

Synthesis and evaluation of novel 2,4-disubstituted arylthiazole derivatives against *T.brucei*

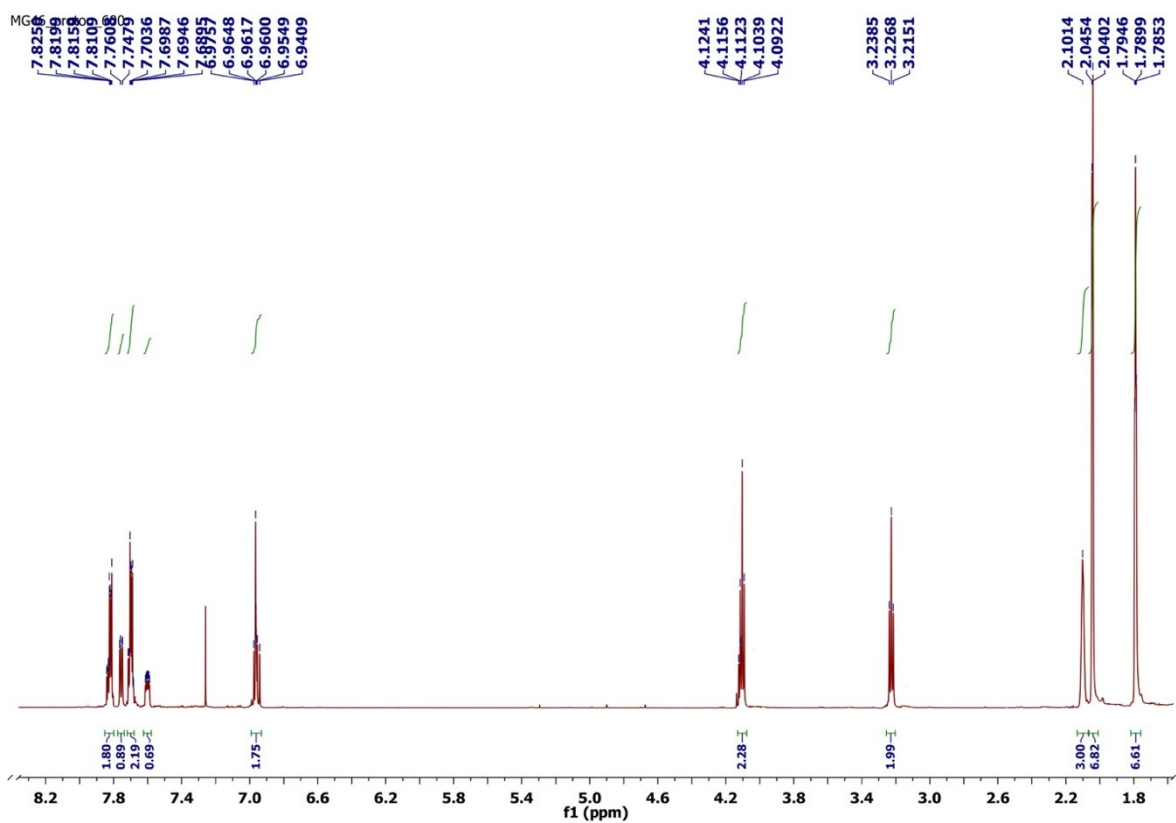
Markos-Orestis Georgiadis,^a Violeta Kourbeli,^a Ioannis P. Papanastasiou,^{*a} Andrew Tsotinis,^a Martin C. Taylor^b and John M. Kelly^b

^a*School of Health Sciences, Department of Pharmacy, Division of Pharmaceutical Chemistry, National and Kapodistrian University of Athens, Panepistimioupoli-Zografou, 157 84 Athens, Greece*

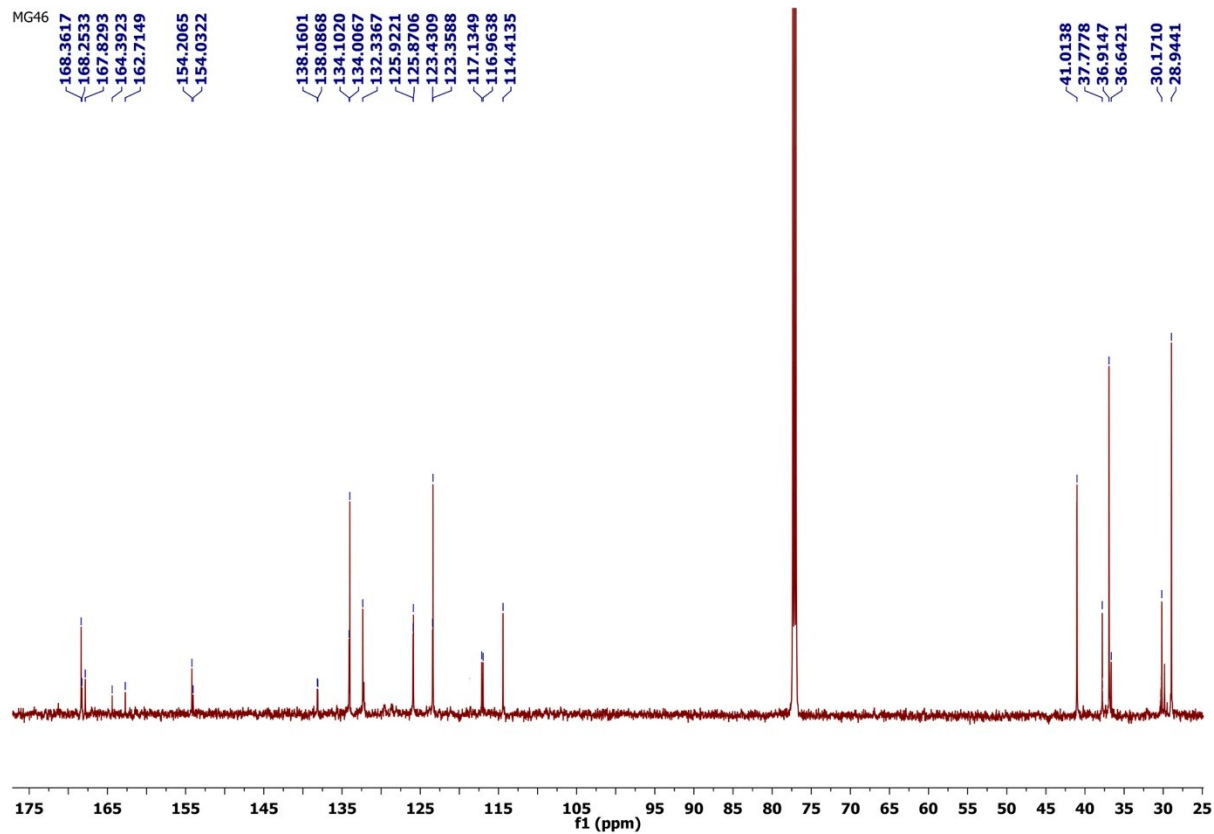
^b*Department of Pathogen Molecular Biology, London School of Hygiene and Tropical Medicine, Keppel Street, London*

Supporting Information

¹H NMR and ¹³C NMR spectra

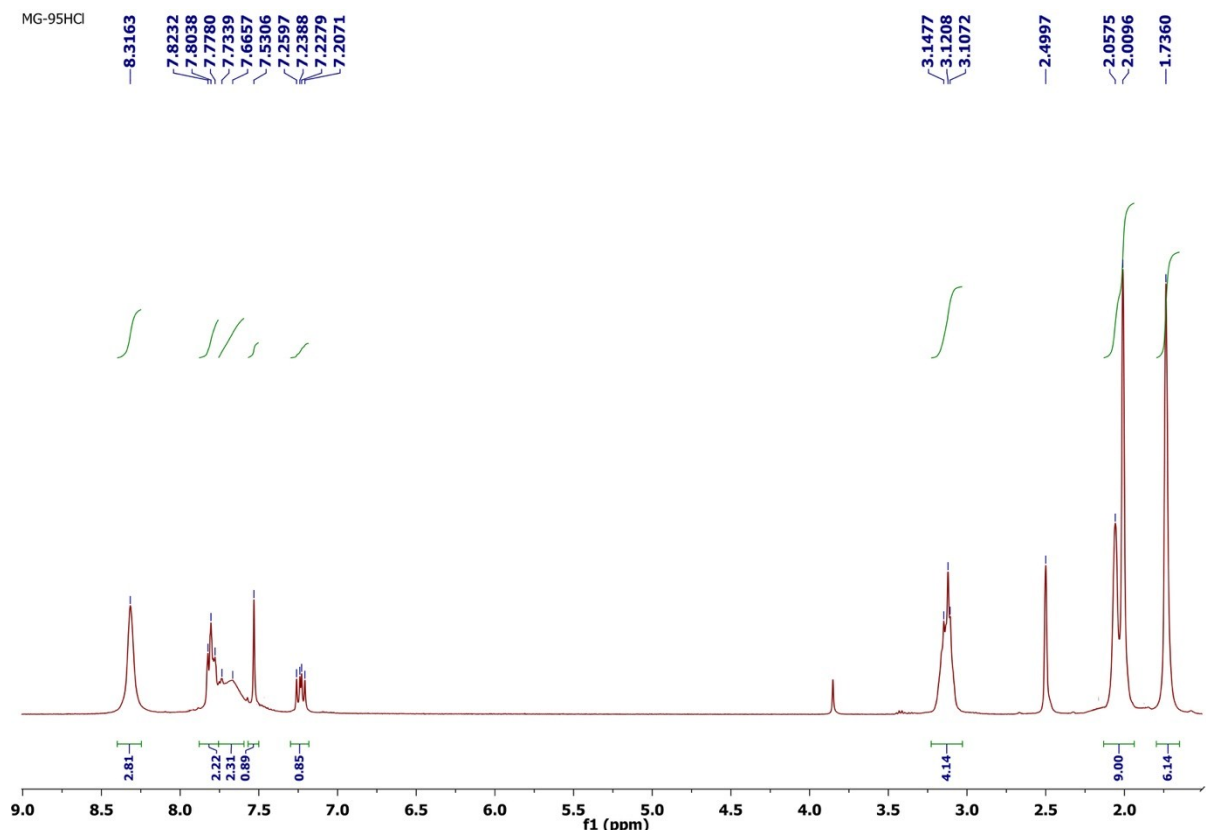


¹H NMR (400 MHz, CDCl₃) of 2-{2-[3-(1-tricyclo[3.3.1.1^{3,7}]decyl)-4-fluorophenyl]thiazol-4-yl}ethyl}isoindoline-1,3-dione (**8**)

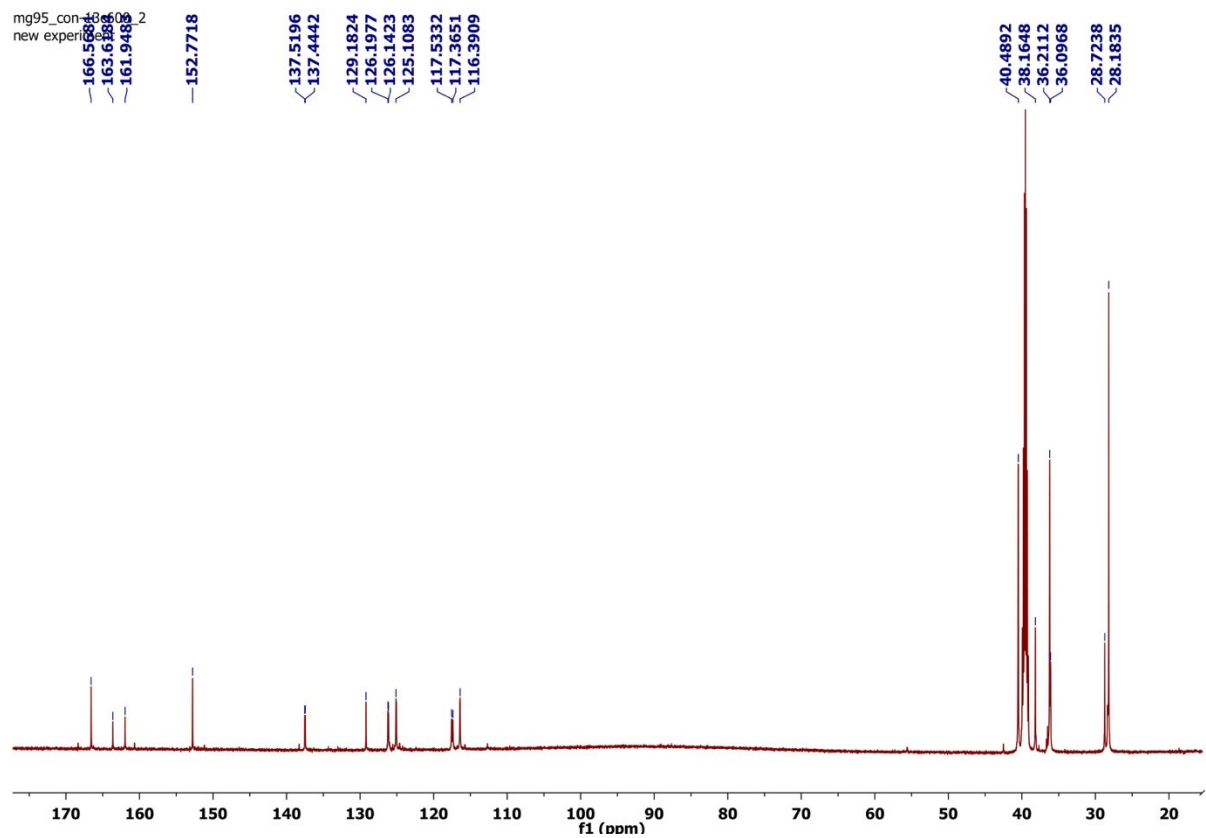


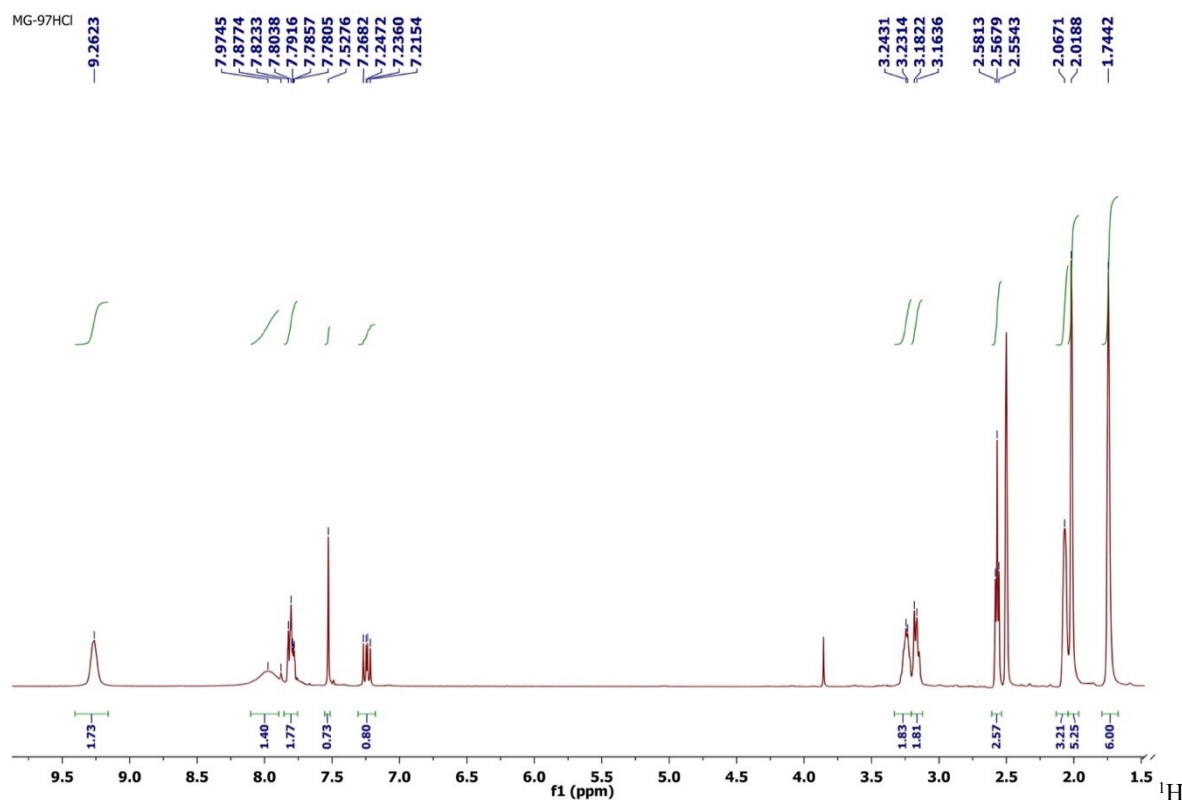
¹³C NMR (150 MHz, CDCl₃) of 2-{2-[3-(1-tricyclo[3.3.1.1^{3,7}]decyl)-4-fluorophenyl]thiazol-4-yl}ethyl}isoindoline-1,3-dione (**8**)

MG-95HCl

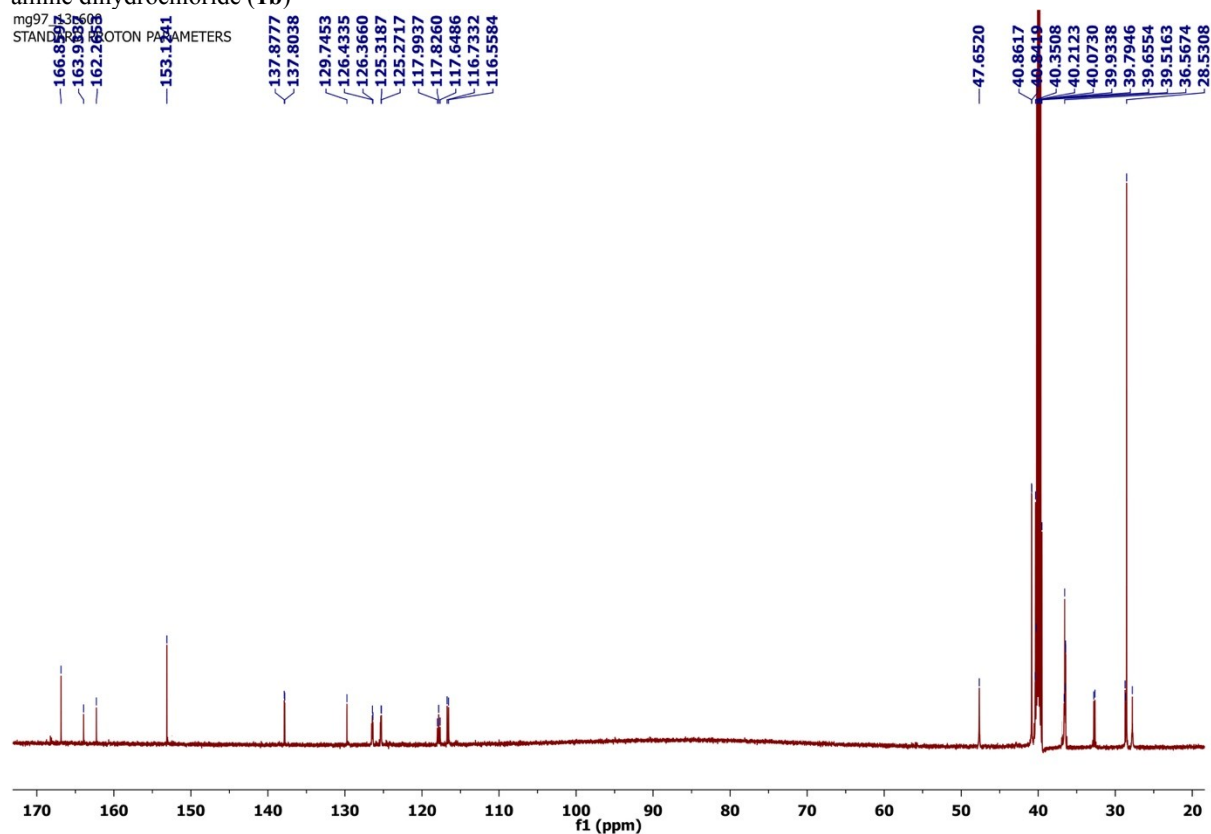


mg95_con-13C
new experiment 2

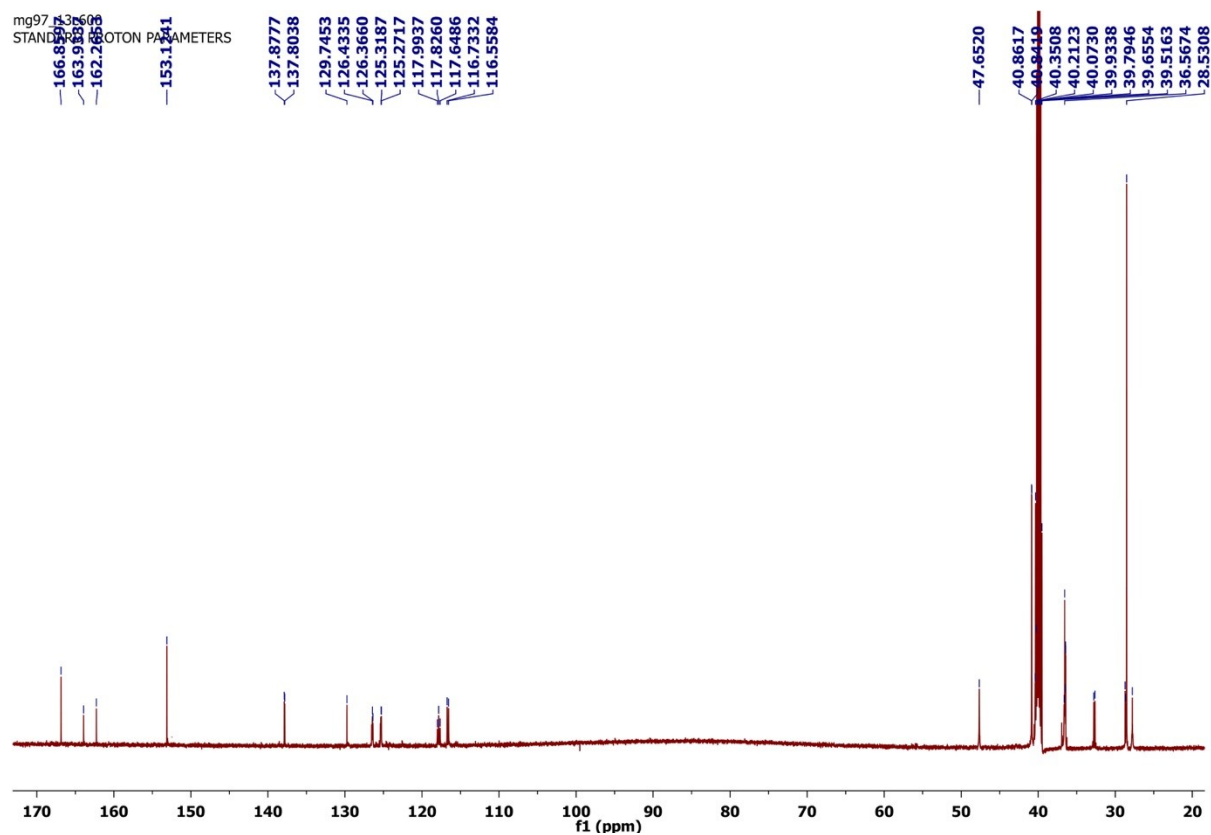
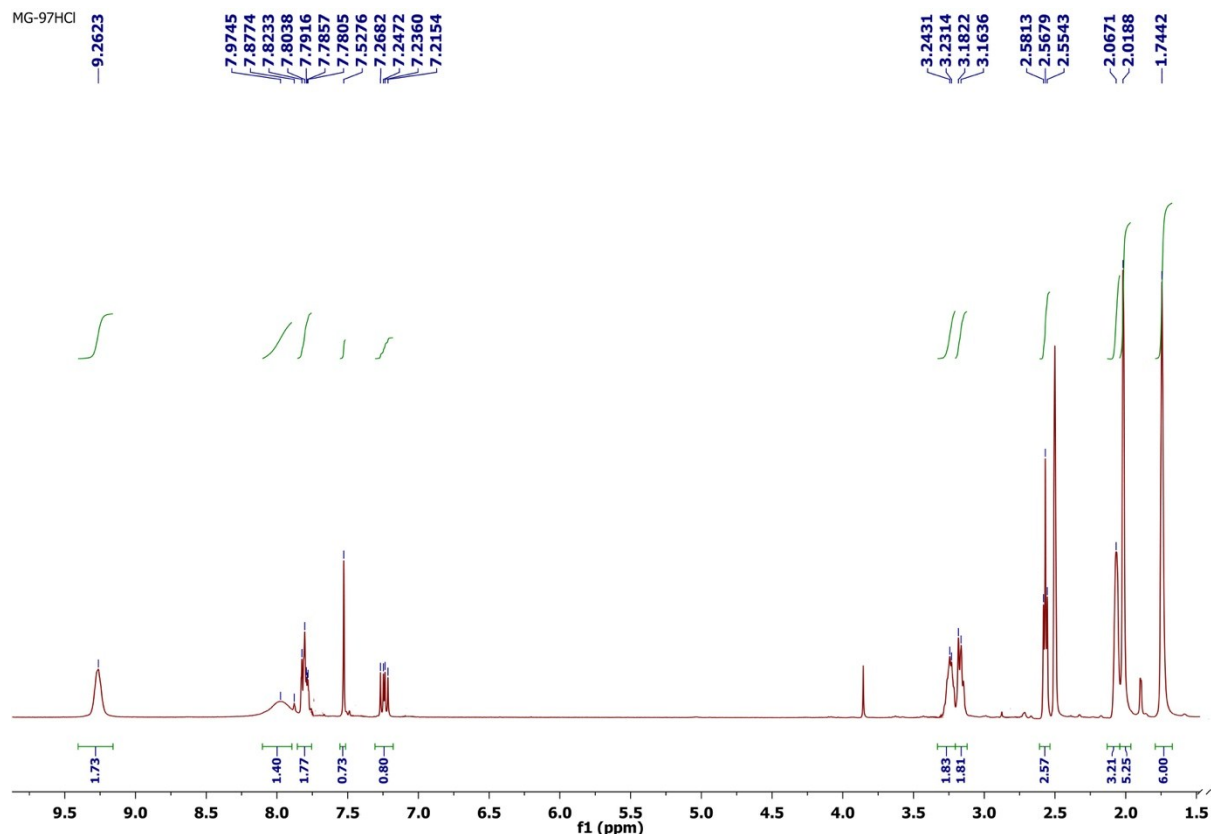


