



Article

Synthesis, *In Vitro* and *In Silico* Anticancer Activity of New 4-Methylbenzamide Derivatives Containing 2,6-Substituted Purines as Potential Protein Kinases Inhibitors

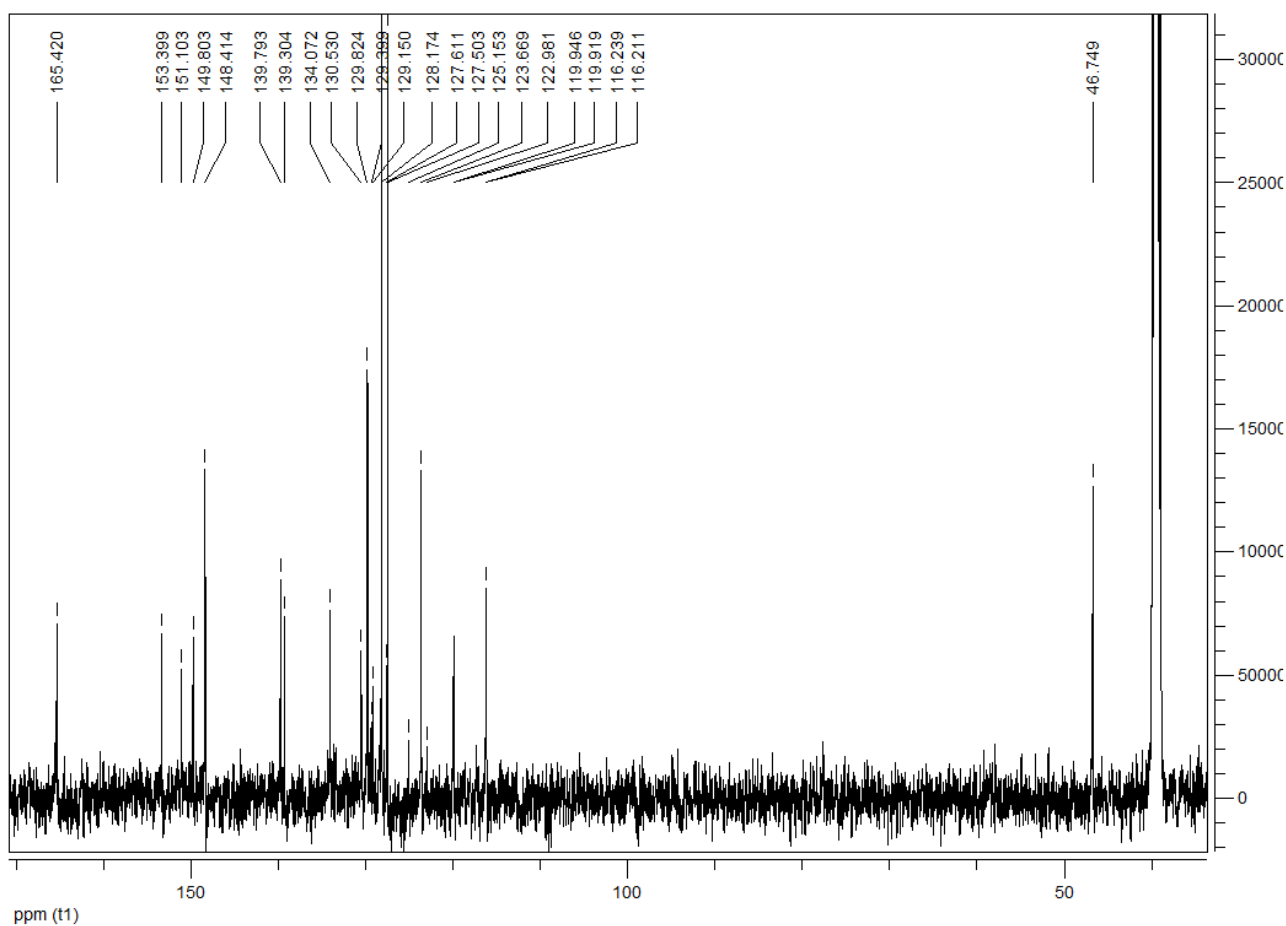
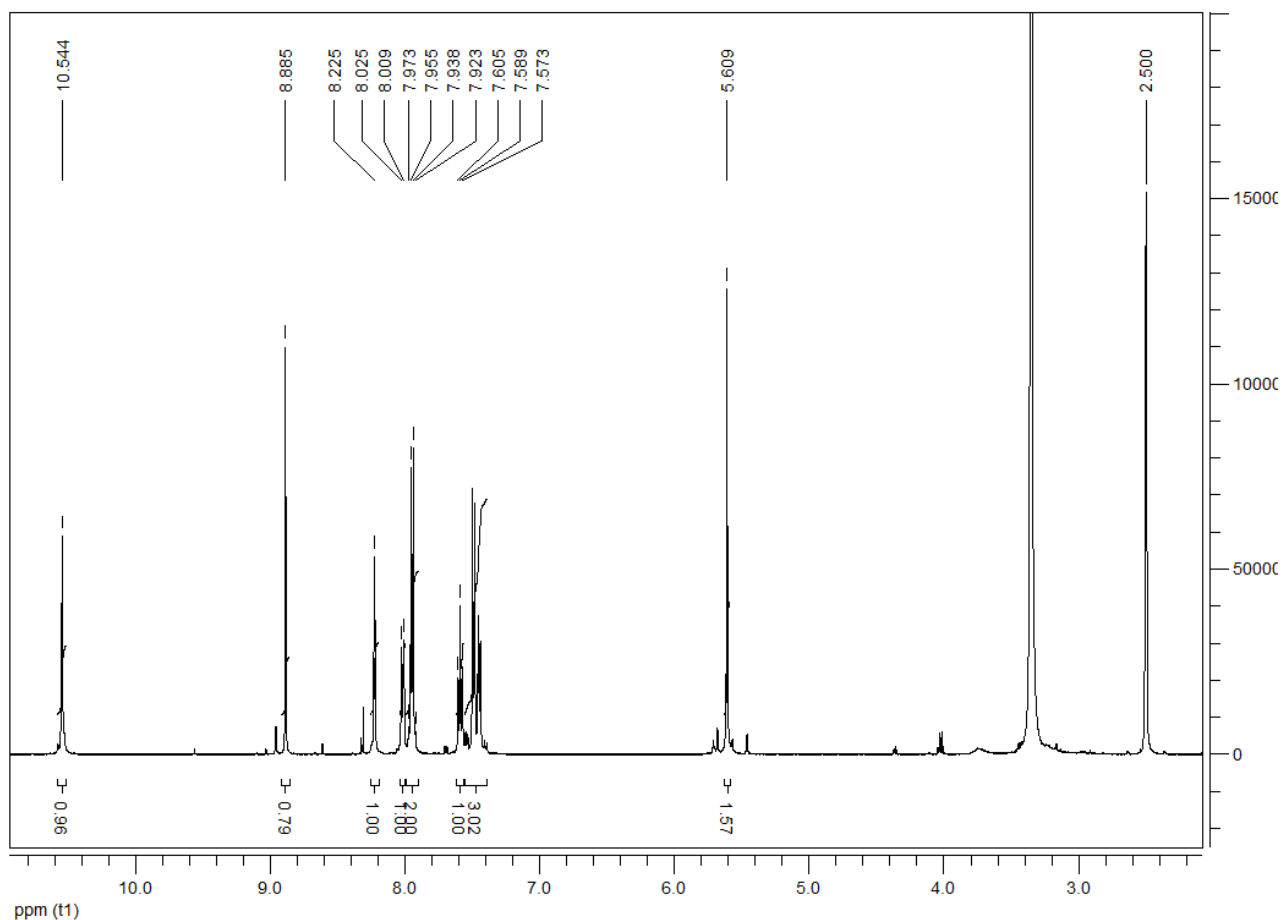
Elena Kalinichenko ^{1*}, Aliaksandr Faryna ¹, Tatyana Bozhok ¹, Alesya Panibrat ¹

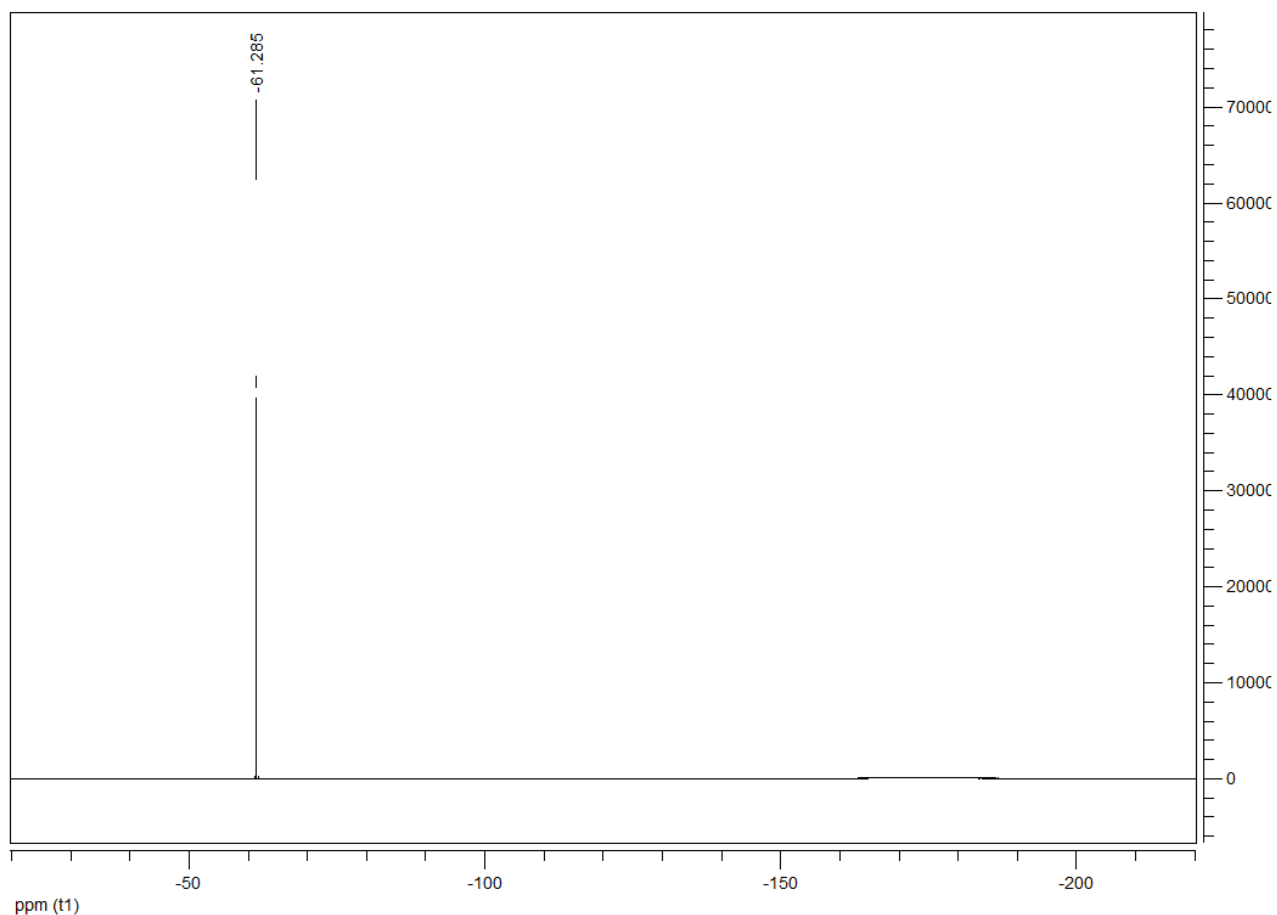
¹ Institute of Bioorganic Chemistry, National Academy of Sciences of Belarus, BY-220141, 5/2 Academician V.F. Kuprevich Street, Minsk, Belarus; info@iboch.by

