

## Supporting Information

### Synthesis and Evaluation of a Agrocin 84 Toxic Moiety (TM84) analogue as a Malarial Threonyl tRNA Synthetase Inhibitor

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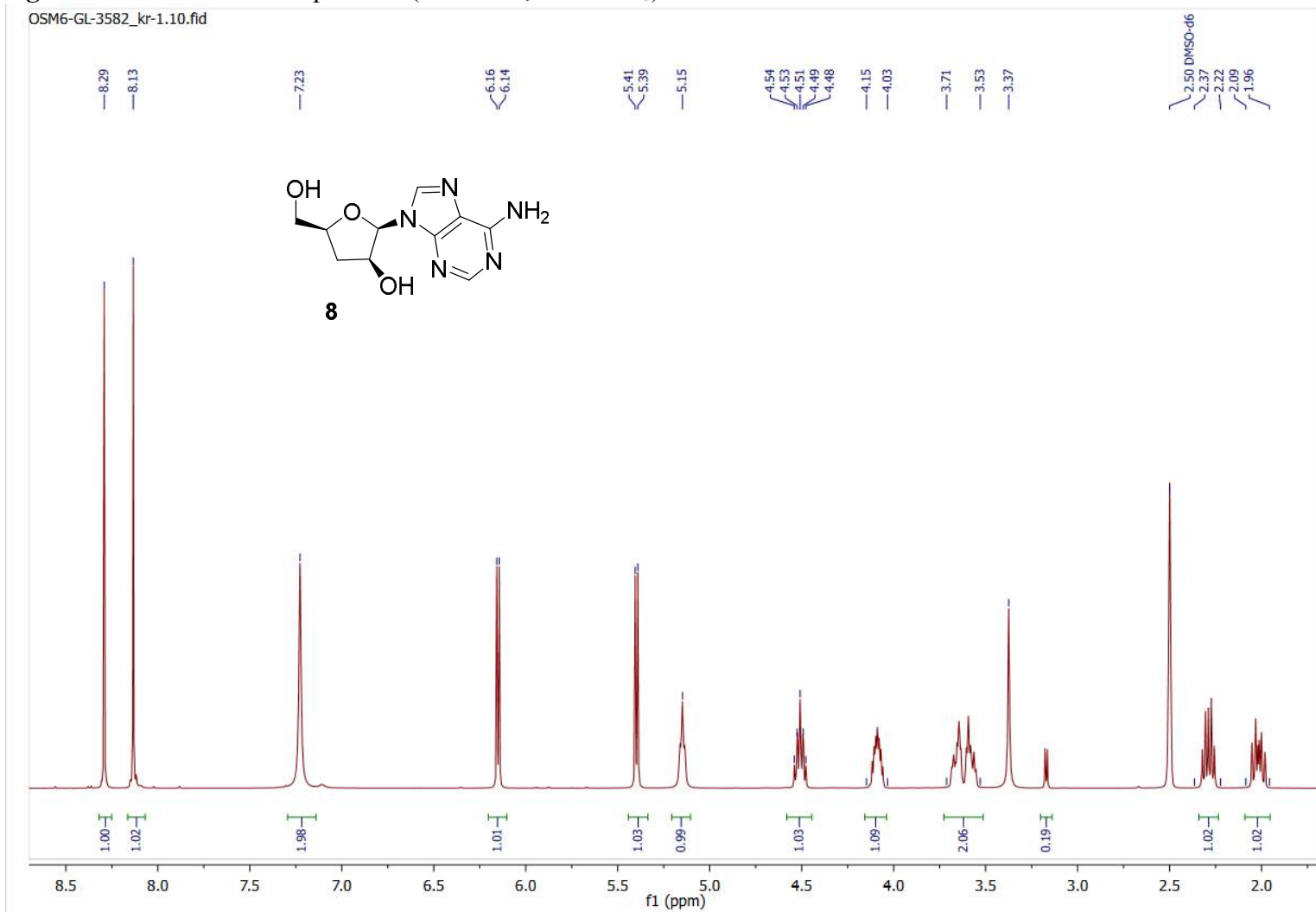
<sup>b</sup>Department of Chemistry “G. Ciamician, University of Bologna, 40126, Bologna Italy

### Contents

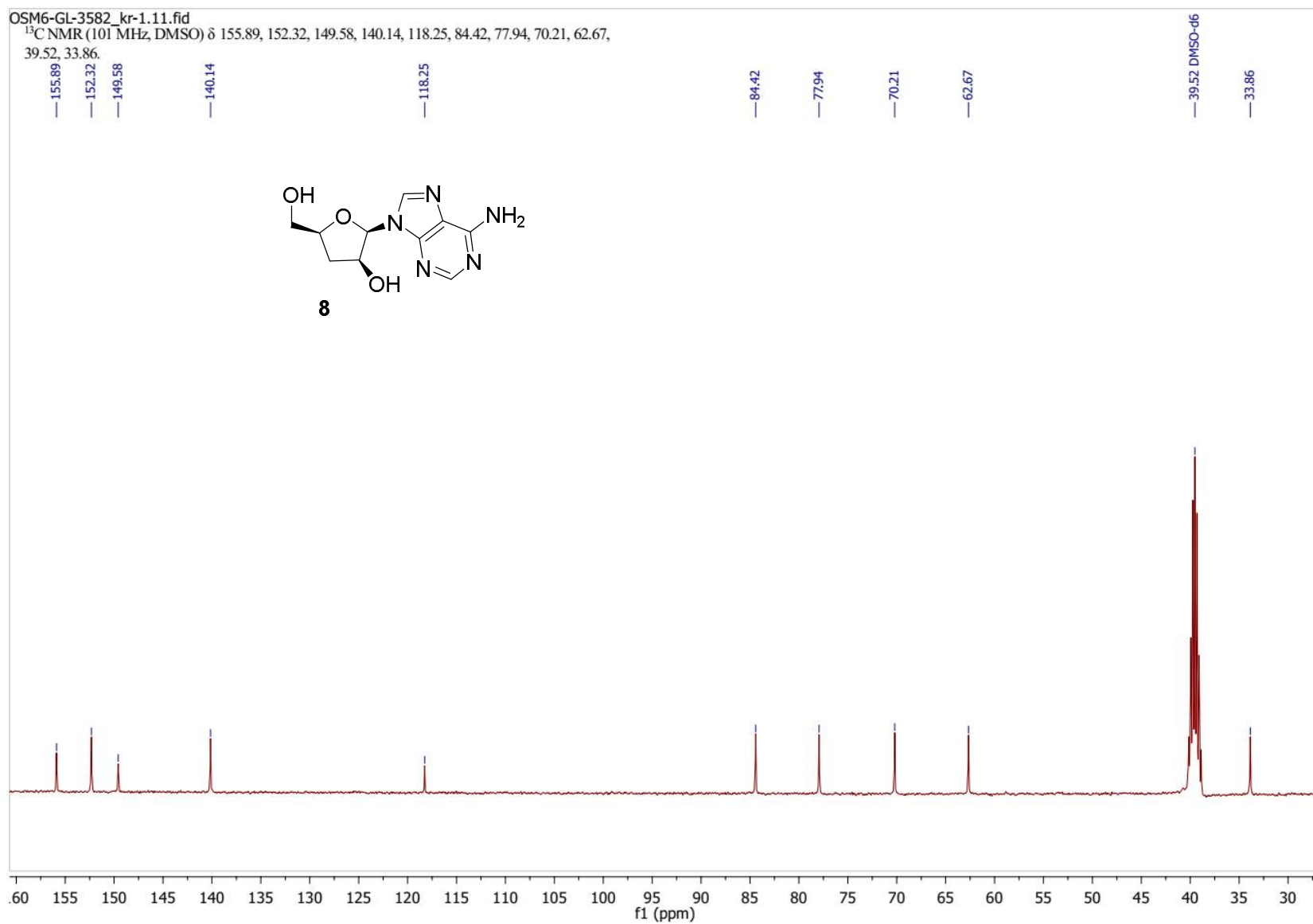
1. NMR Characterization Data .....	2
2. Biochemical and biophysical characterization data .....	19