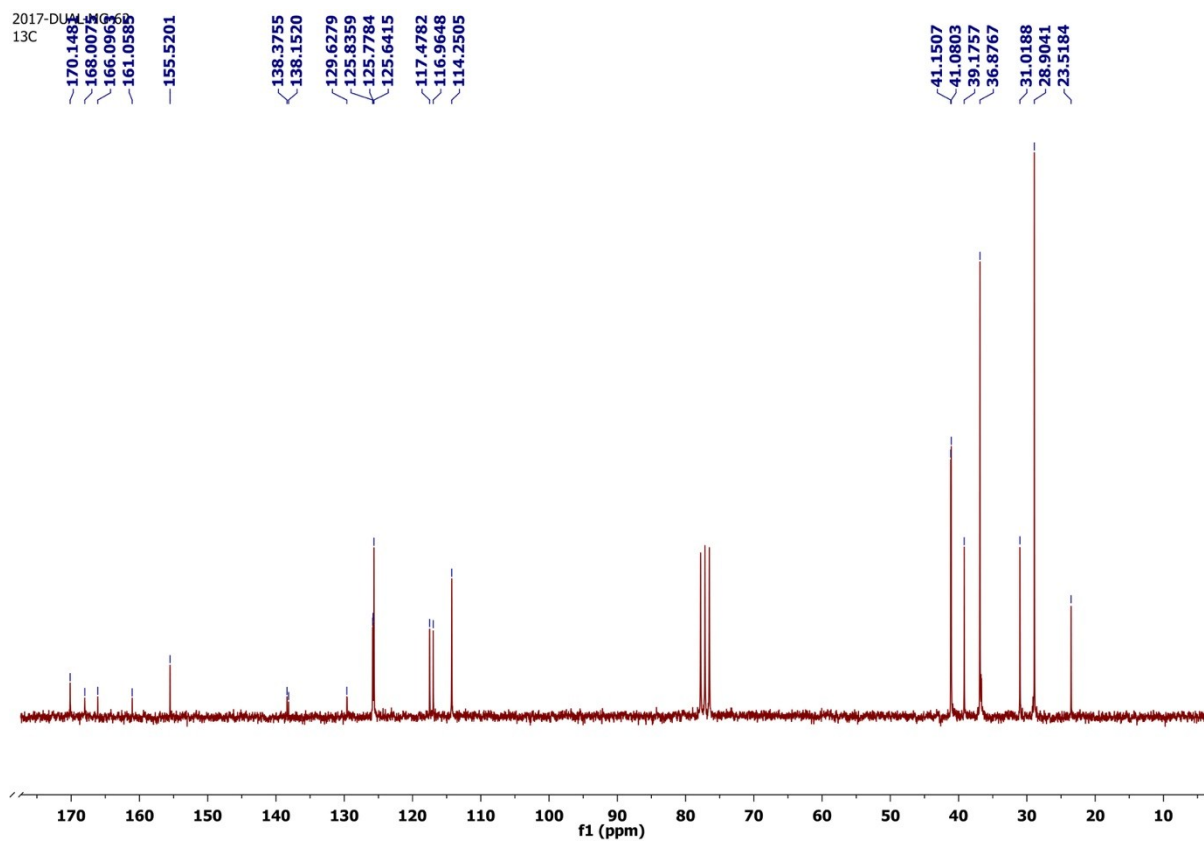
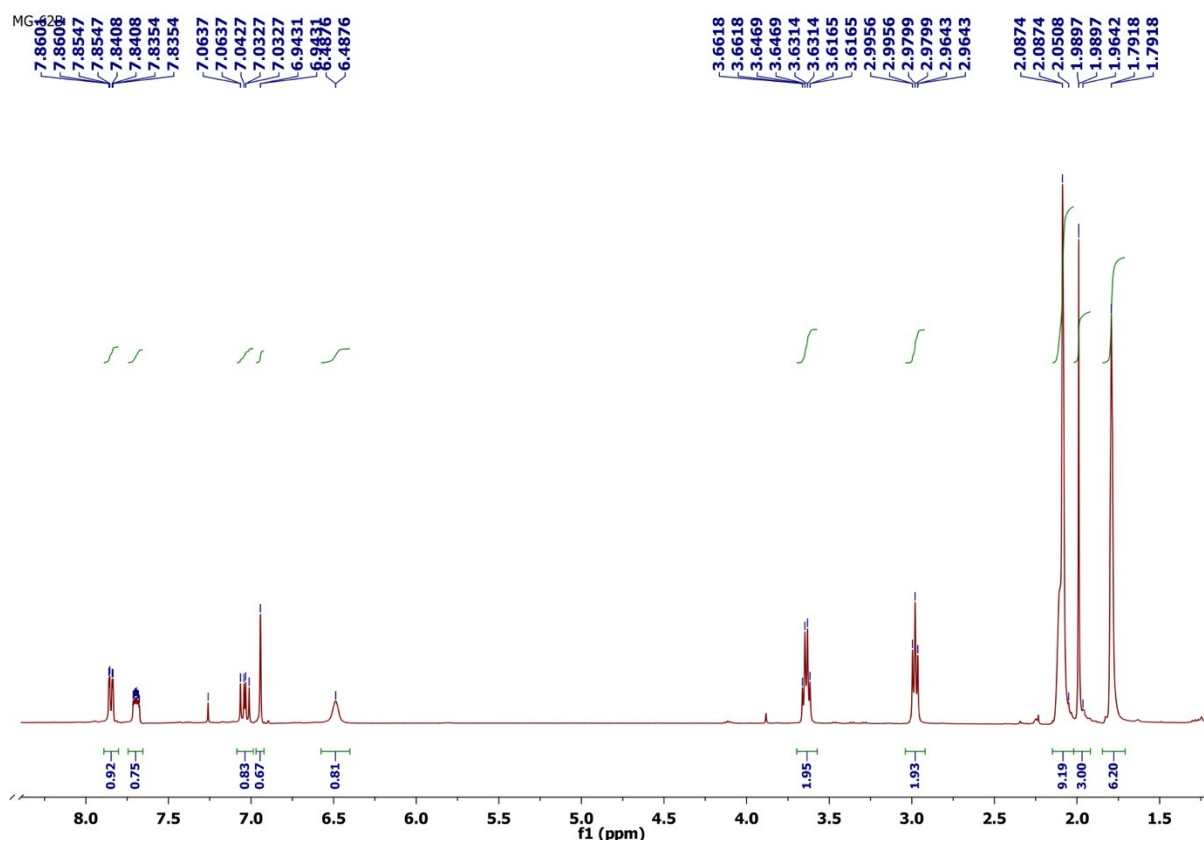


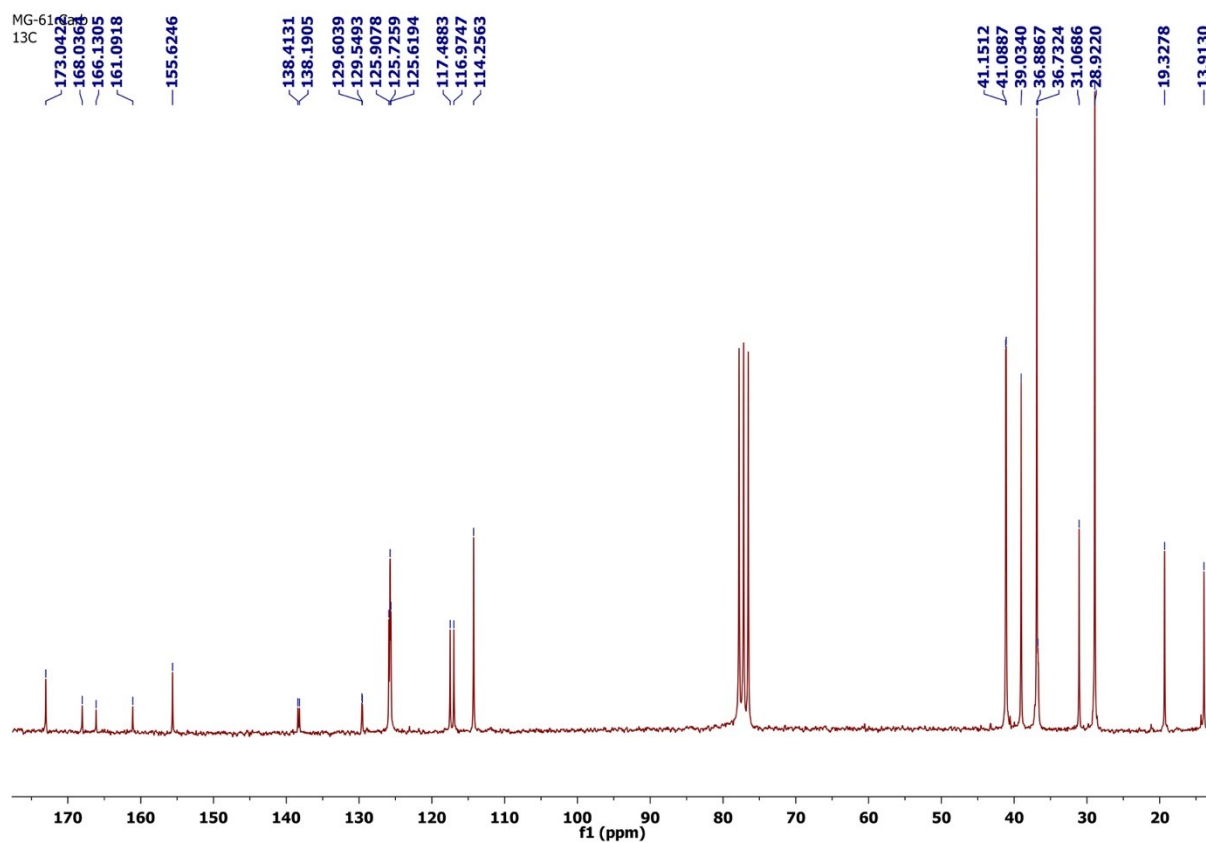
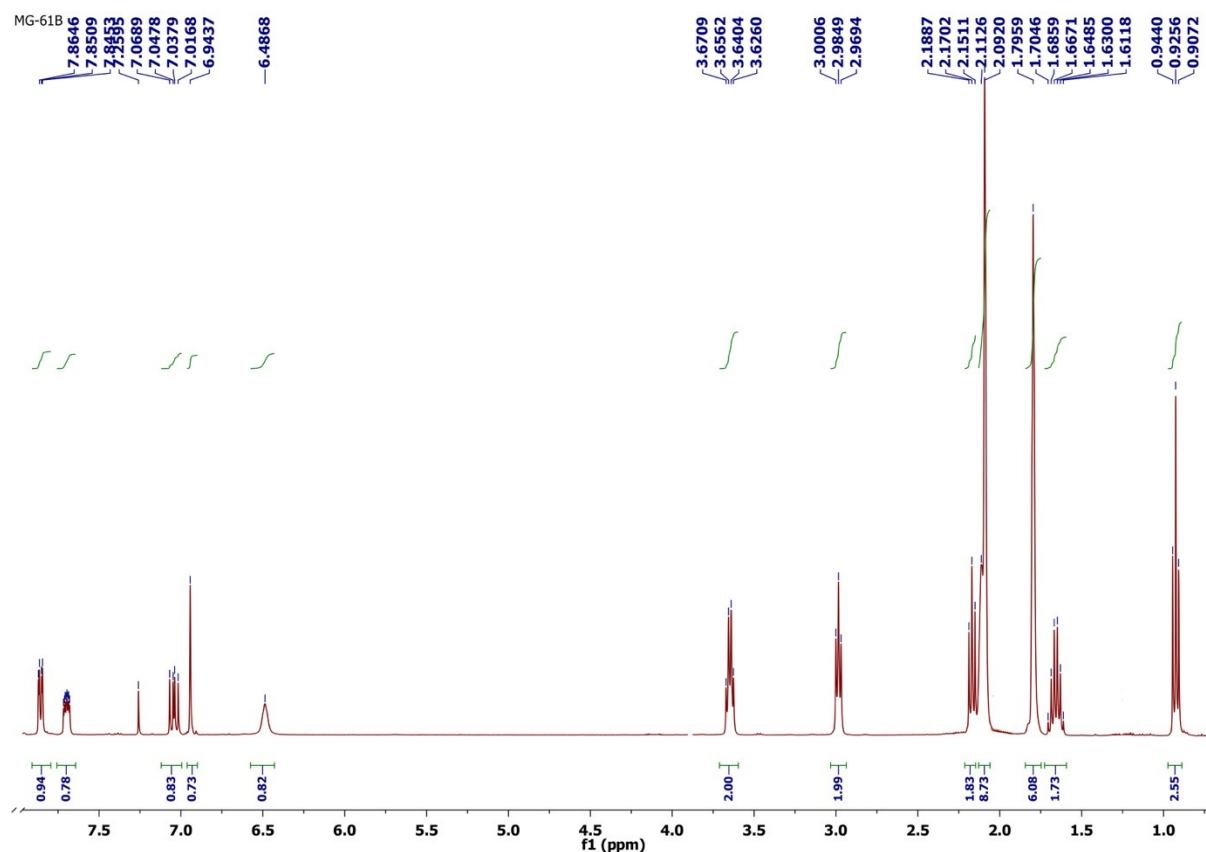
¹H NMR (400 MHz, DMSO-*d*₆) of 2-{2-[3-(1-tricyclo[3.3.1.1^{3,7}]decyl)-4-fluorophenyl]thiazol-4-yl}*N*-methylethan-1-amine dihydrochloride (**1b**)

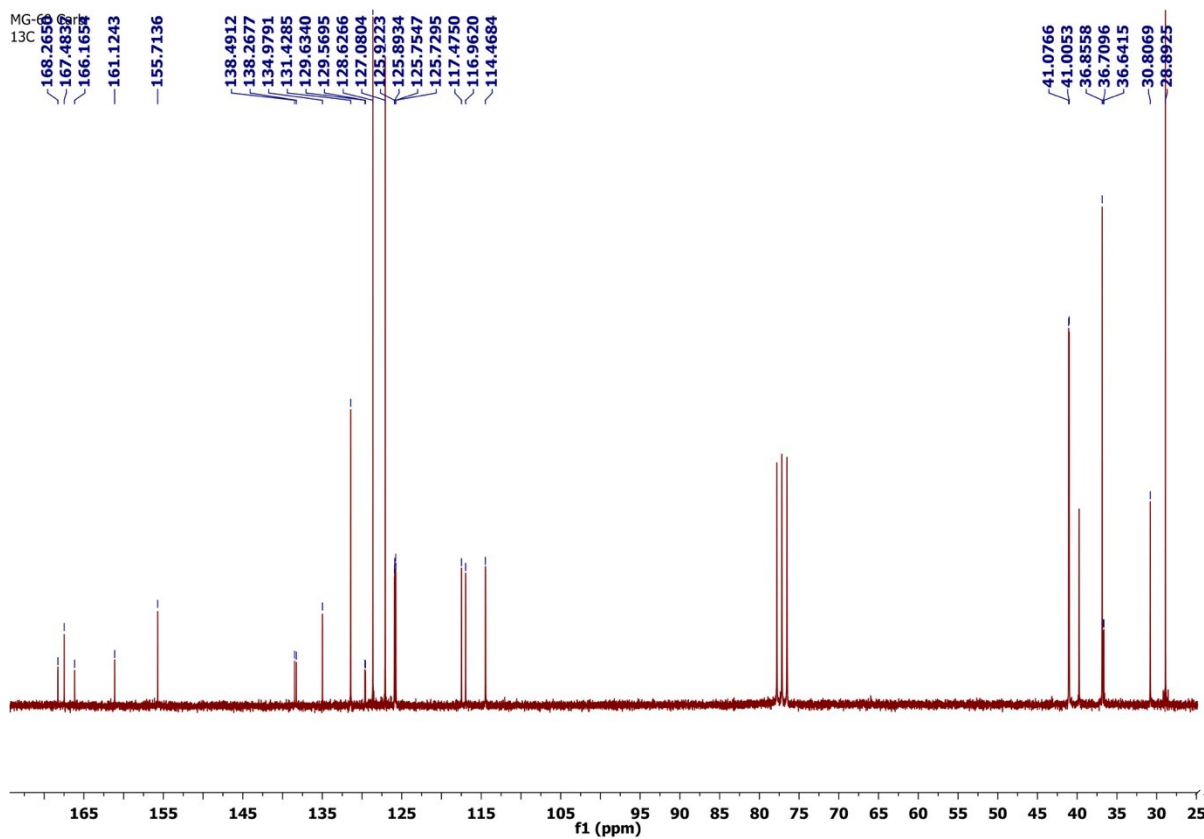
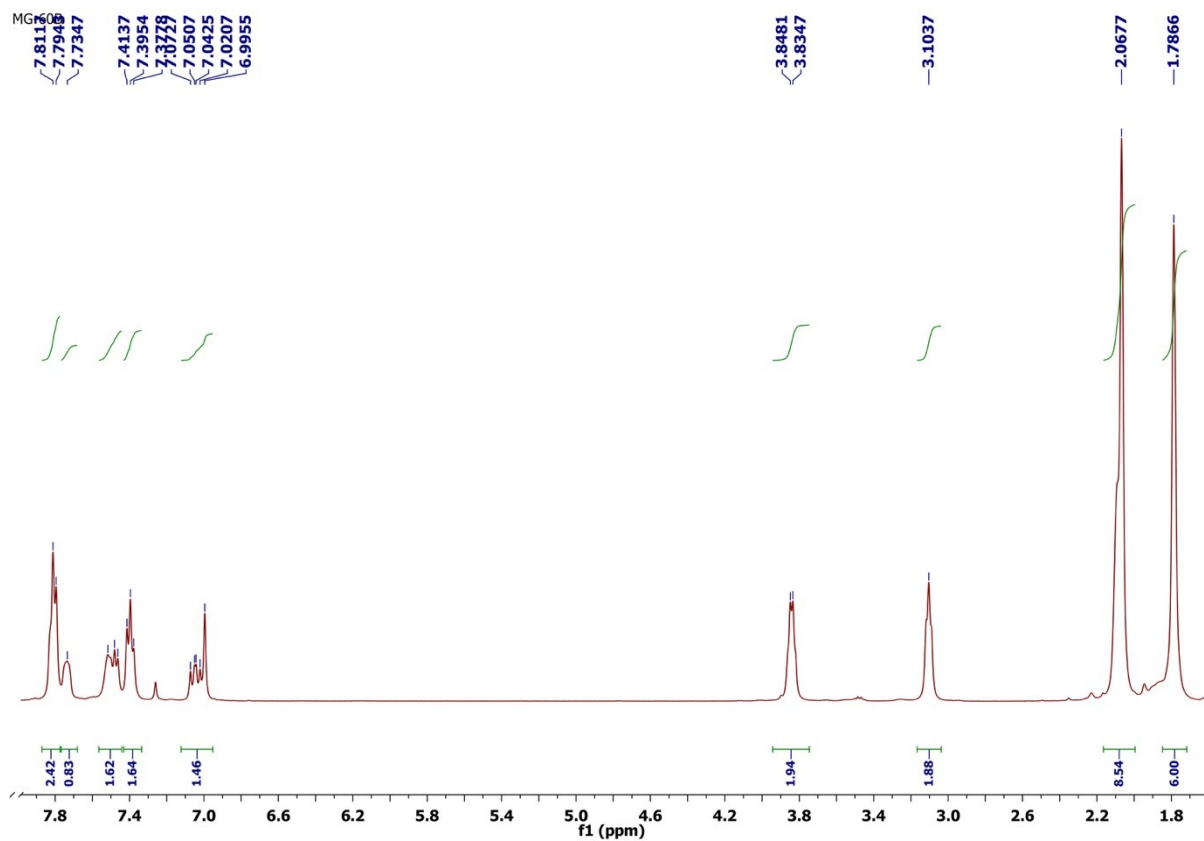


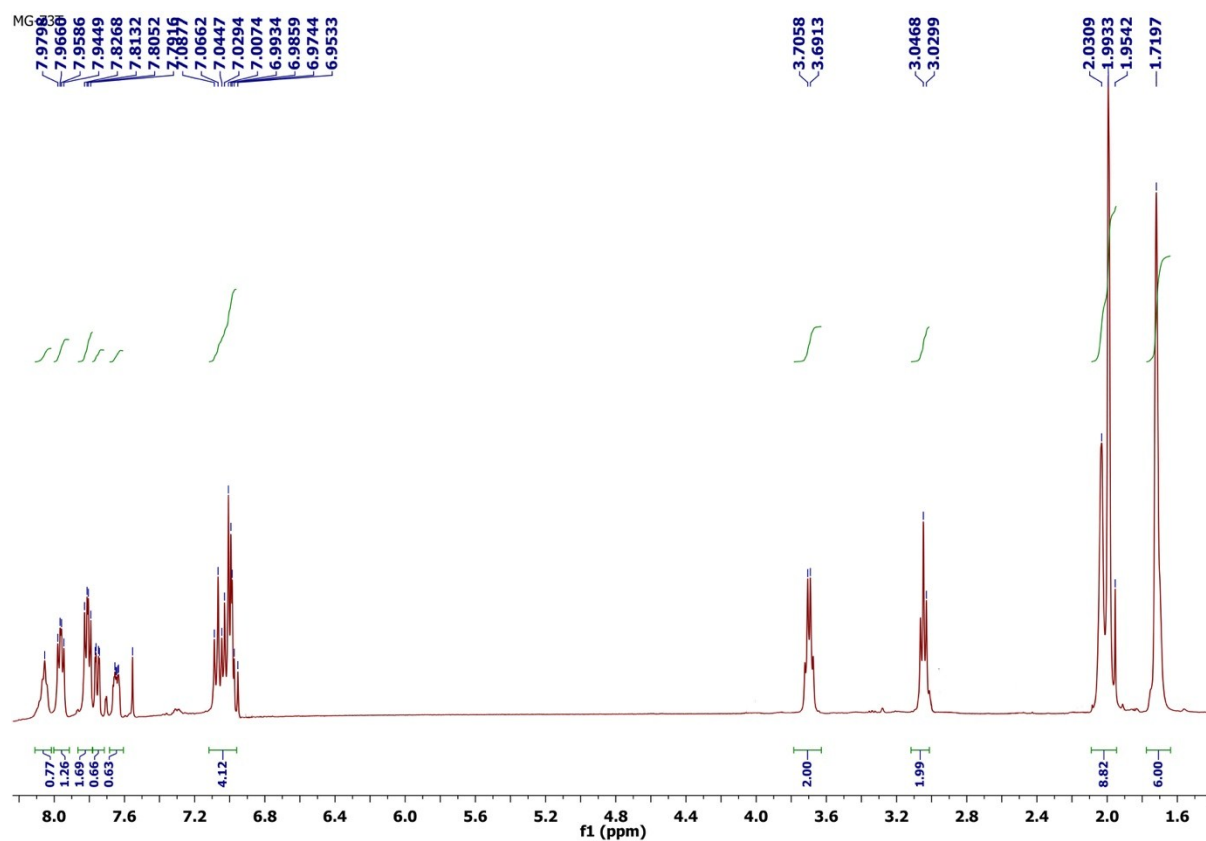
¹³C NMR (150 MHz, DMSO-*d*₆) of 2-{2-[3-(1-tricyclo[3.3.1.1^{3,7}]decyl)-4-fluorophenyl]thiazol-4-yl}*N*-methylethan-1-amine dihydrochloride (**1b**)