* Correspondence: kalinichenko@iboch.by

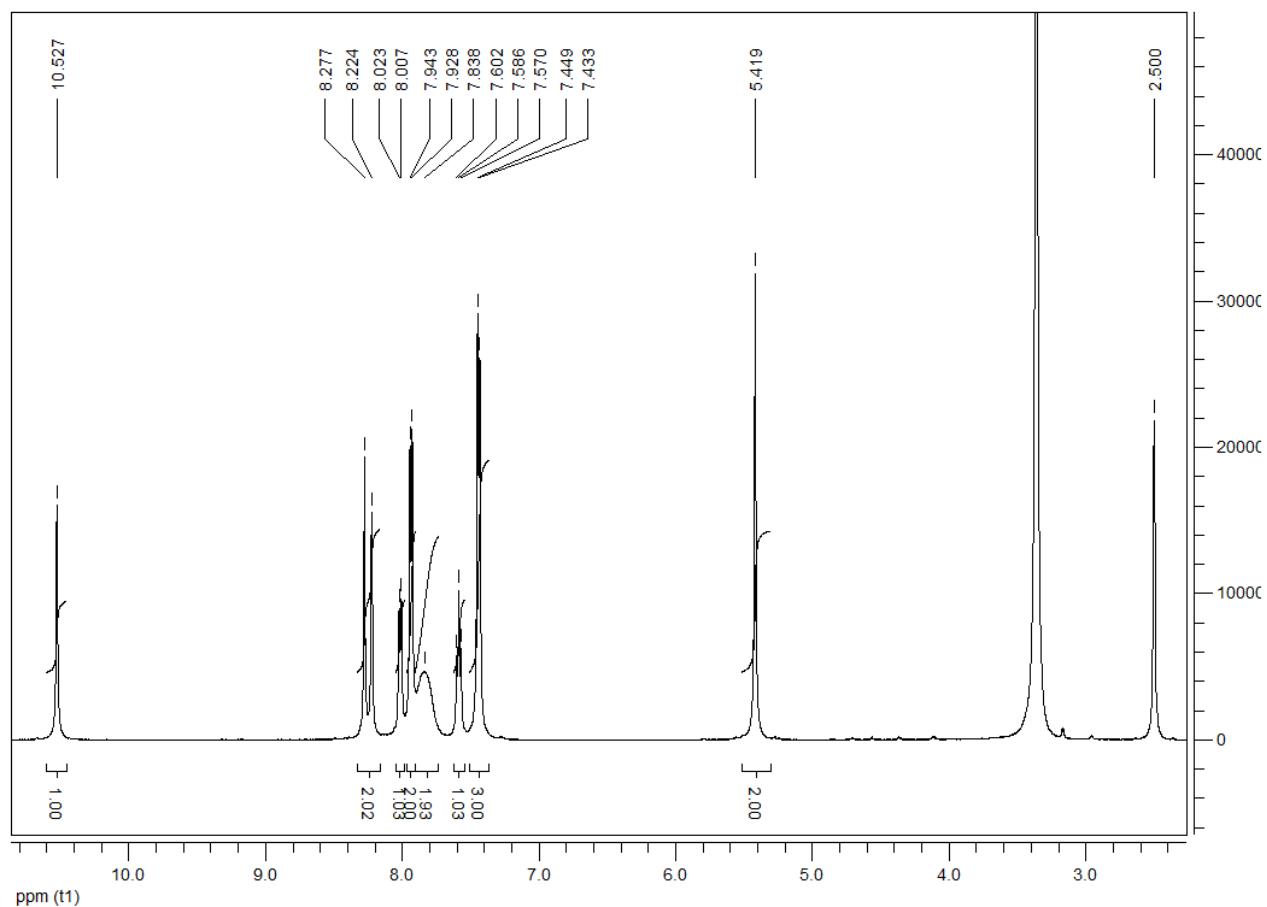
Spectral data

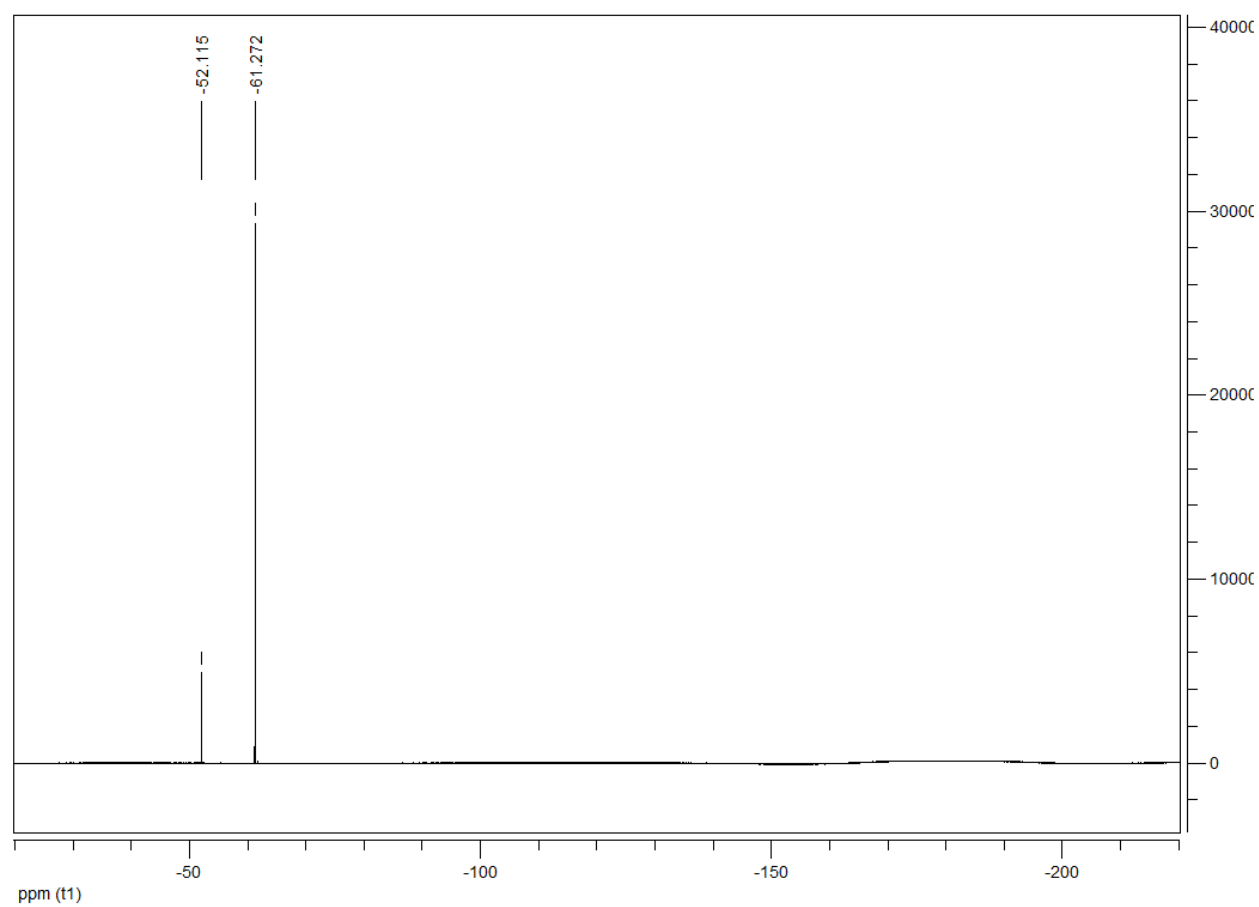
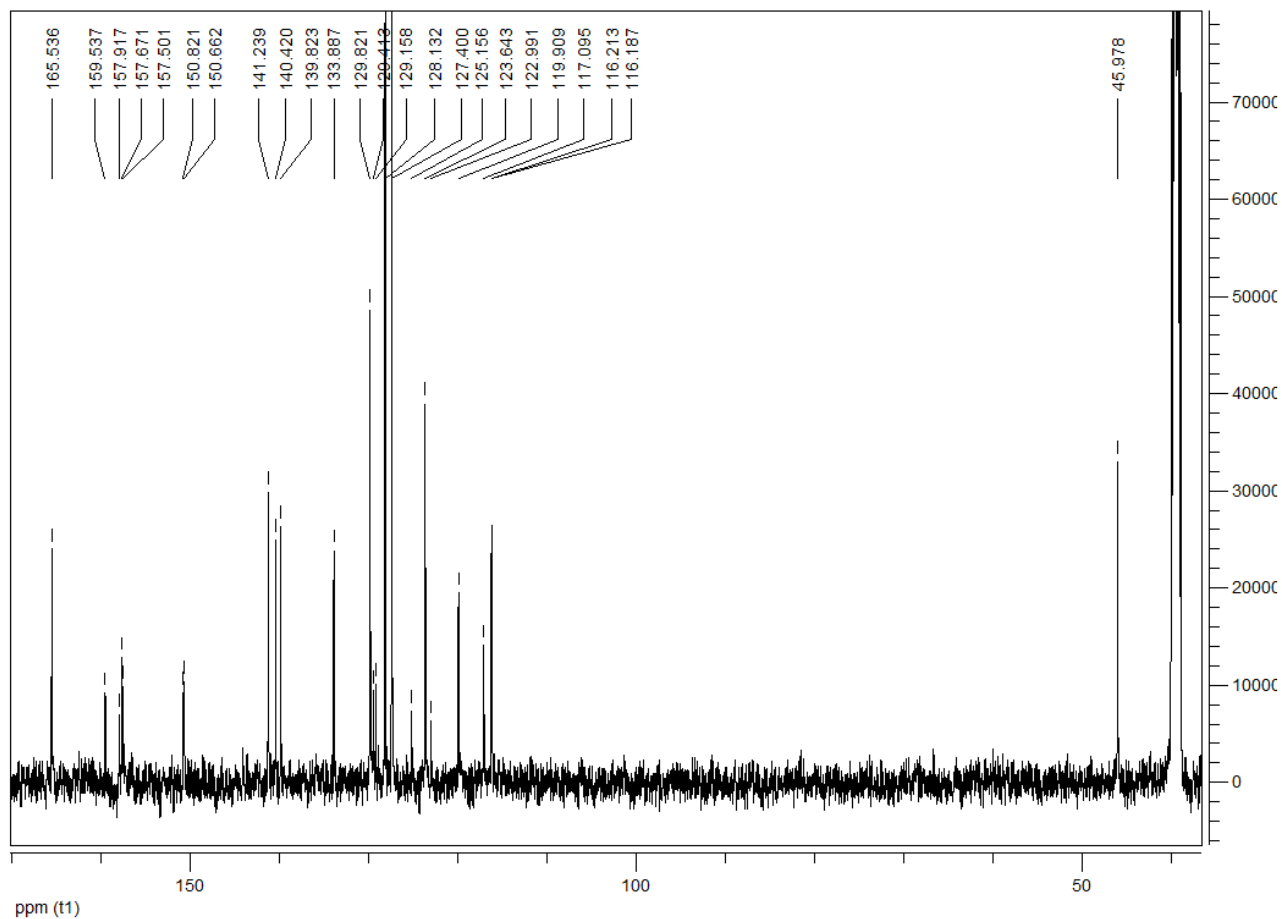
^1H , ^{13}C and ^{19}F NMR spectra of compound 7 (DMSO- d_6),
4-((2,6-dichloro-9H-purin-9-yl)methyl)-N-(3-(trifluoromethyl)phenyl)benzamide:



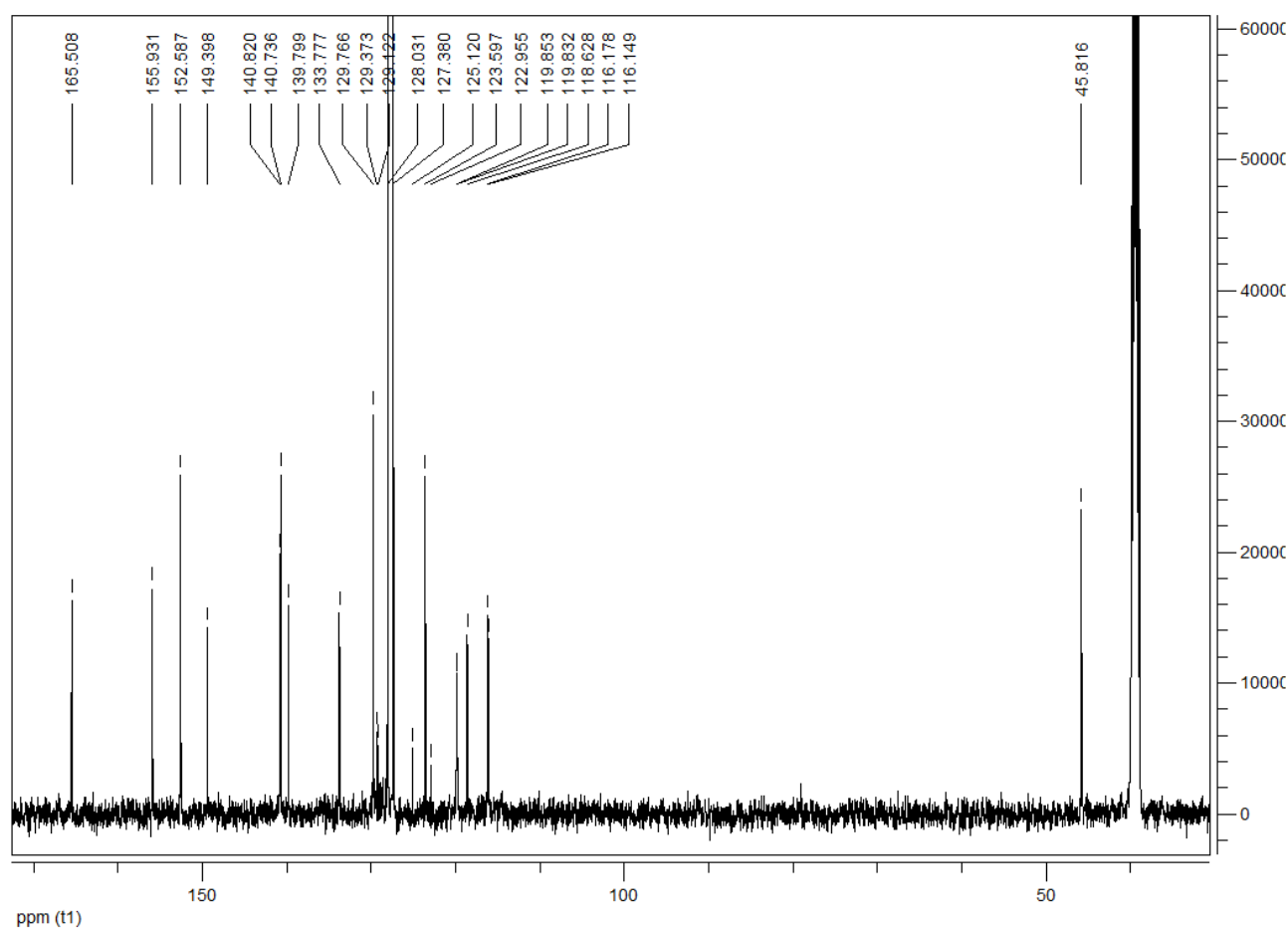
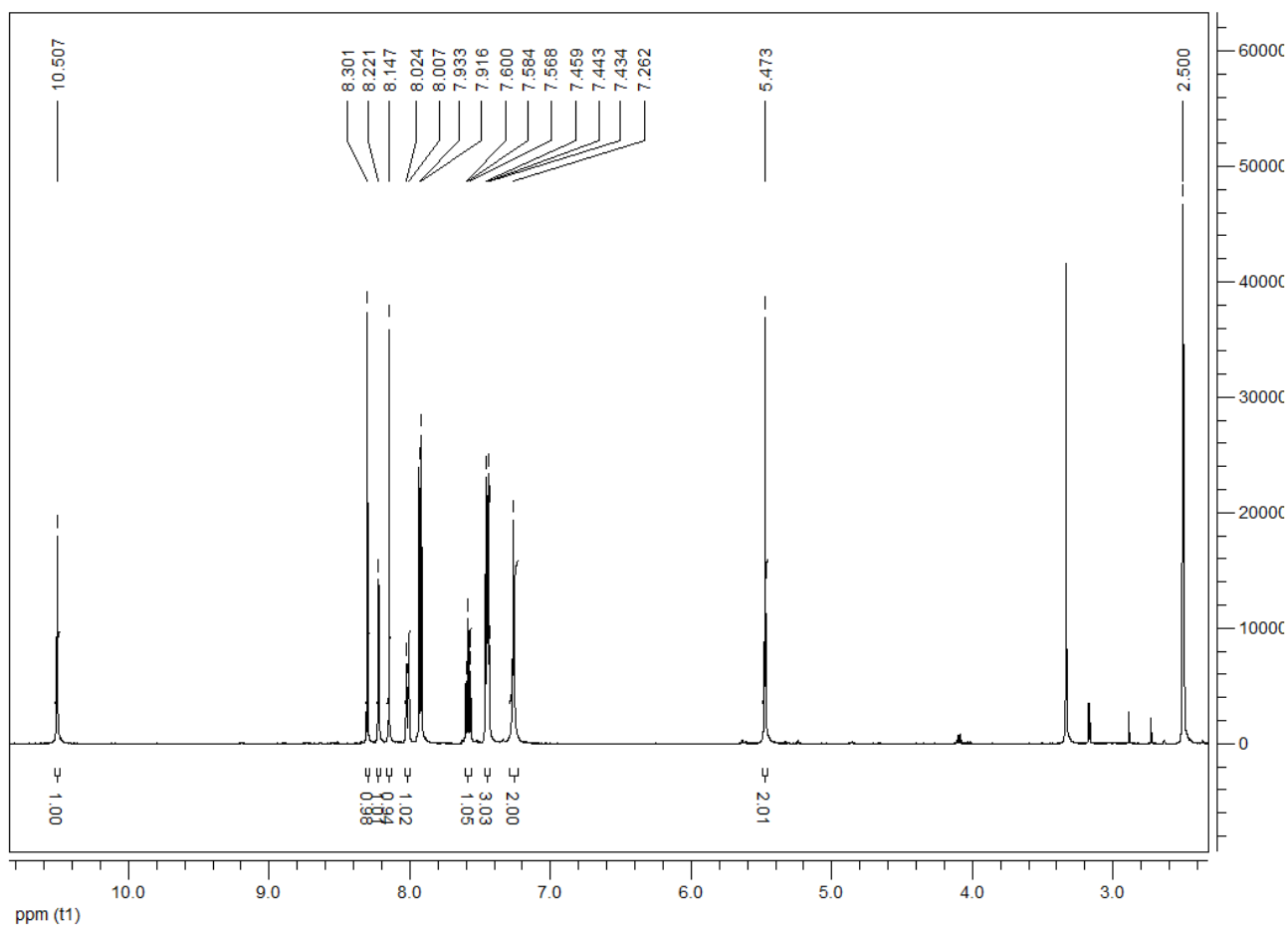


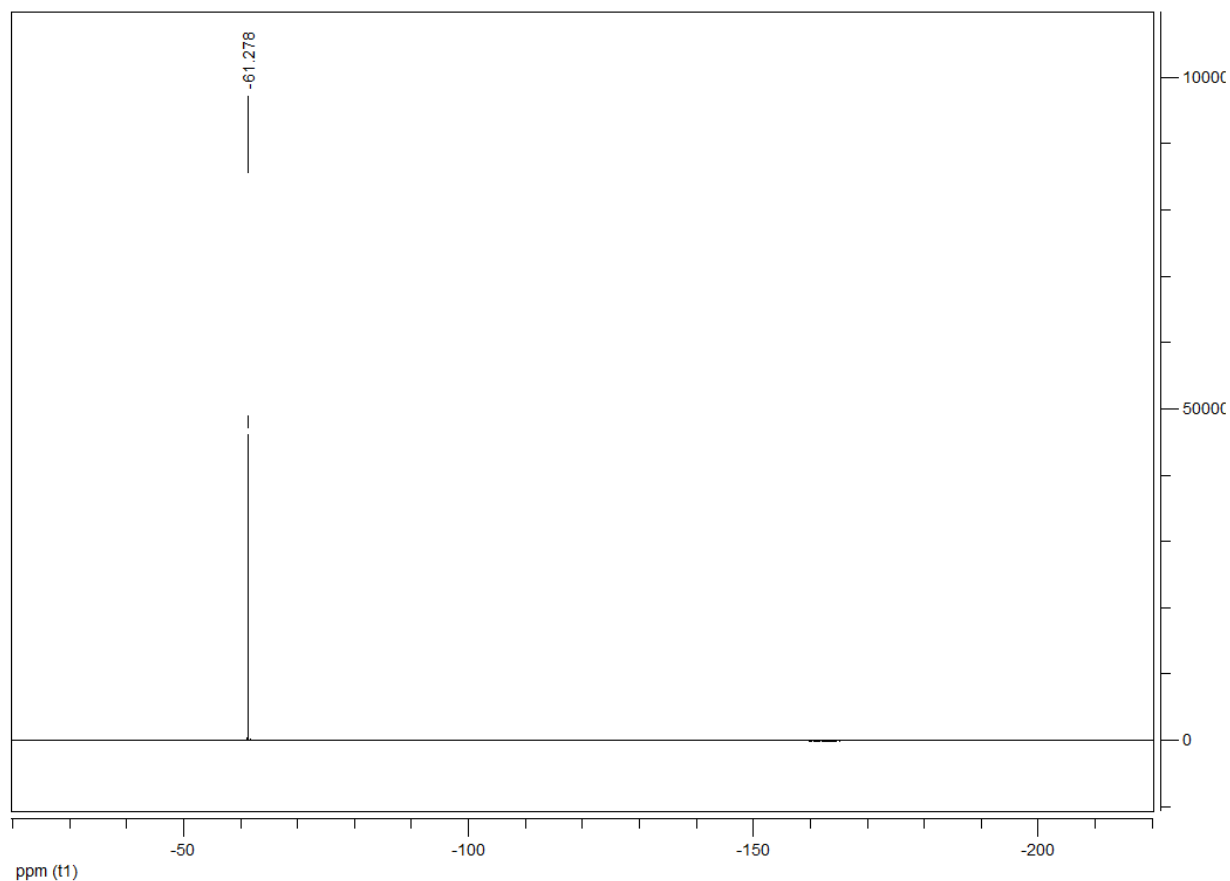
¹H, ¹³C and ¹⁹F NMR spectra of compound 8 (DMSO-d₆),
4-((6-amino-2-fluoro-9H-purin-9-yl)methyl)-N-(3-(trifluoromethyl)phenyl)benzamide:



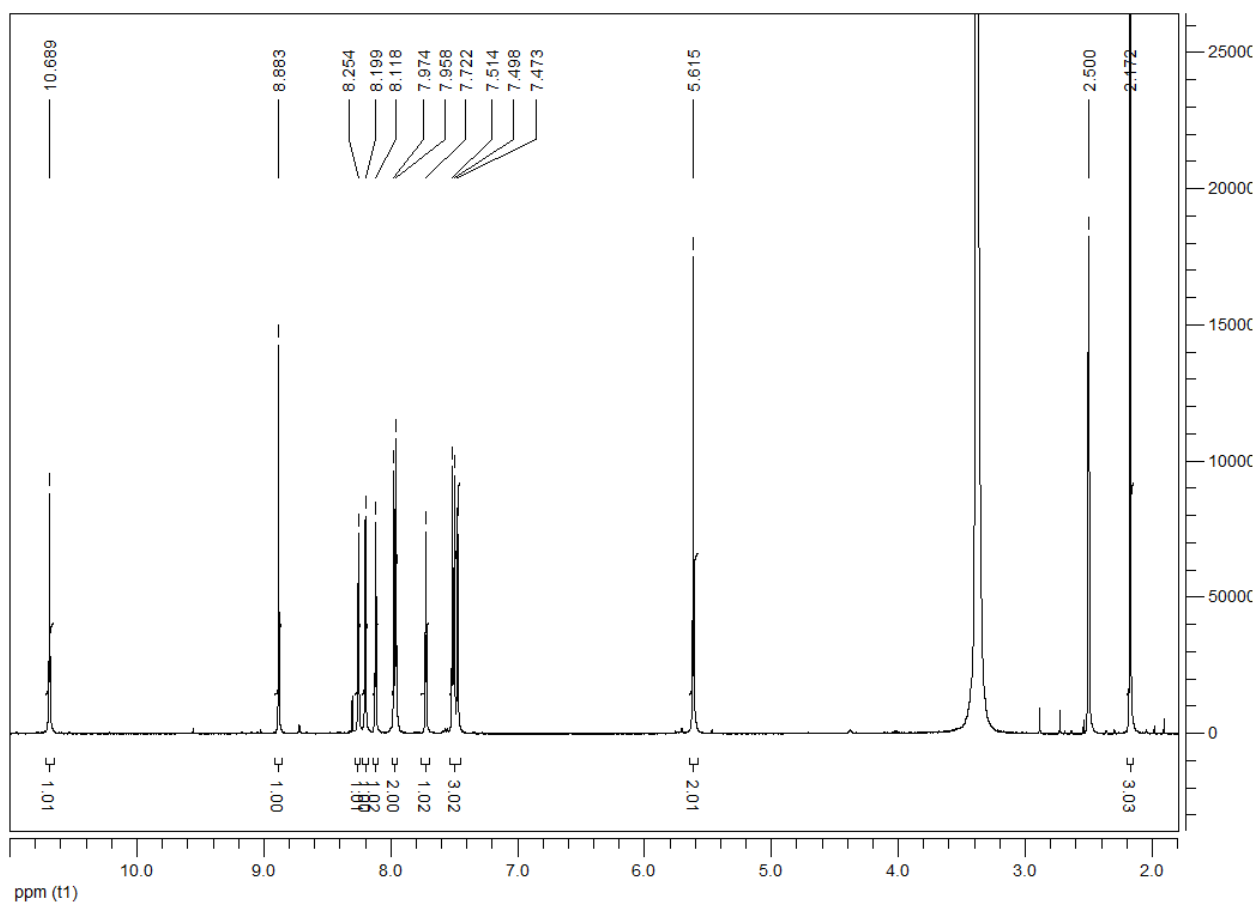


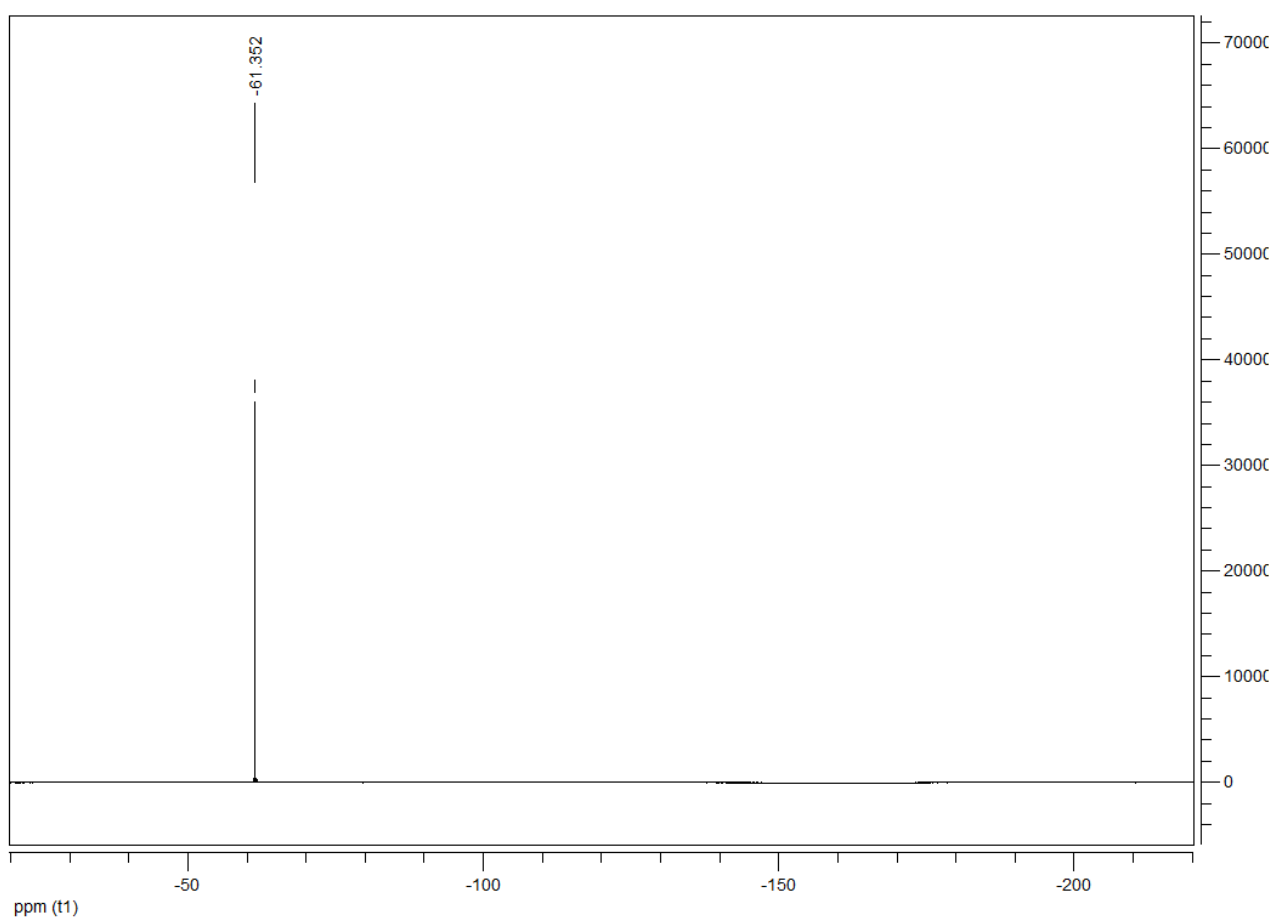
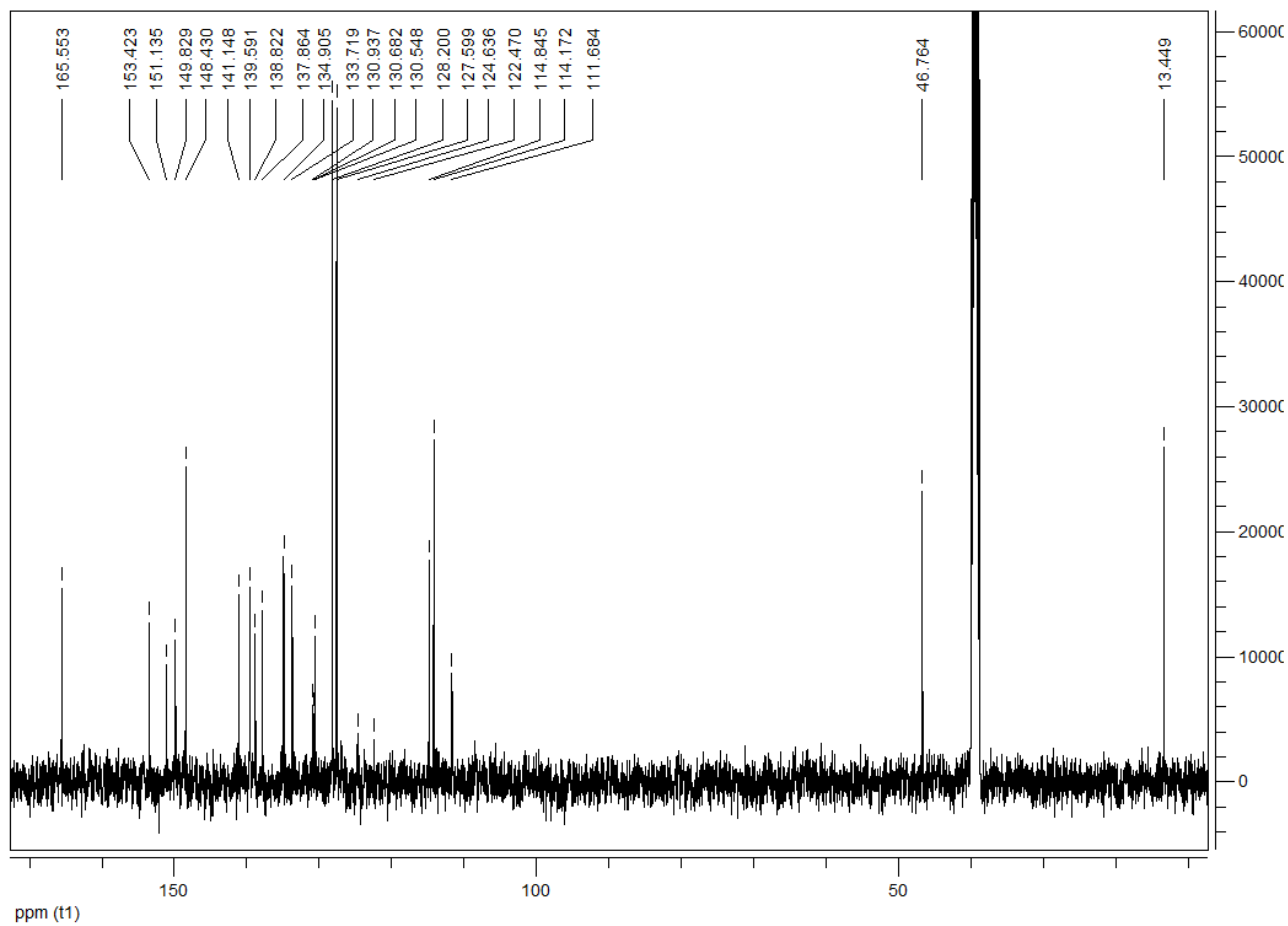
¹H, ¹³C and ¹⁹F NMR spectra of compound **9** (DMSO-d₆),
4-((6-amino-9H-purin-9-yl)methyl)-N-(3-(trifluoromethyl)phenyl)benzamide:



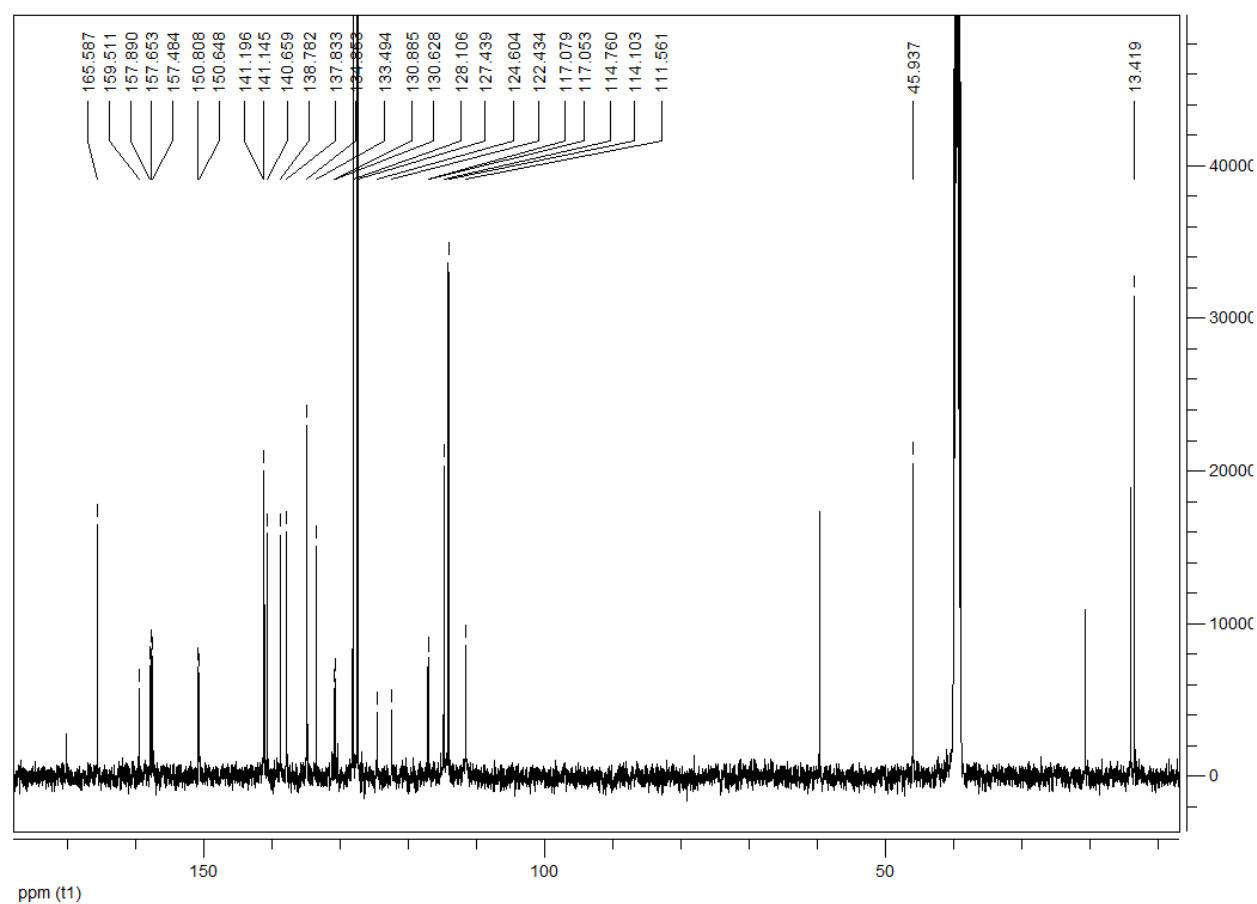
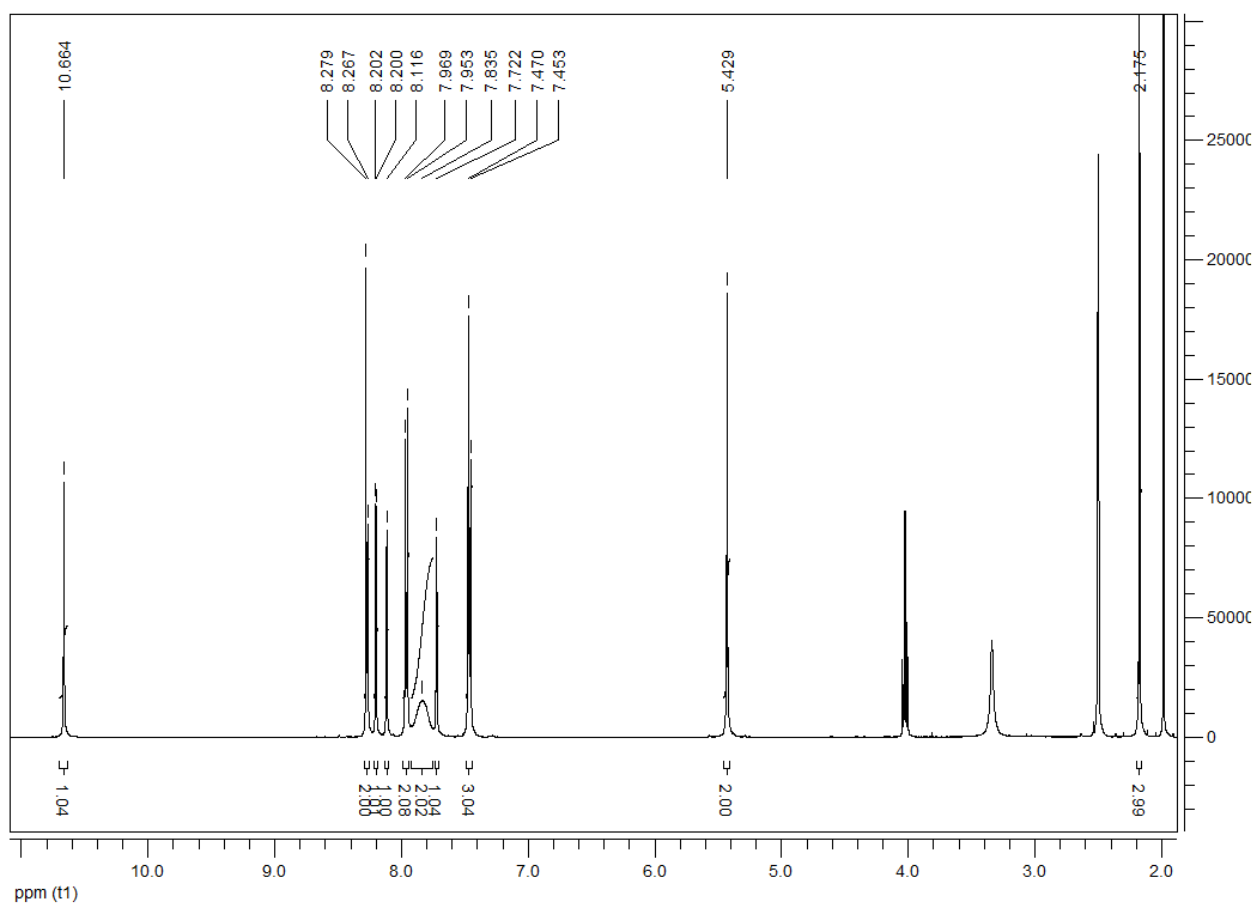