# 1. NMR Characterization Data

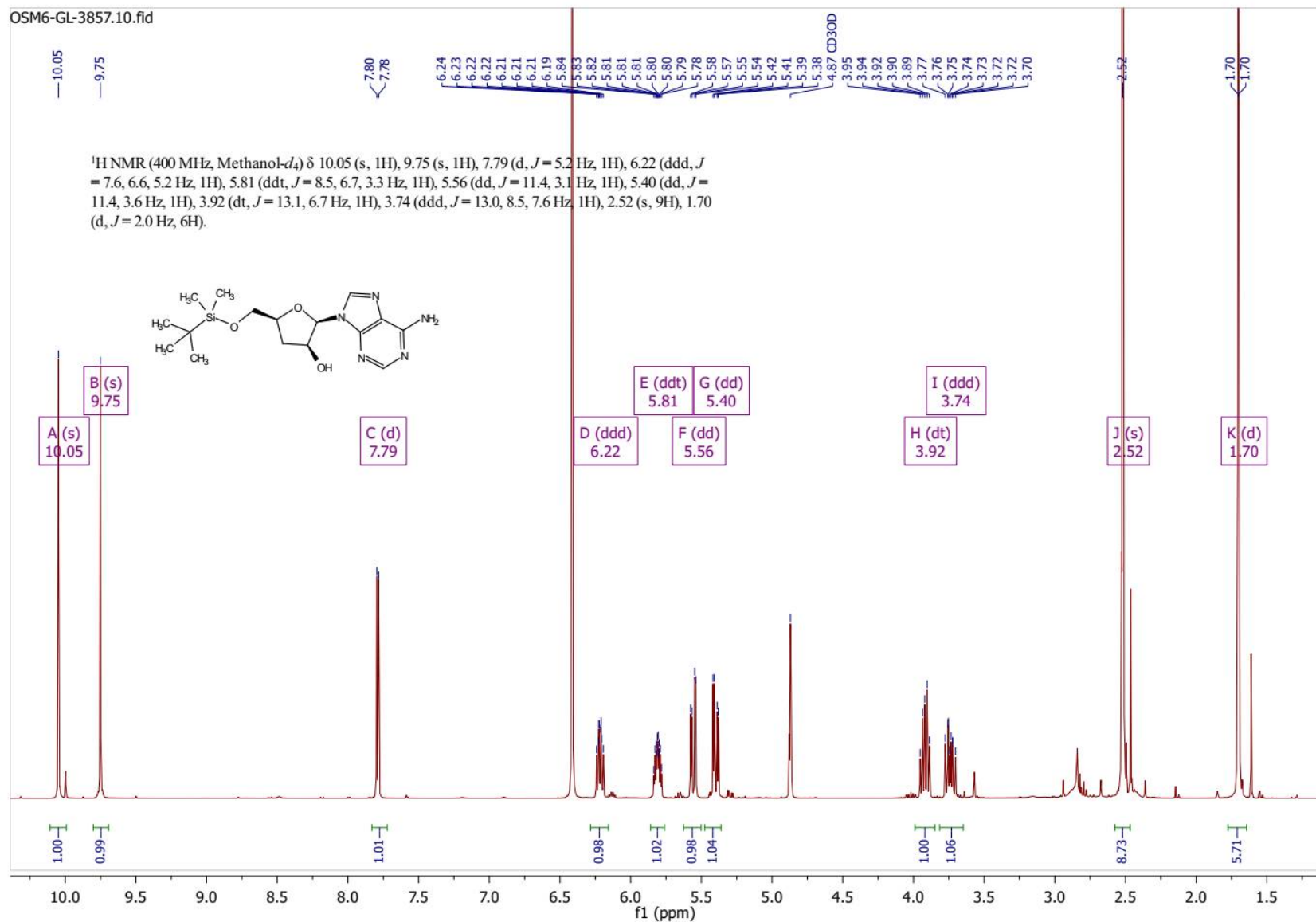
Figure S1. <sup>1</sup>H NMR of compound **8** (400 MHz, DMSO-d<sub>6</sub>).