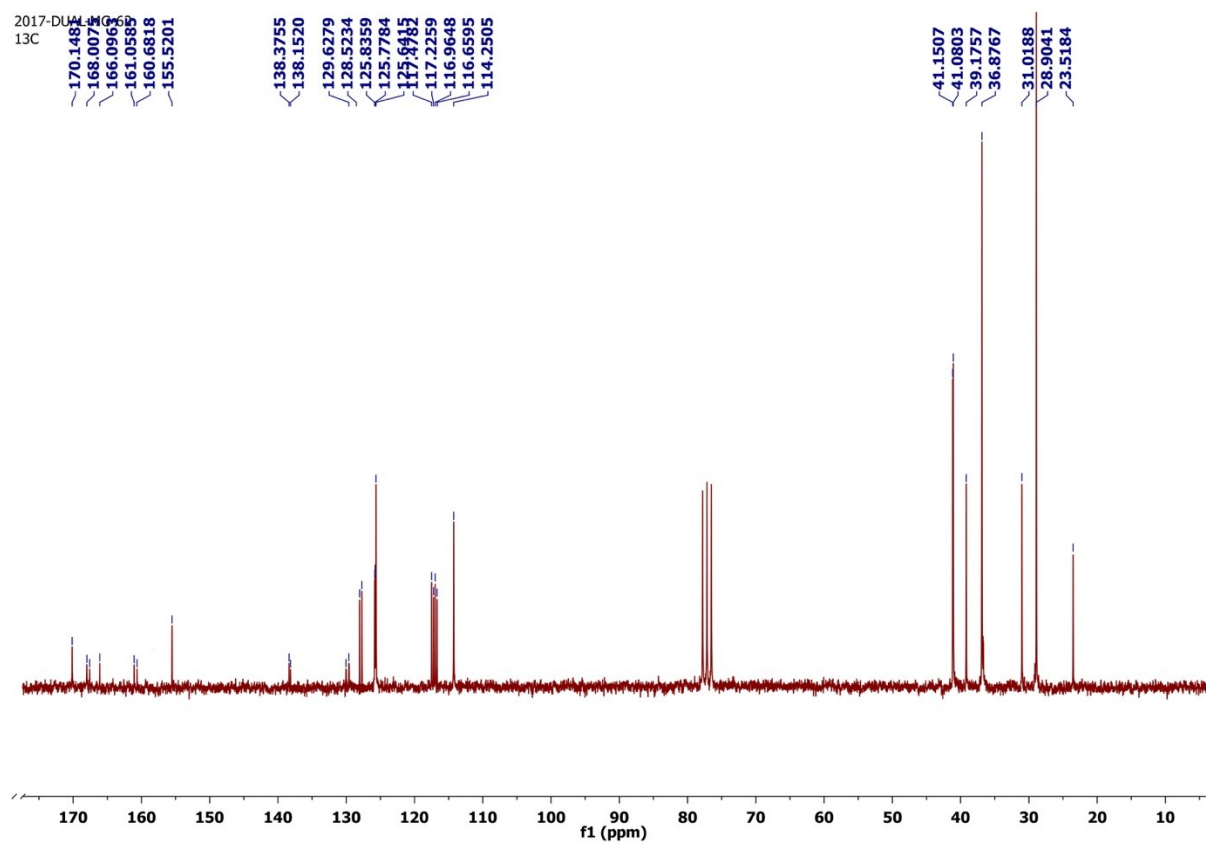






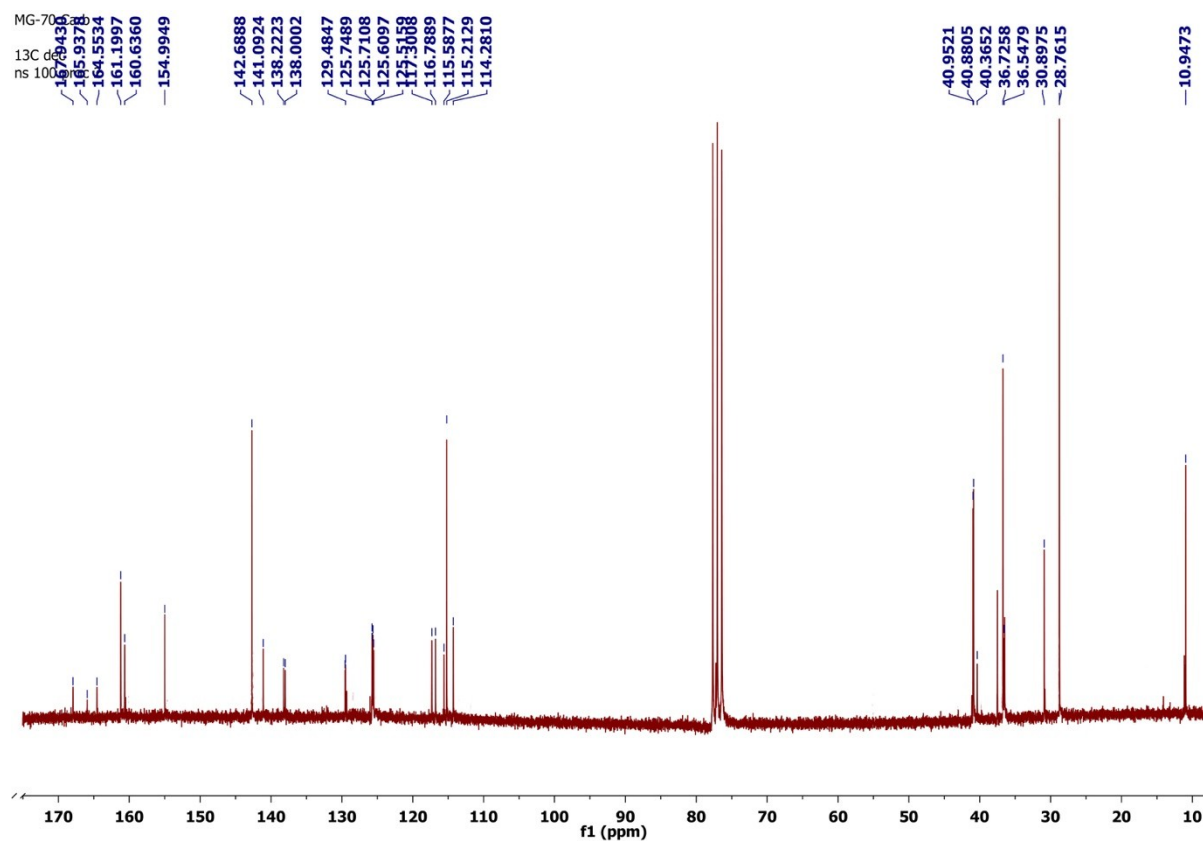
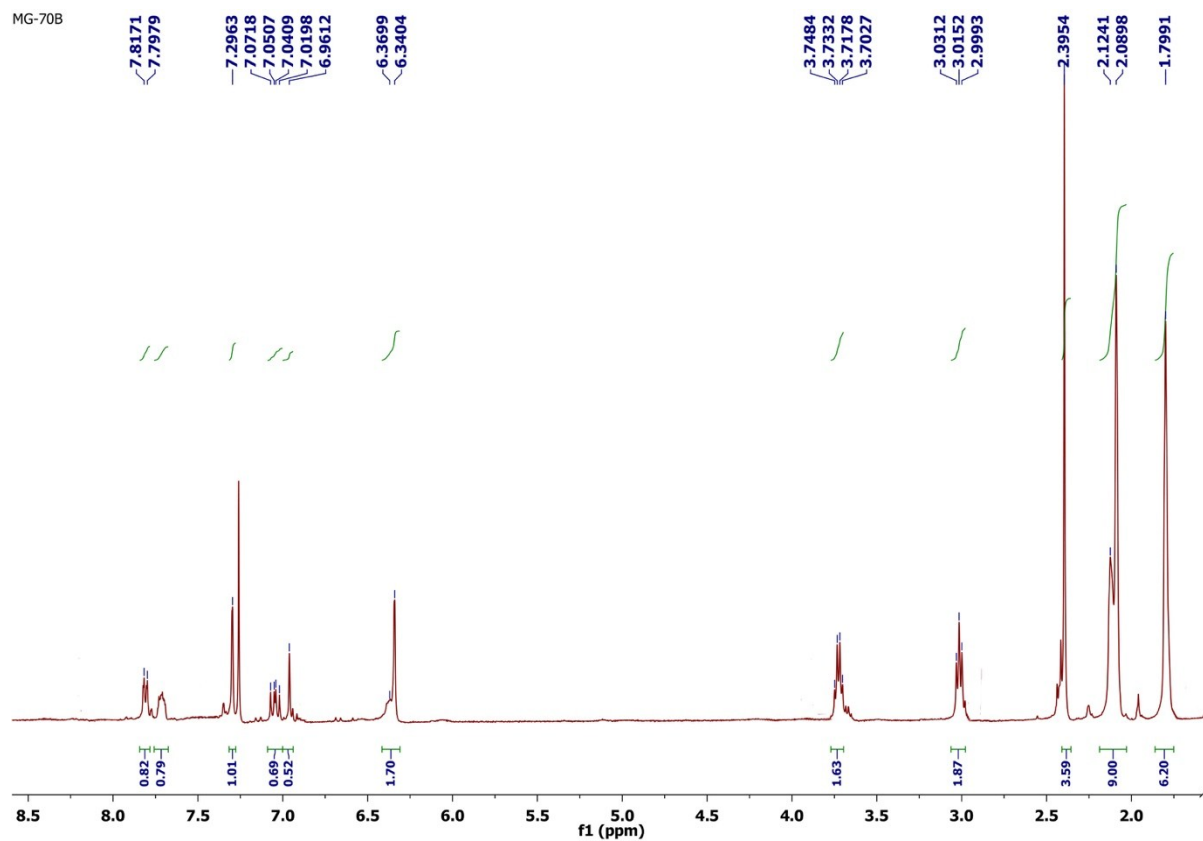


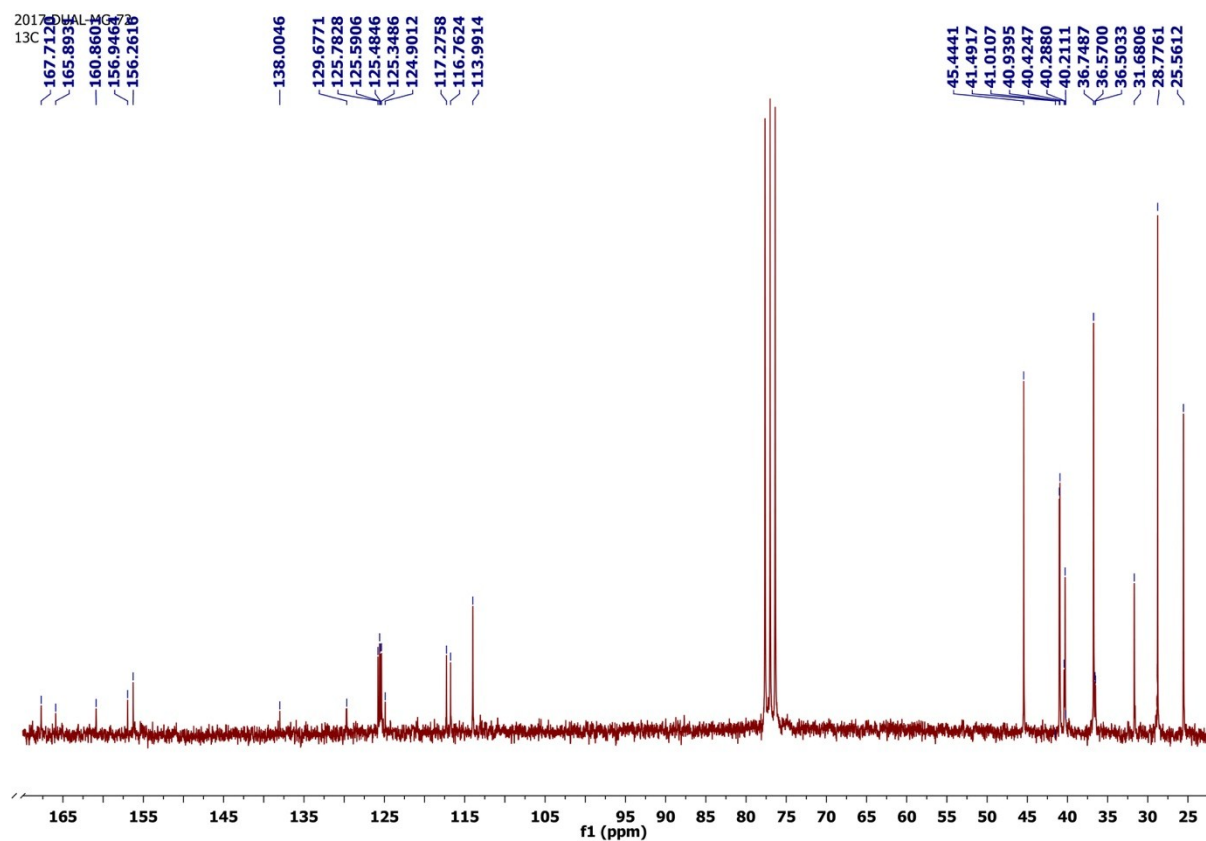
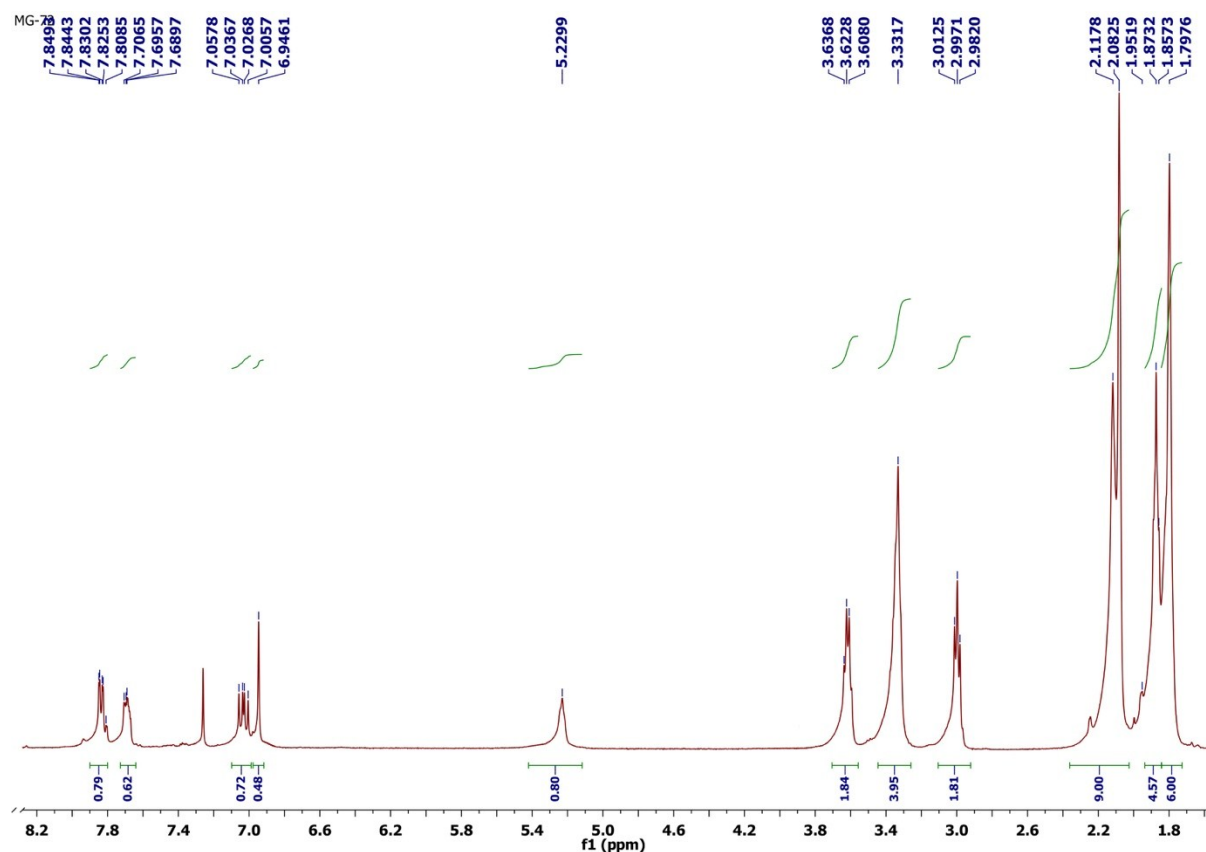
^1H NMR (400 MHz, CDCl_3) of *N*-{2-[2-(3-(1-tricyclo[3.3.1.1^{3,7}]decyl)-4-fluorophenyl)thiazol-4-yl]ethyl}-4-fluorobenzamide (**1g**)

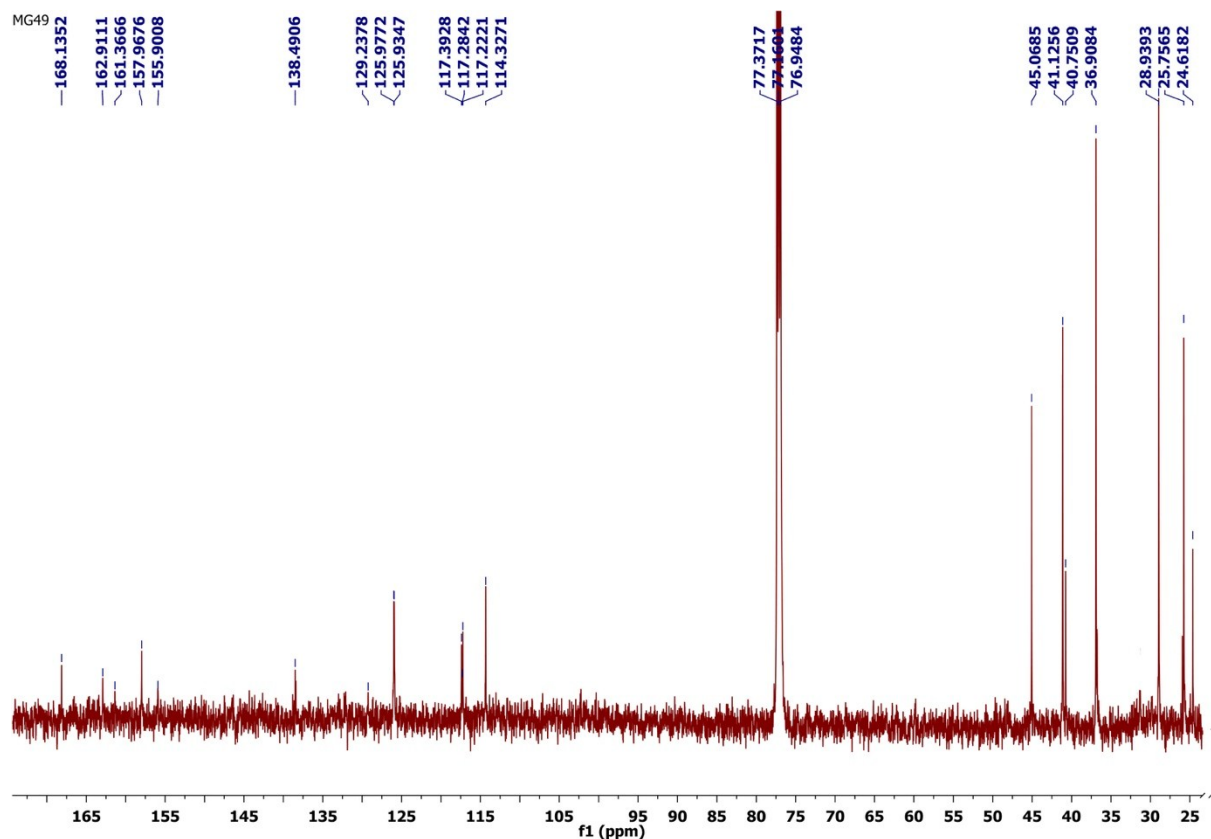
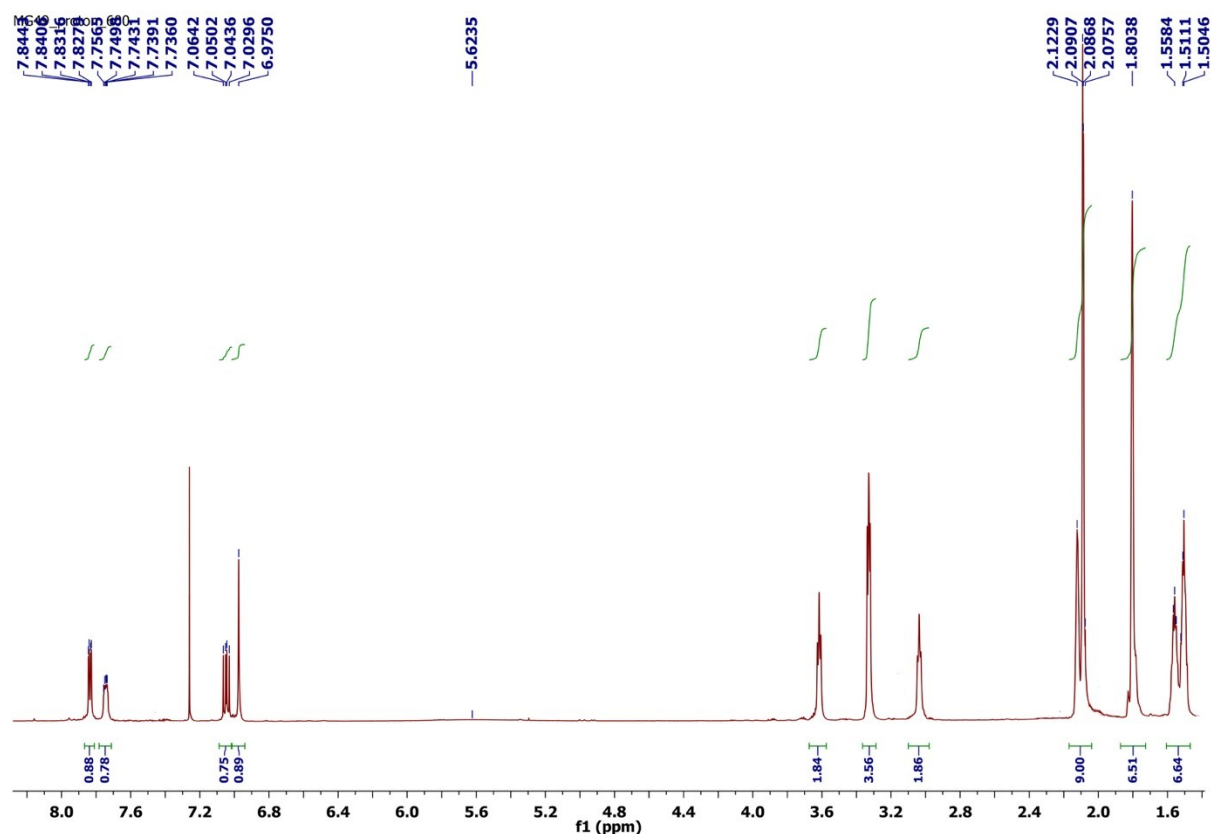


^{13}C NMR (50 MHz, CDCl_3) of *N*-{2-[2-(3-(1-tricyclo[3.3.1.1^{3,7}]decyl)-4-fluorophenyl)thiazol-4-yl]ethyl}-4-fluorobenzamide (**1g**)