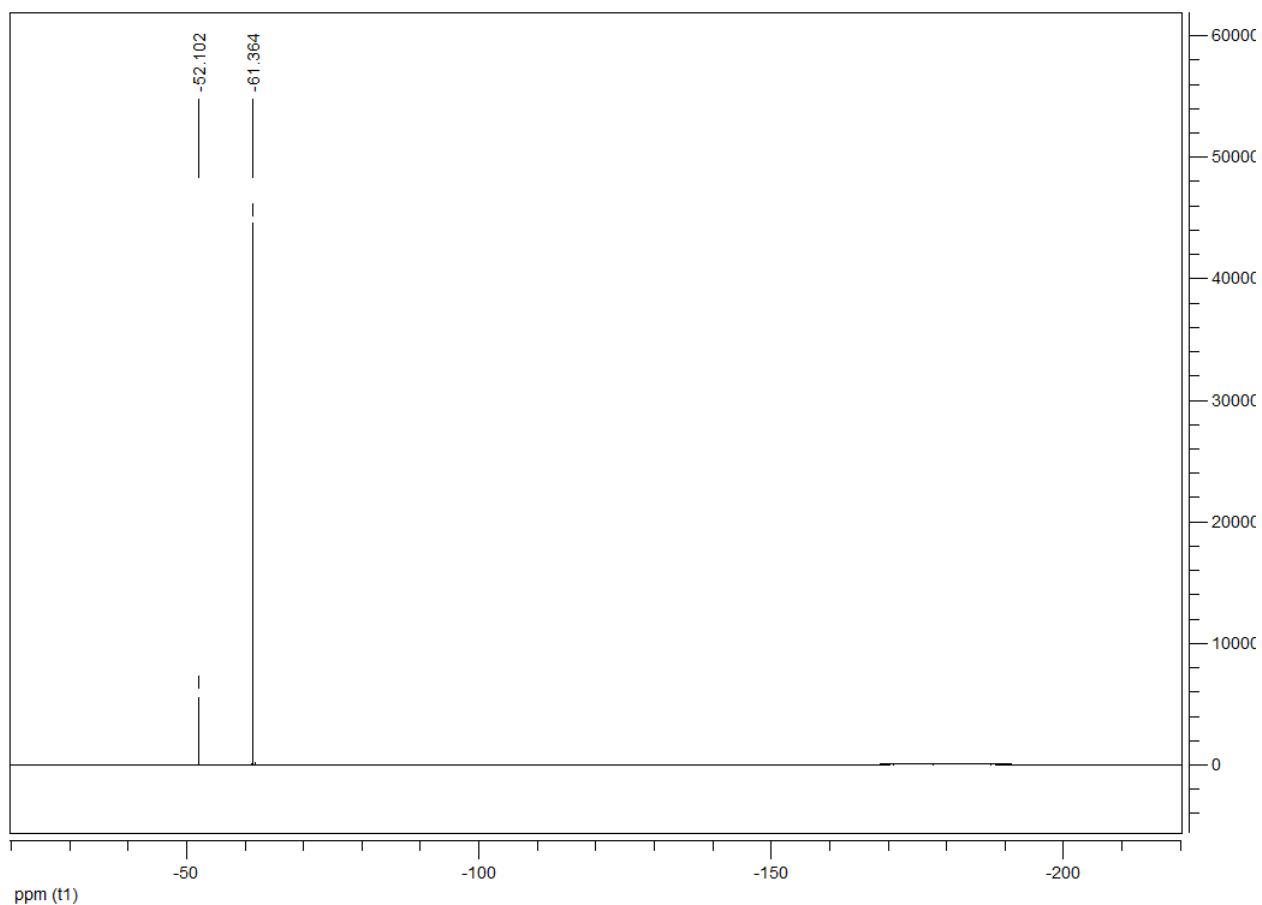
¹H, ¹³C and ¹⁹F NMR spectra of compound 10 (DMSO-d₆),
4-((2,6-dichloro-9H-purin-9-yl)methyl)-N-(3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)-phenyl)benzamide:



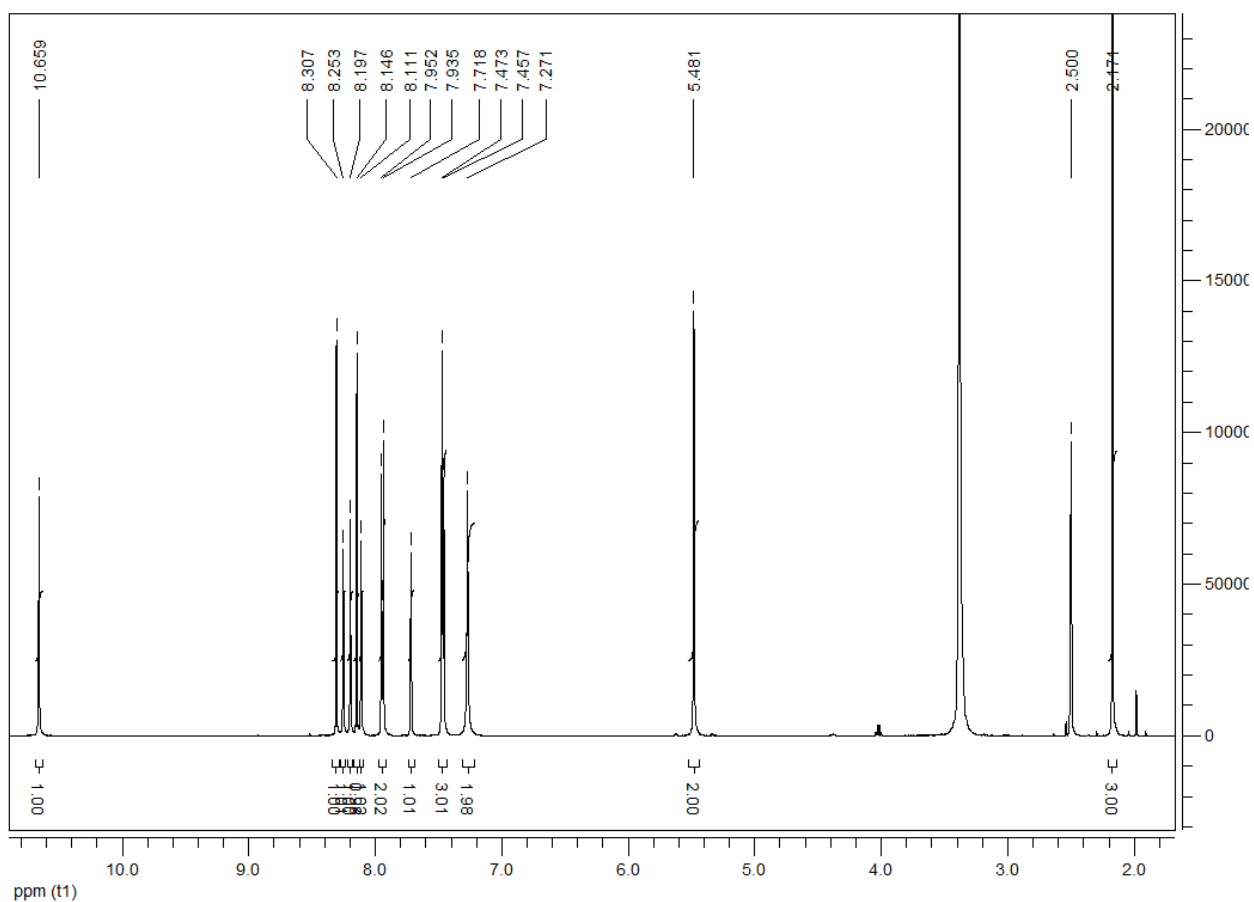


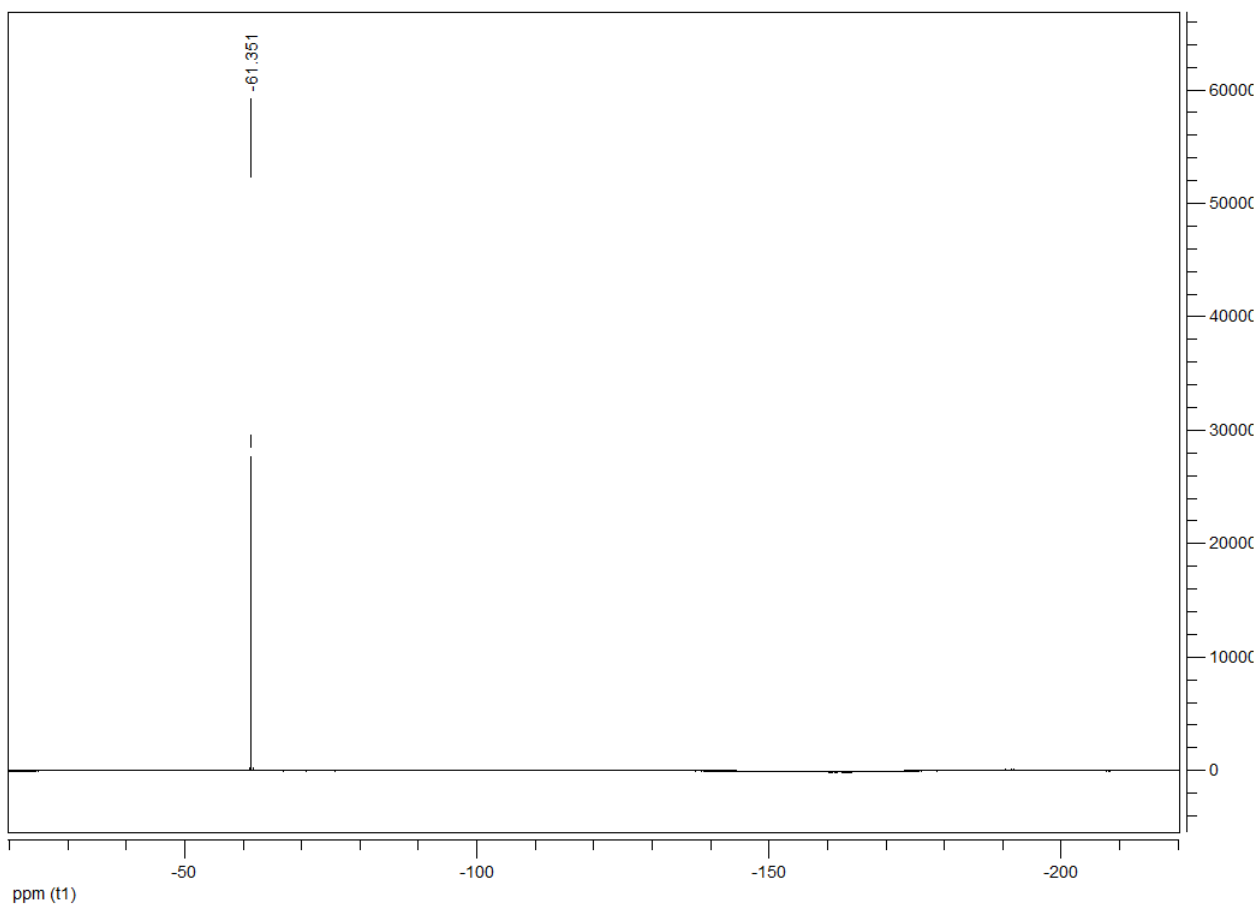
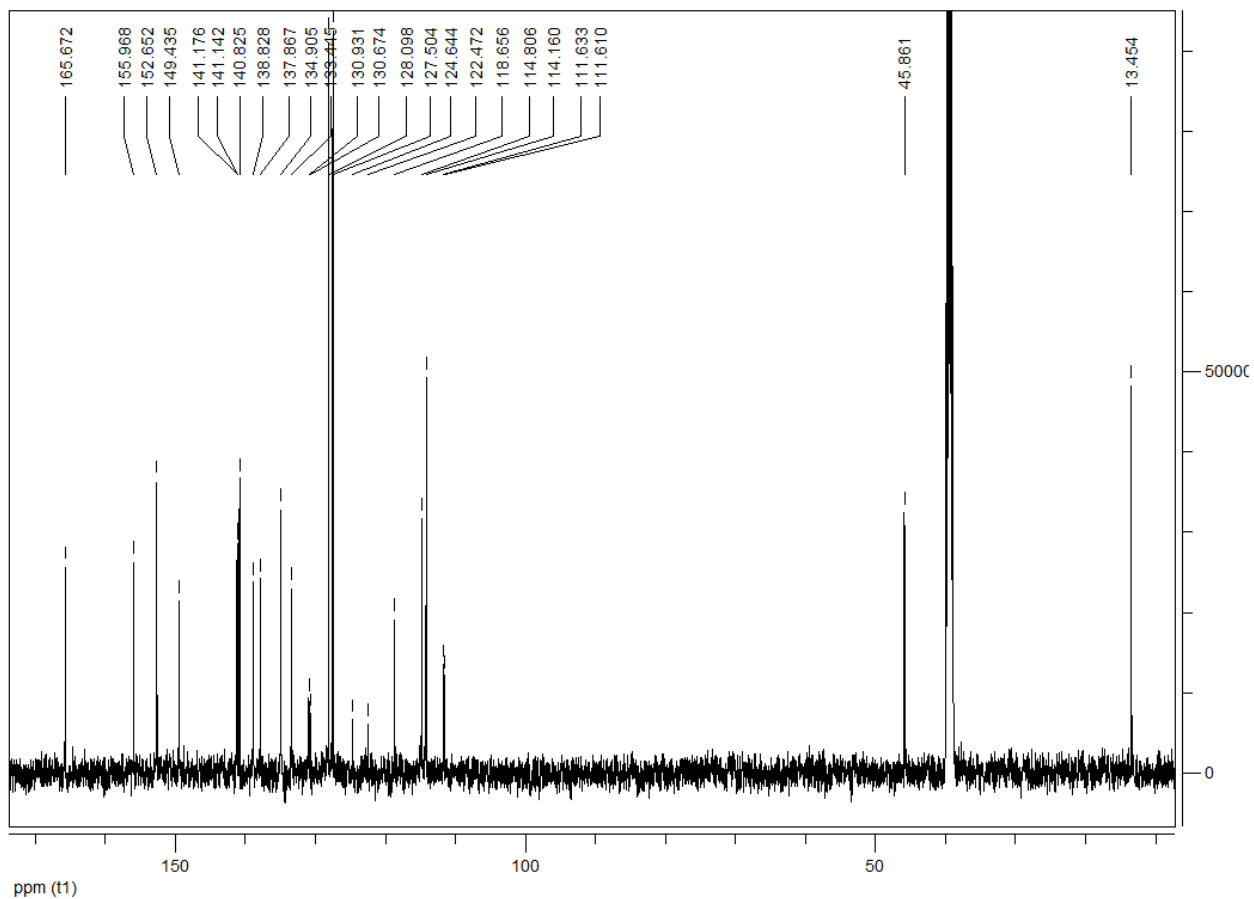
¹H, ¹³C and ¹⁹F NMR spectra of compound **11** (DMSO-d₆),
4-((6-amino-2-fluoro-9H-purin-9-yl)methyl)-N-(3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)phenyl)benzamide:



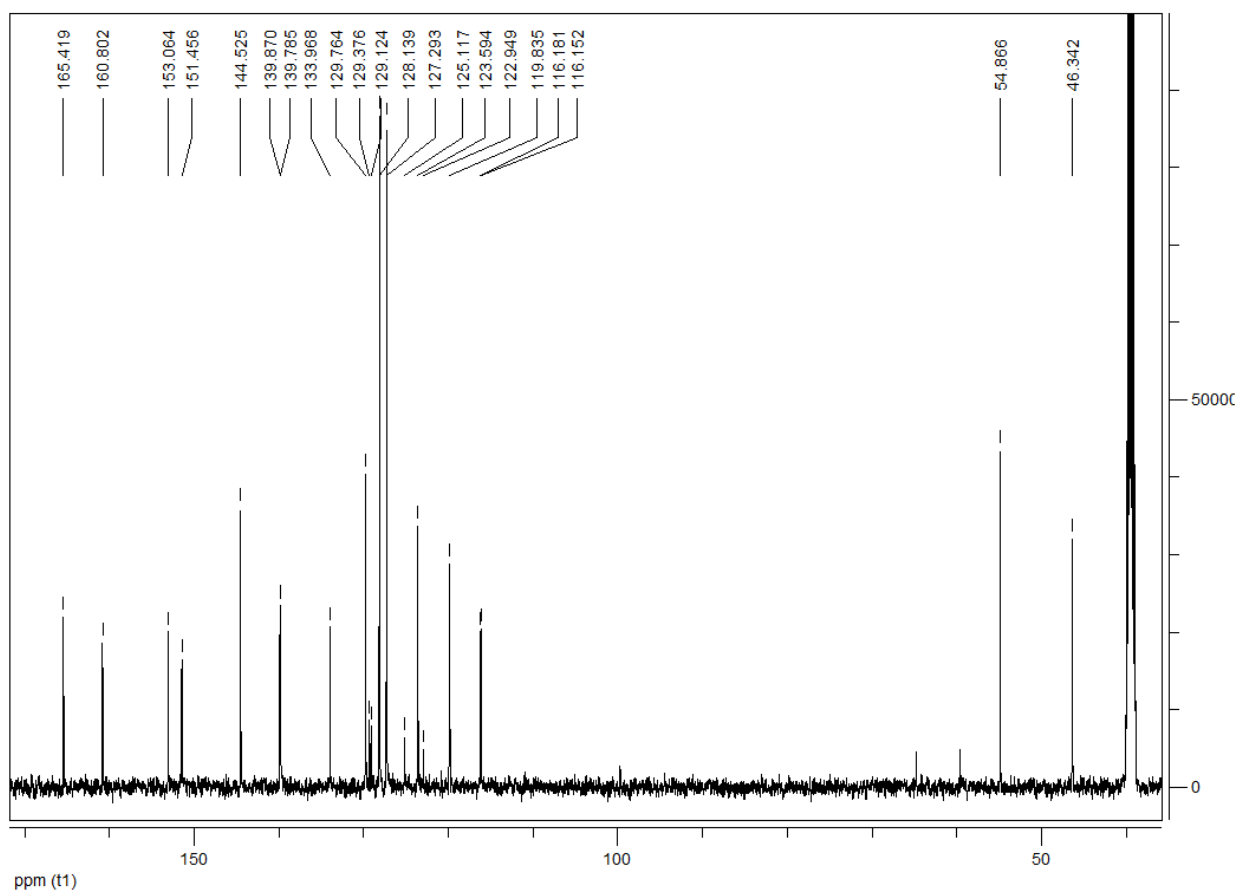
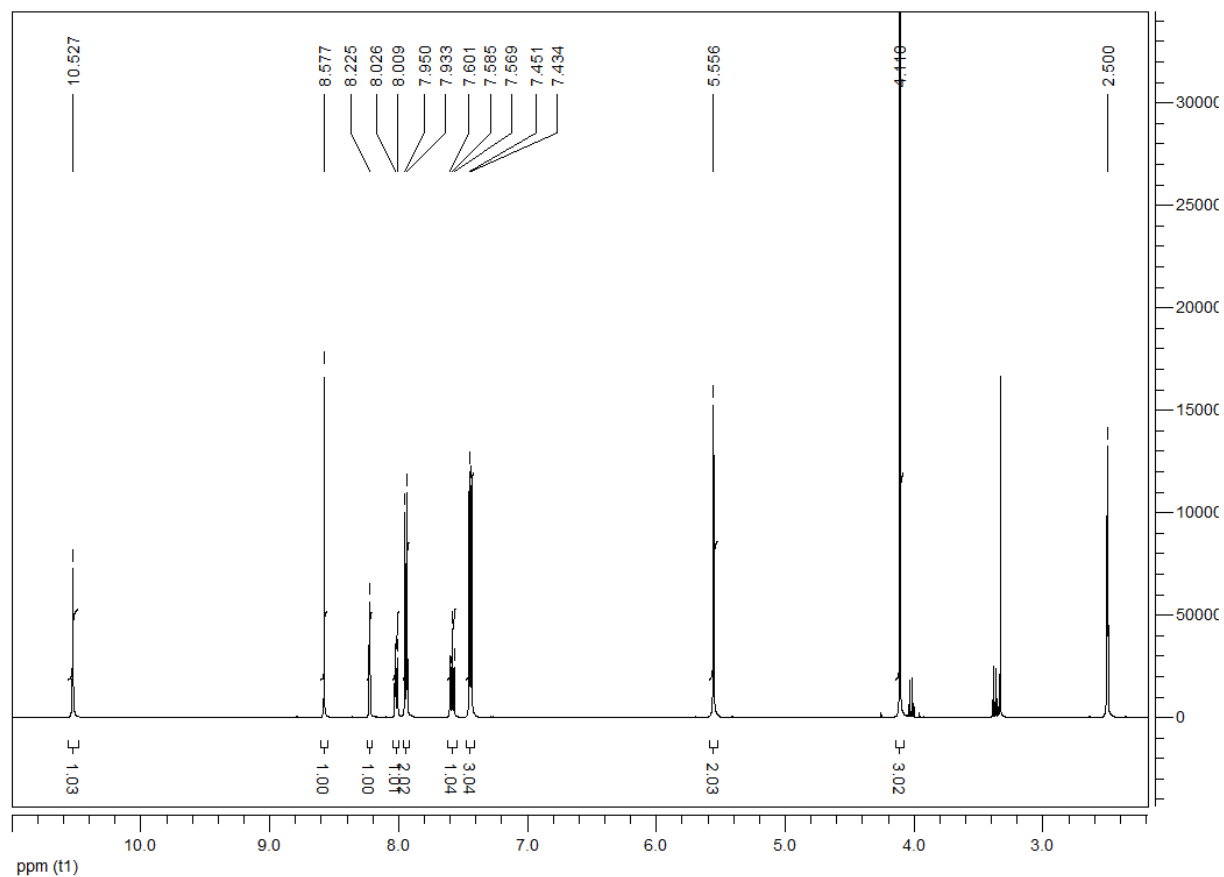