**Figure S2.**  $^{13}\text{C}$  NMR of compound **8** (101 MHz, DMSO- $d_6$ ).



**Figure S3.**  $^1\text{H}$  NMR of compound **9** (400 MHz, Methanol- $d_4$ ).



**Figure S4.**  $^{13}\text{C}$  NMR of compound **9** (101 MHz, Methanol- $\text{d}_4$ ).

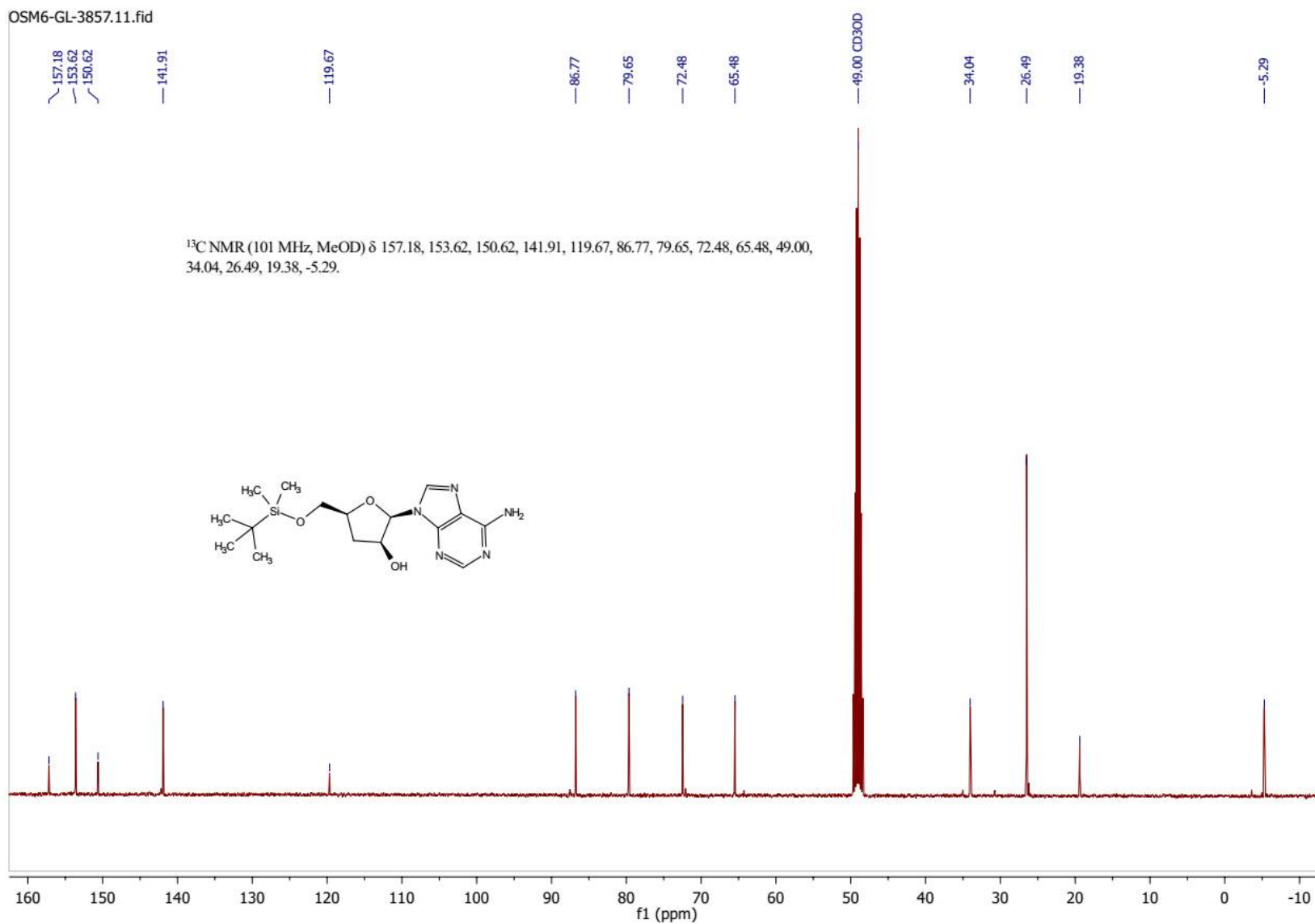


Figure S5. <sup>1</sup>H NMR of compound **10** (400 MHz, Methanol-d<sub>4</sub>).

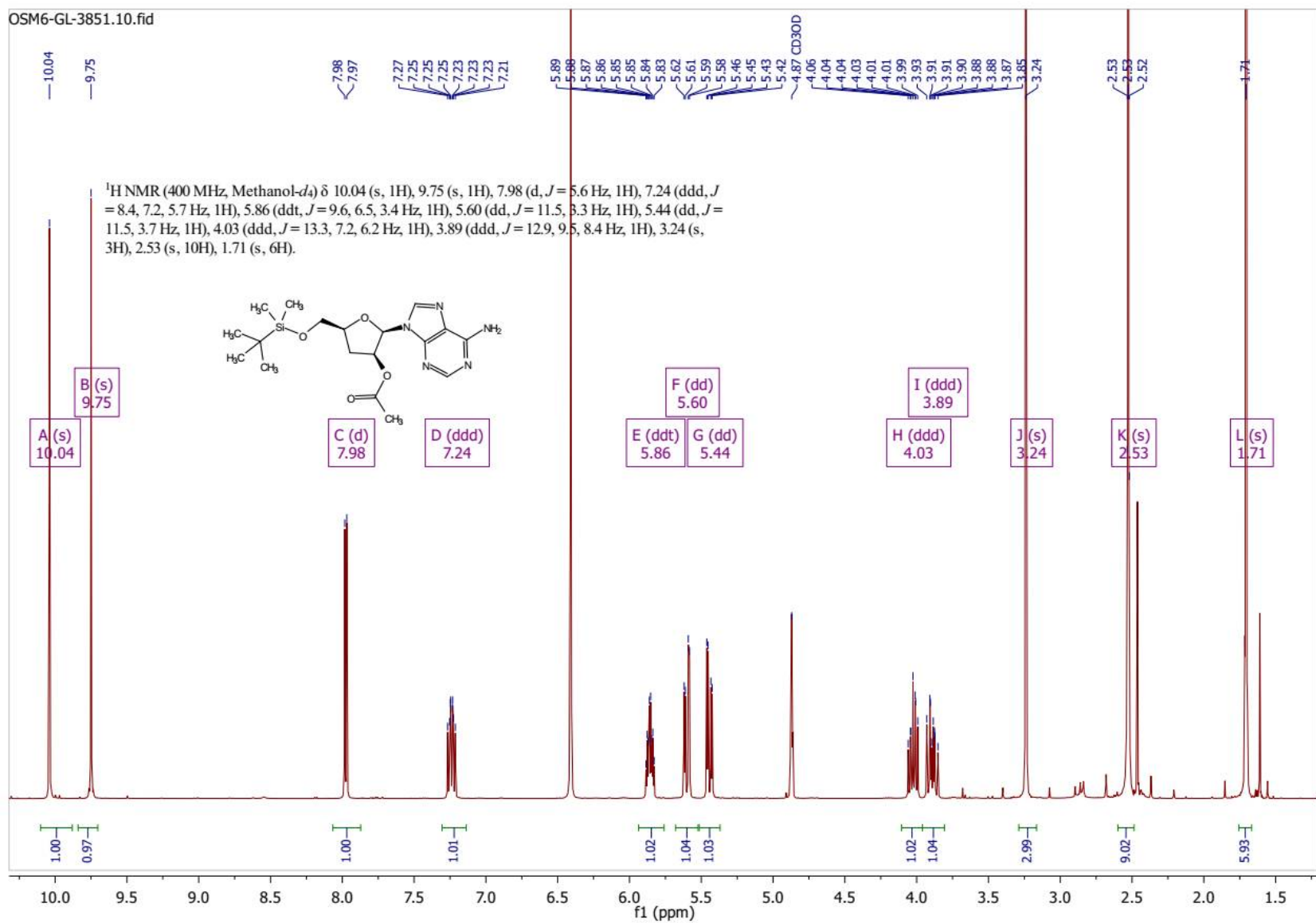
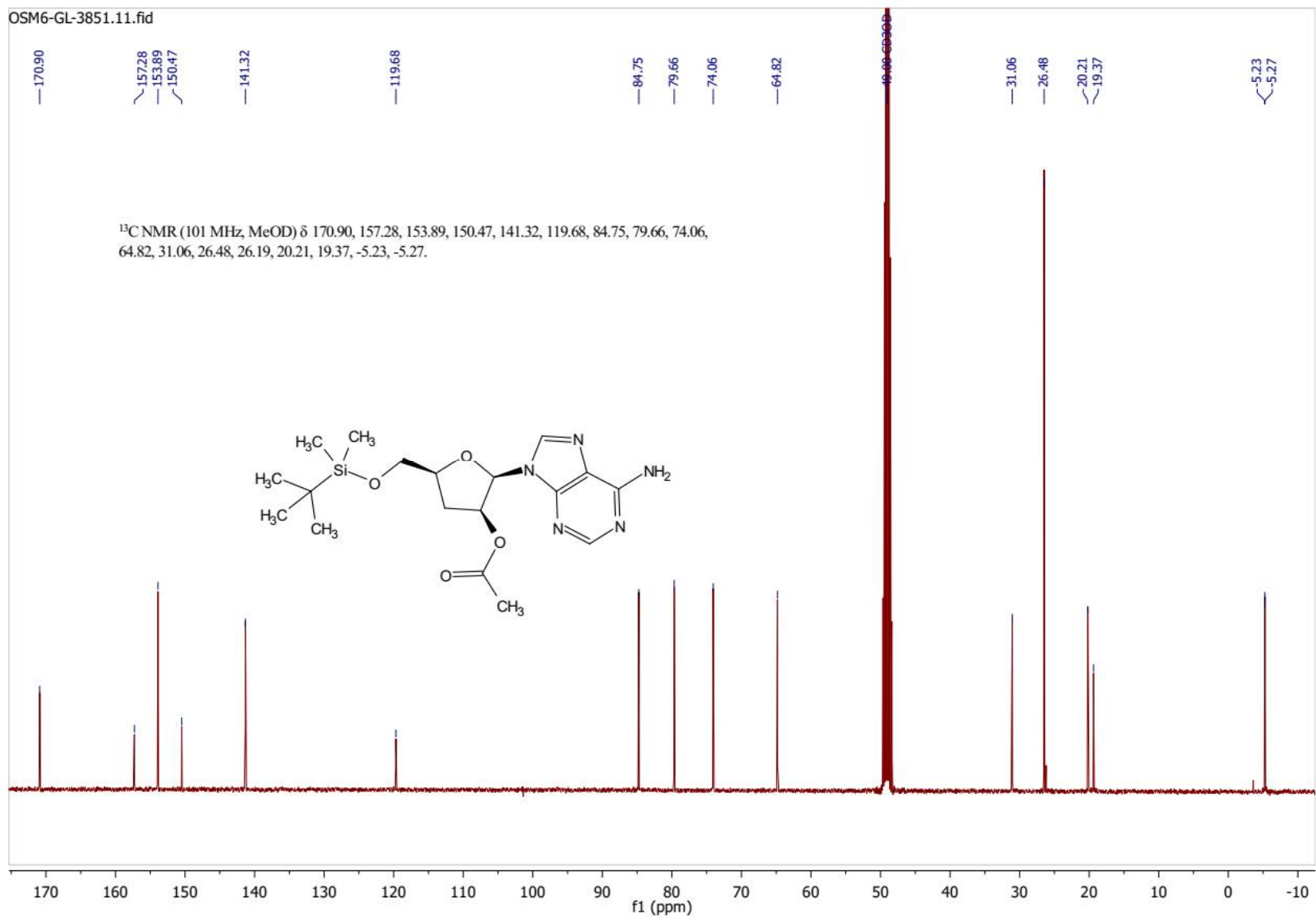
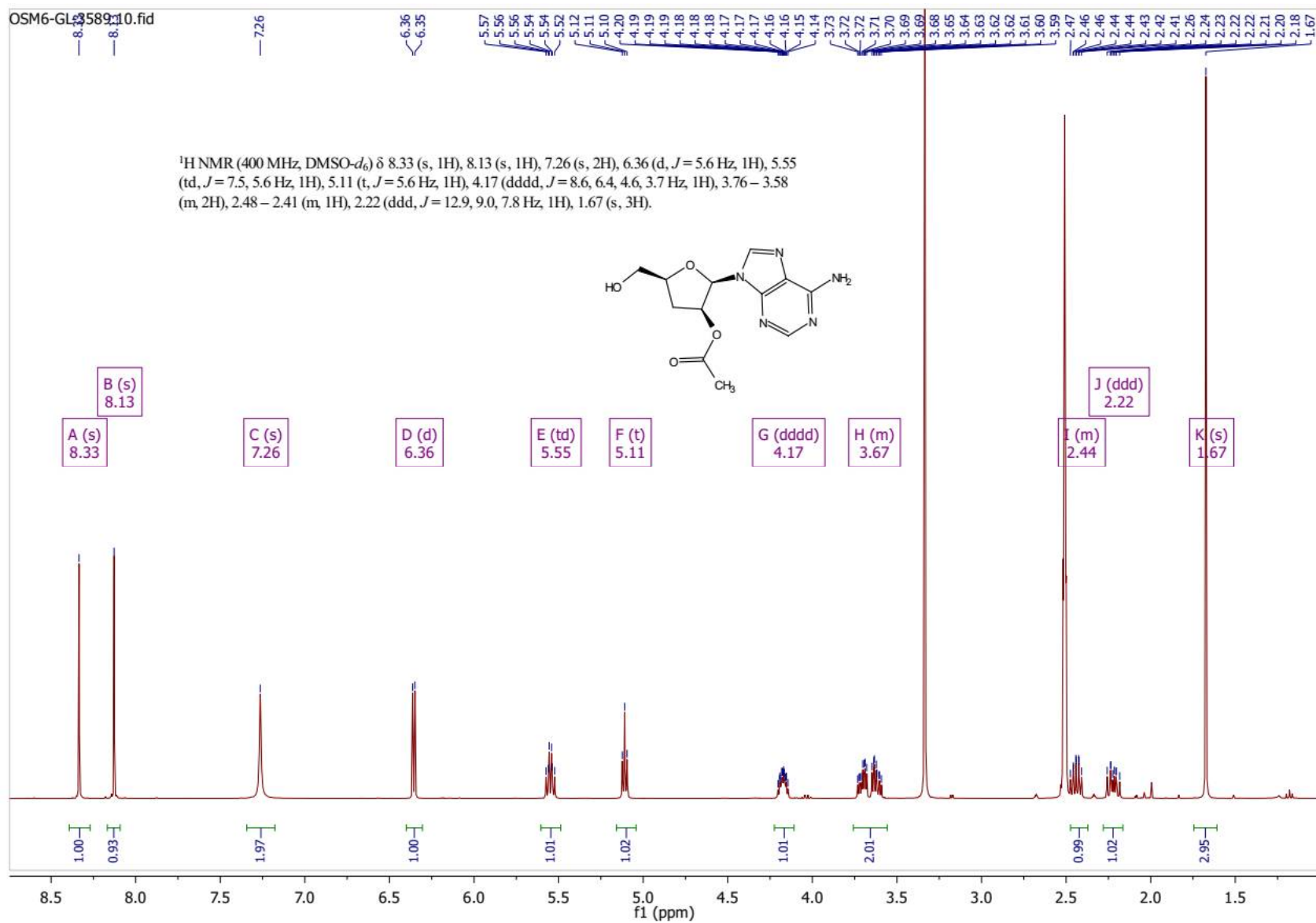


Figure S6.  $^{13}\text{C}$  NMR of compound **10** (101 MHz, Methanol- $\text{d}_4$ ).

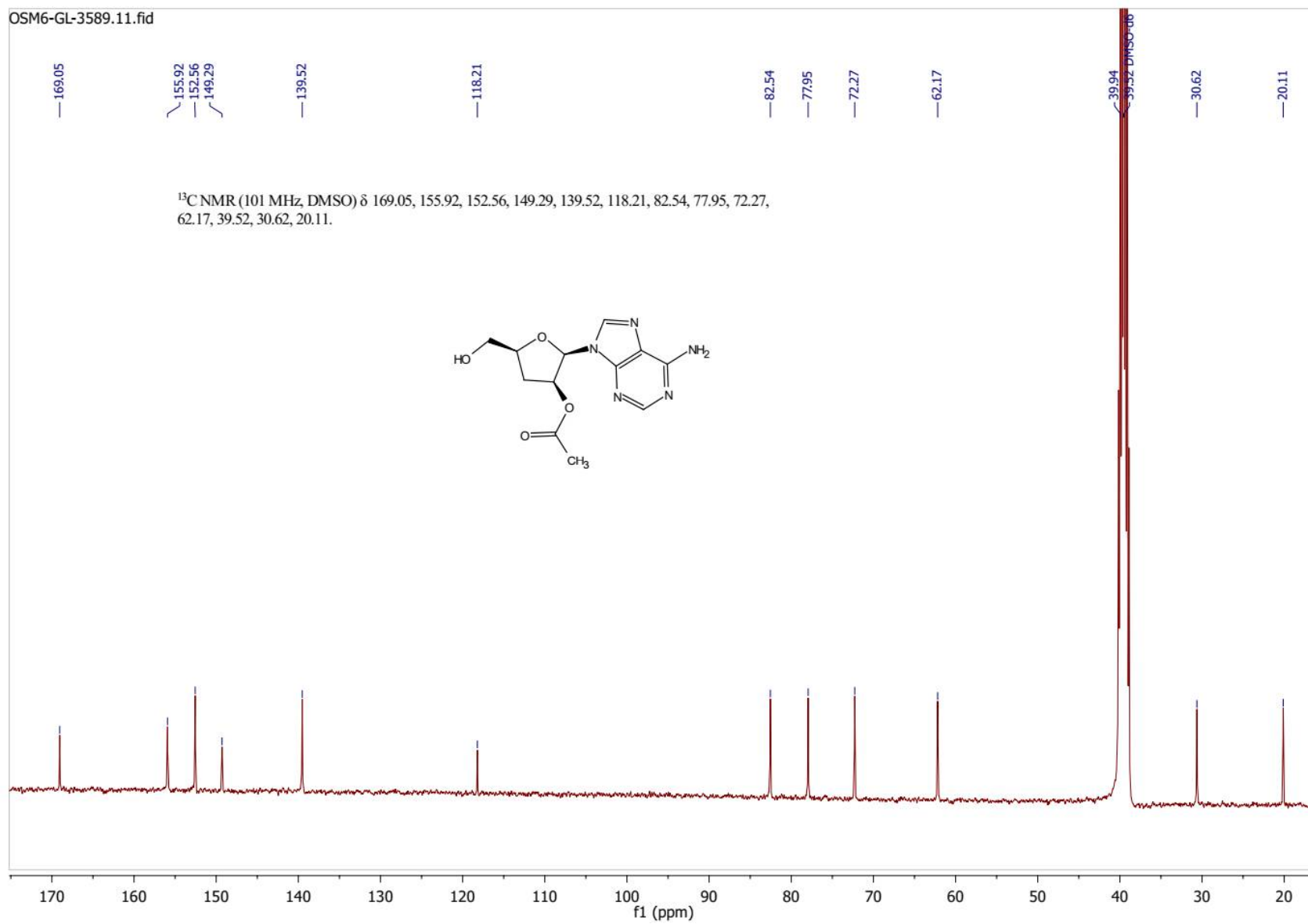


**Figure S7.**  $^1\text{H}$  NMR of compound **11** (400 MHz,  $\text{DMSO-}d_6$ ).

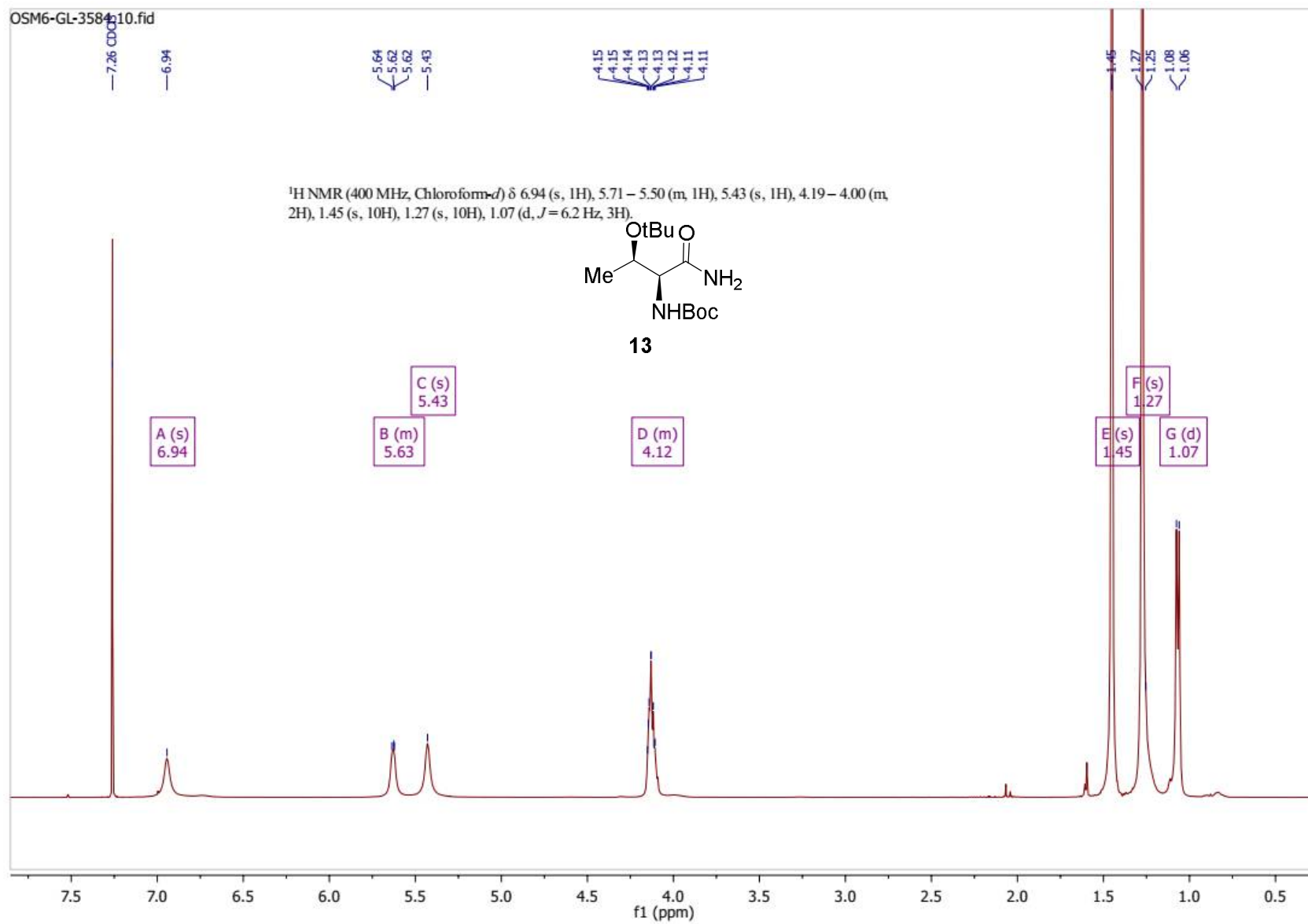




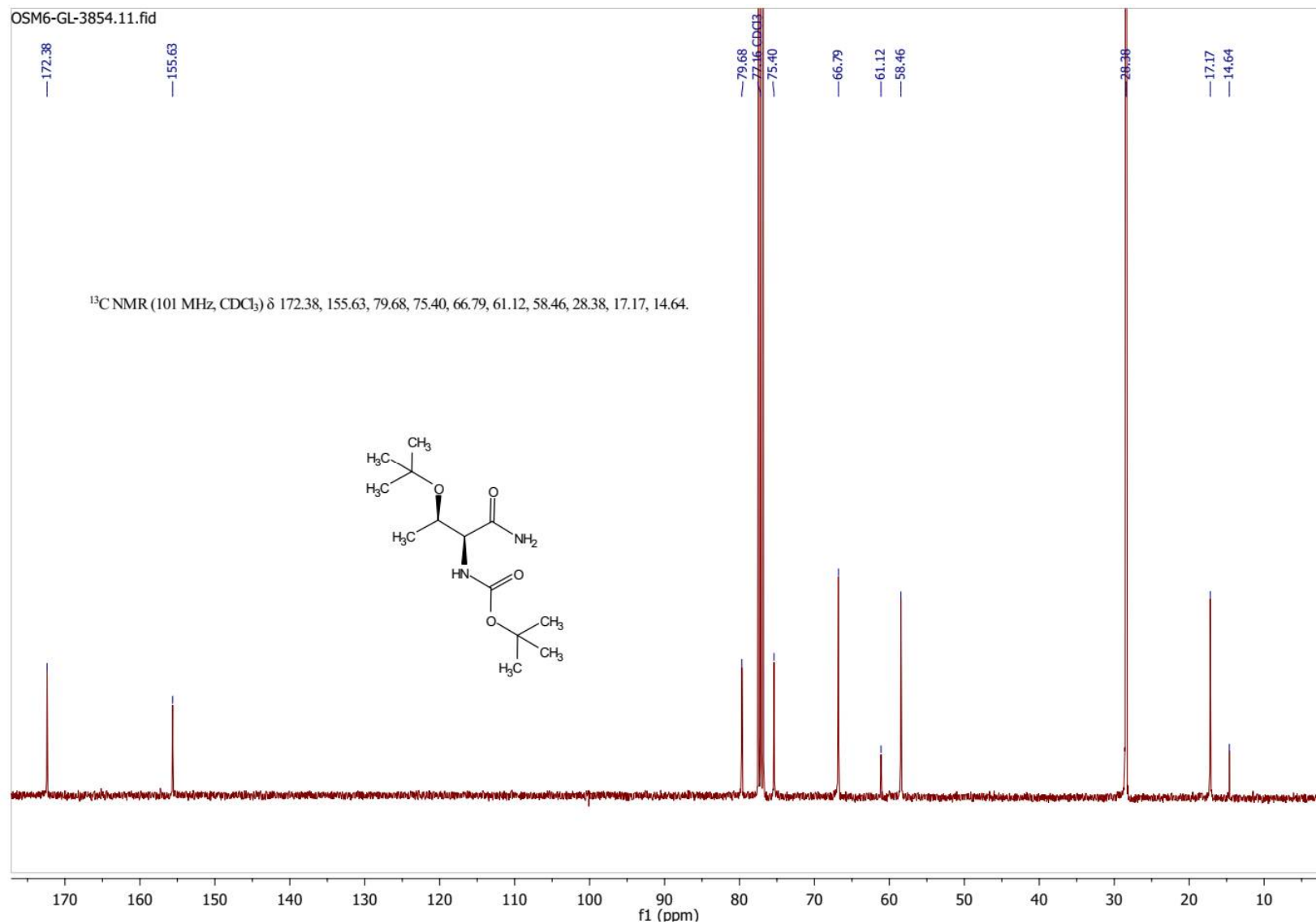
**Figure S8.**  $^{13}\text{C}$  NMR of compound **11** (101 MHz, DMSO- $d_6$ ).



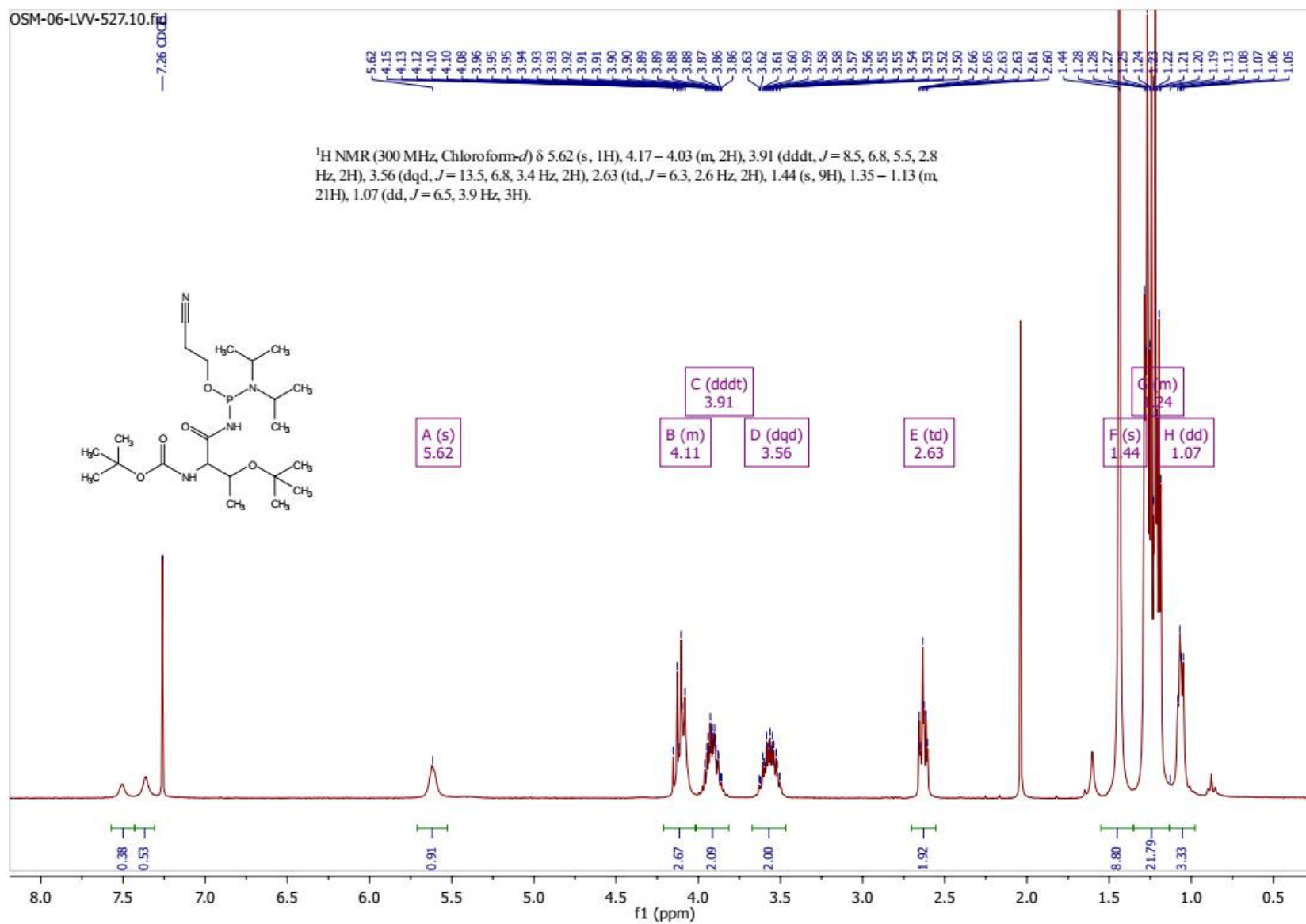
**Figure S9.**  $^1\text{H}$  NMR of compound **13** (400 MHz,  $\text{CDCl}_3$ ).



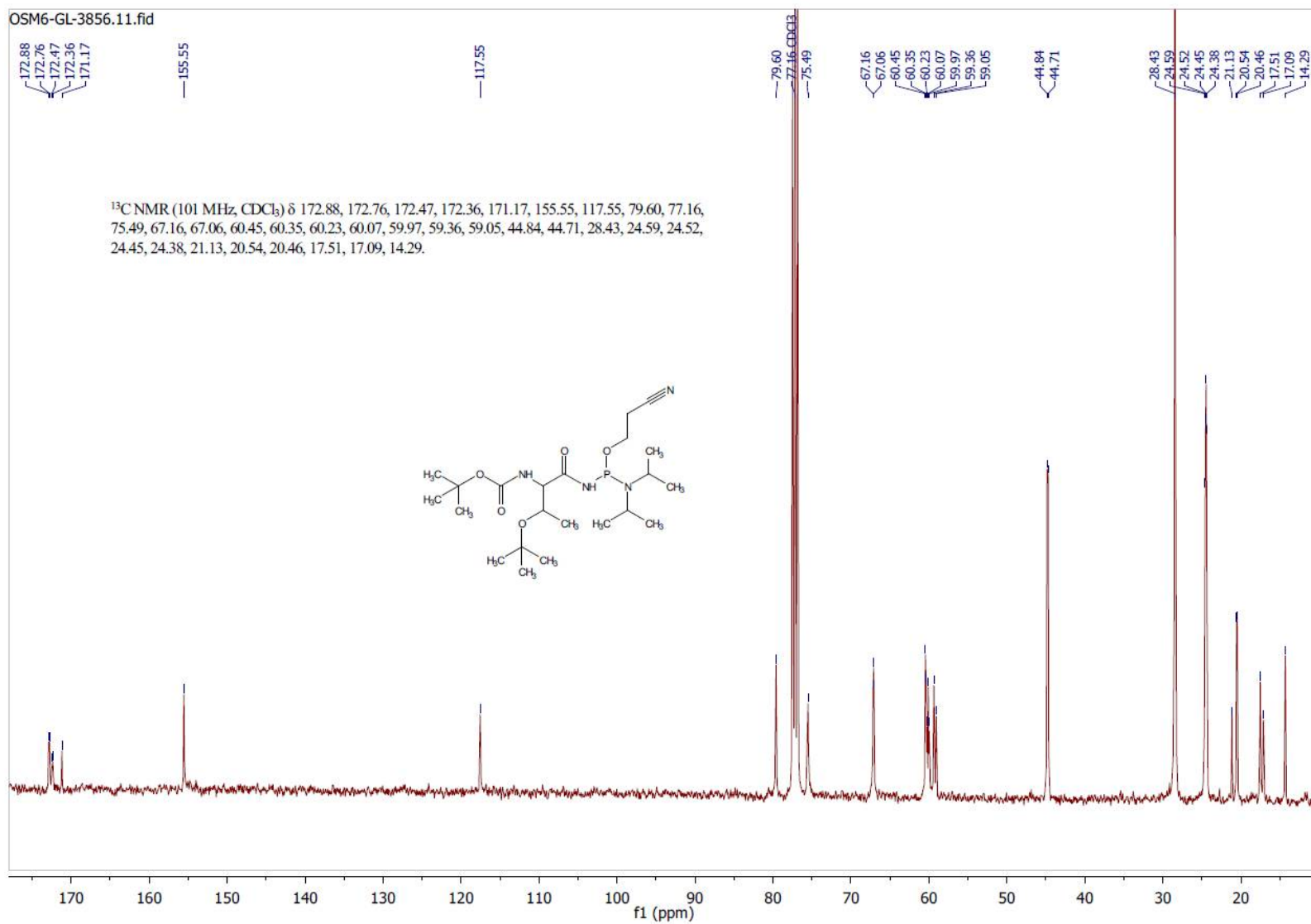
**Figure S10.**  $^{13}\text{C}$  NMR of compound **13** (101 MHz,  $\text{CDCl}_3$ ).



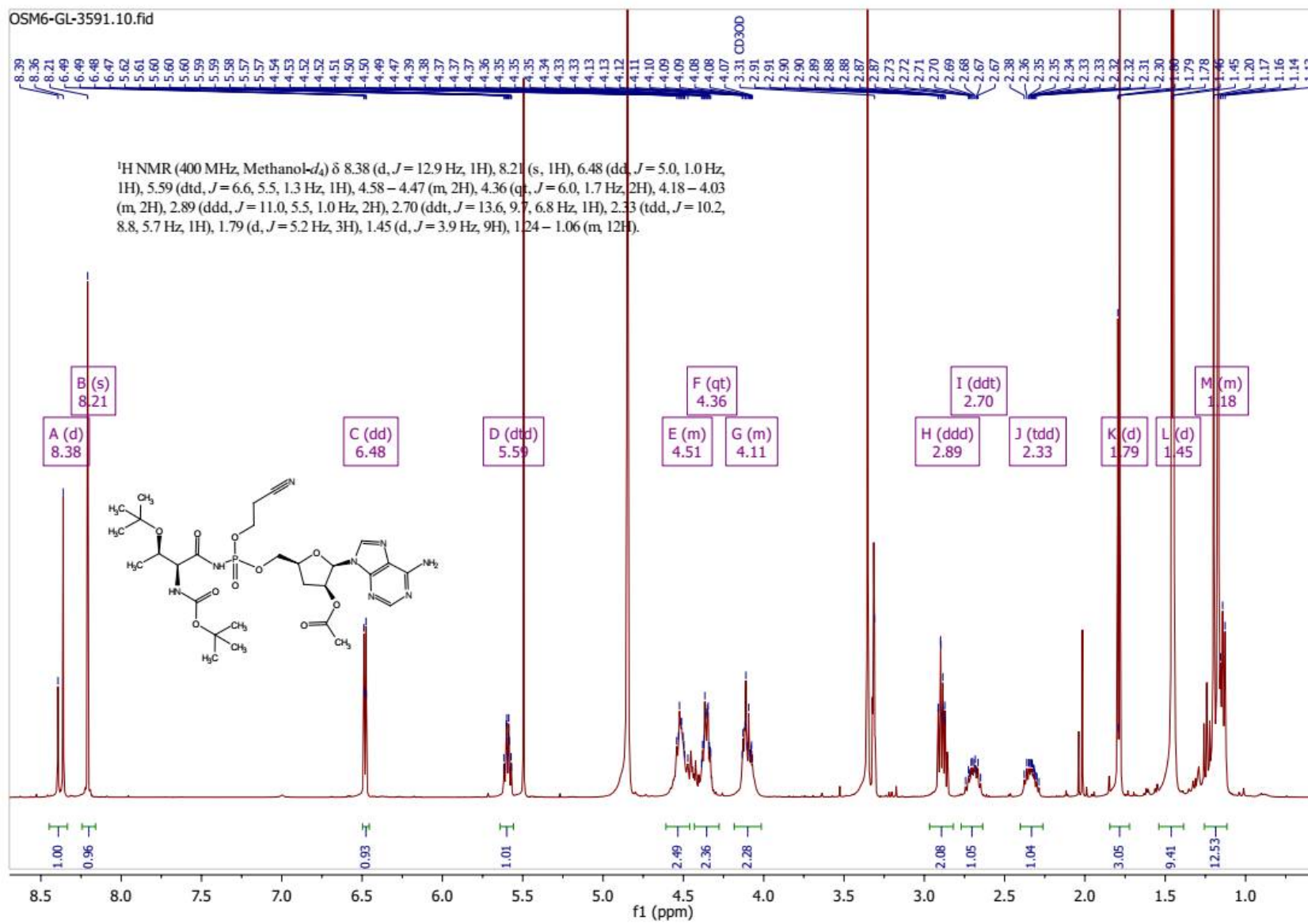
**Figure S11.**  $^1\text{H}$  NMR of compound **15** (400 MHz,  $\text{CDCl}_3$ ).