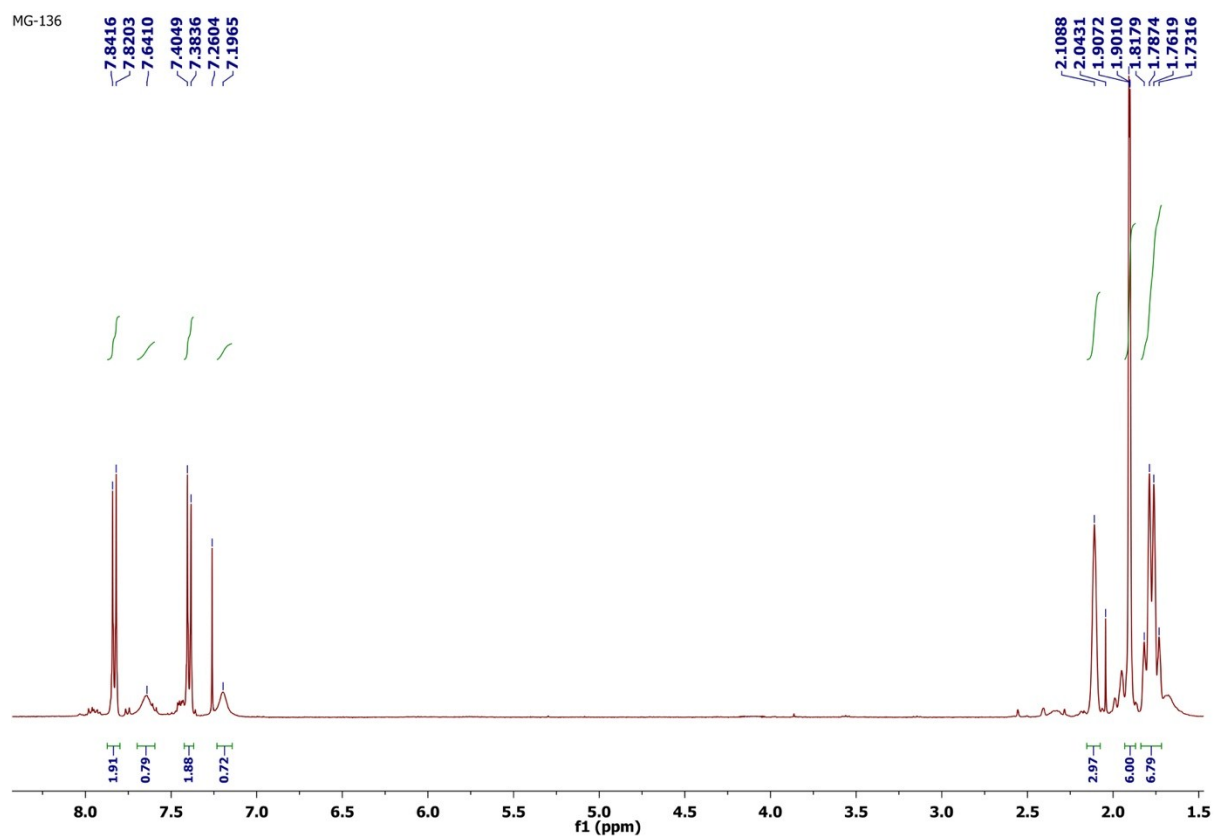
MG-708



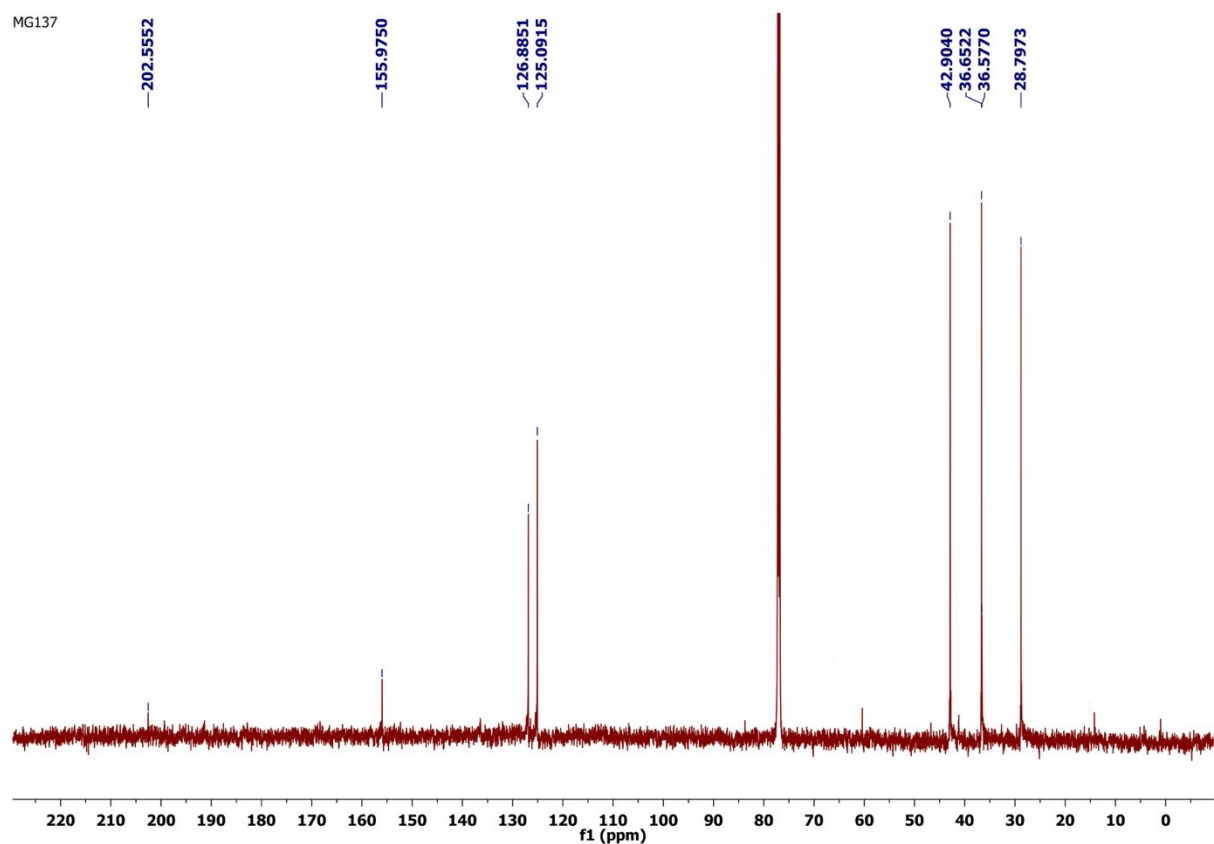


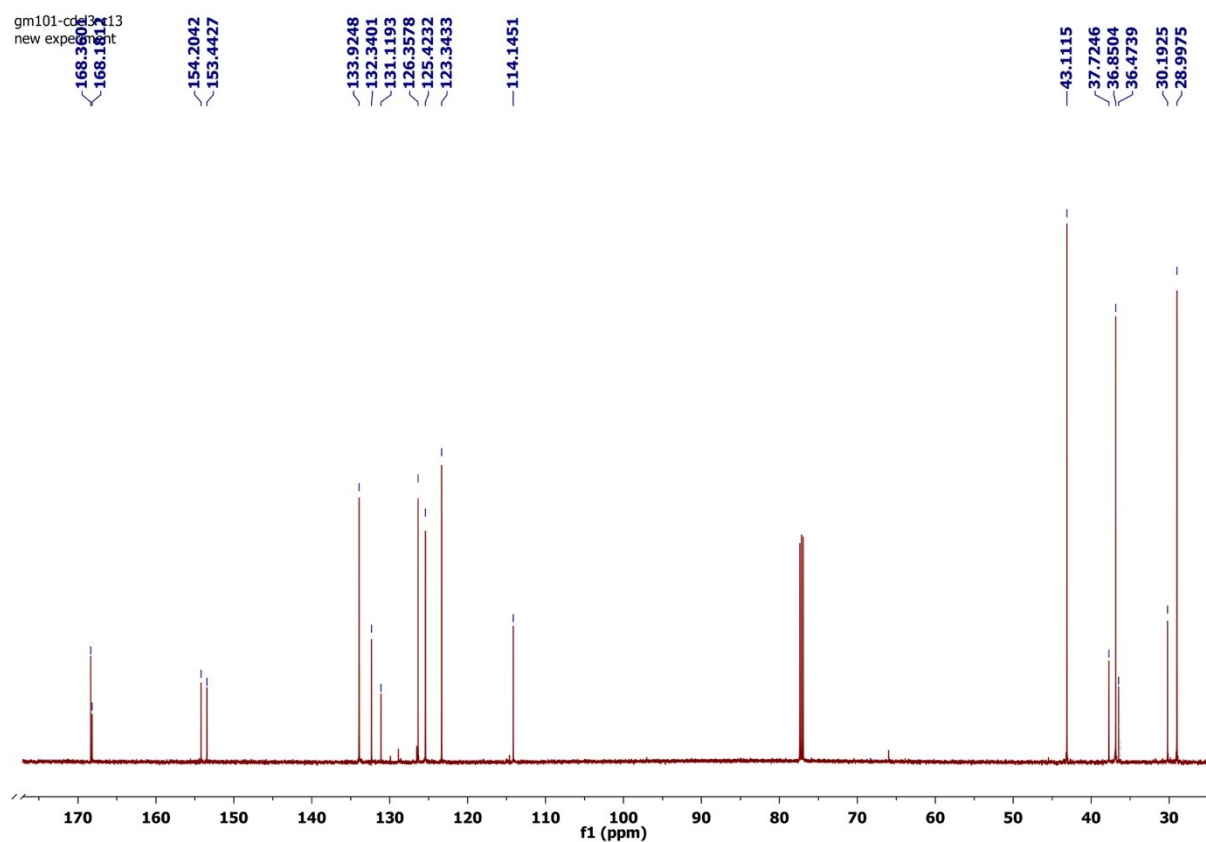
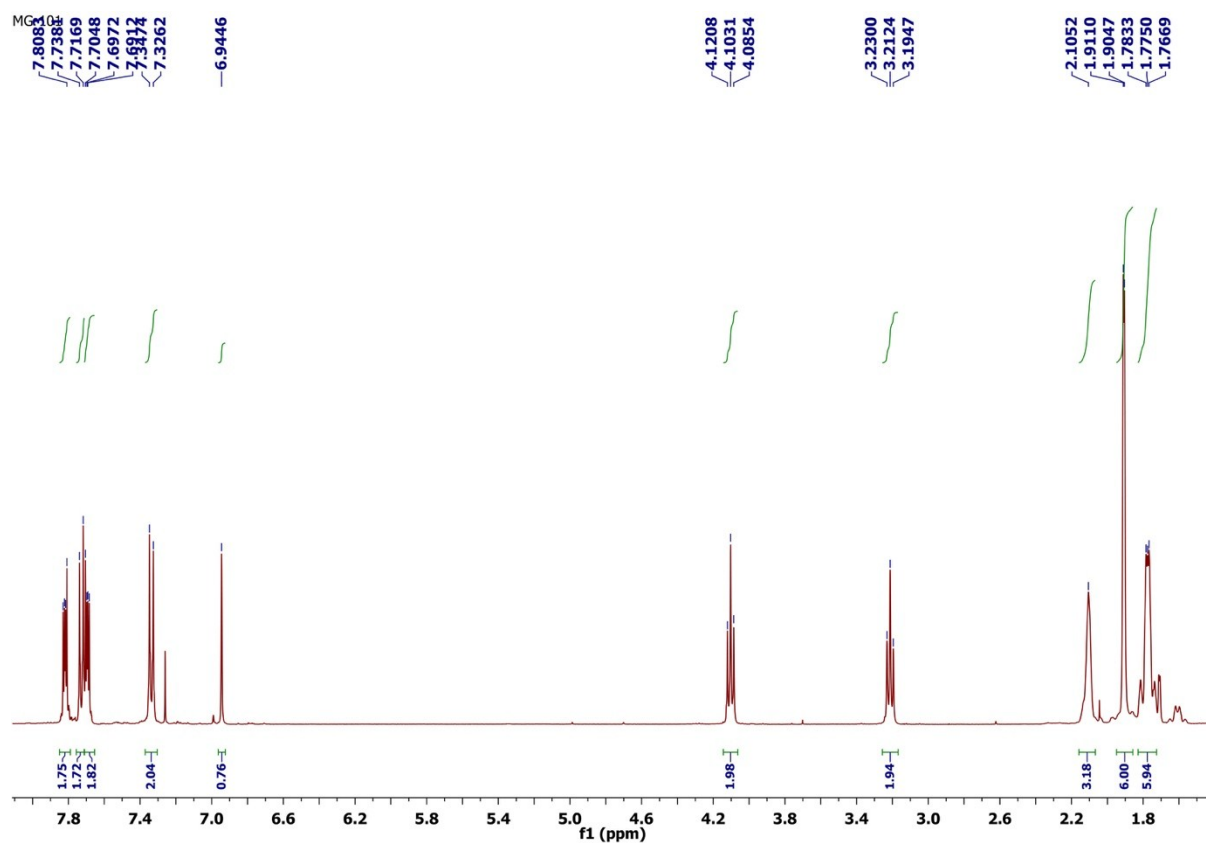


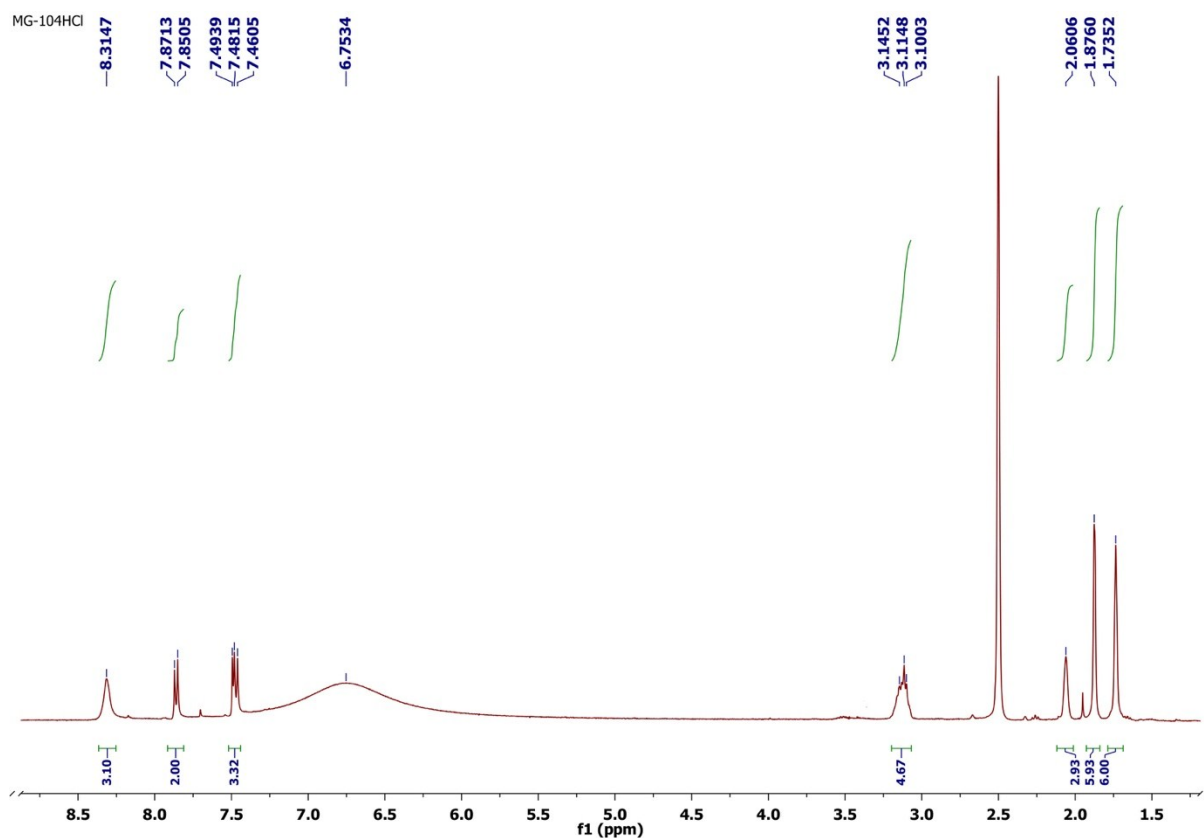
MG-136



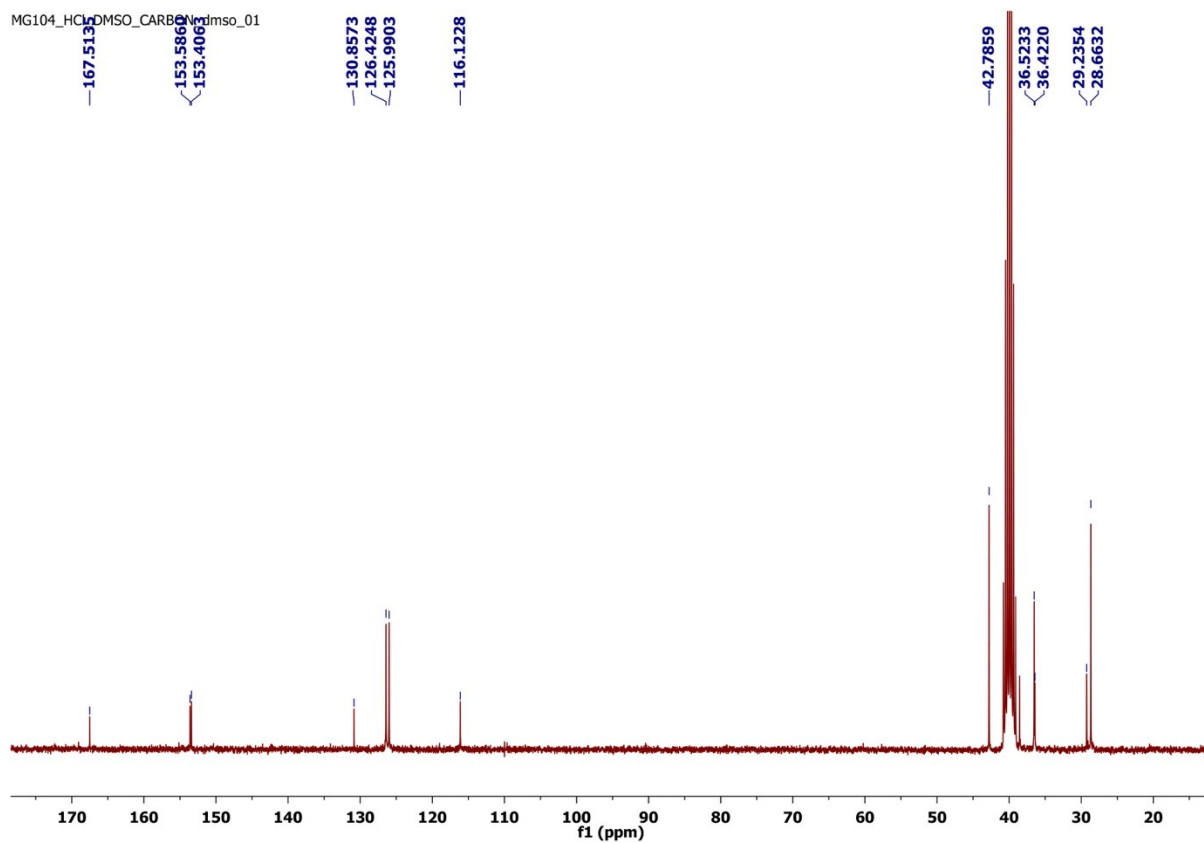
MG137



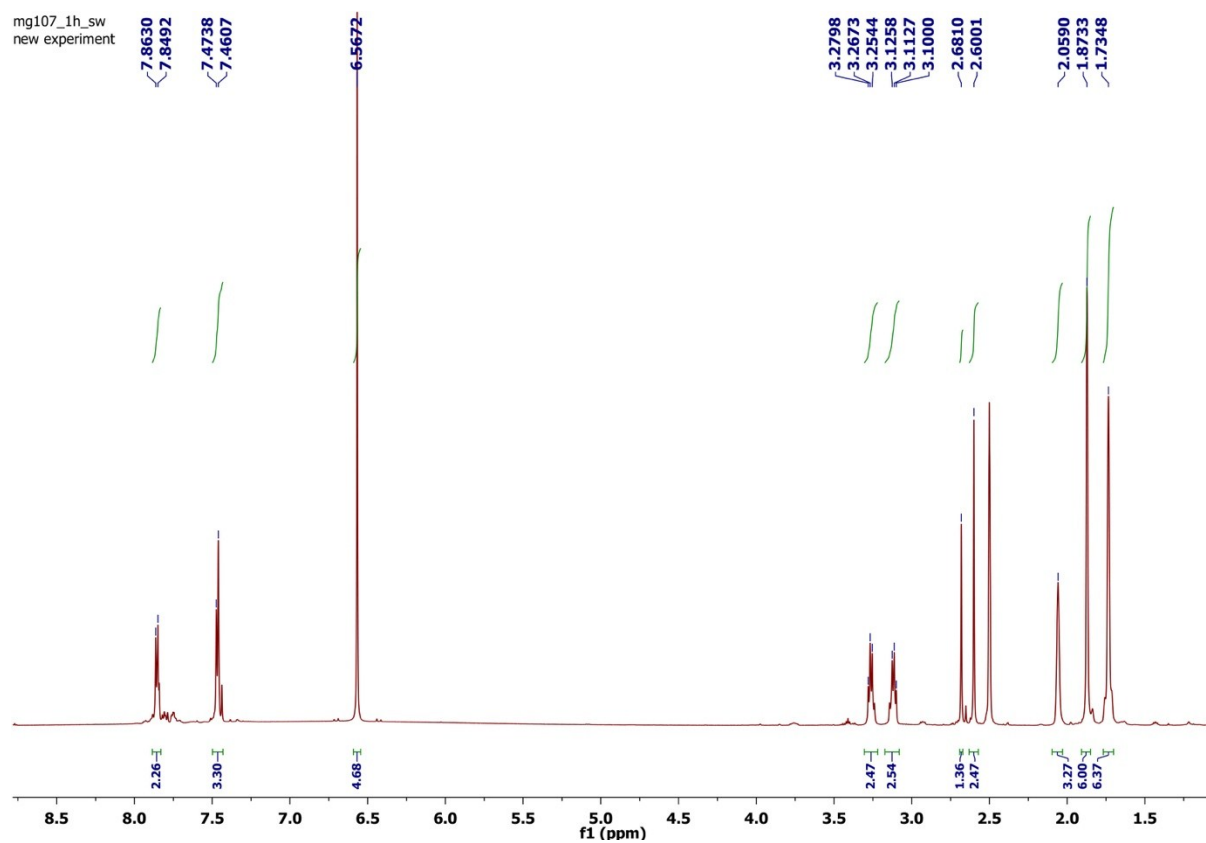




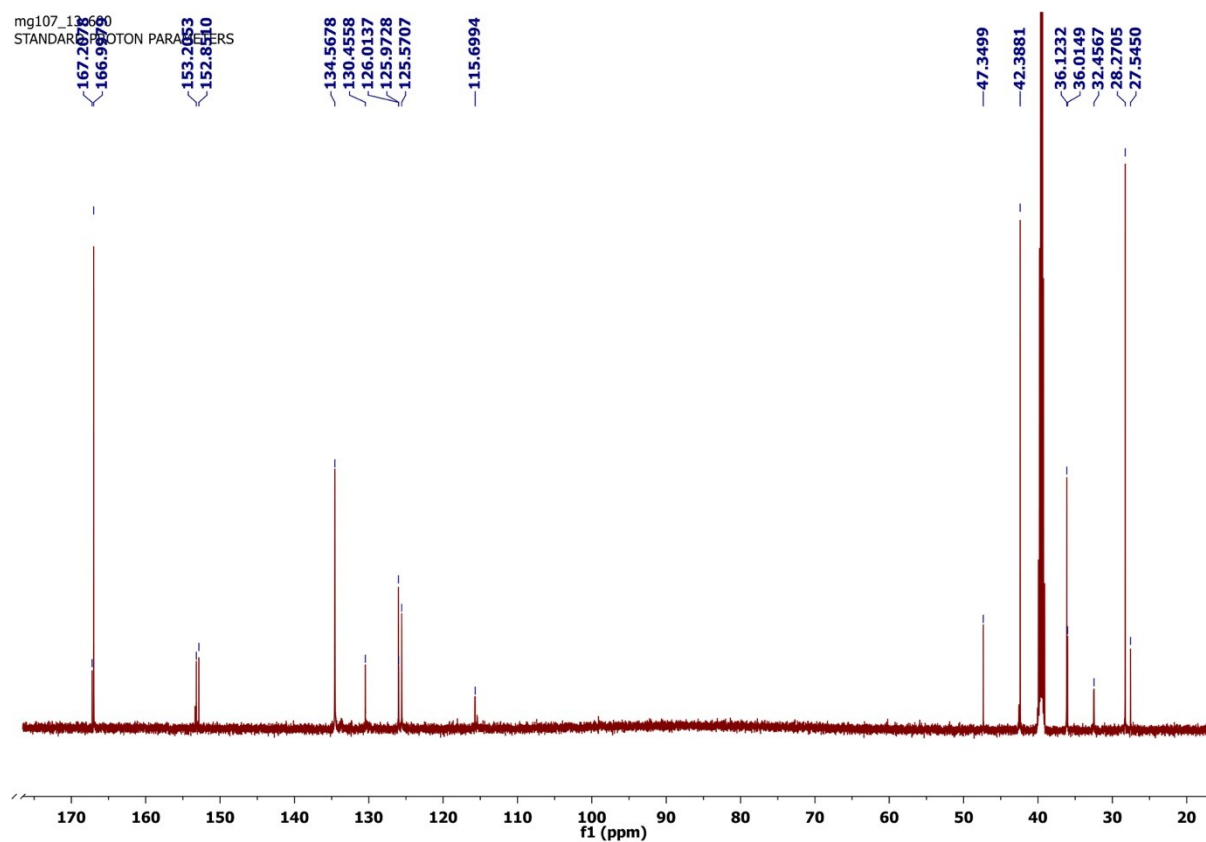
^1H NMR (400 MHz, $\text{DMSO}-d_6$) of 2-{2-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-4-yl}ethan-1-amine dihydrochloride (**2a**)



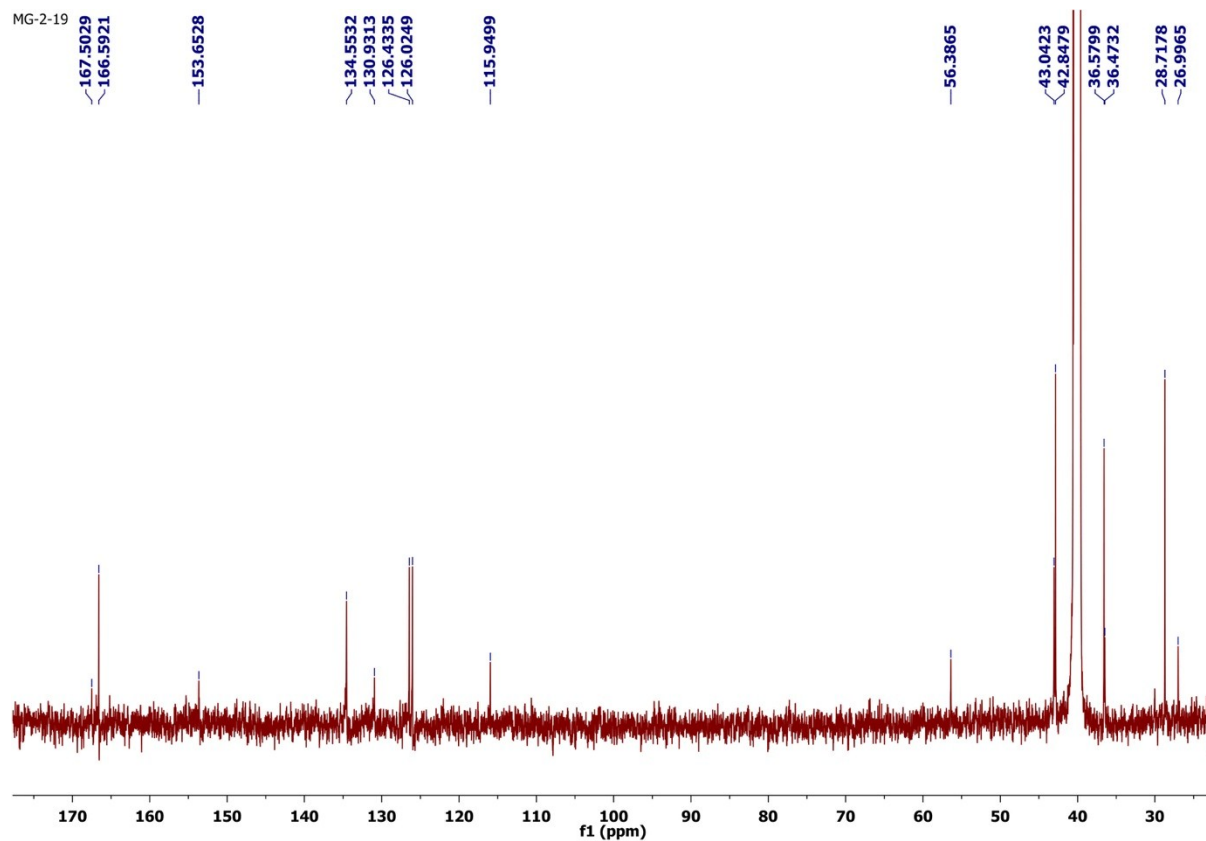
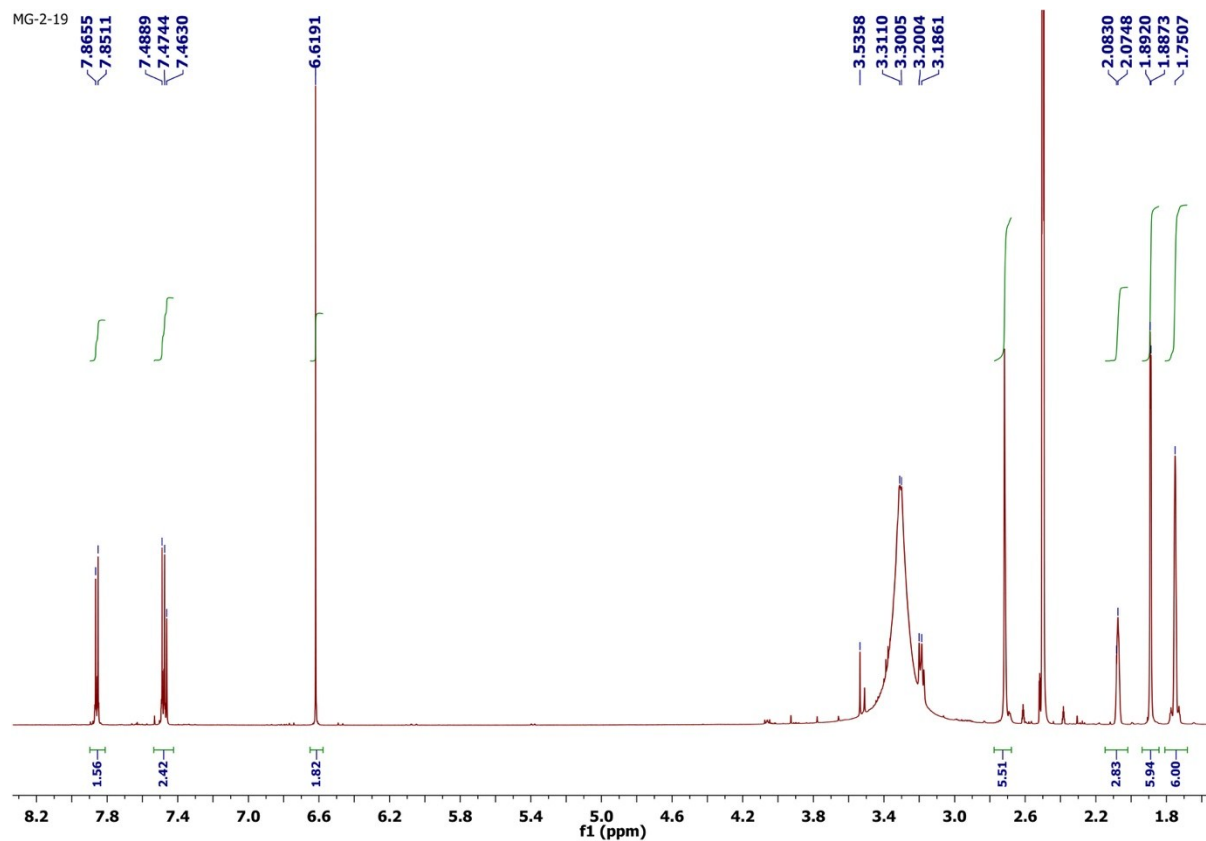
^{13}C NMR (75 MHz, $\text{DMSO}-d_6$) of 2-{2-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-4-yl}ethan-1-amine dihydrochloride (**2a**)

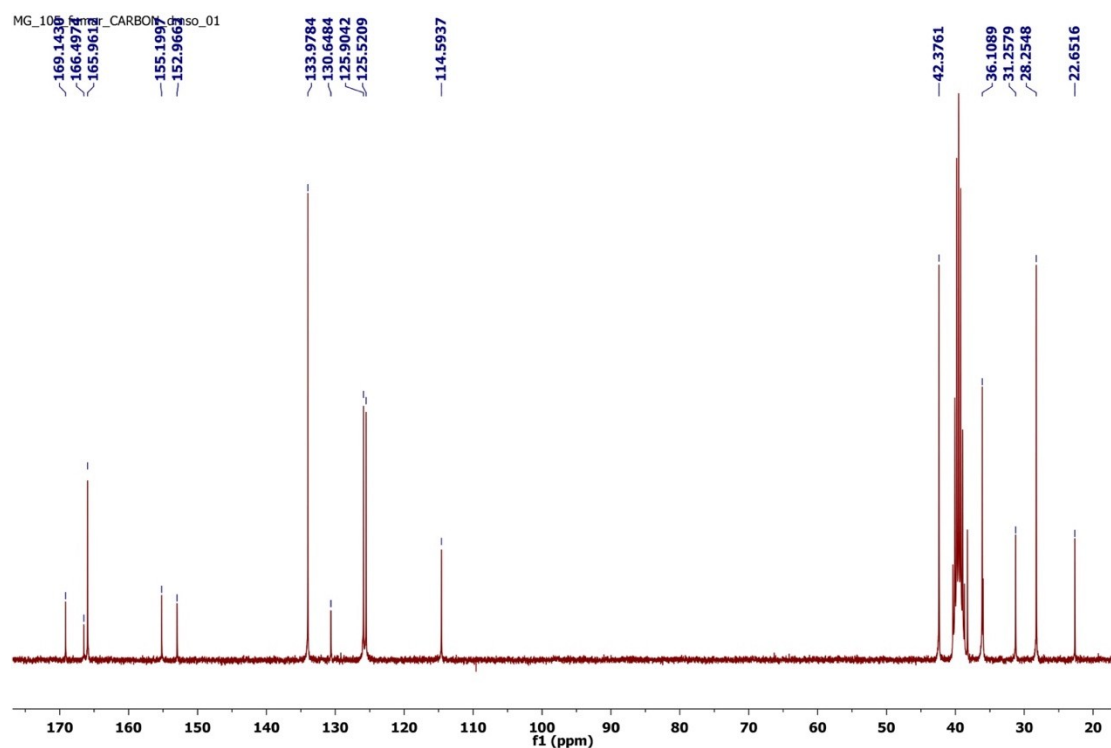
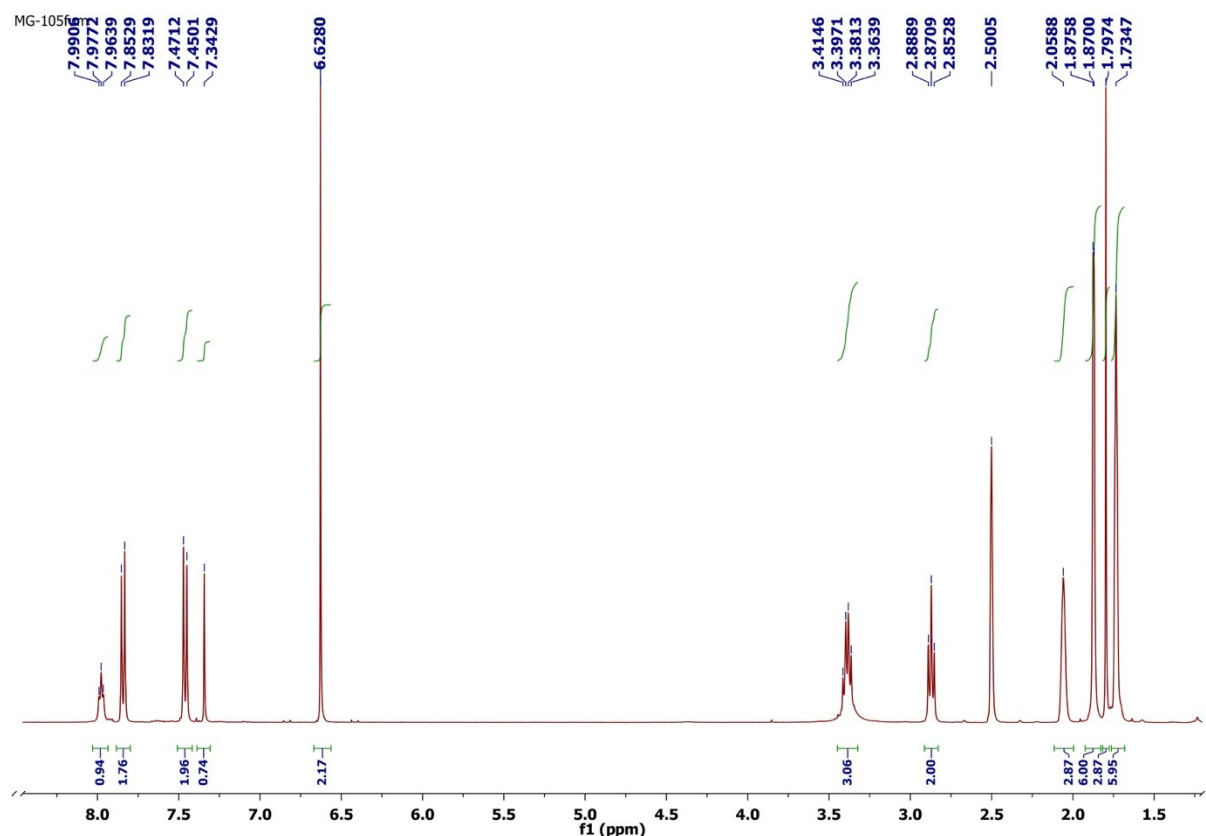


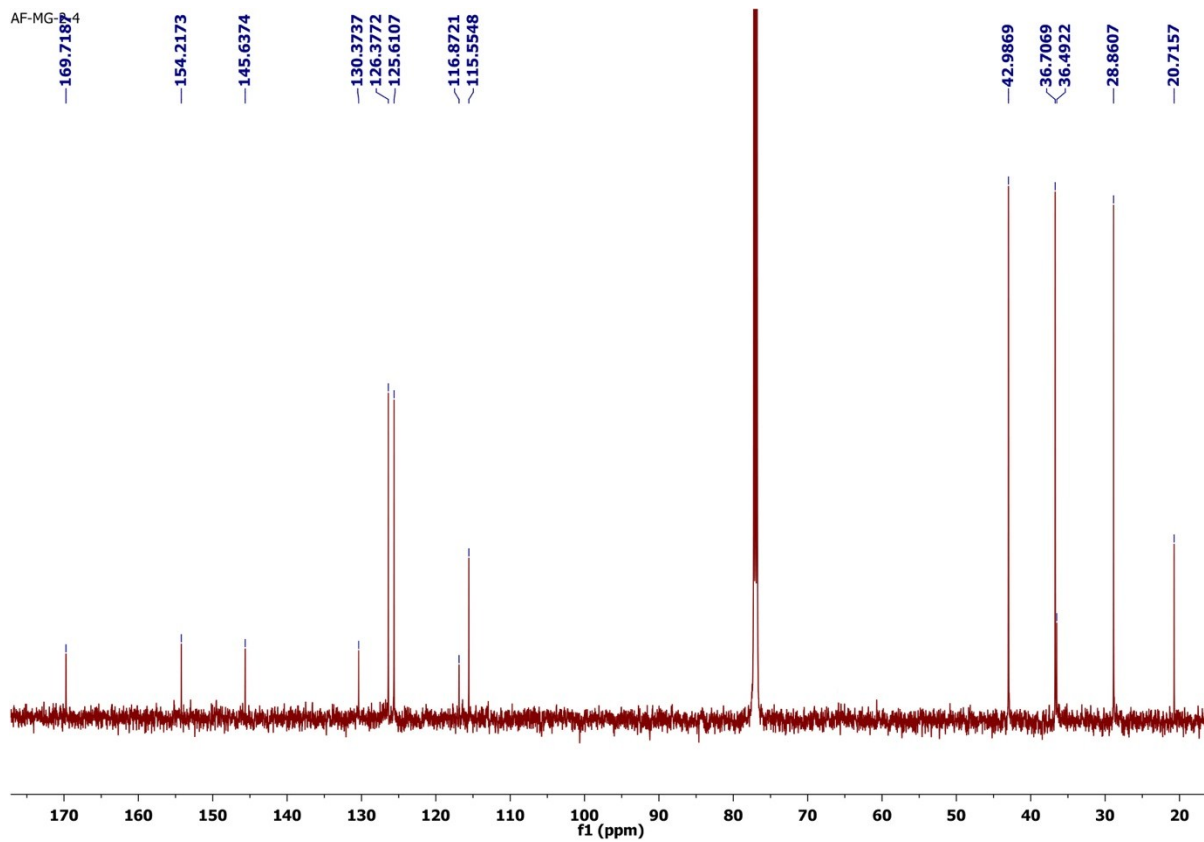
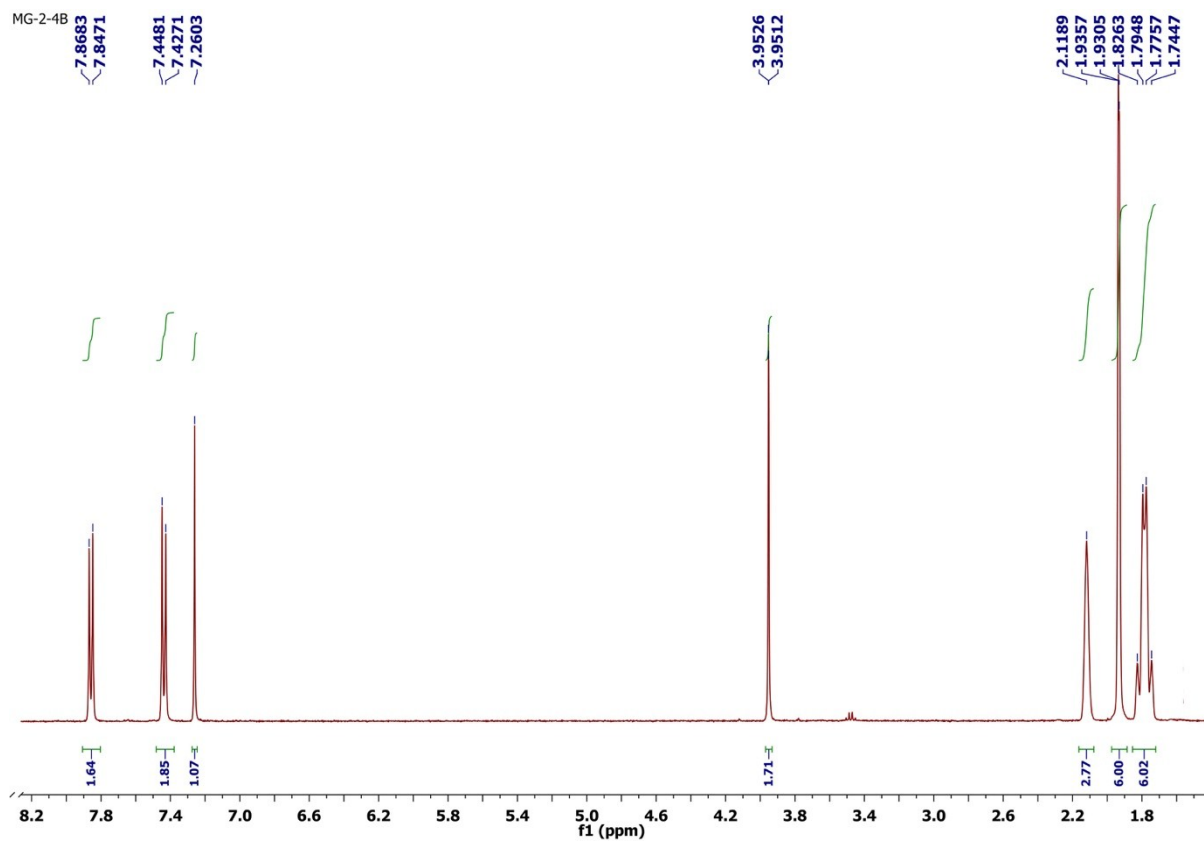
^1H NMR (600 MHz, $\text{DMSO}-d_6$) of 2-{2-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-4-yl}-*N*-methylethan-1-amine difumarate (**2b**)

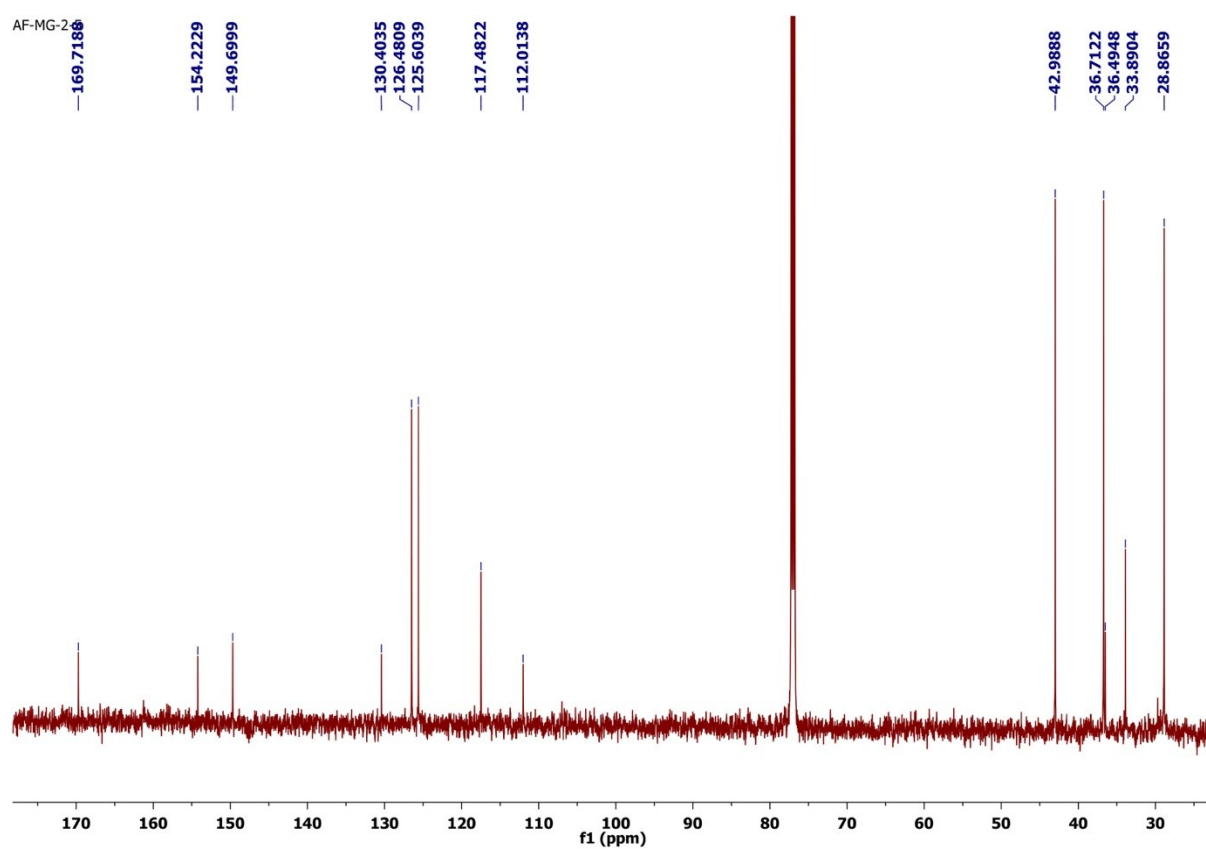
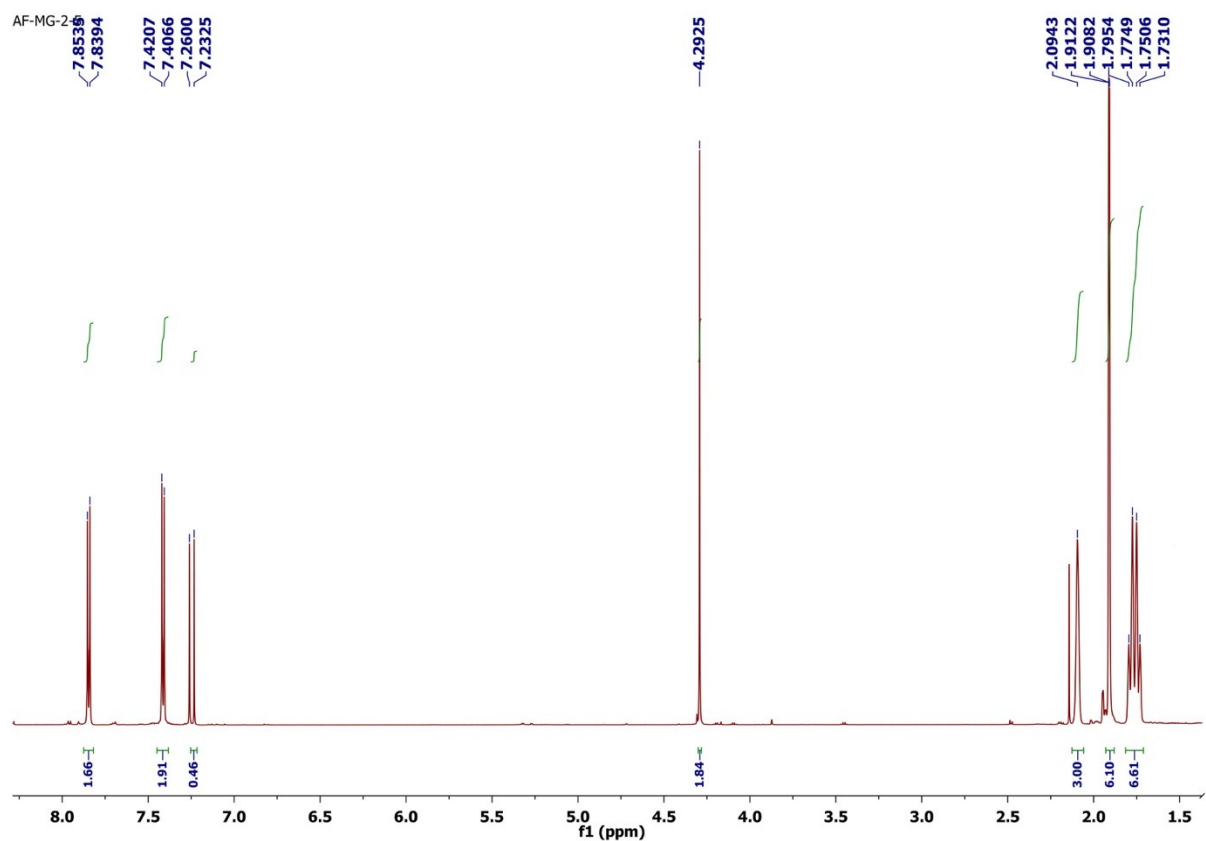


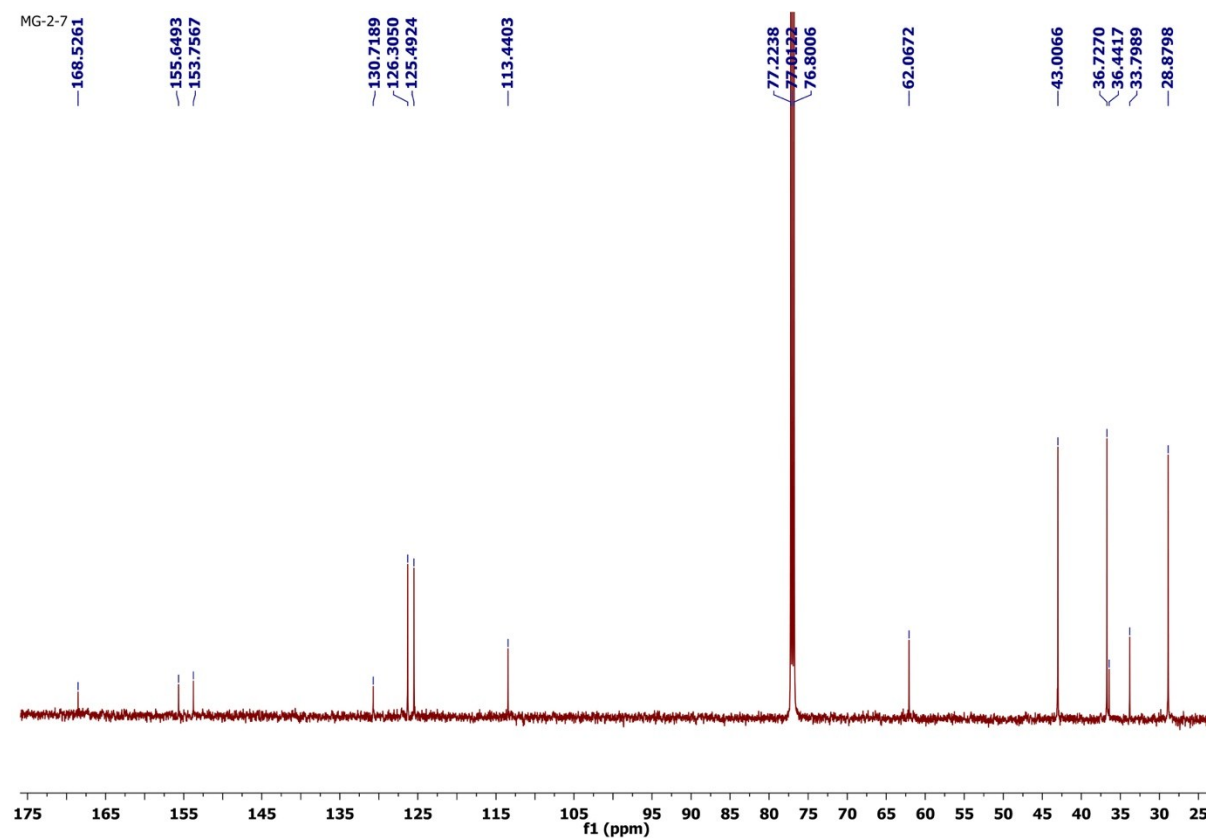
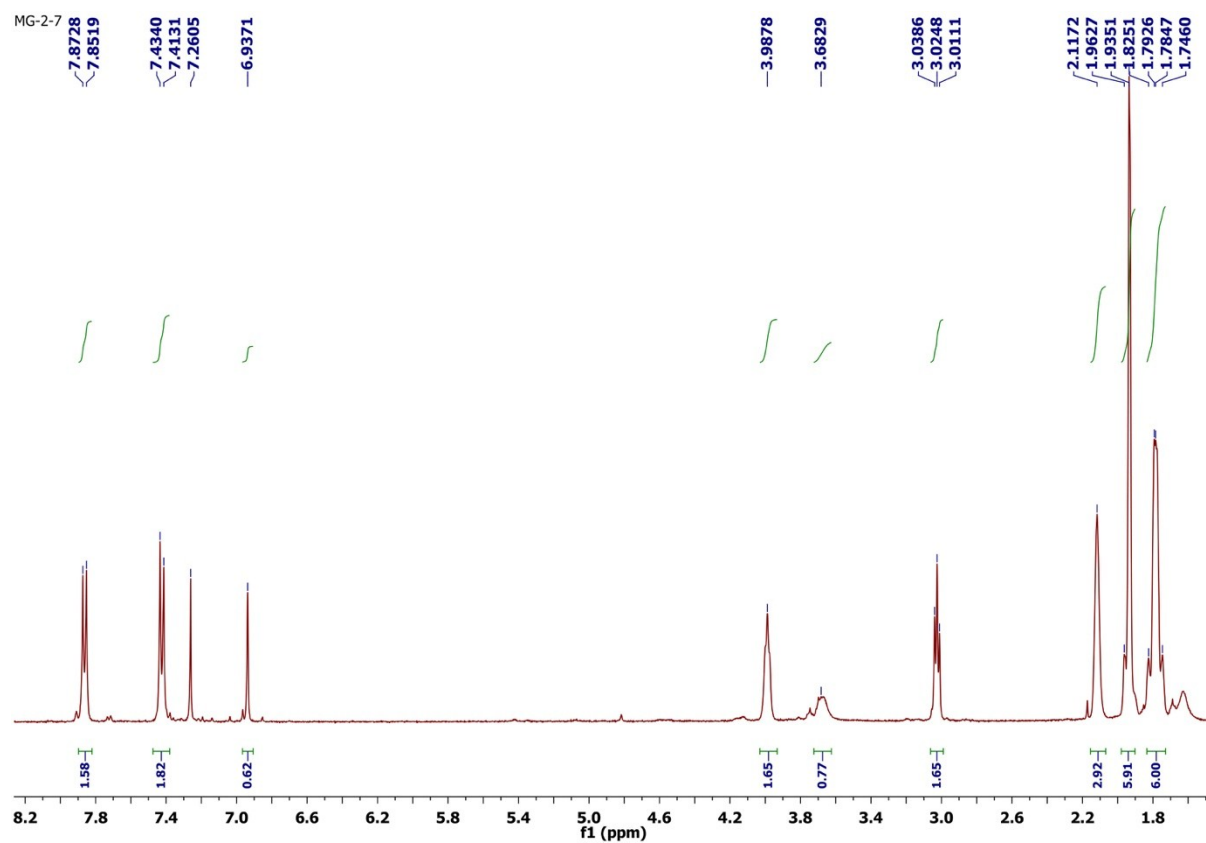
^{13}C NMR (150 MHz, $\text{DMSO}-d_6$) of 2-{2-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-4-yl}-*N*-methylethan-1-amine difumarate (**2b**)

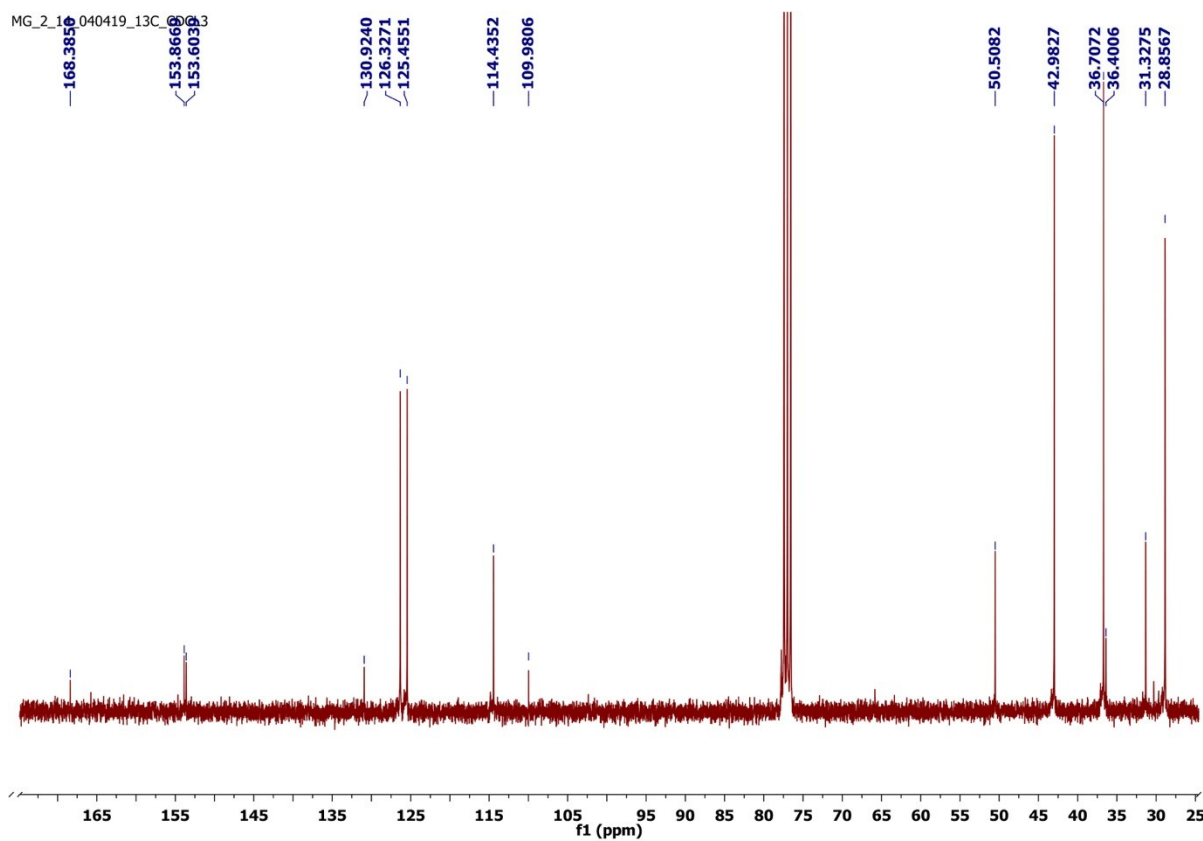
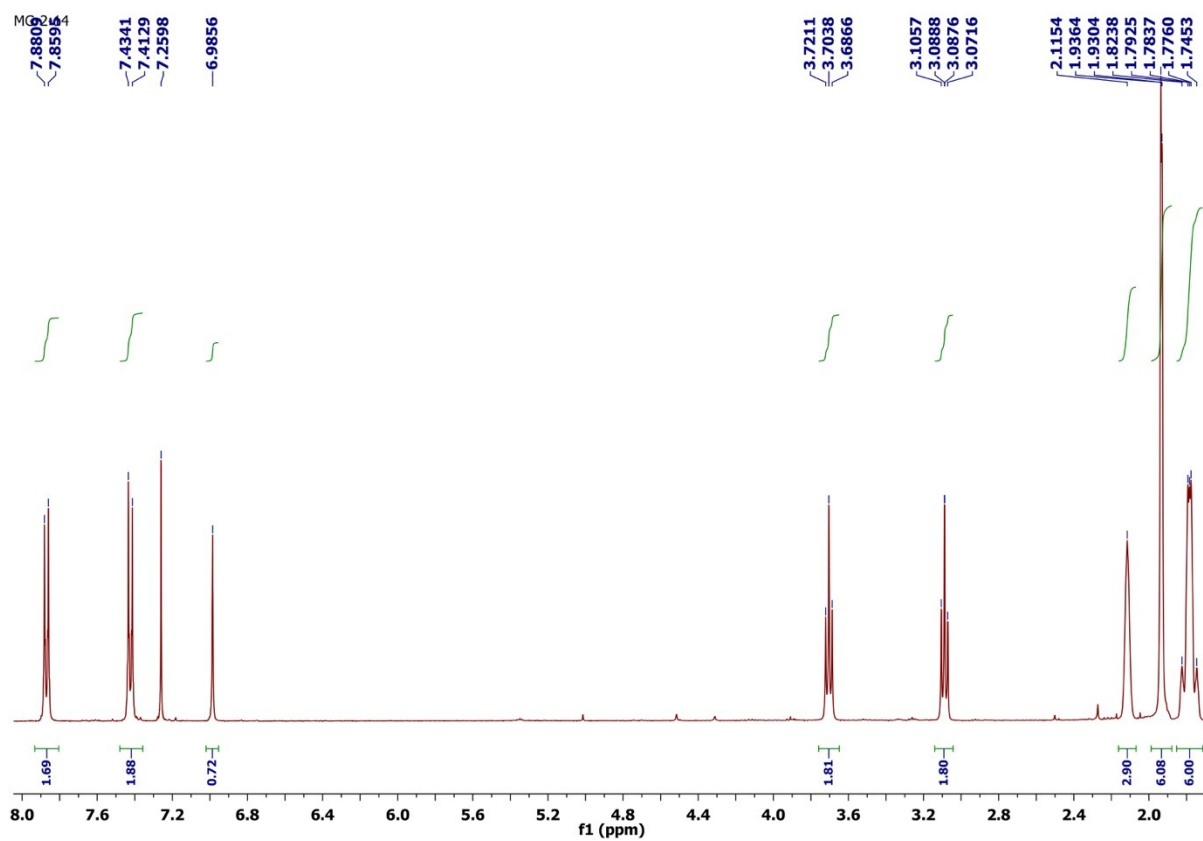


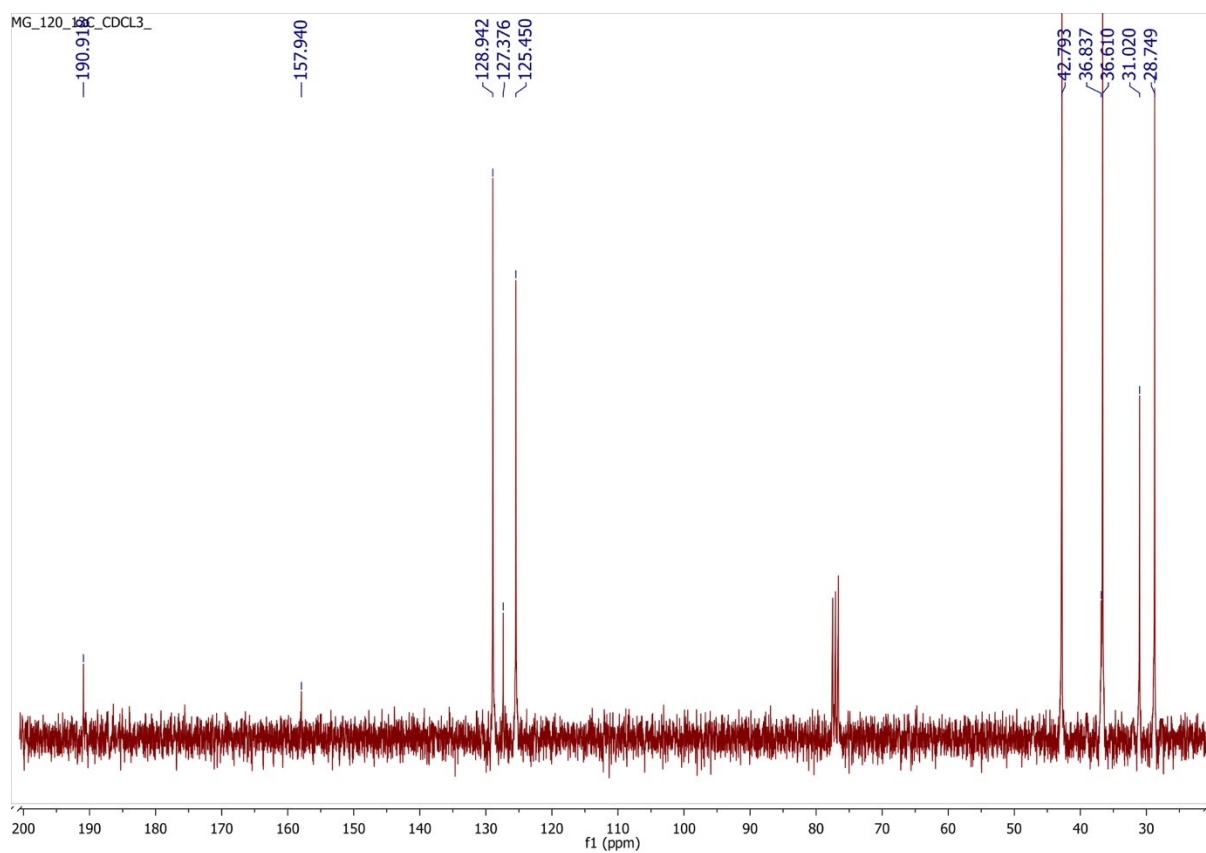
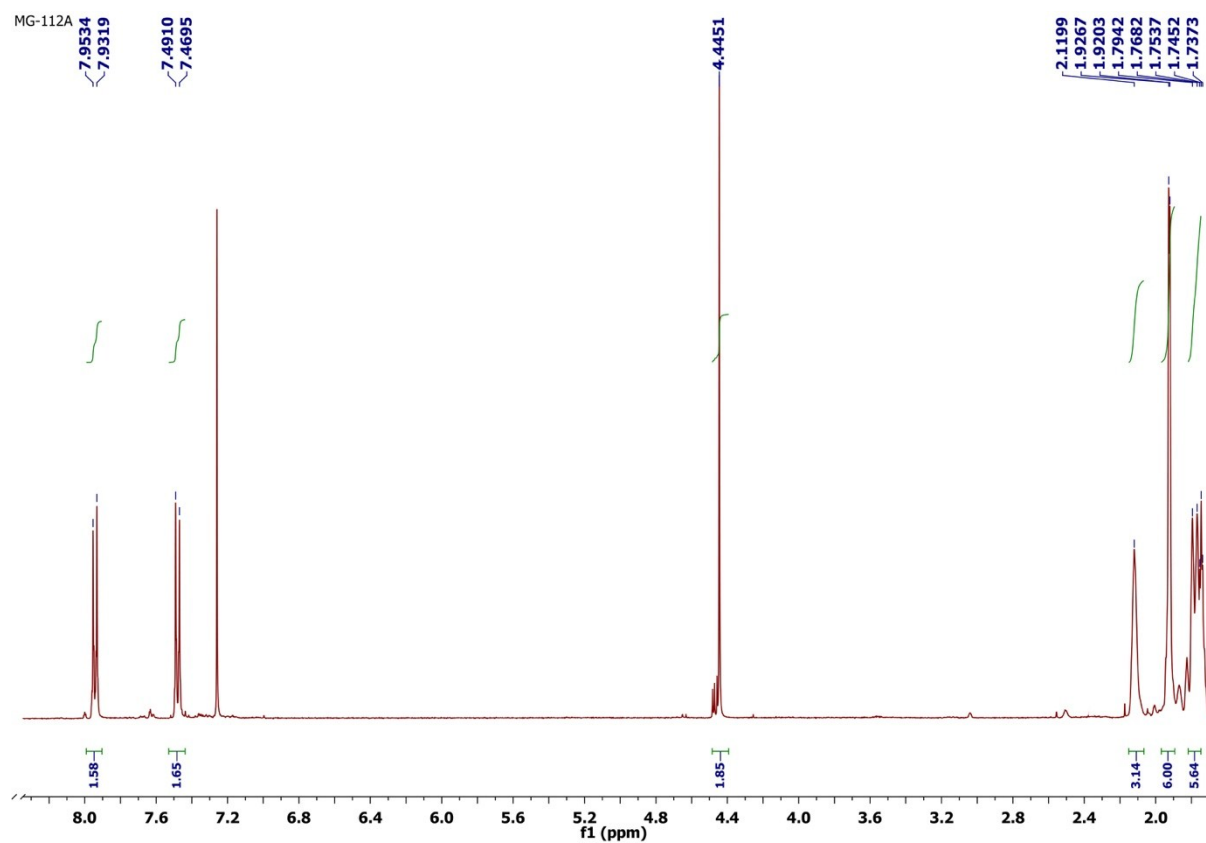


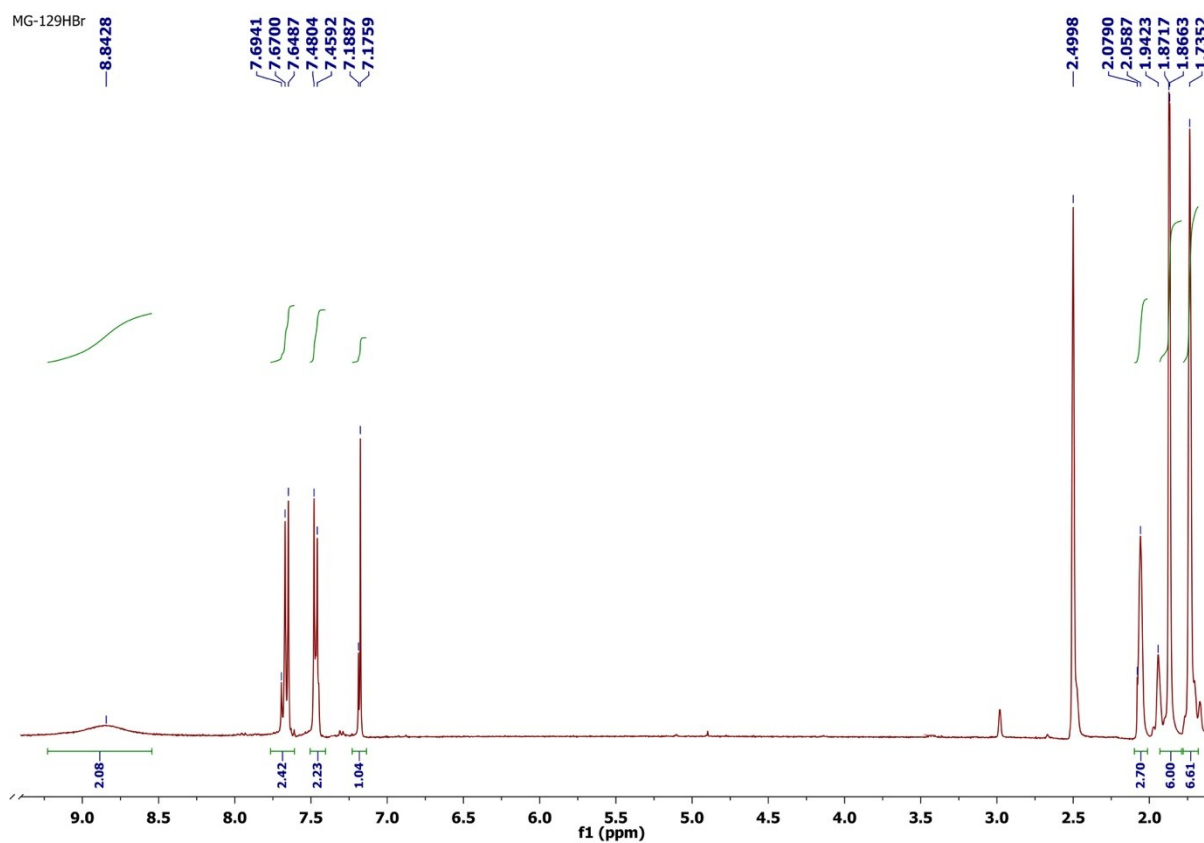




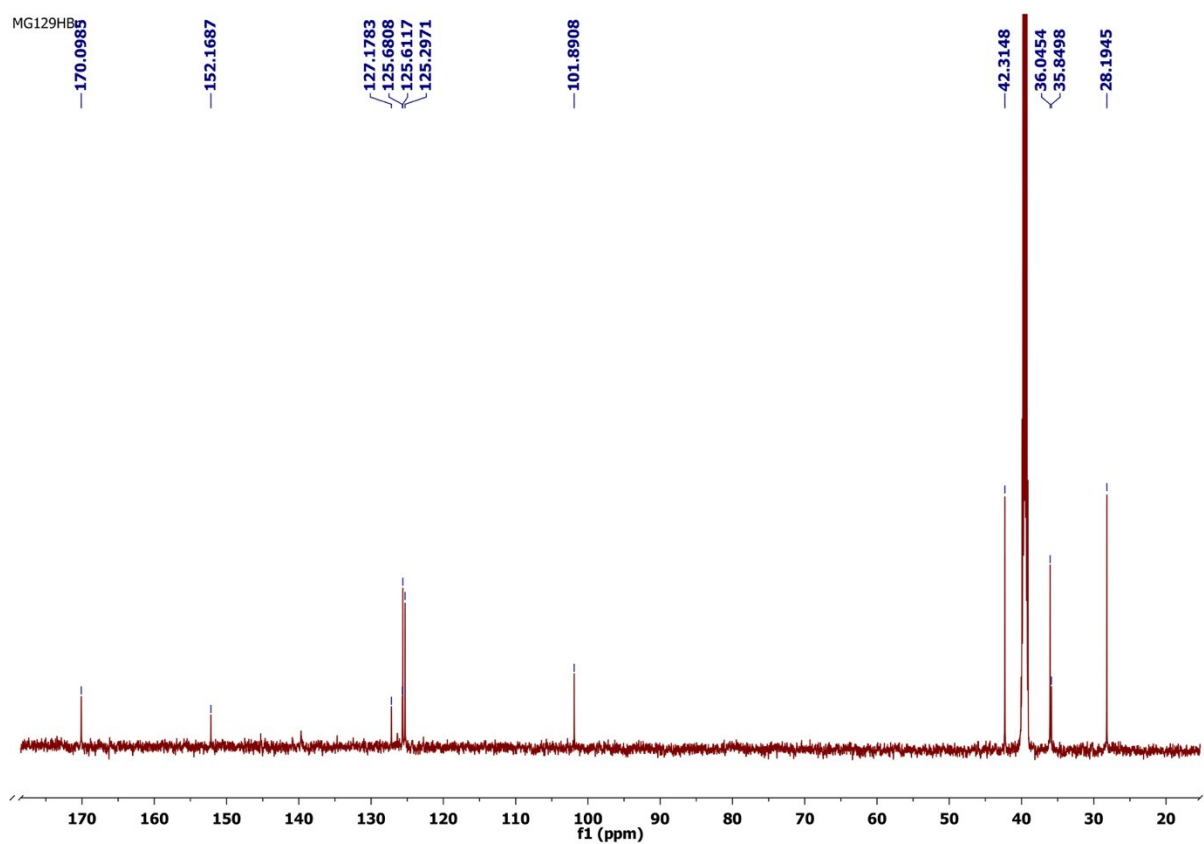




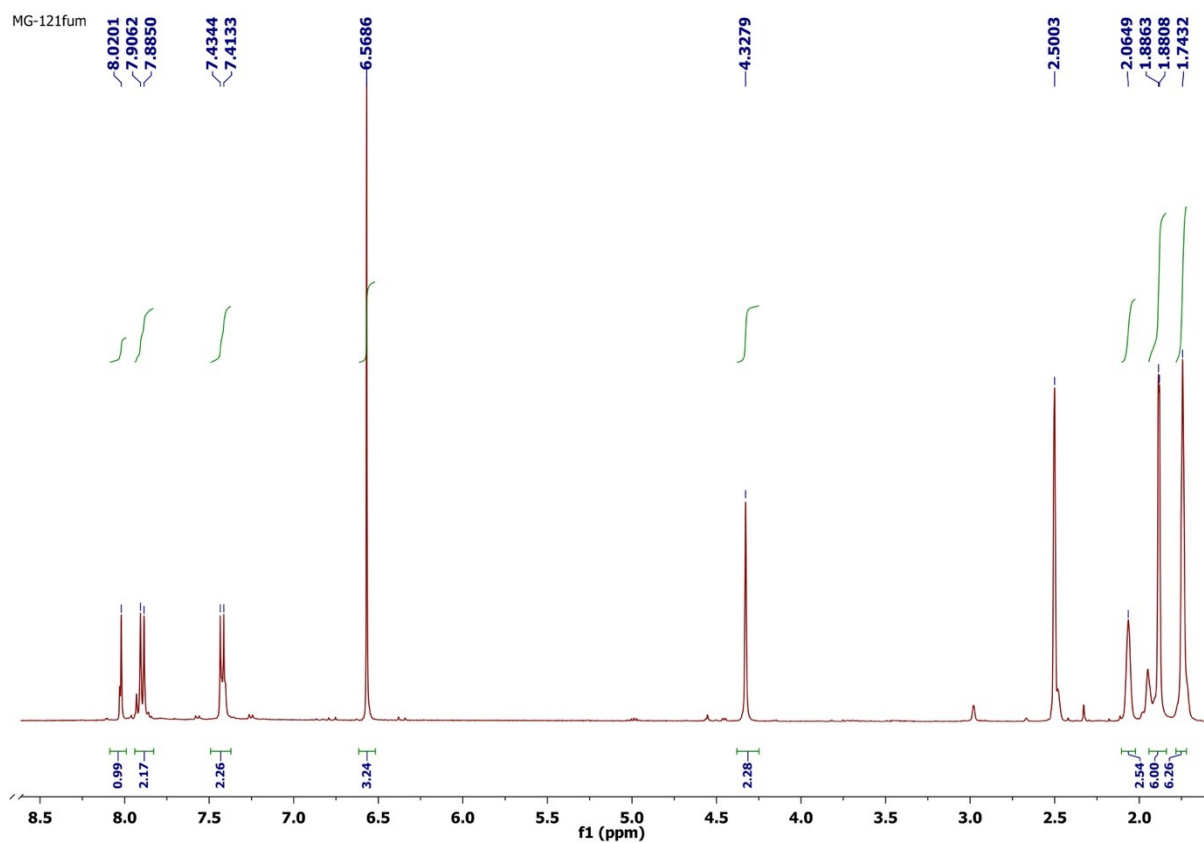




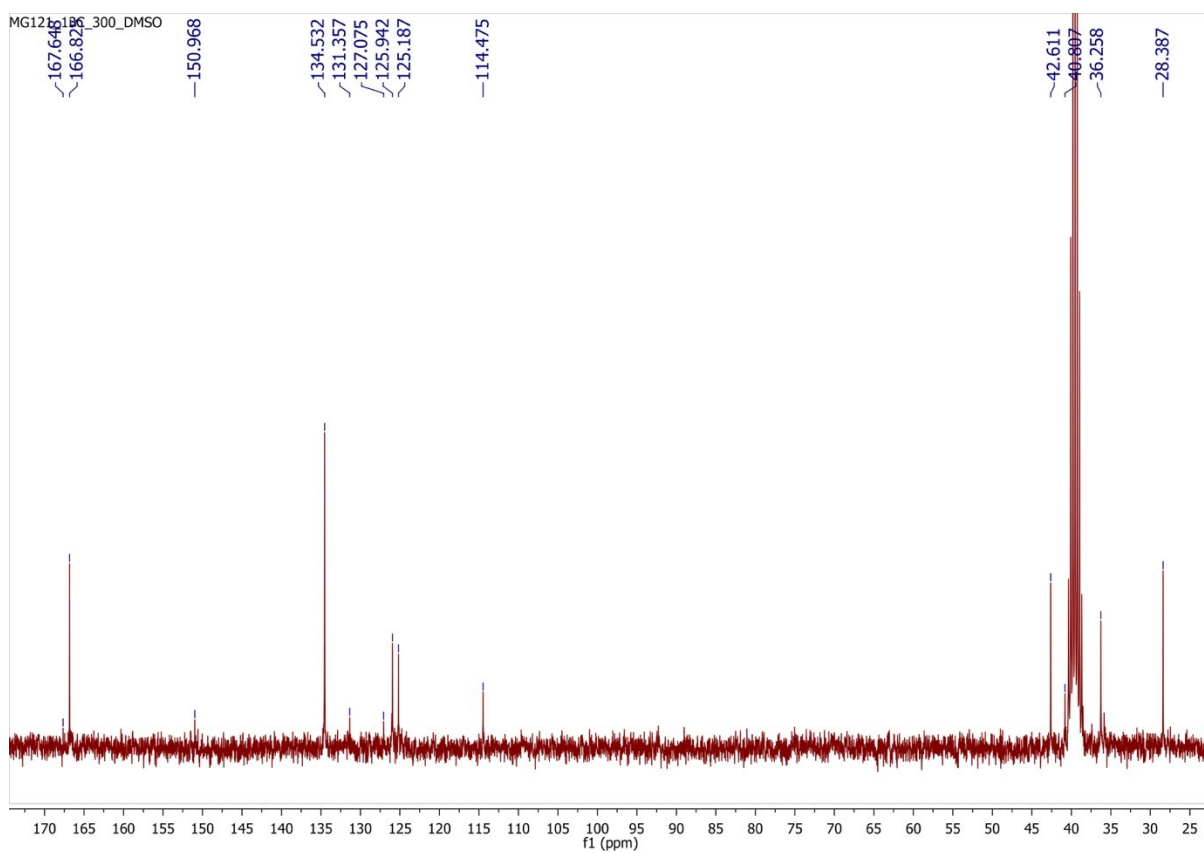
^1H NMR (400 MHz, $\text{DMSO}-d_6$) of 4-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-2-amine hydrobromide (**3a**)



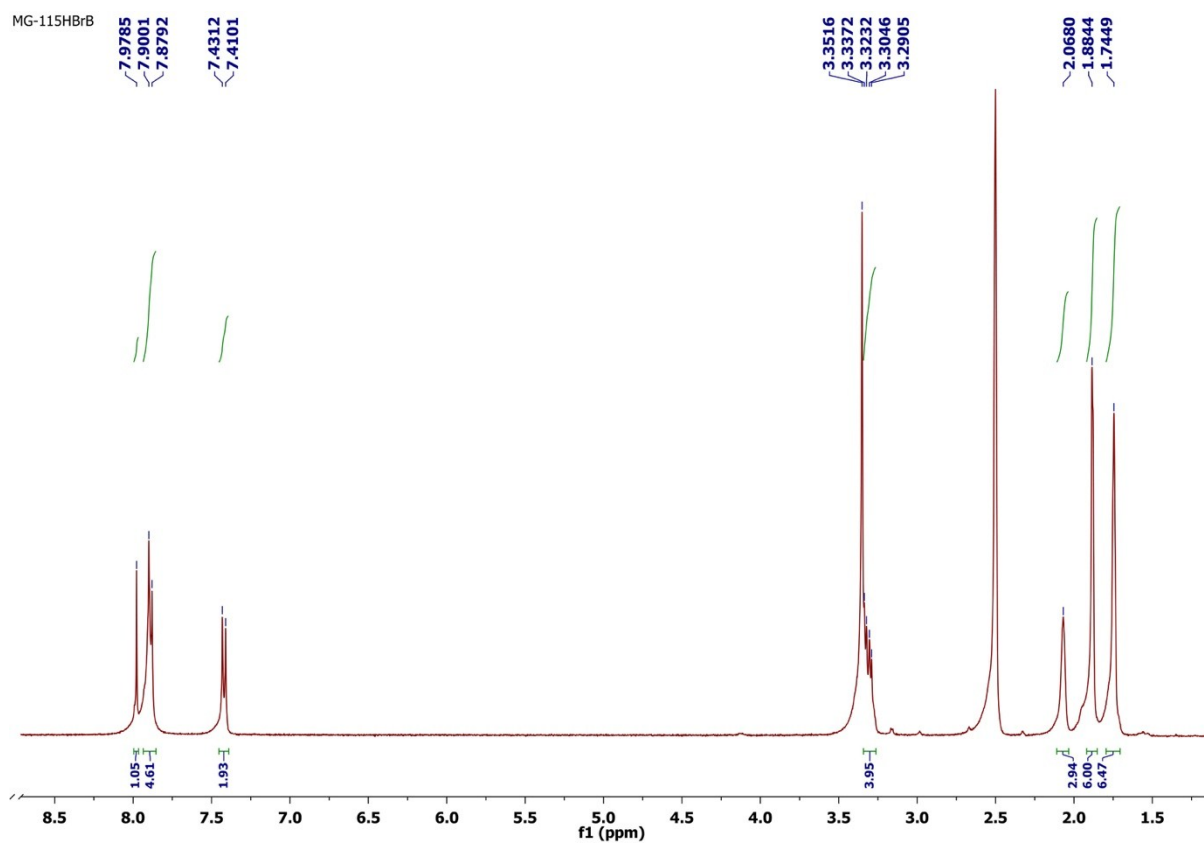
^{13}C NMR (150 MHz, $\text{DMSO}-d_6$) of 4-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-2-amine hydrobromide (**3a**)



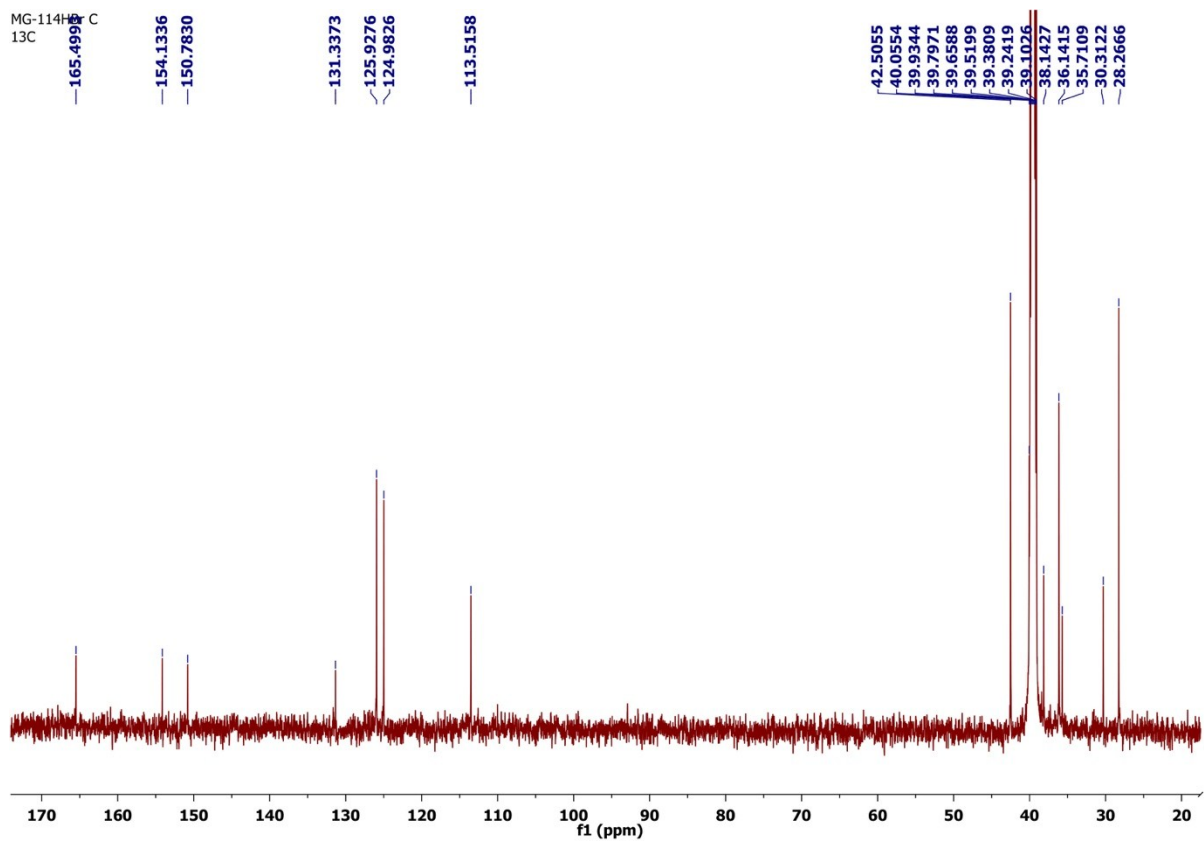
^1H NMR (400 MHz, $\text{DMSO}-d_6$) of {4-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-2-yl}methanamine difumarate (**3b**)



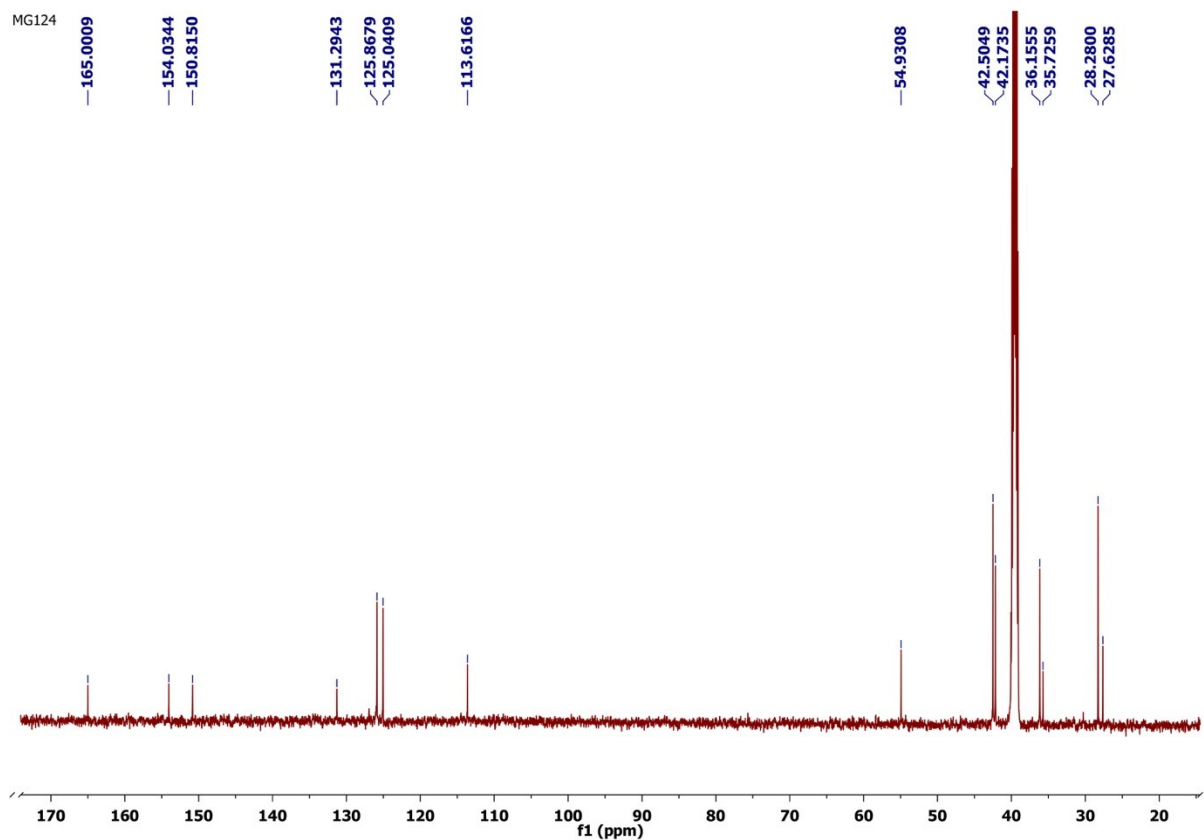
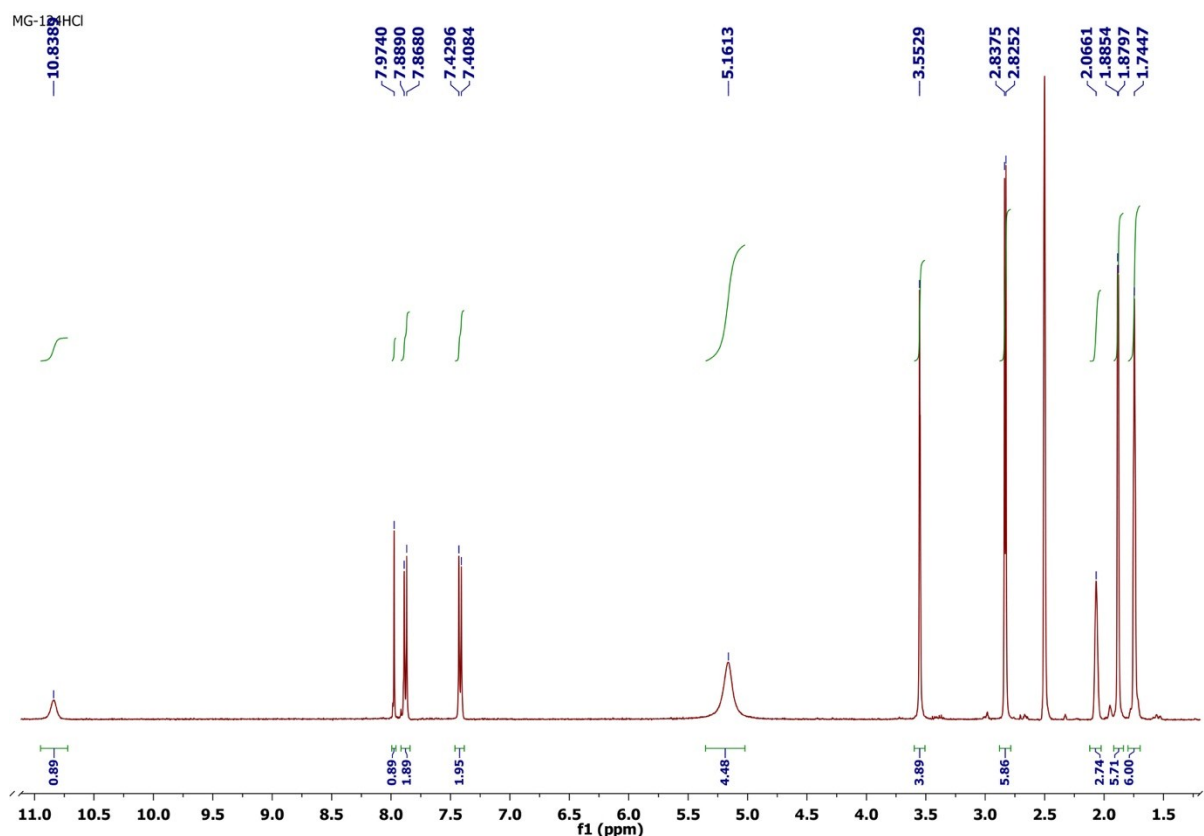
^{13}C NMR (75 MHz, $\text{DMSO}-d_6$) of {4-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-2-yl}methanamine difumarate (**3b**)