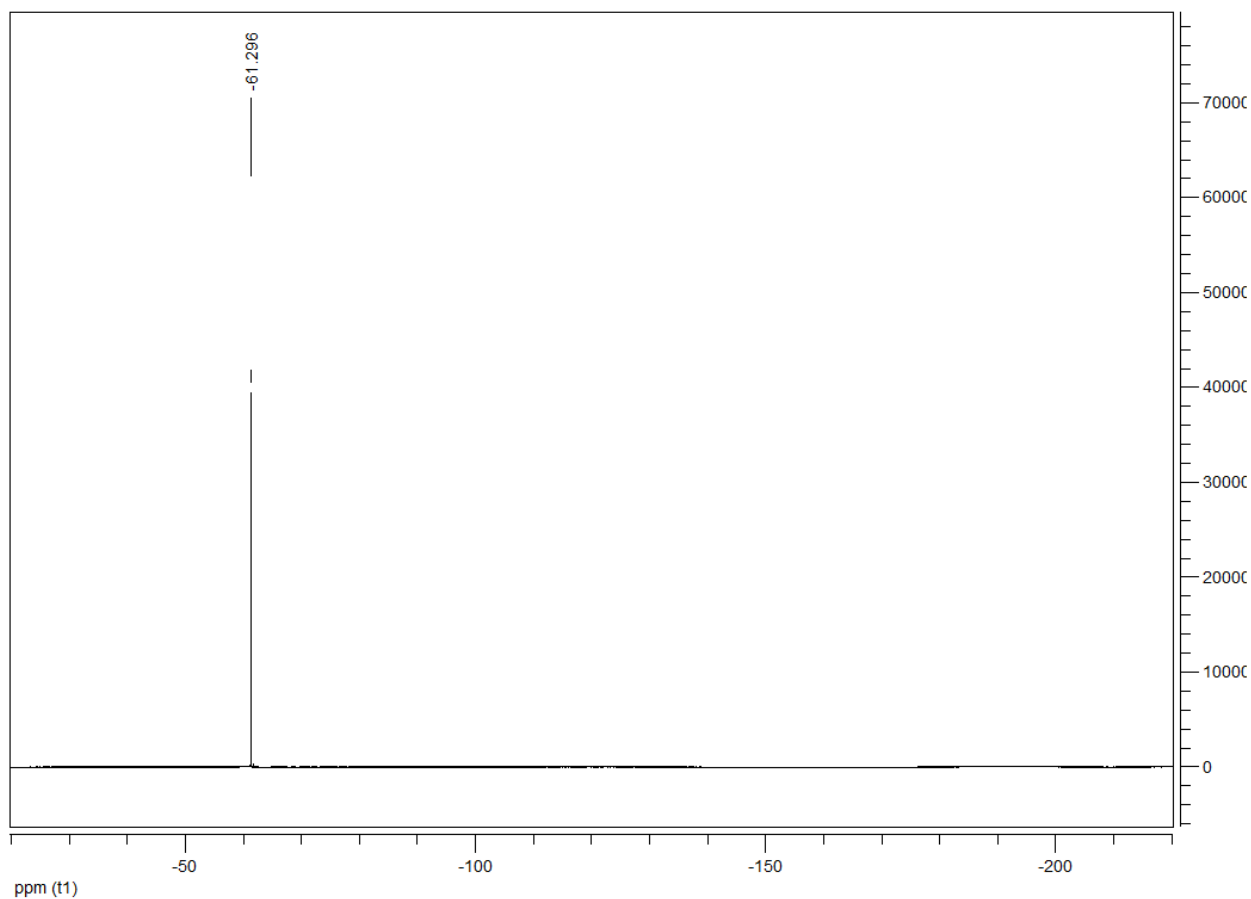
¹H, ¹³C and ¹⁹F NMR spectra of compound **12** (DMSO-d₆),
4-((6-amino-9H-purin-9-yl)methyl)-N-(3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)phenyl)benzamide:



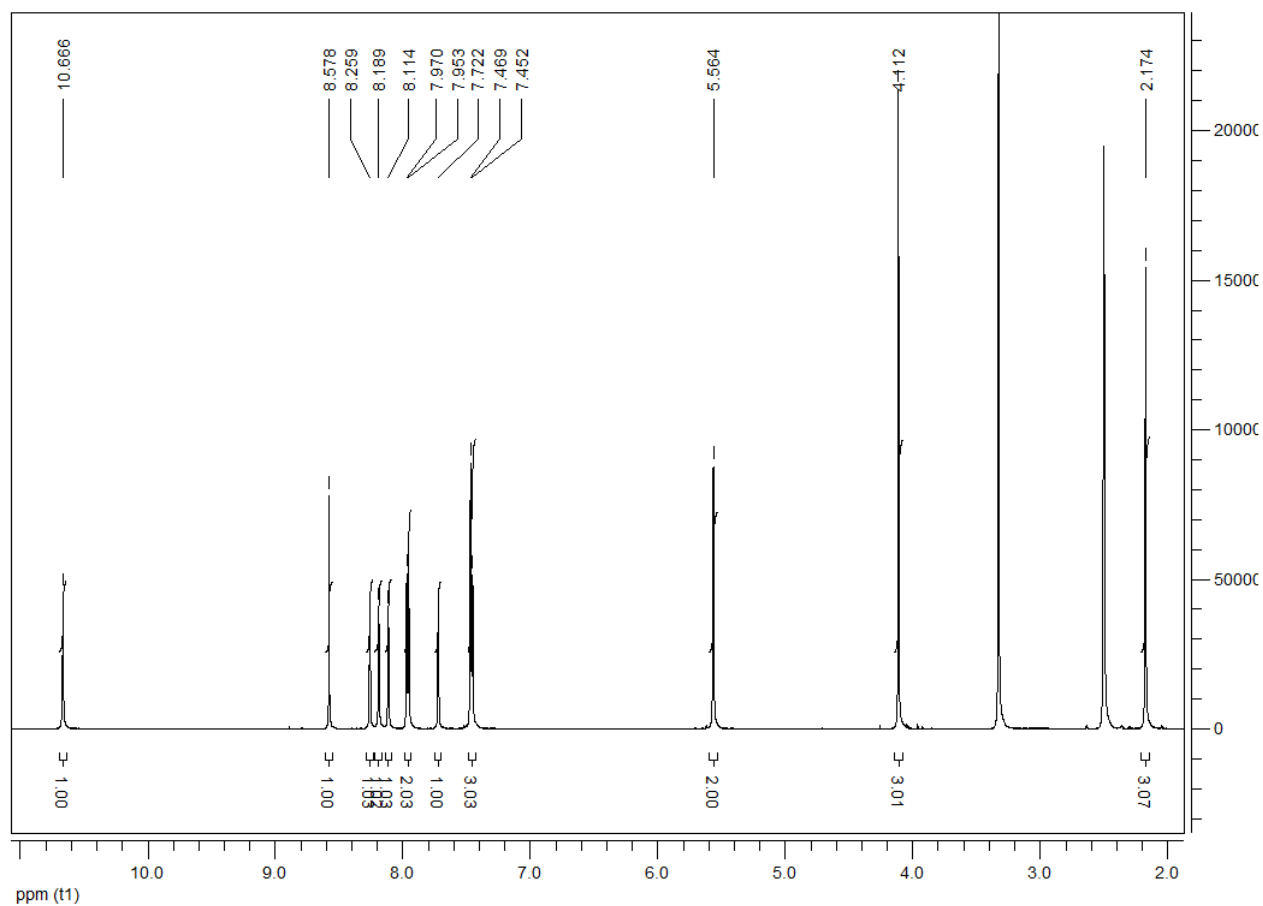


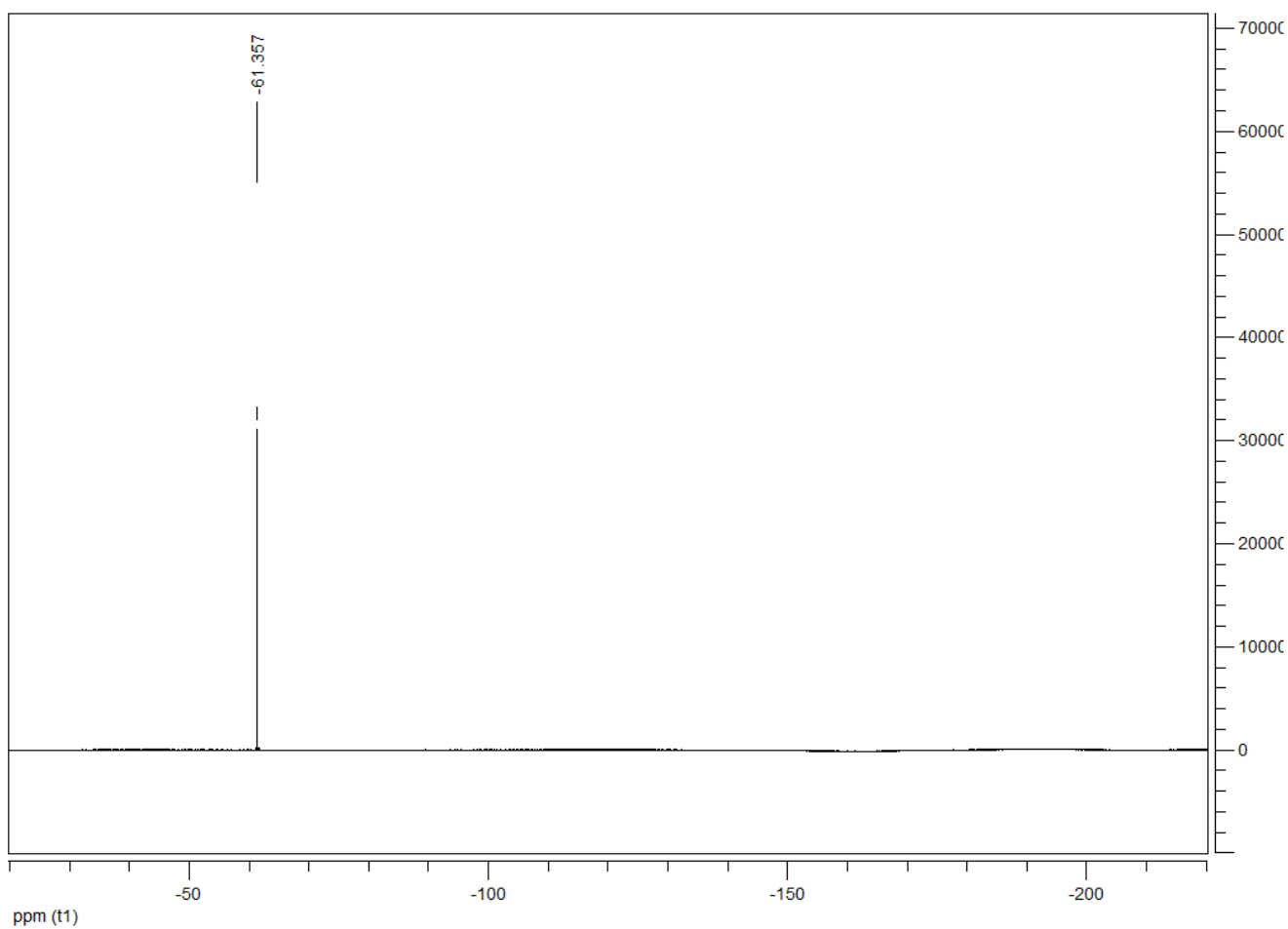
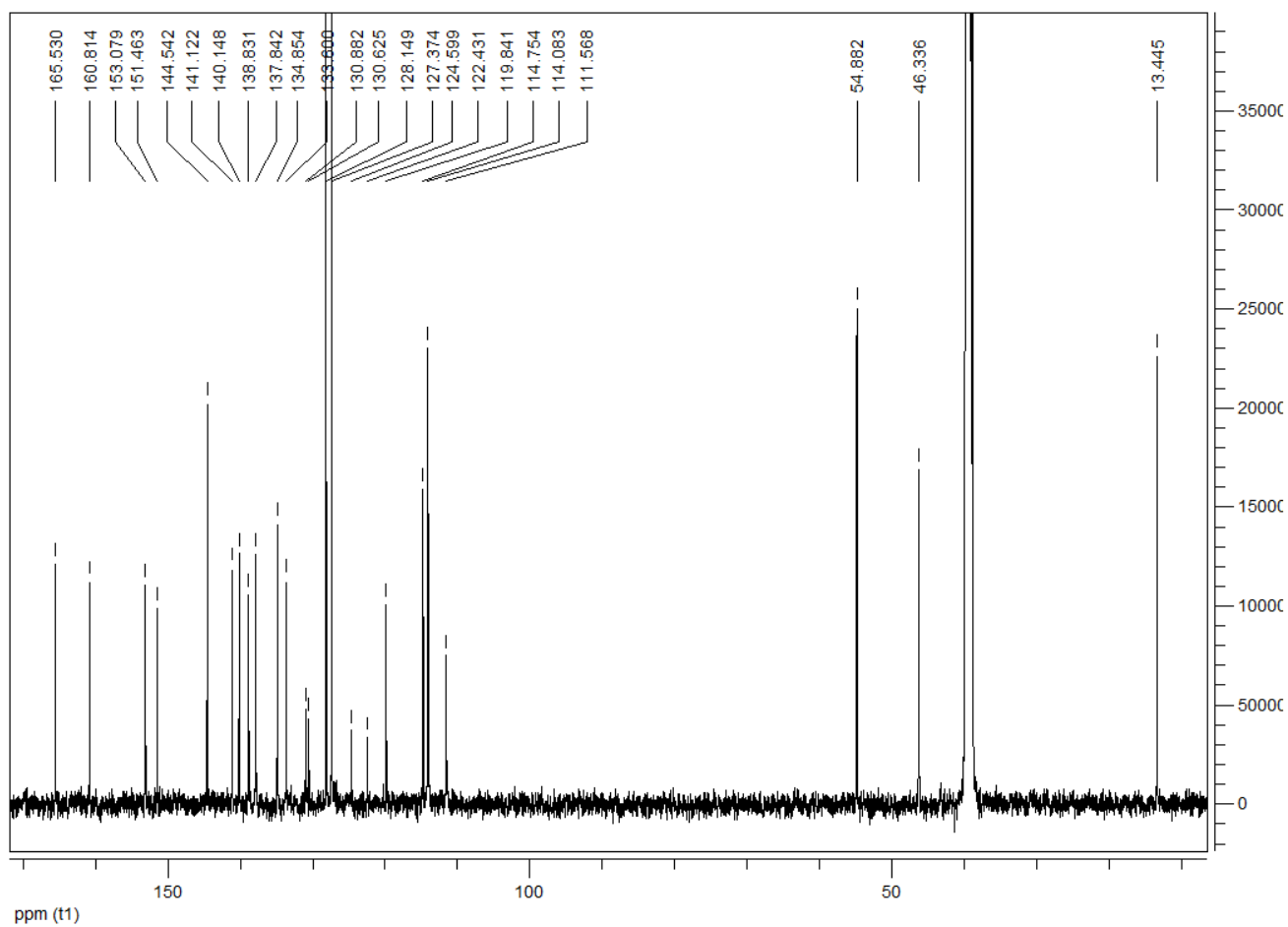
^1H , ^{13}C and ^{19}F NMR spectra of compound **13** (DMSO- d_6),
4-((2-chloro-6-methoxy-9H-purin-9-yl)methyl)-N-(3-(trifluoromethyl)phenyl)benzamide:



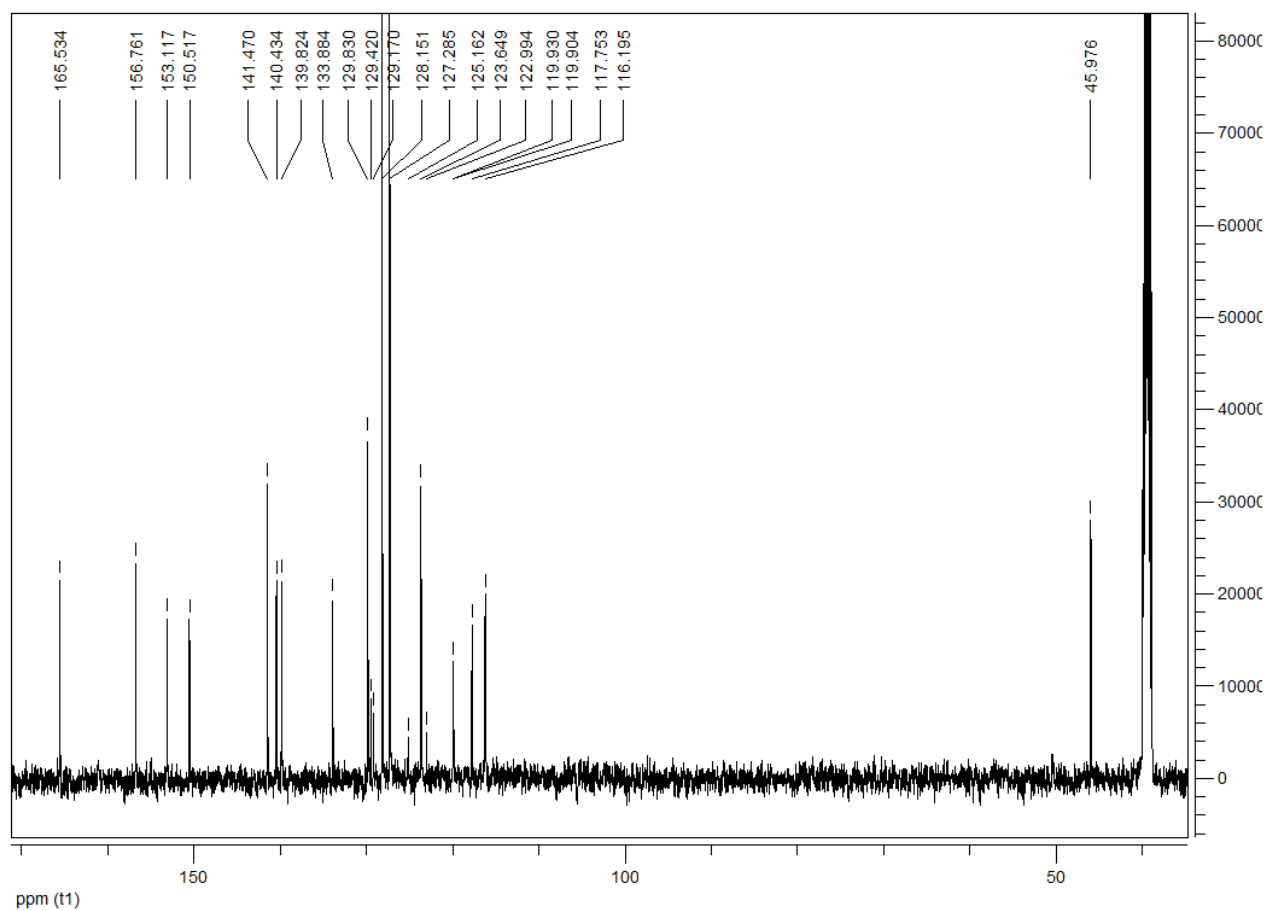
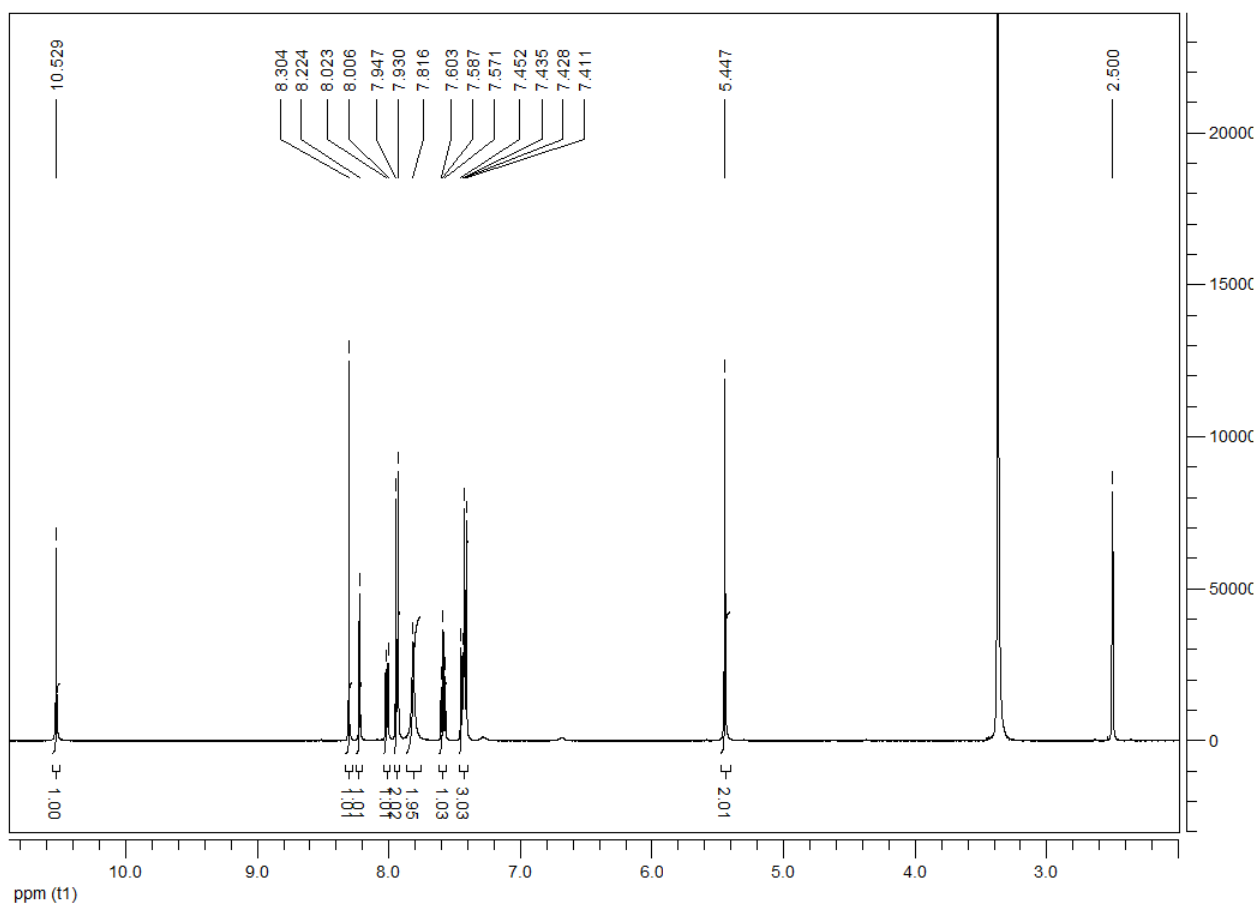


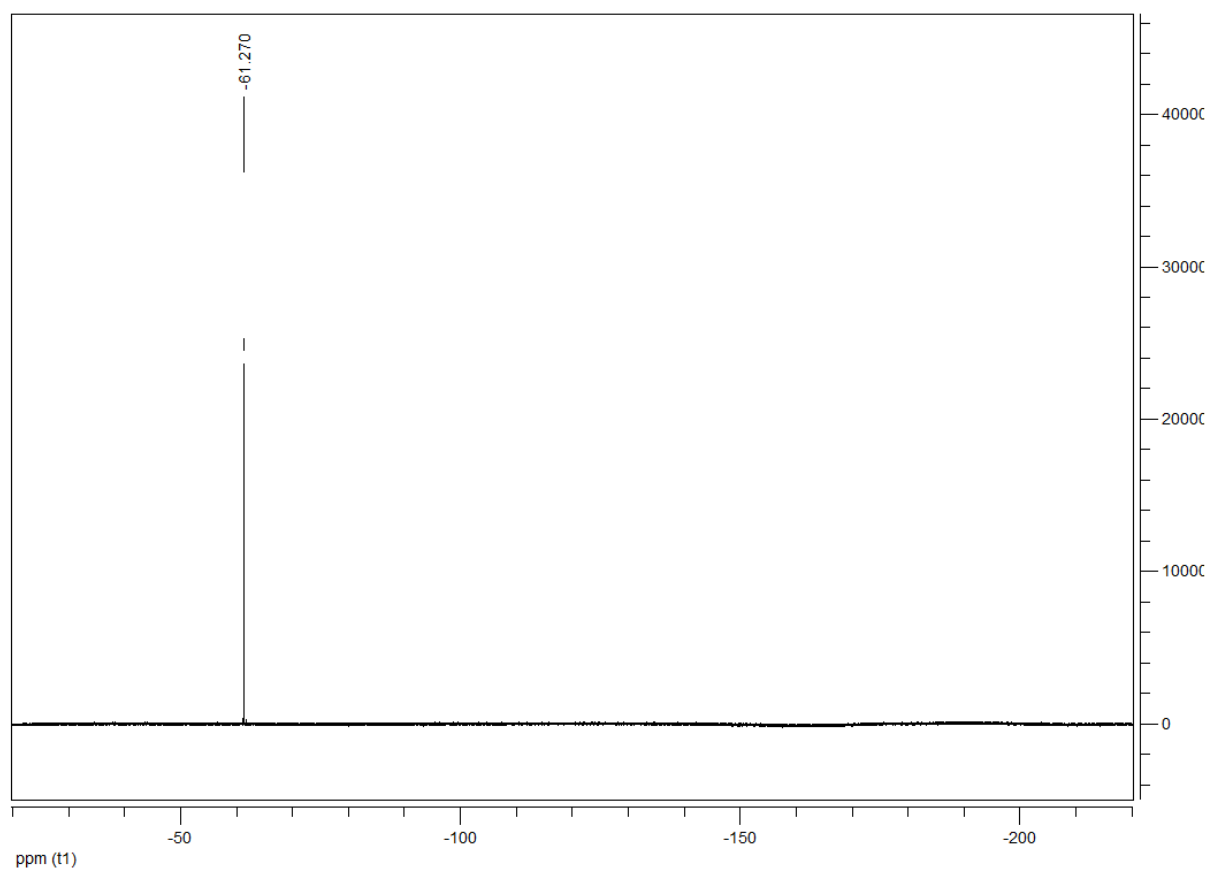
¹H, ¹³C and ¹⁹F NMR spectra of compound 14 (DMSO-d₆),
4-((2-chloro-6-methoxy-9H-purin-9-yl)methyl)-N-(3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)phenyl)benzamide:





¹H, ¹³C and ¹⁹F NMR spectra of compound **15** (DMSO-d₆),
4-((6-amino-2-chloro-9H-purin-9-yl)methyl)-N-(3-(trifluoromethyl)phenyl)benzamide:





¹H, ¹³C and ¹⁹F NMR spectra of compound **16** (DMSO-d₆),
4-((6-amino-2-chloro-9H-purin-9-yl)methyl)-N-(3-(4-methyl-1H-imidazol-1-yl)-5-(trifluoromethyl)phenyl)benzamide:

