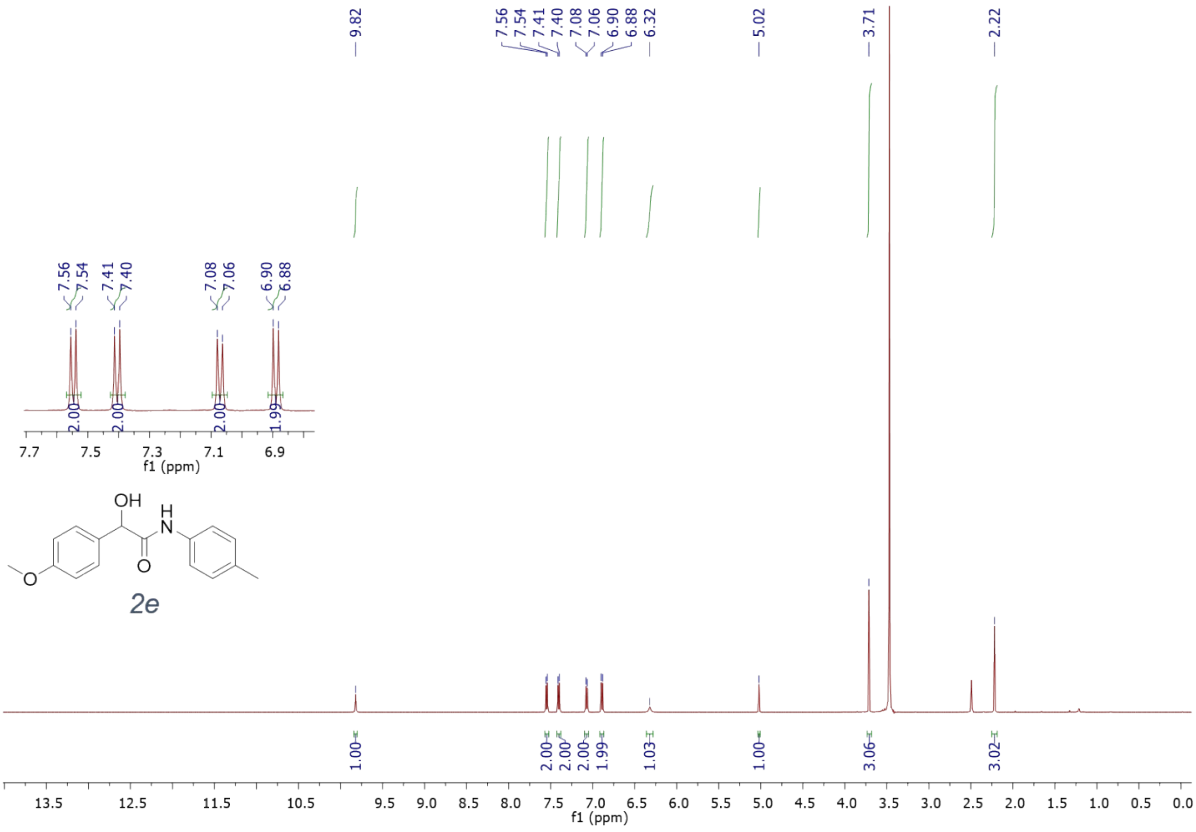
126 MHz ^{13}C-NMR spectra of 2c in DMSO-d_6



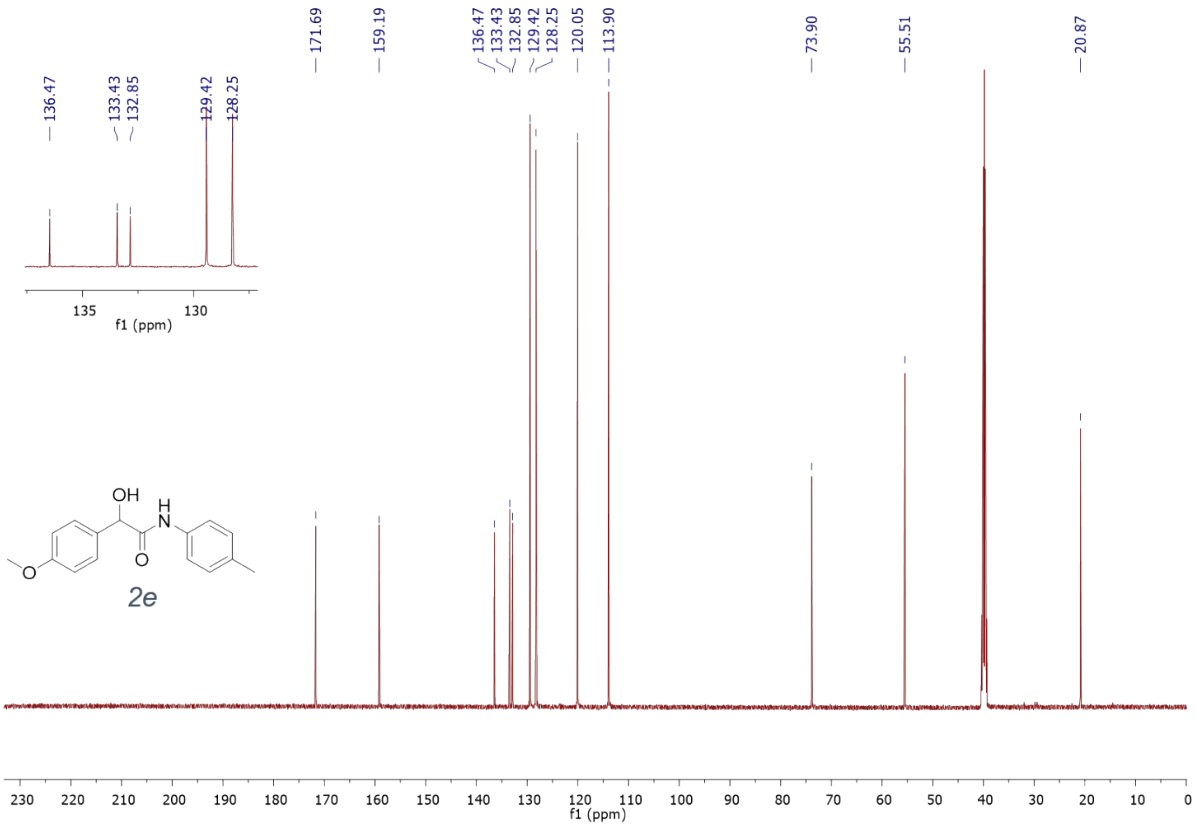
500 MHz ^{1}H-NMR spectra of 2d in DMSO-d_6



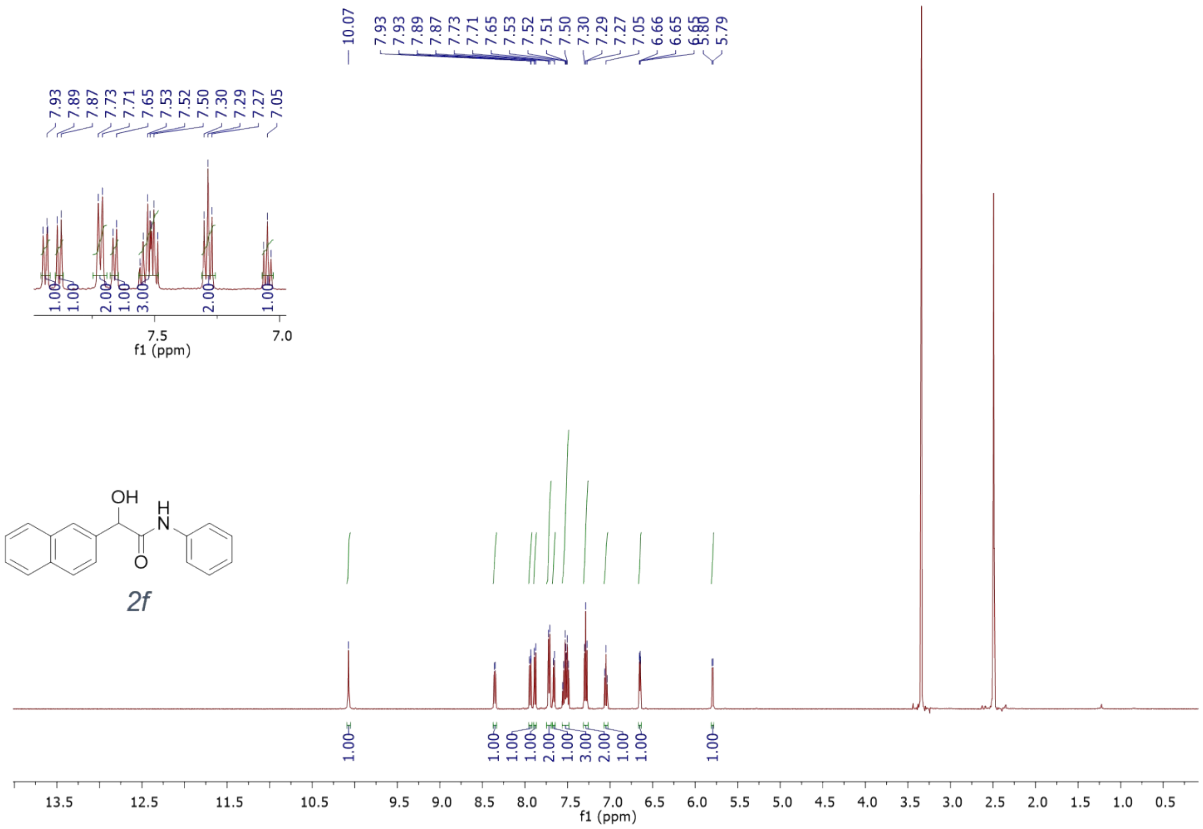
126 MHz ^{13}C-NMR spectra of 2d in DMSO-d_6



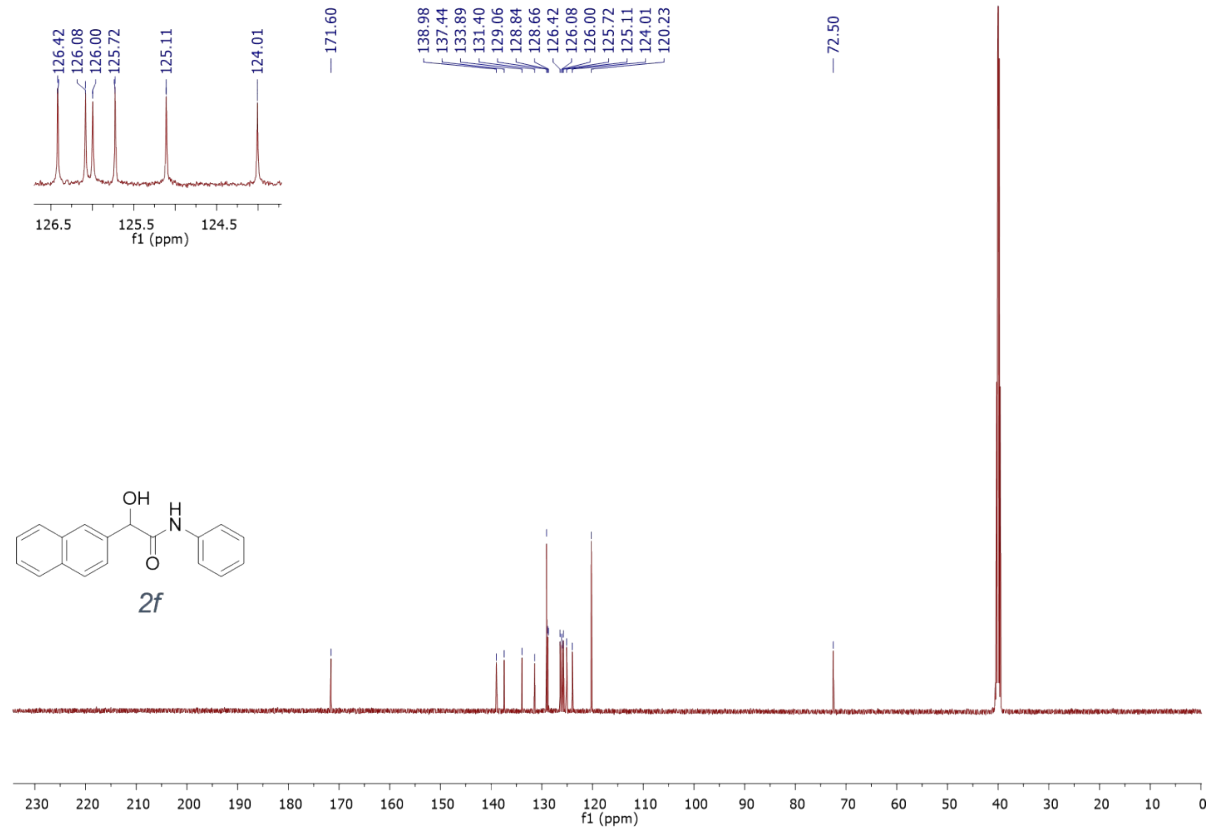
500 MHz ^{1}H-NMR spectra of 2e in DMSO-d_6



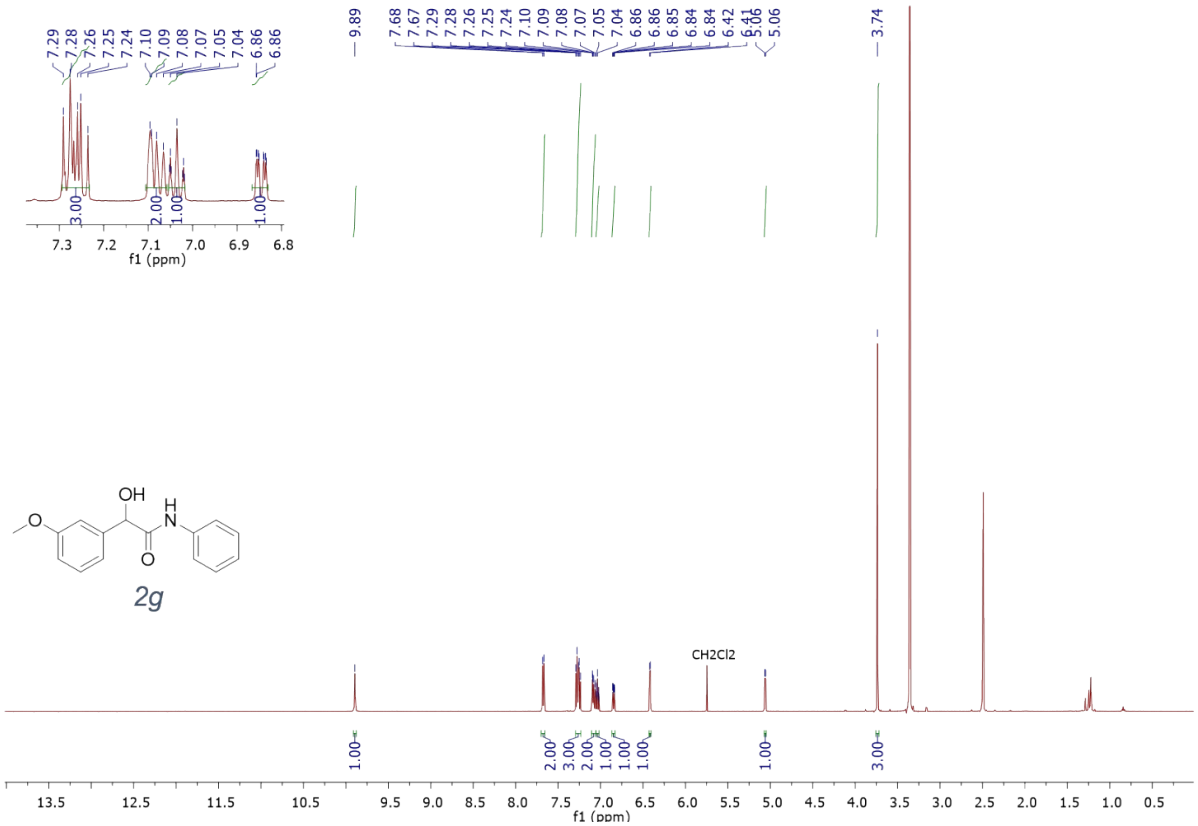
126 MHz ^{13}C-NMR spectra of 2e in DMSO-d_6



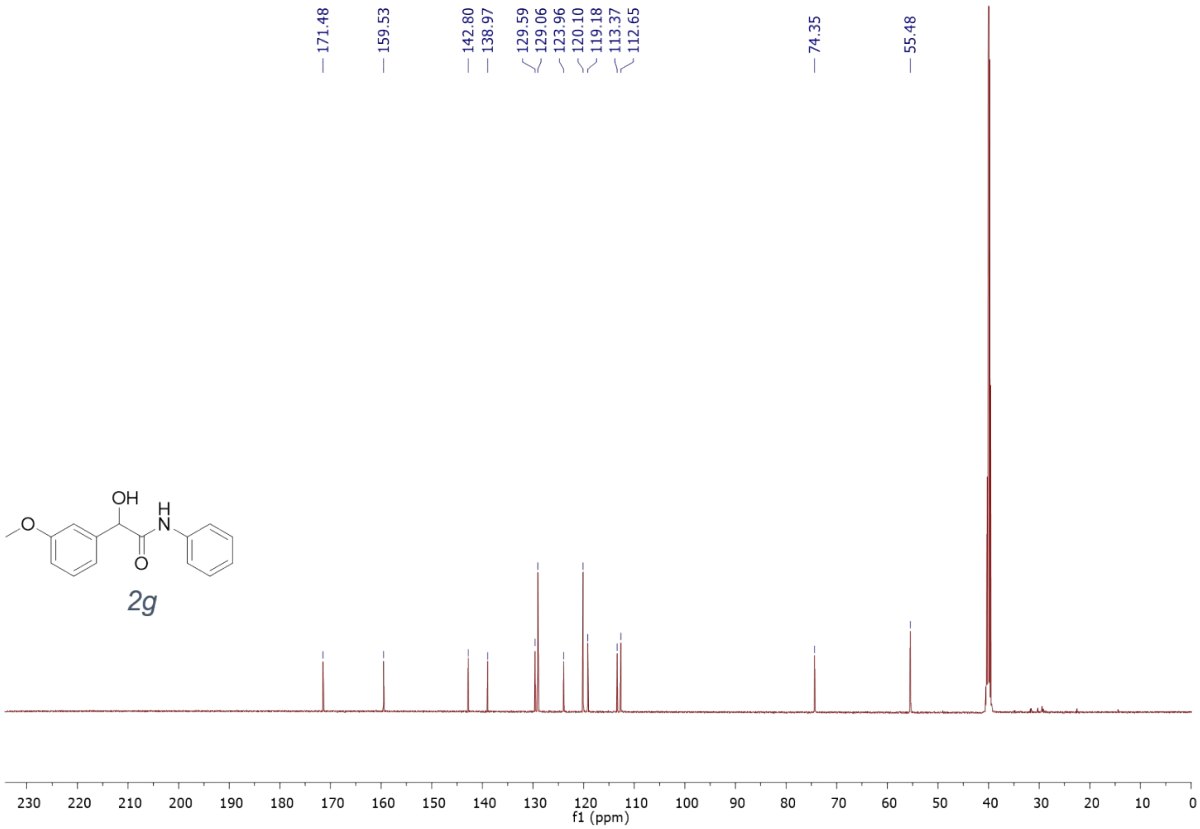
500 MHz ^{1}H-NMR spectra of 2f in DMSO-d_6



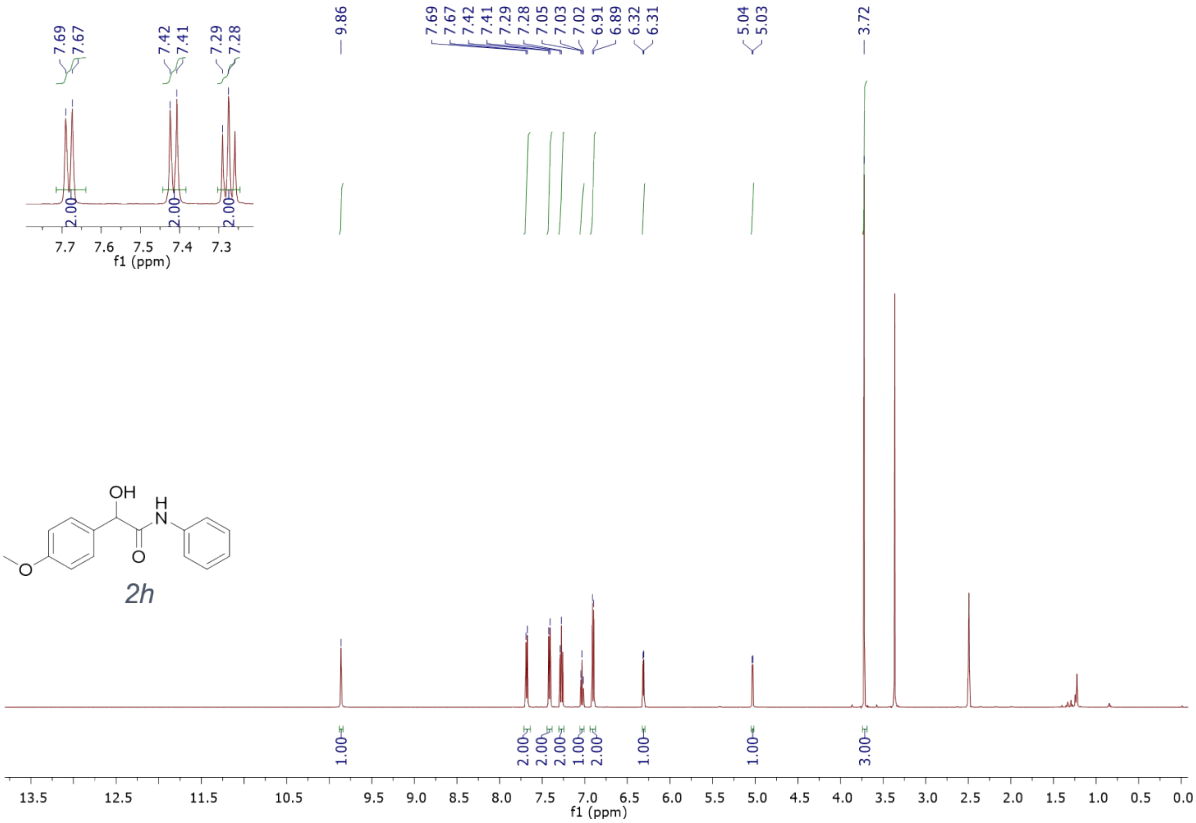
126 MHz ^{13}C-NMR spectra of 2f in DMSO-d_6



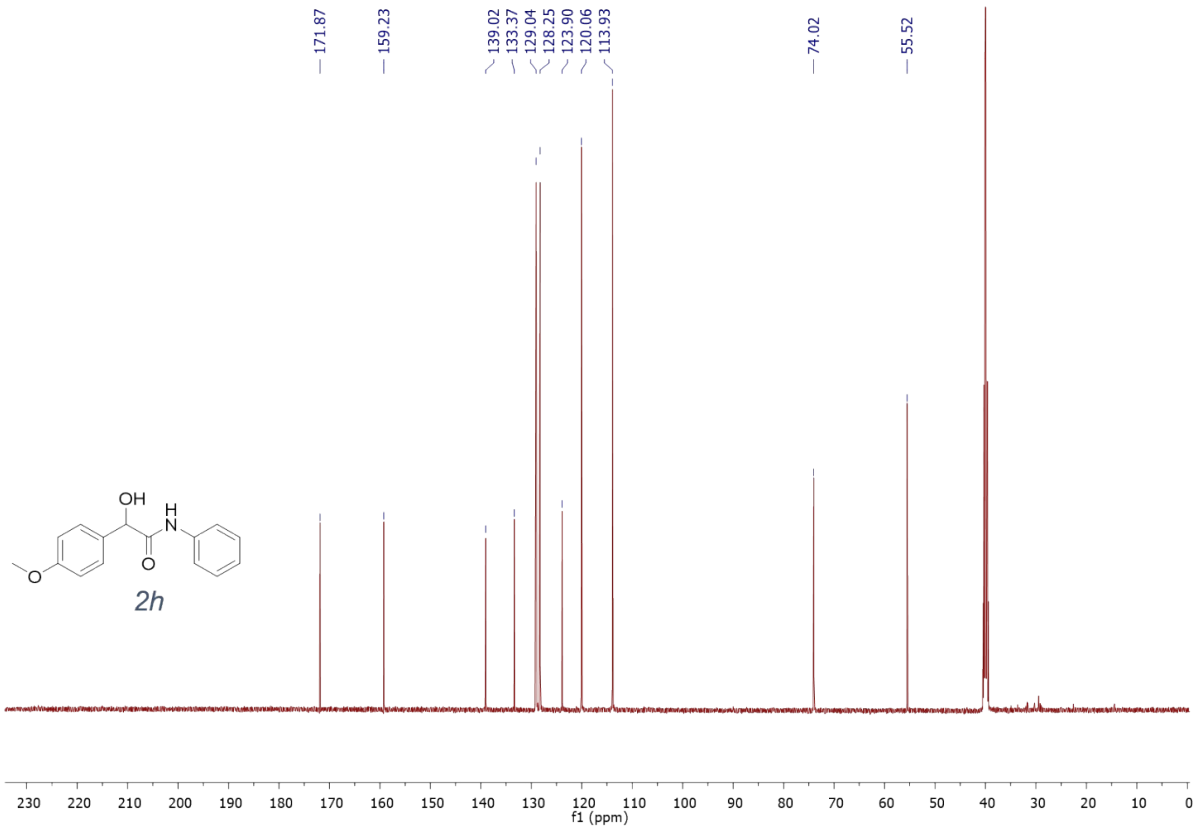
500 MHz ^{1}H-NMR spectra of 2g in DMSO-d_6



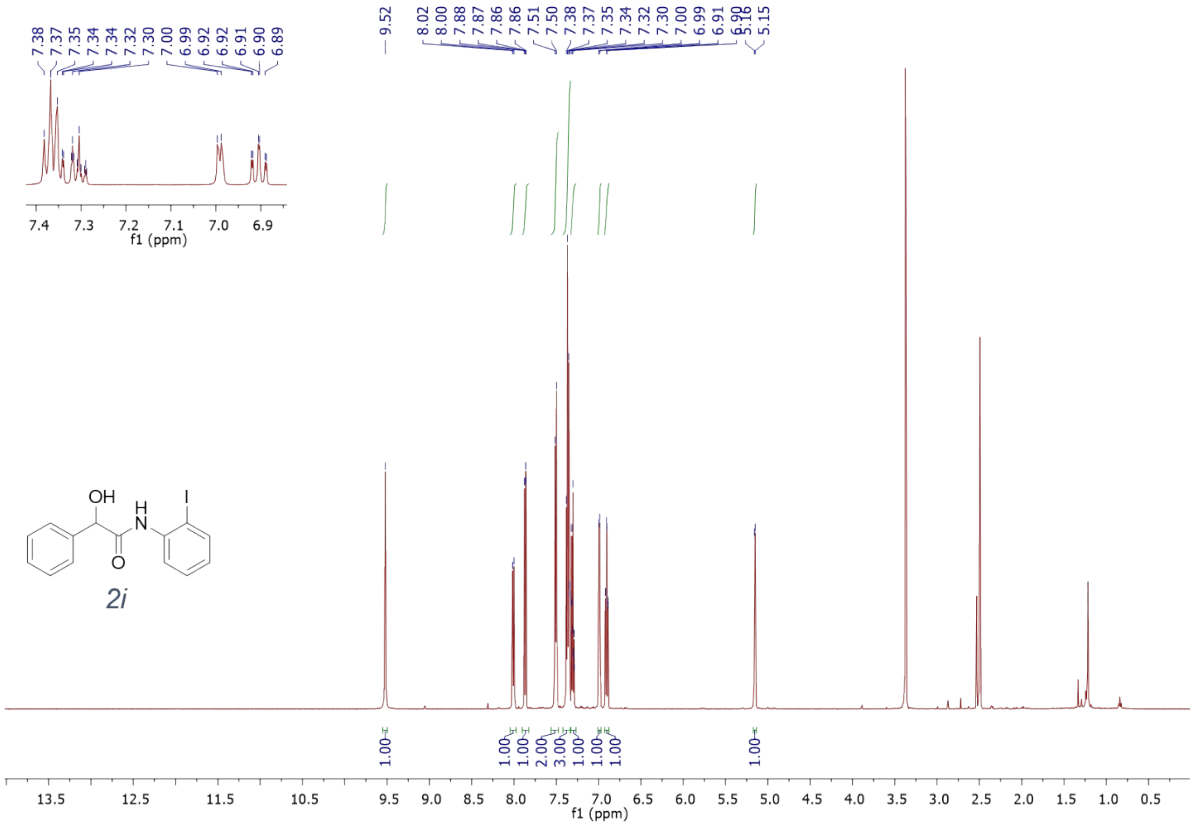
126 MHz ^{13}C-NMR spectra of 2g in DMSO-d_6