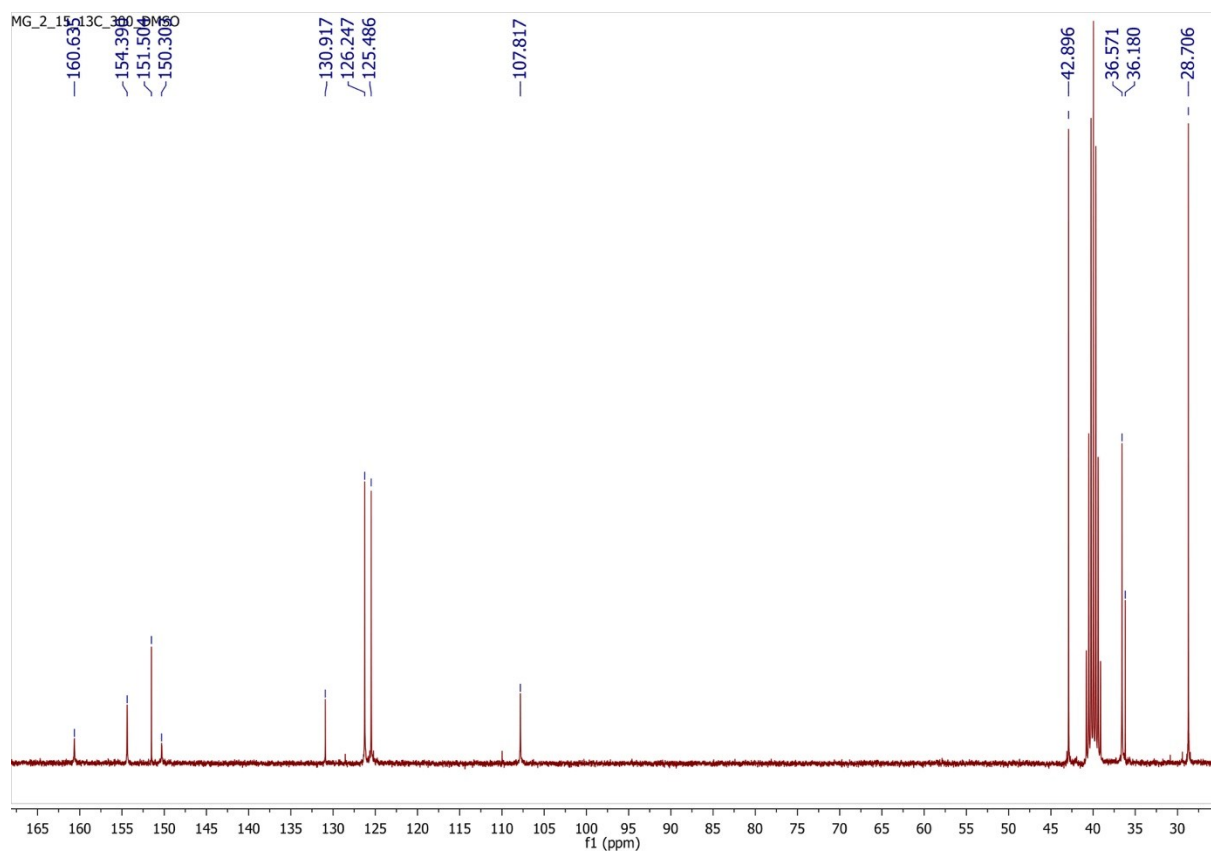
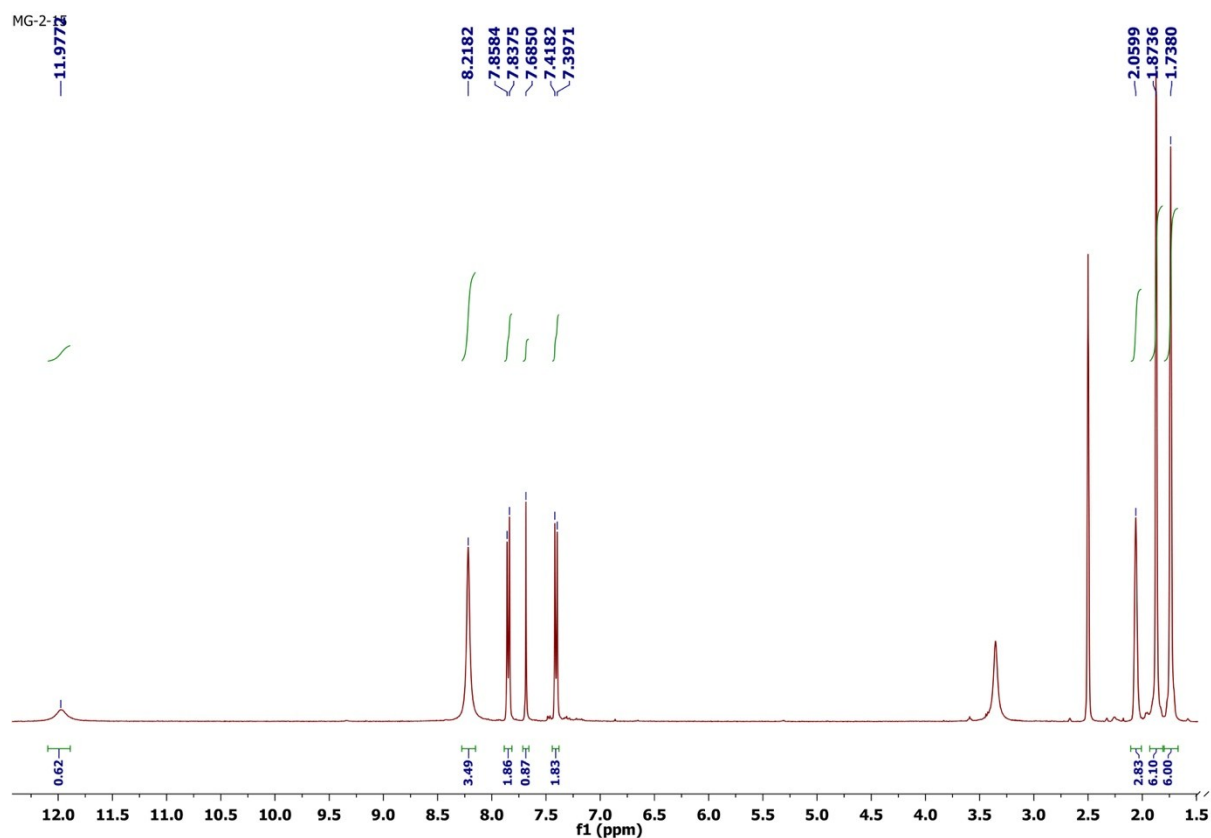


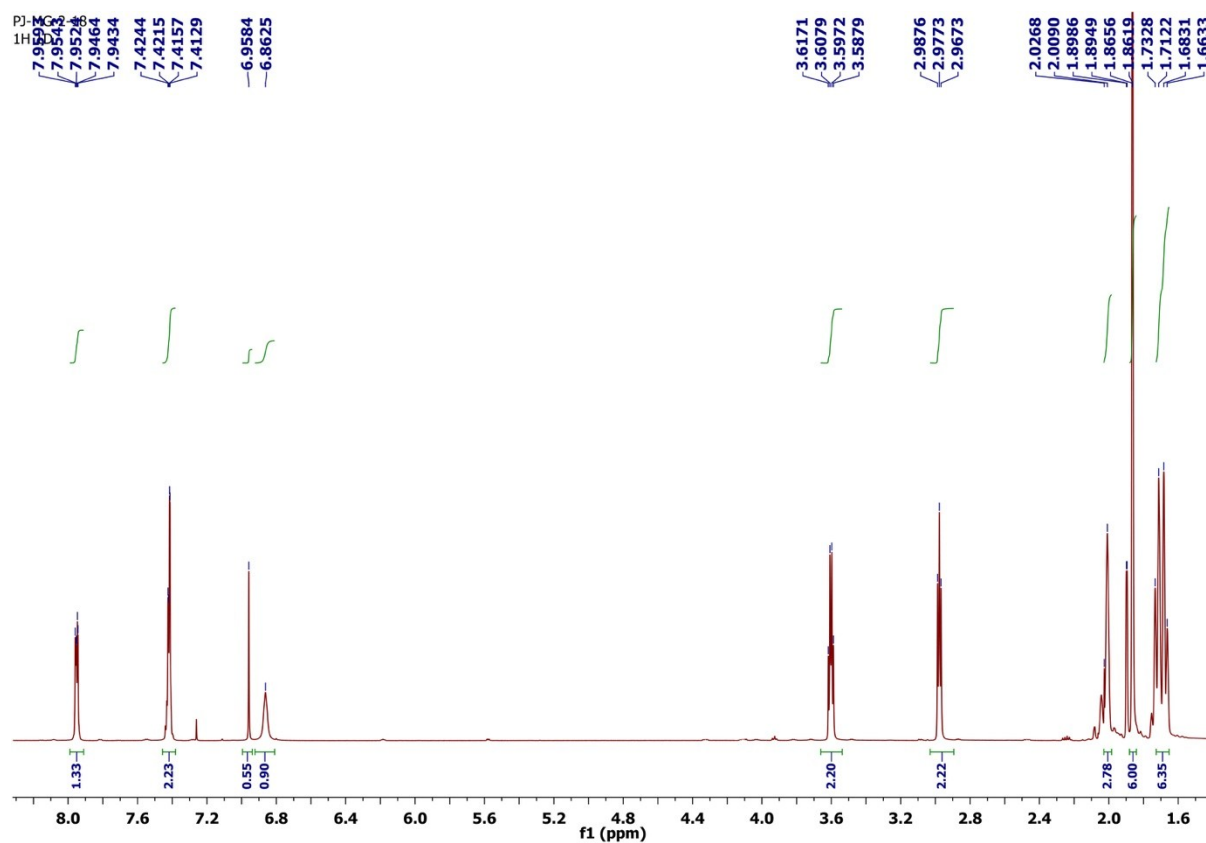
^1H NMR (400 MHz, $\text{DMSO}-d_6$) of 2-{4-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-2-yl}ethanamine hydrobromide (**3c**)



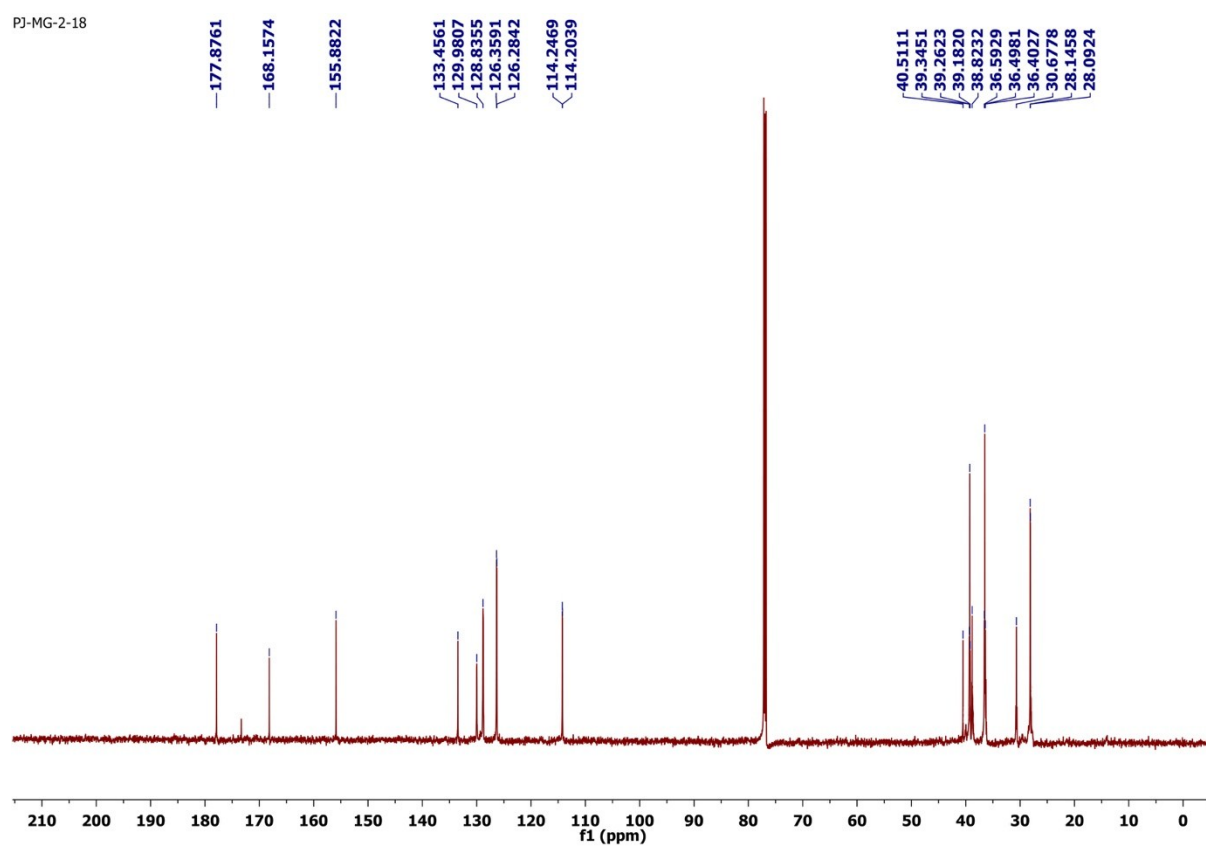
^{13}C NMR (75 MHz, $\text{DMSO}-d_6$) of 2-{4-[4-(1-tricyclo[3.3.1.1^{3,7}]decyl)phenyl]thiazol-2-yl}ethanamine hydrobromide (**3c**)



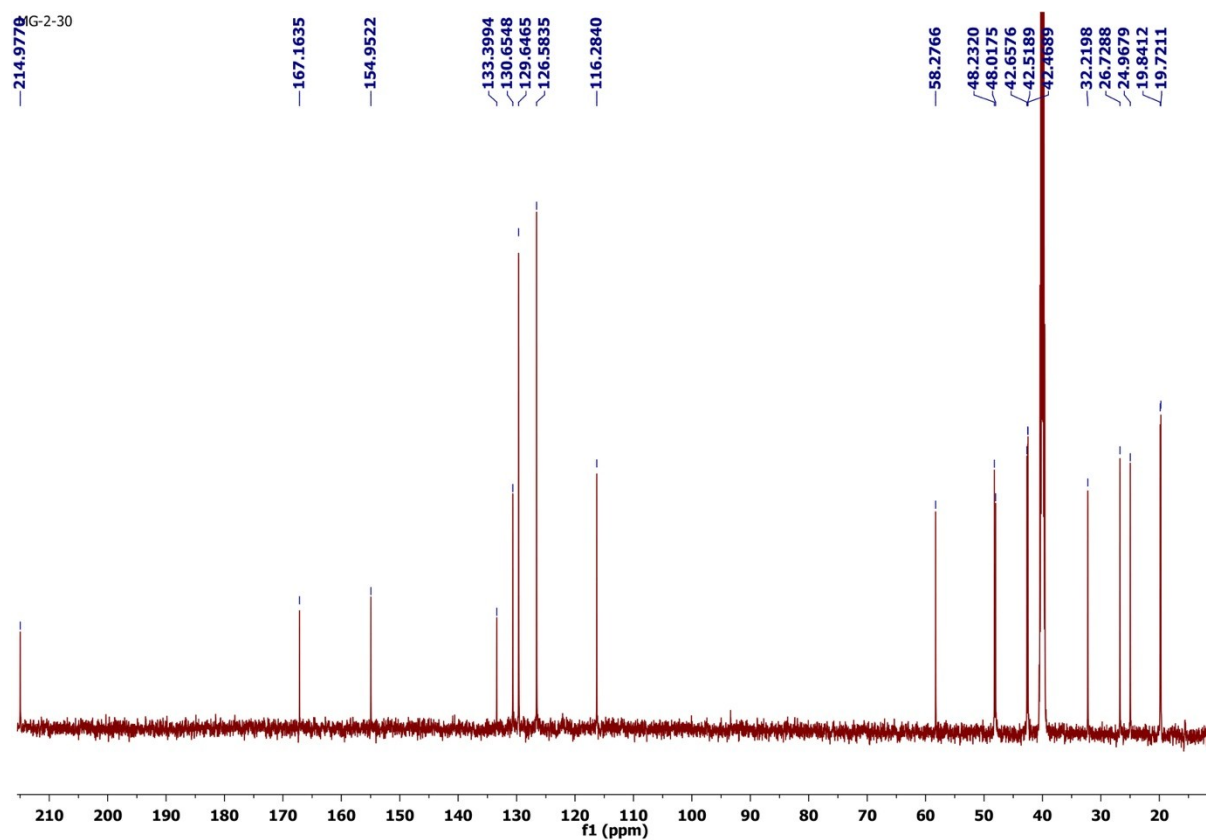
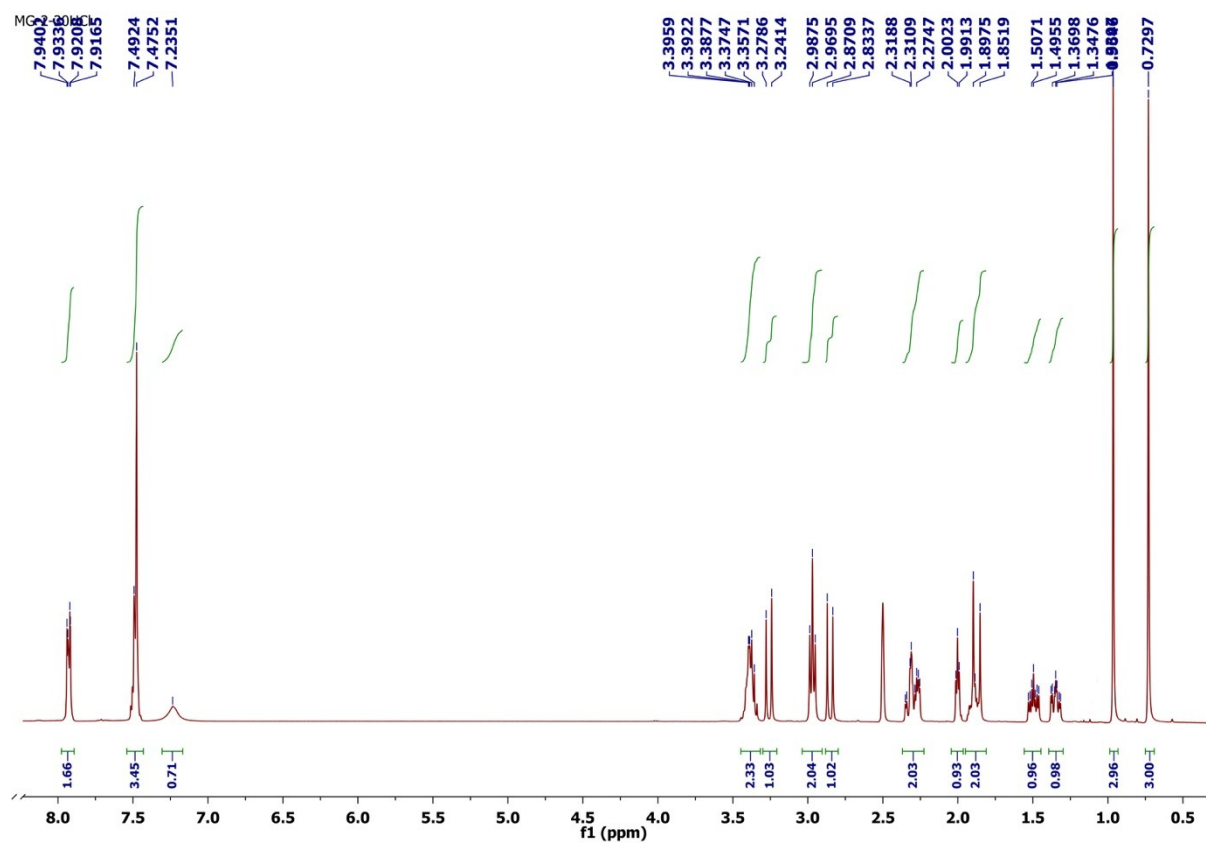


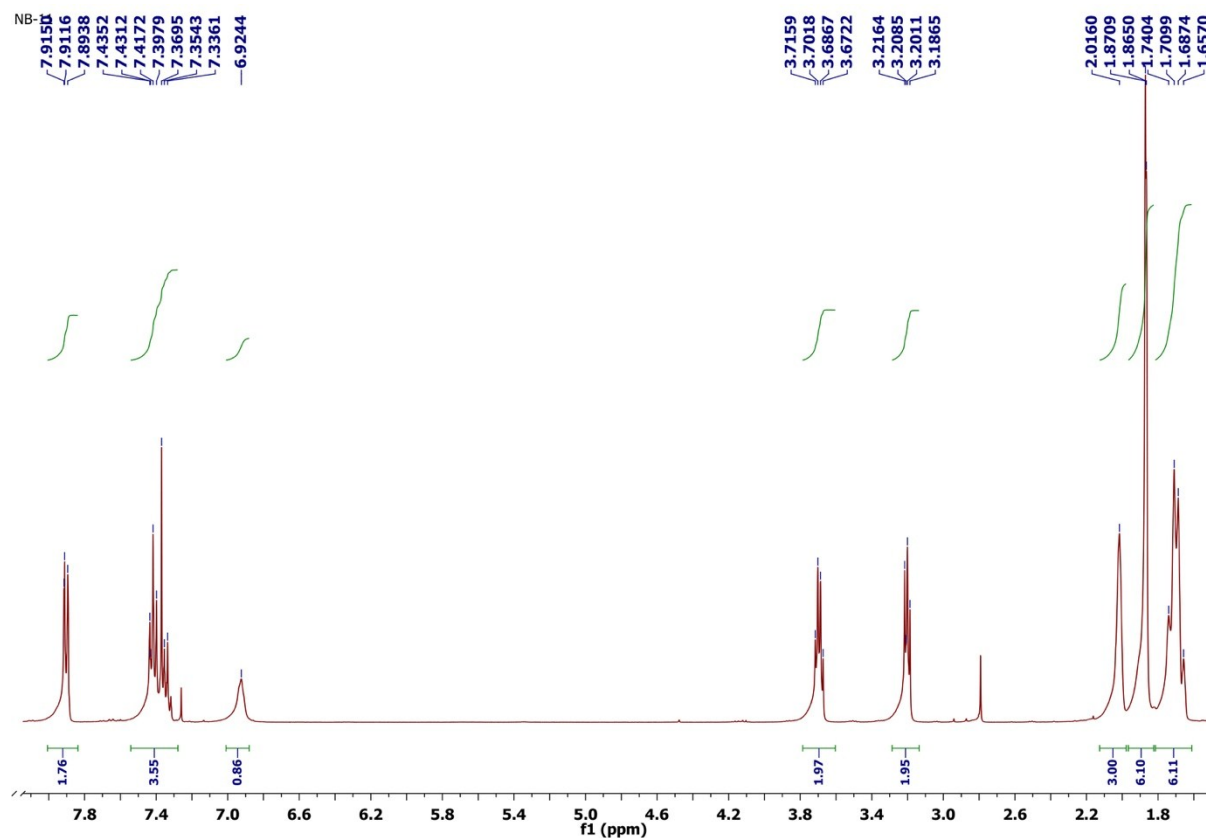


^1H NMR (400 MHz, CDCl_3) of *N*-[2-(2-Phenylthiazol-4-yl)ethyl](1-tricyclo[3.3.1.1^{3,7}]decane)carboxamide (**4a**)

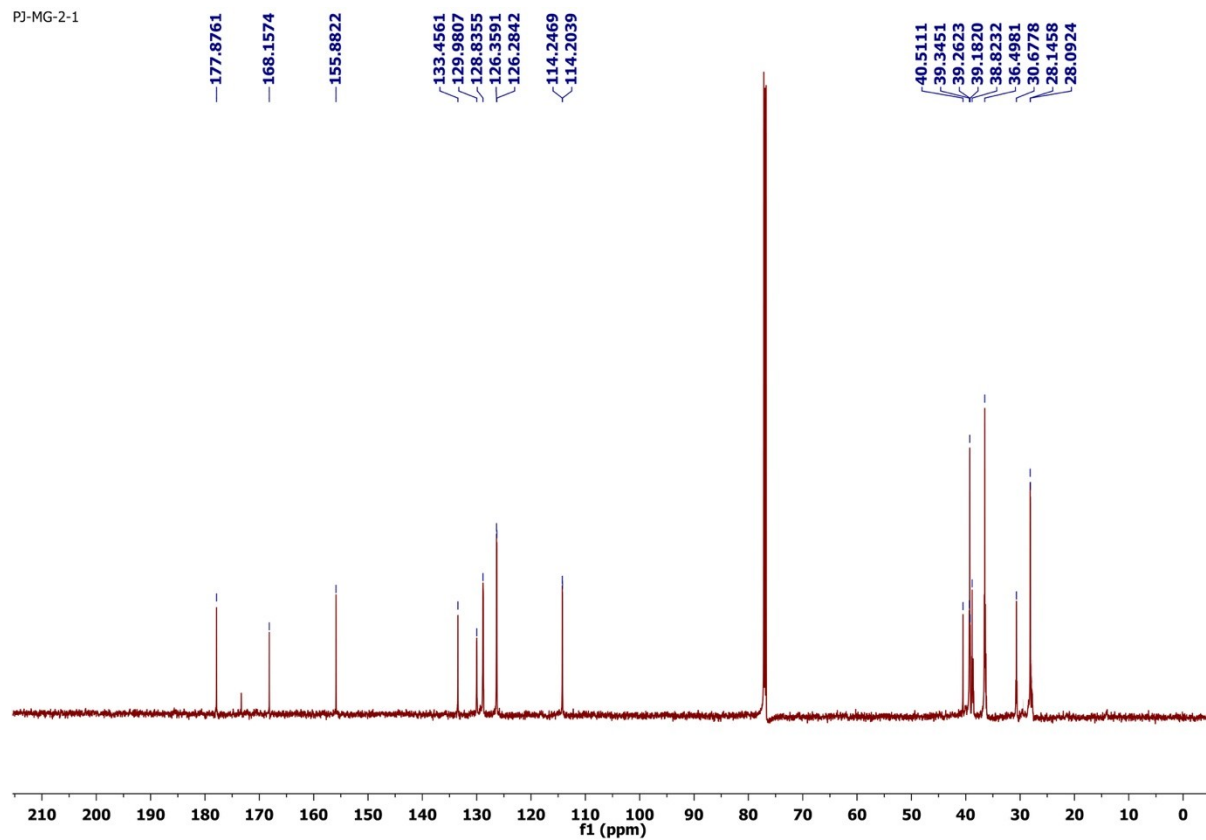


^{13}C NMR (150 MHz, CDCl_3) of *N*-[2-(2-phenylthiazol-4-yl)ethyl](1-tricyclo[3.3.1.1^{3,7}]decane)carboxamide (**4a**)





^1H NMR (400 MHz, CDCl_3) of *N*-[2-(4-Phenylthiazol-2-yl)ethyl](1-tricyclo[3.3.1.1^{3,7}]decanecarboxamide) (**4c**)



^{13}C NMR (150 Hz, CDCl_3) of *N*-[2-(4-Phenylthiazol-2-yl)ethyl](1-tricyclo[3.3.1.1^{3,7}]decanecarboxamide) (**4c**)