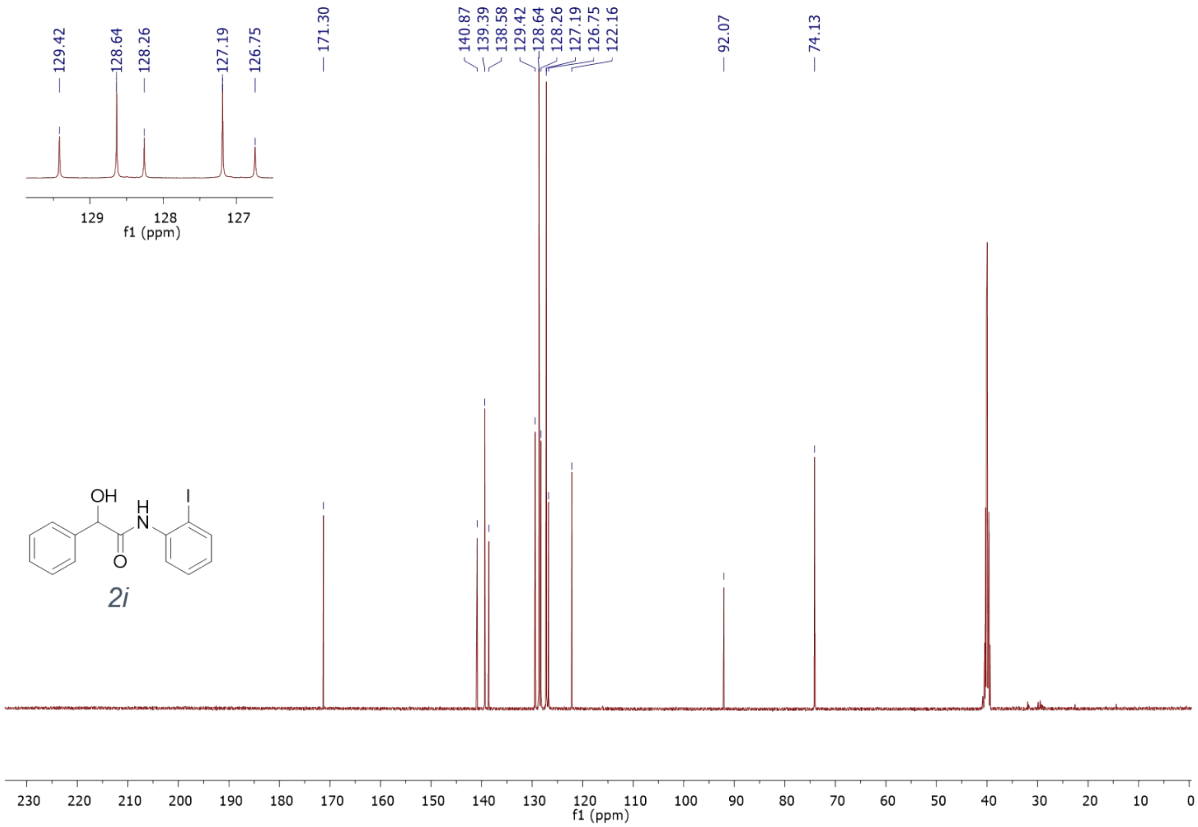
500 MHz ^{1}H-NMR spectra of 2h in DMSO-d_6



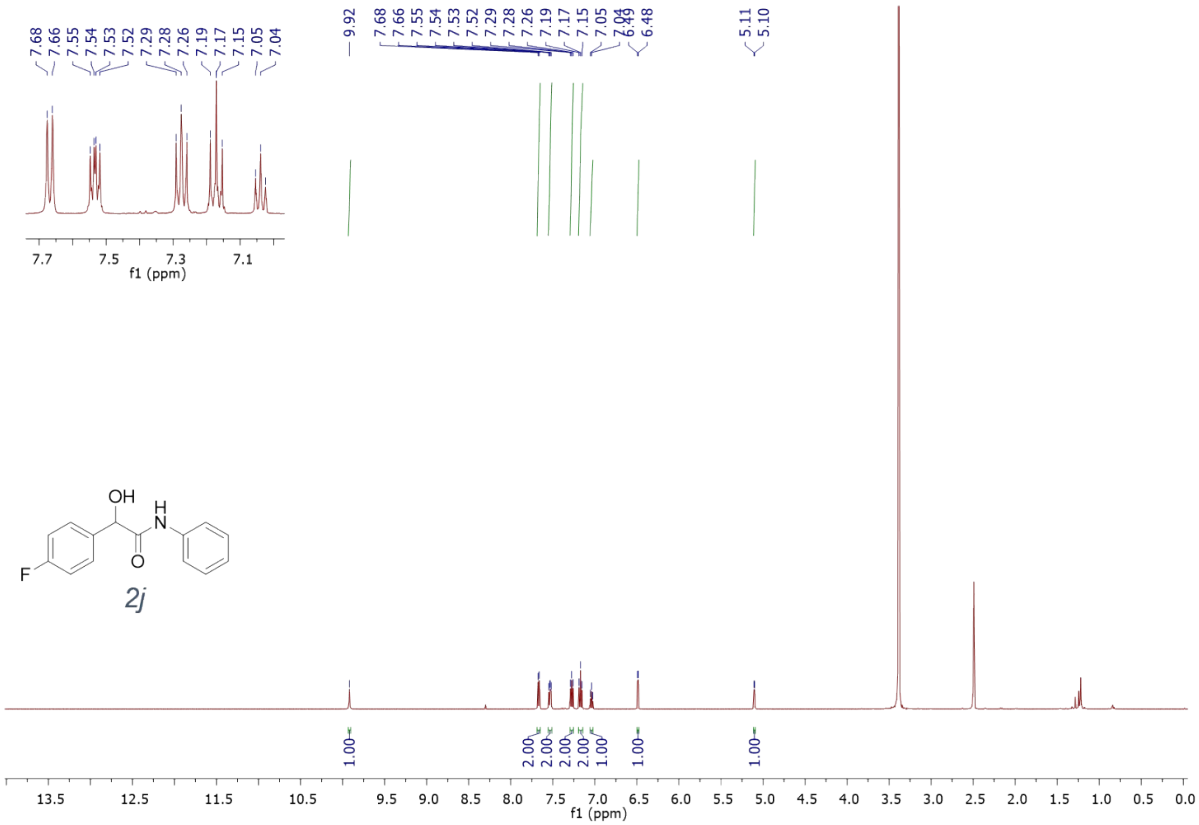
126 MHz ^{13}C-NMR spectra of 2h in DMSO-d_6



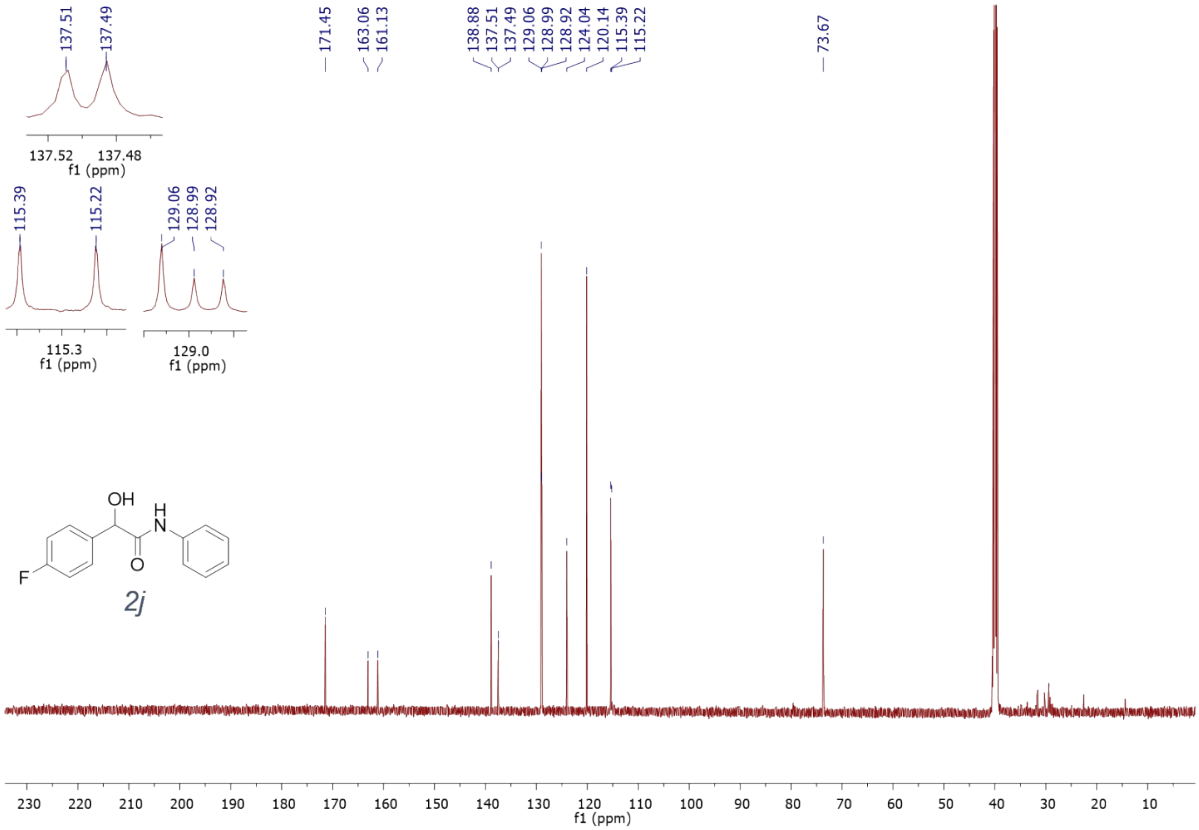
500 MHz ^{1}H-NMR spectra of 2i in DMSO-d_6



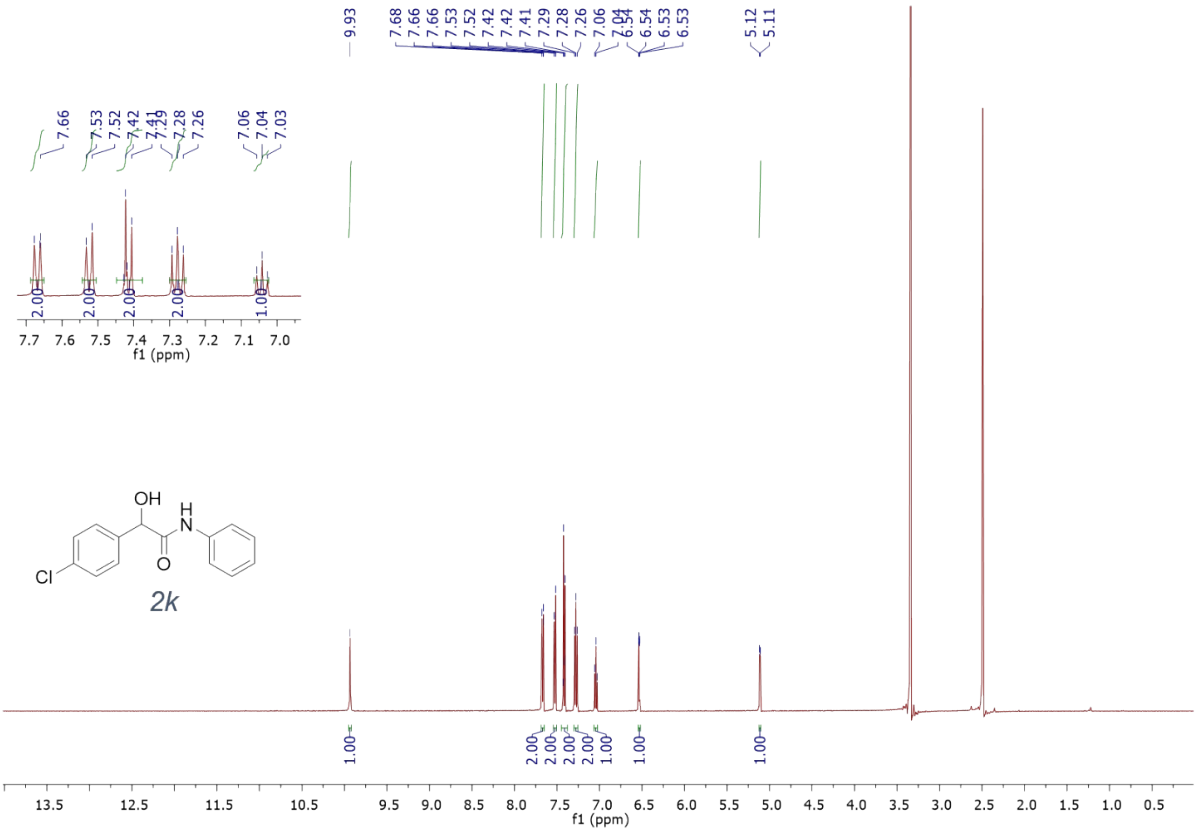
126 MHz ^{13}C-NMR spectra of 2i in DMSO-d_6



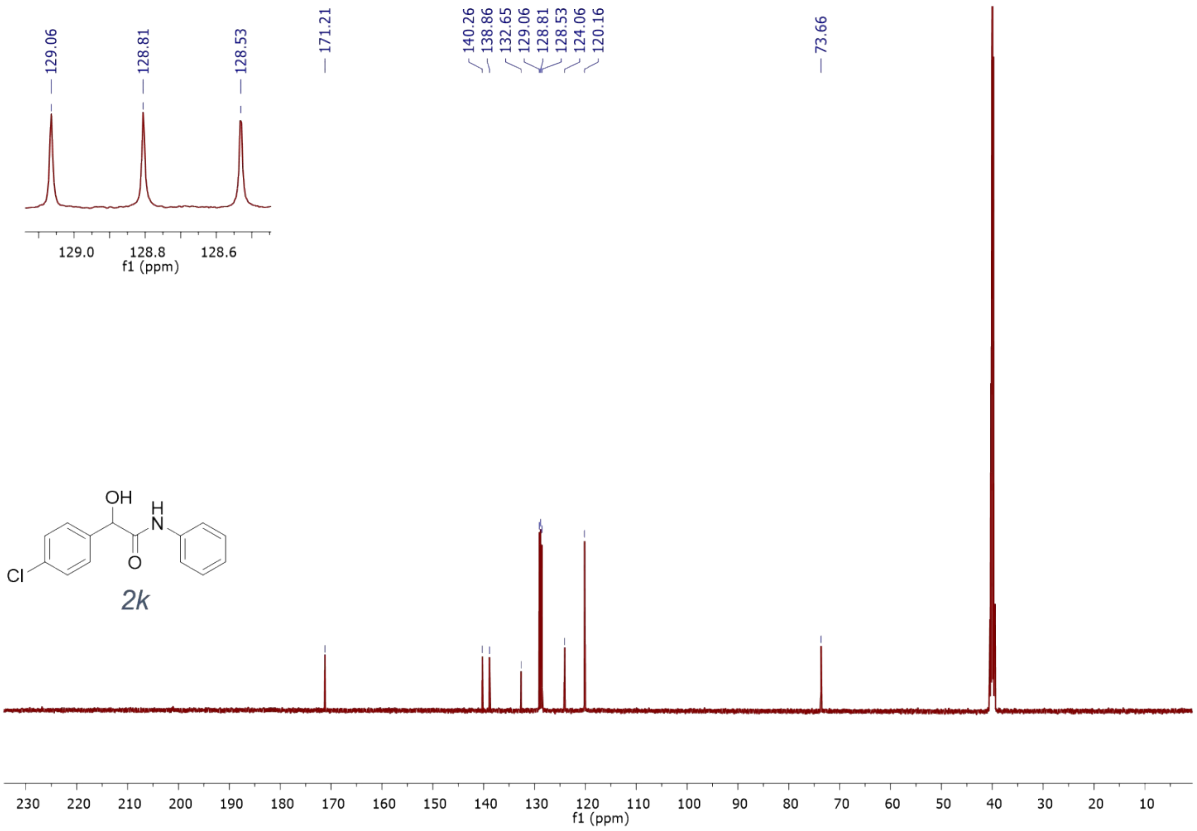
500 MHz ^{1}H-NMR spectra of 2j in DMSO-d_6



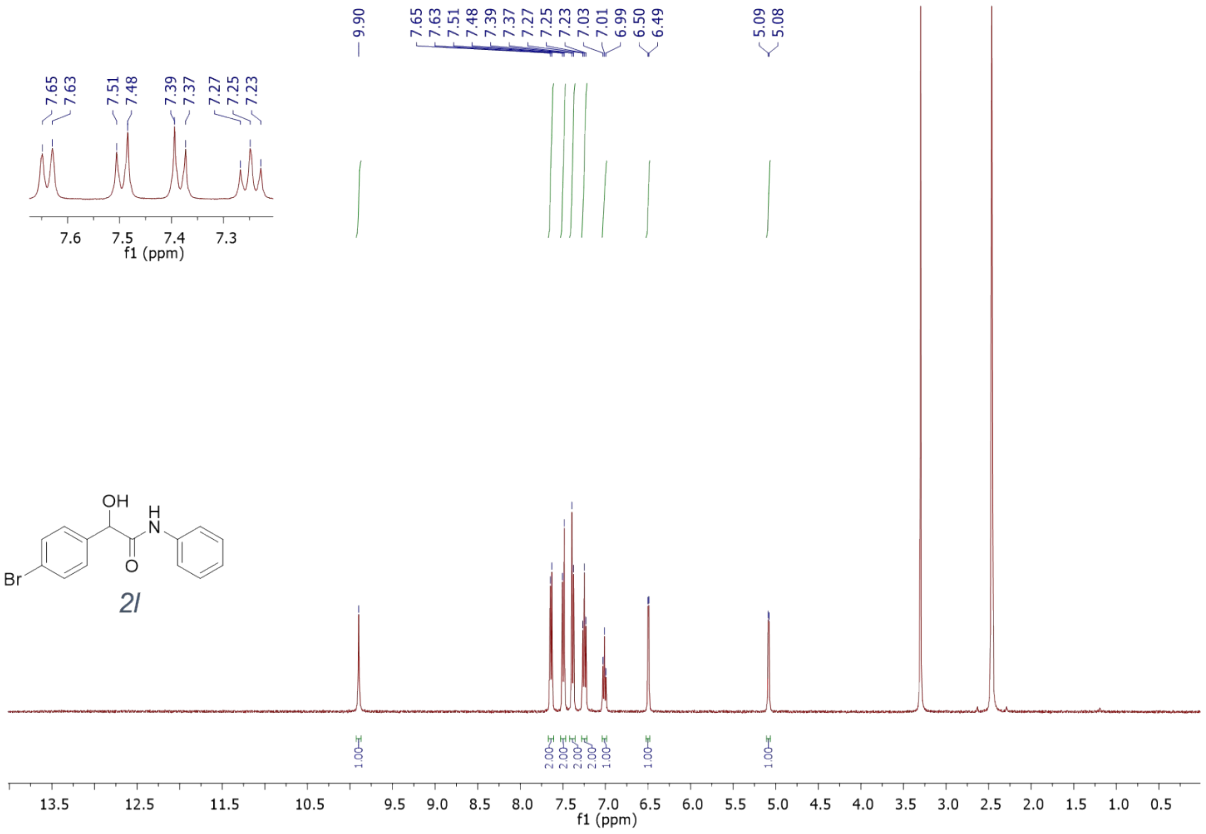
126 MHz ^{13}C-NMR spectra of 2j in DMSO-d_6



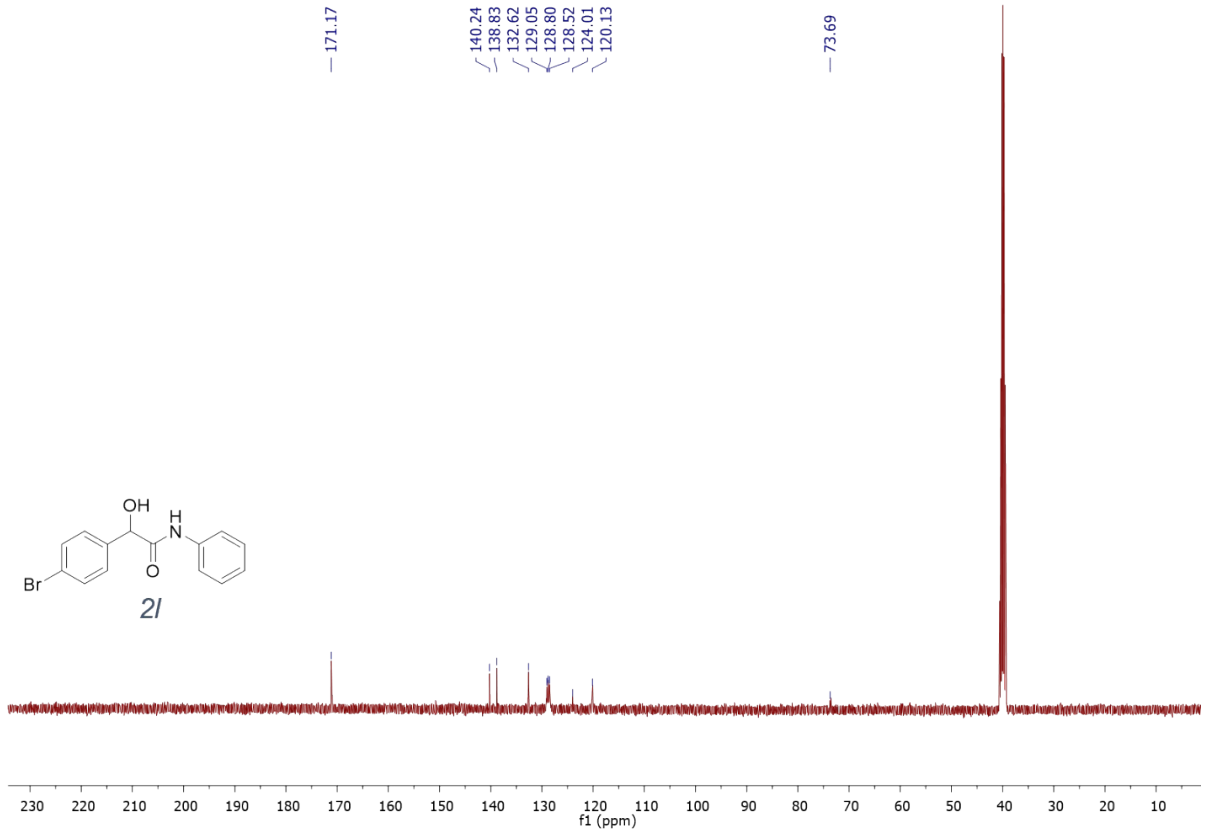
500 MHz ^{1}H-NMR spectra of 2k in DMSO-d_6



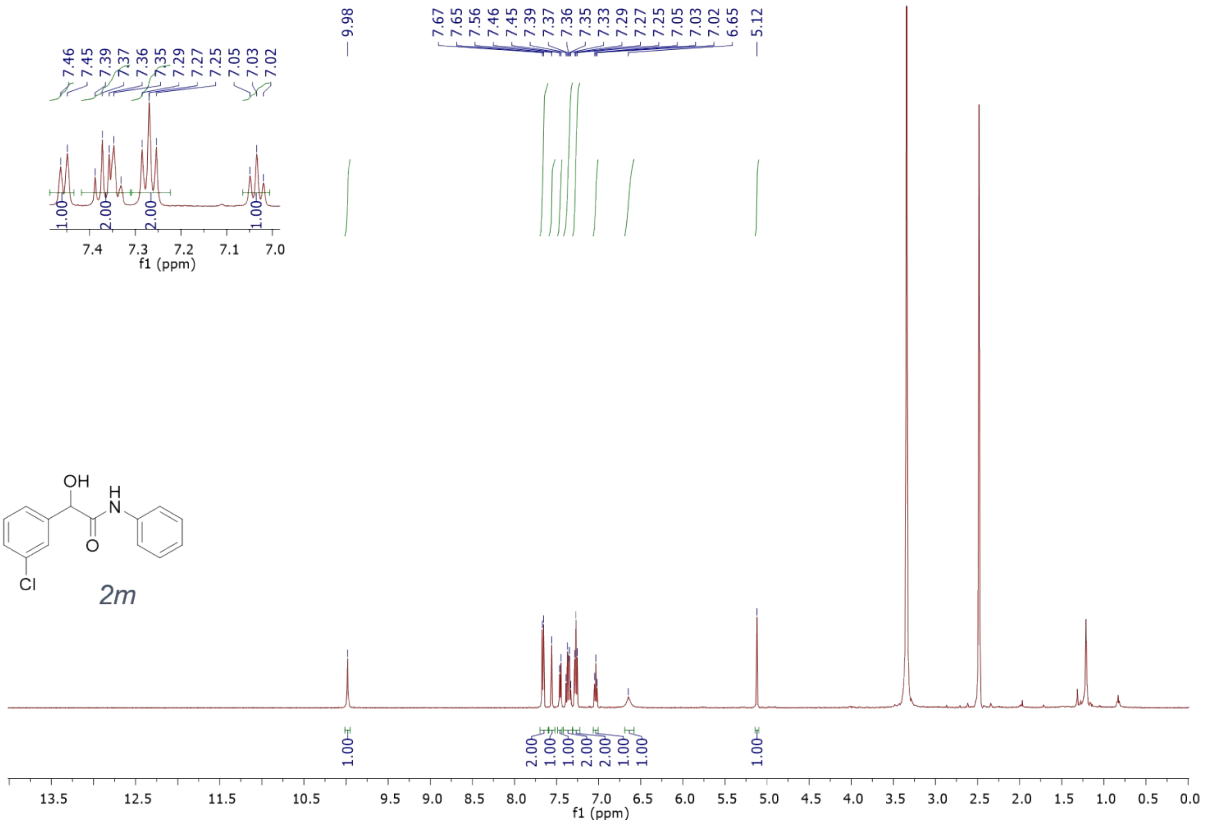
126 MHz ^{13}C-NMR spectra of 2k in DMSO-d_6



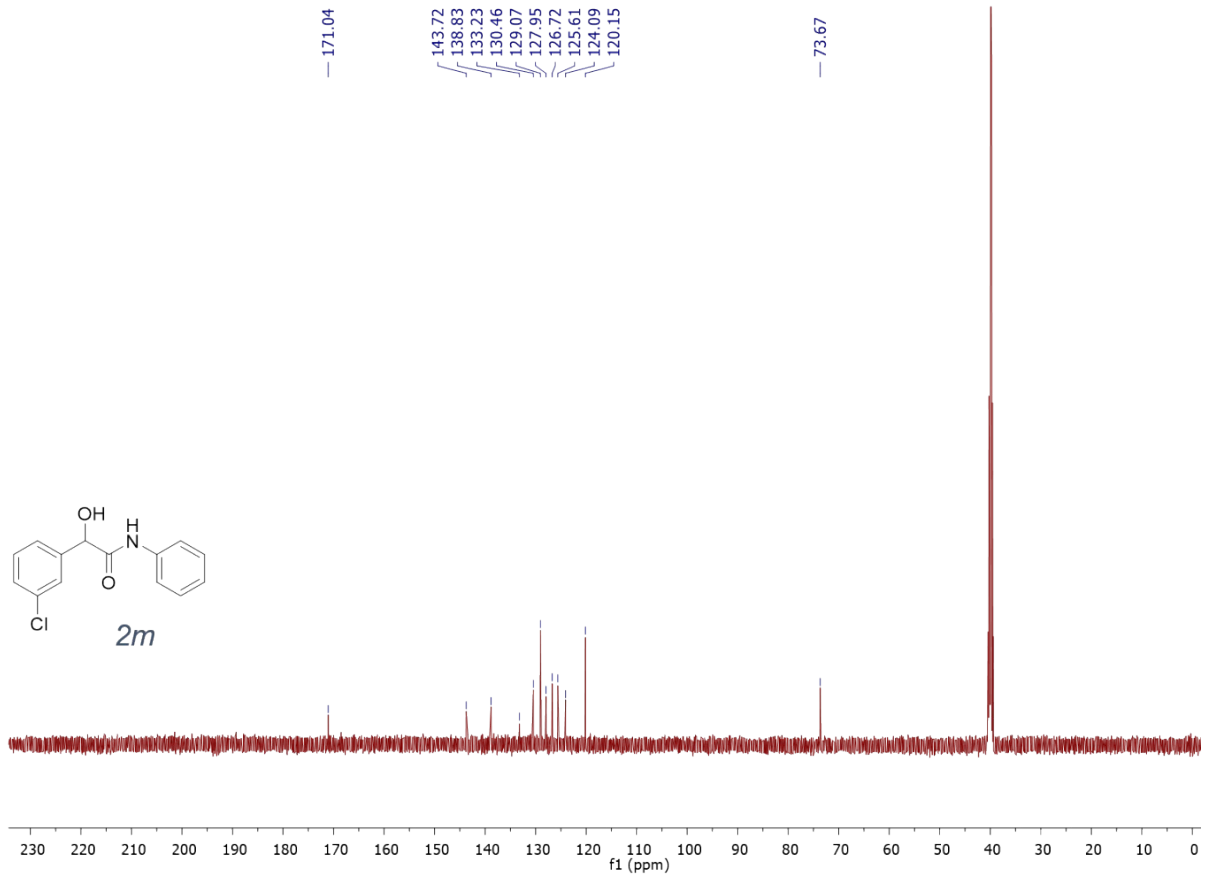
500 MHz ^{1}H-NMR spectra of 2l in DMSO-d_6



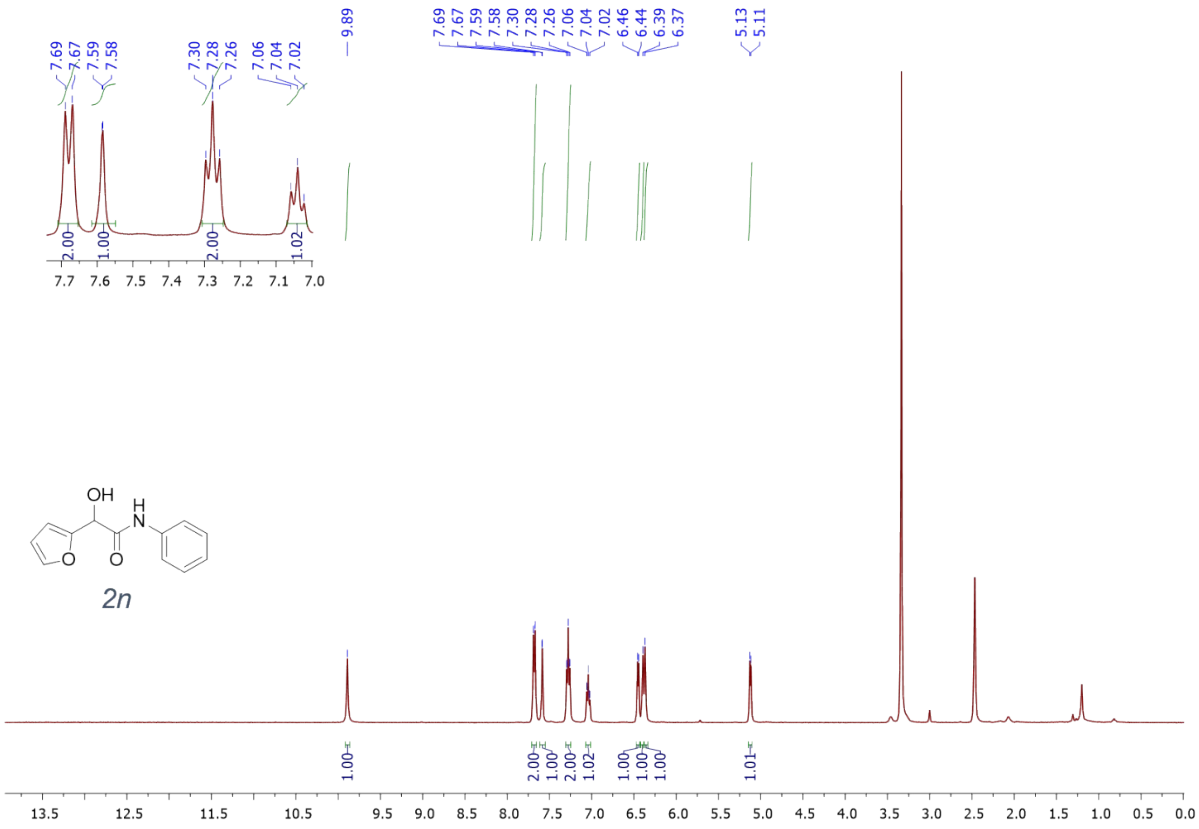
126 MHz ^{13}C-NMR spectra of 2l in DMSO-d_6



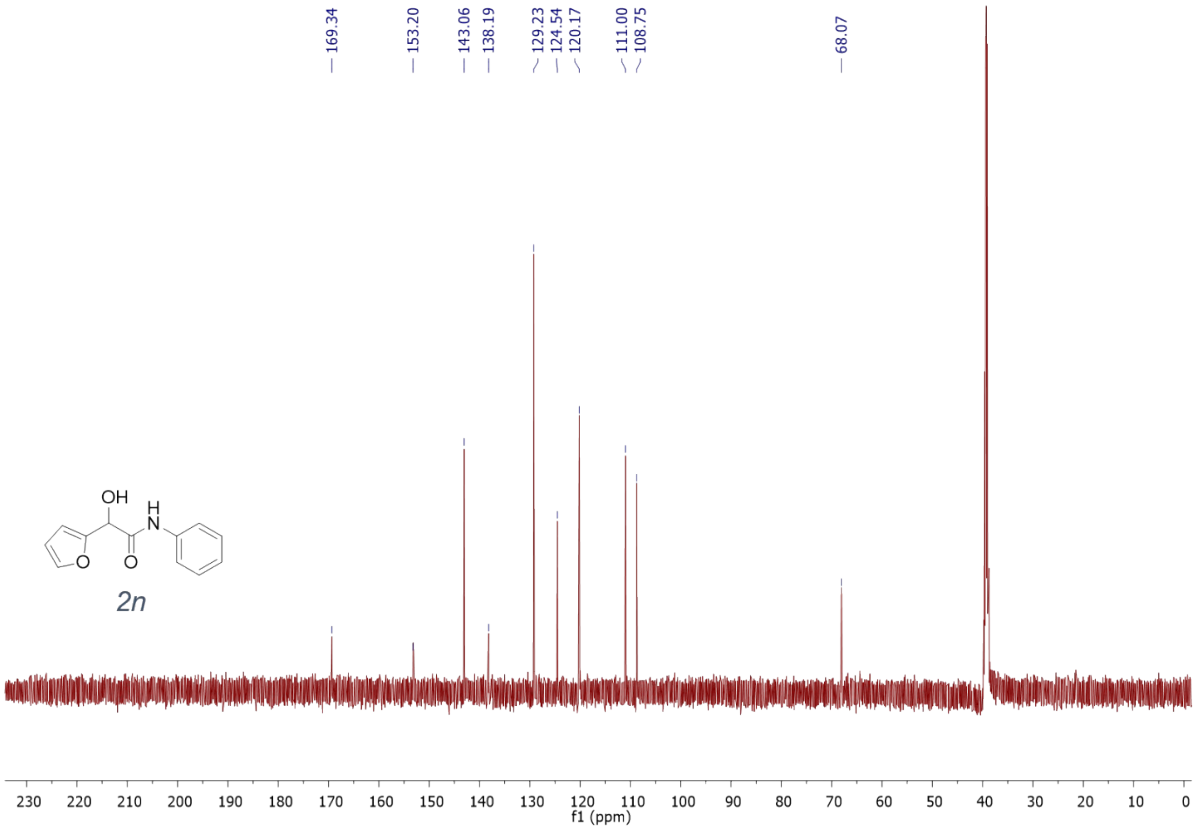
500 MHz ^{1}H-NMR spectra of 2m in DMSO-d_6



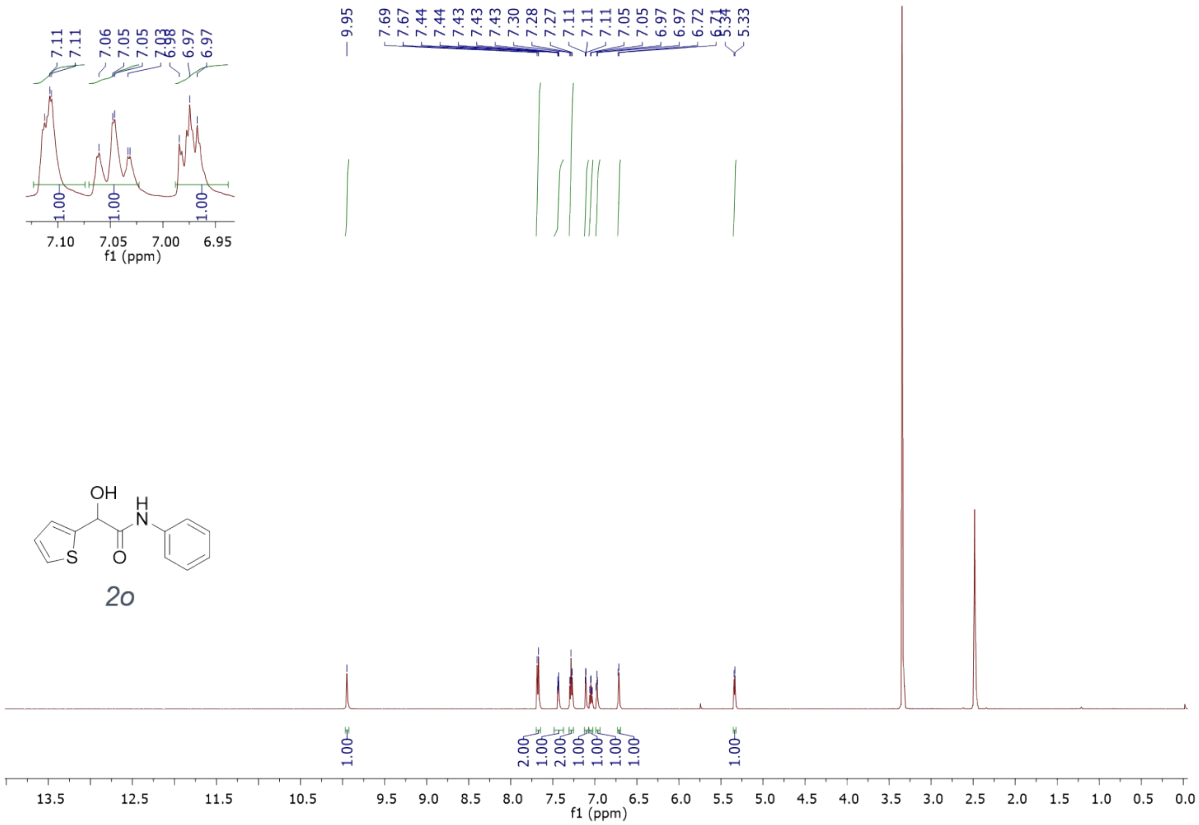
126 MHz ^{13}C-NMR spectra of 2m in DMSO-d_6



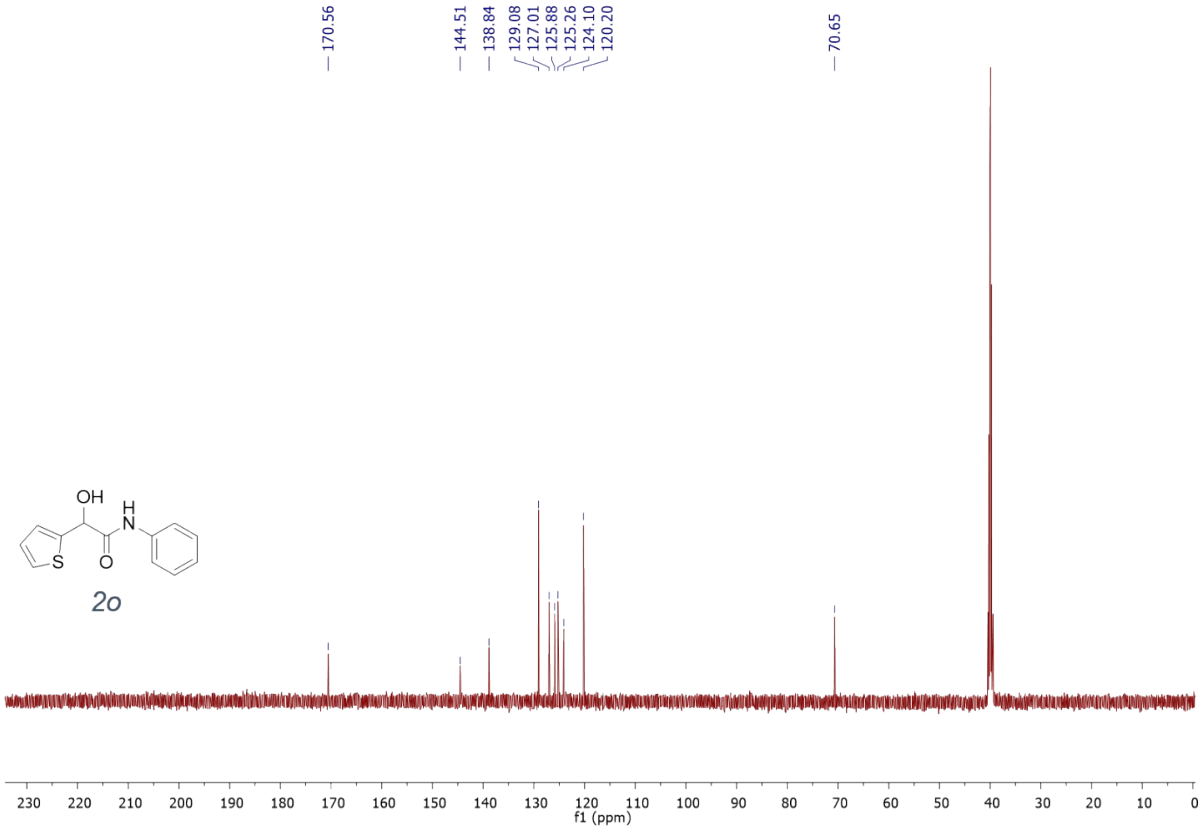
500 MHz ^{1}H-NMR spectra of 2n in DMSO-d_6



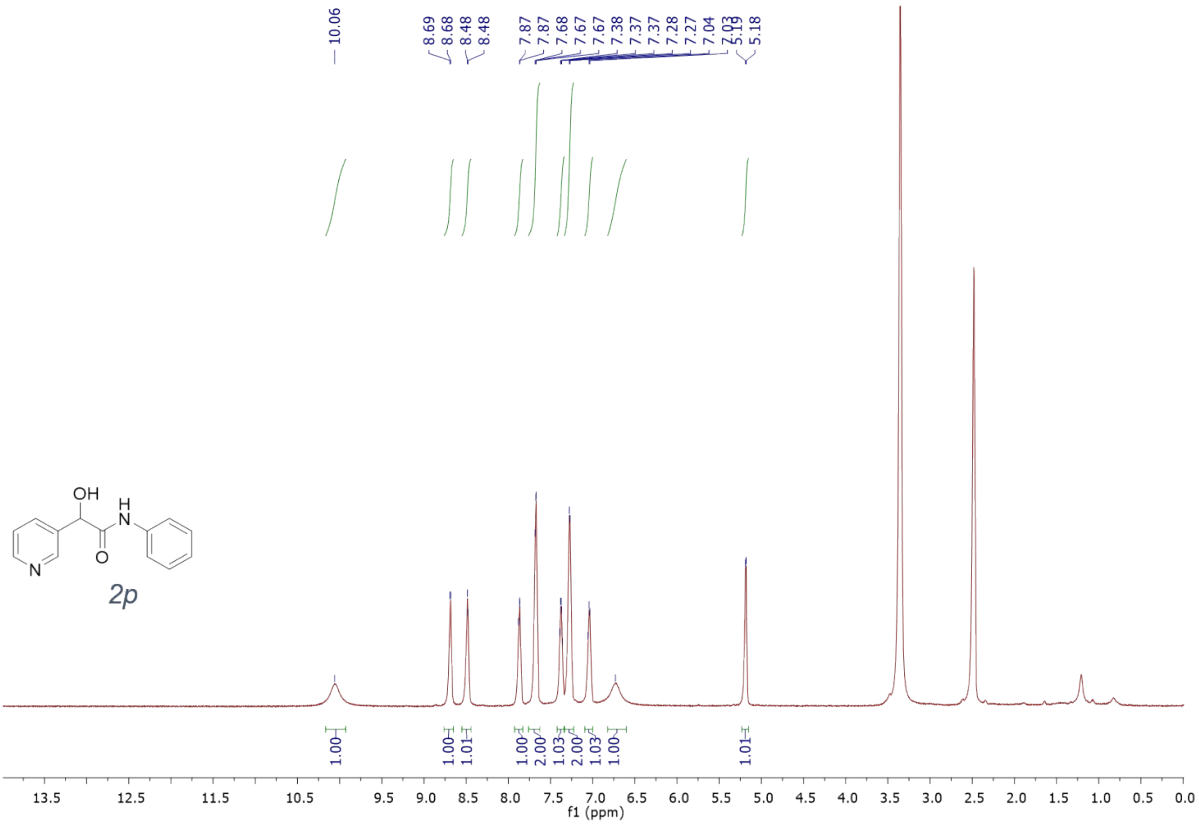
126 MHz ^{13}C-NMR spectra of 2n in DMSO-d_6



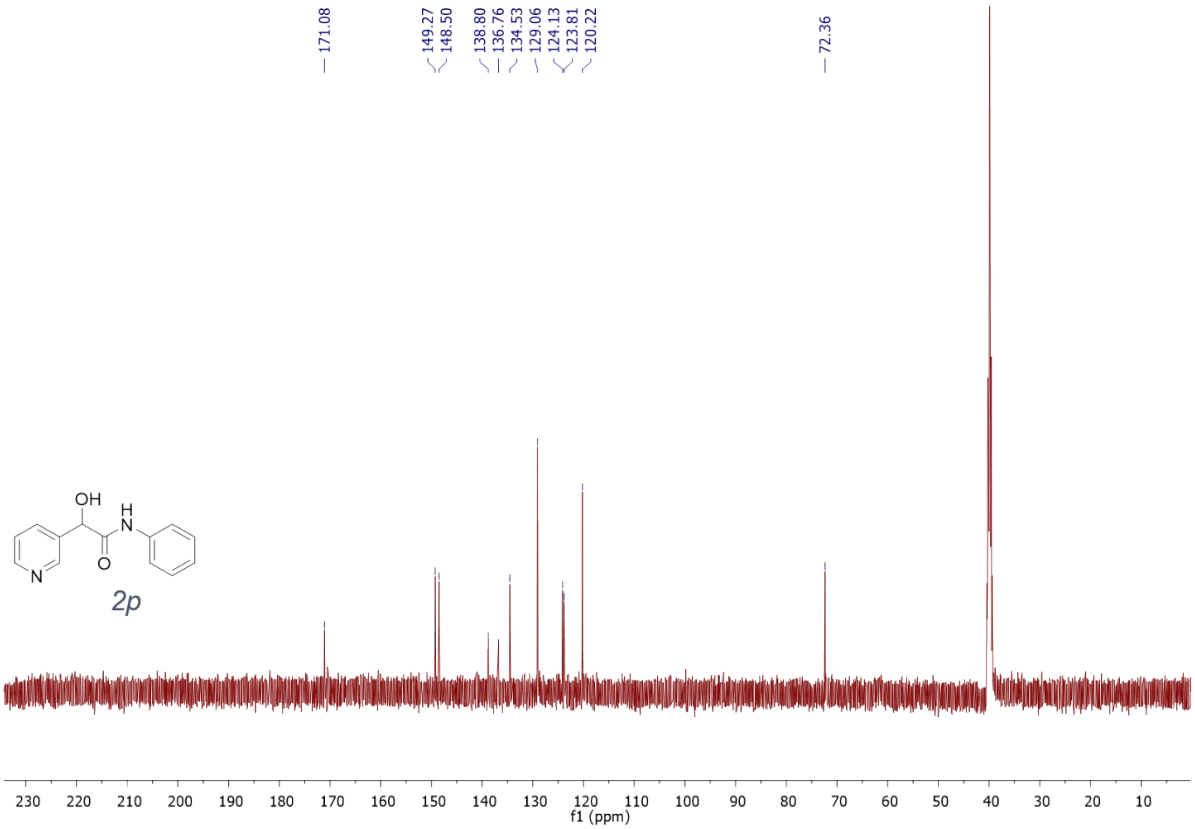
500 MHz ^{1}H-NMR spectra of 2o in DMSO-d_6



126 MHz ^{13}C-NMR spectra of 2o in DMSO-d_6



500 MHz ^{1}H-NMR spectra of 2p in DMSO-d_6



126 MHz ^{13}C-NMR spectra of 2p in DMSO-d_6