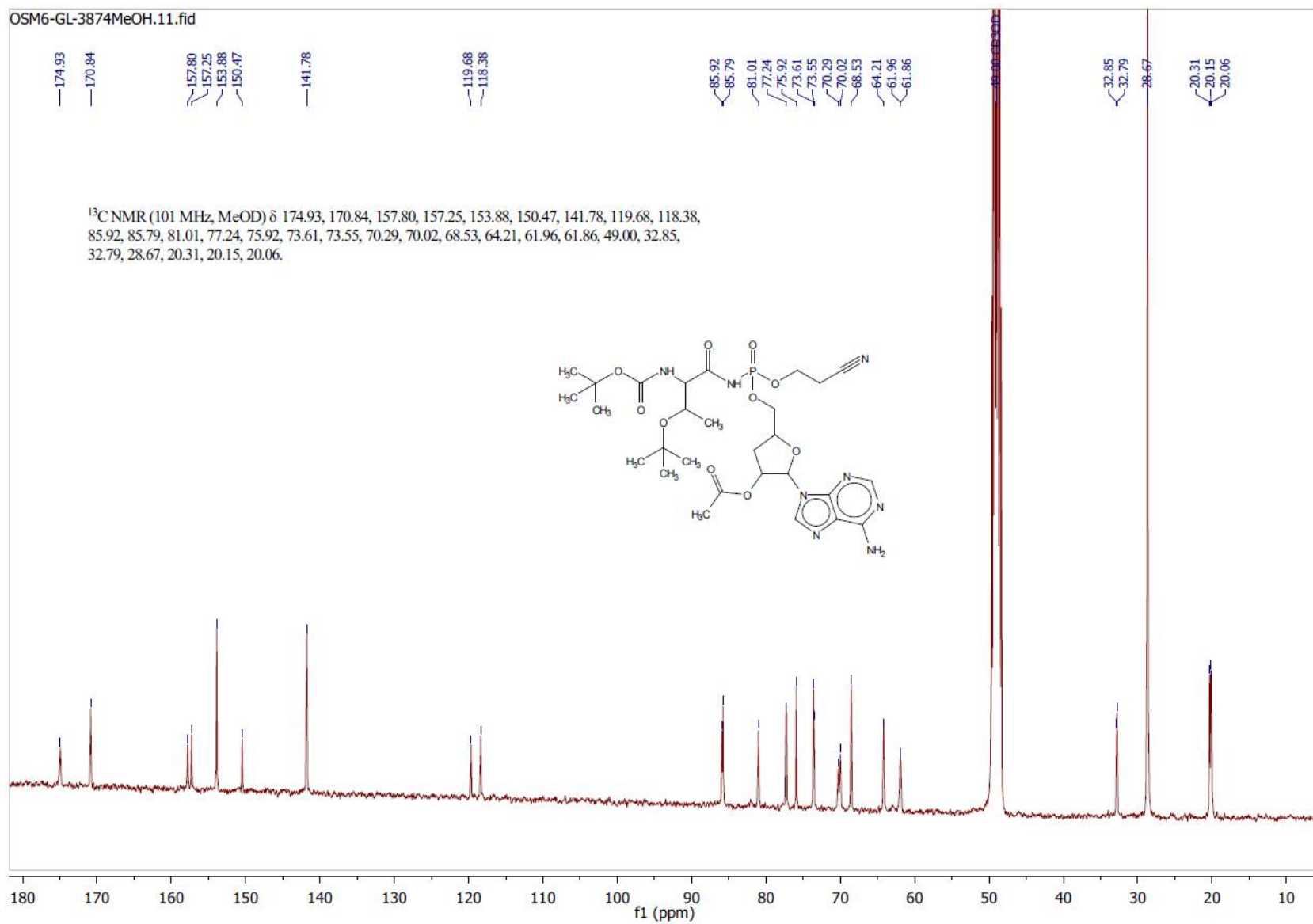
**Figure S12.**  $^{13}\text{C}$  NMR of compound **13** (101 MHz,  $\text{CDCl}_3$ ).



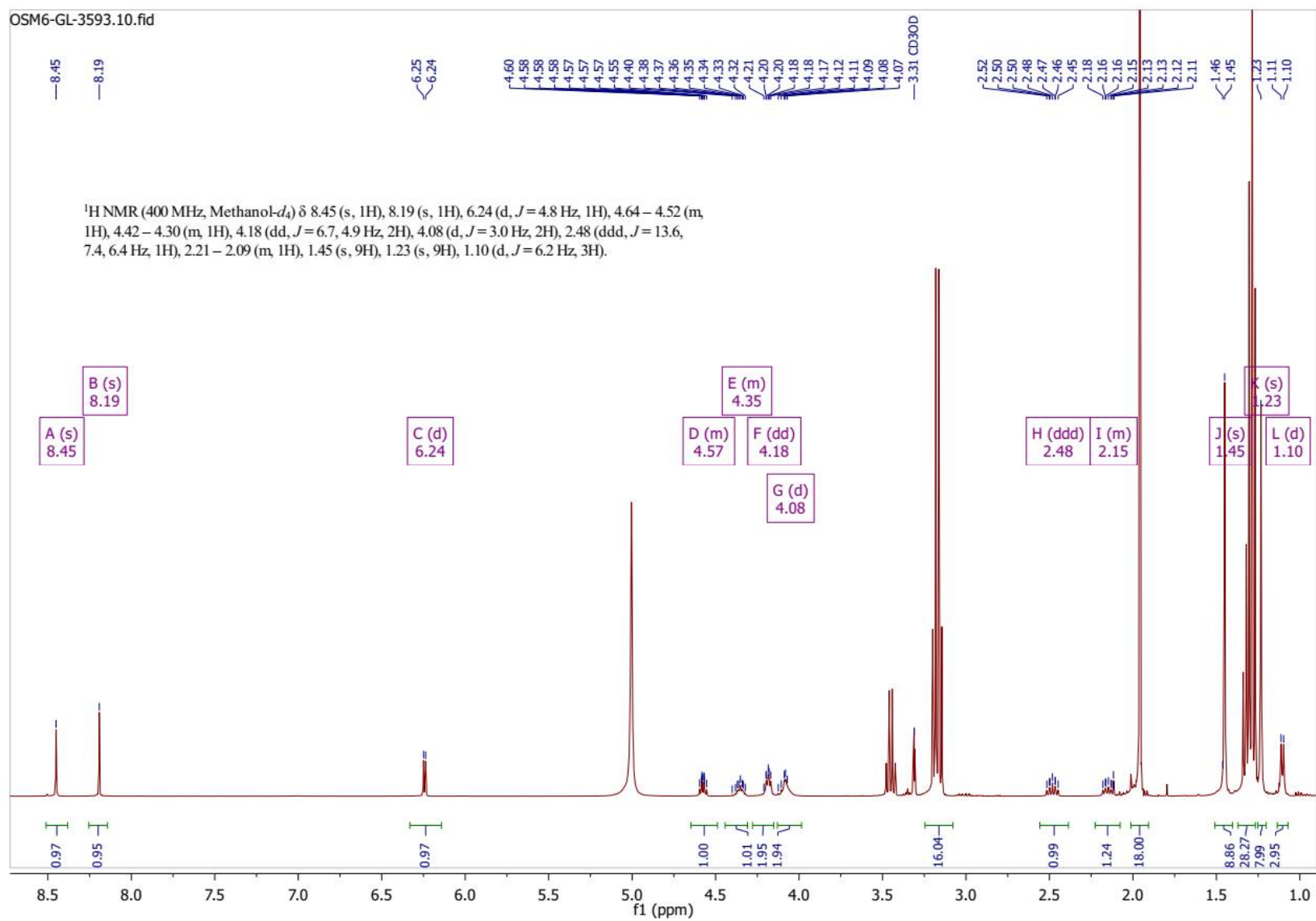
**Figure S13.**  $^1\text{H}$  NMR of compound **16** (400 MHz, Methanol- $d_4$ ).



**Figure S14.**  $^{13}\text{C}$  NMR of compound **16** (101 MHz, methanol-d<sub>4</sub>).

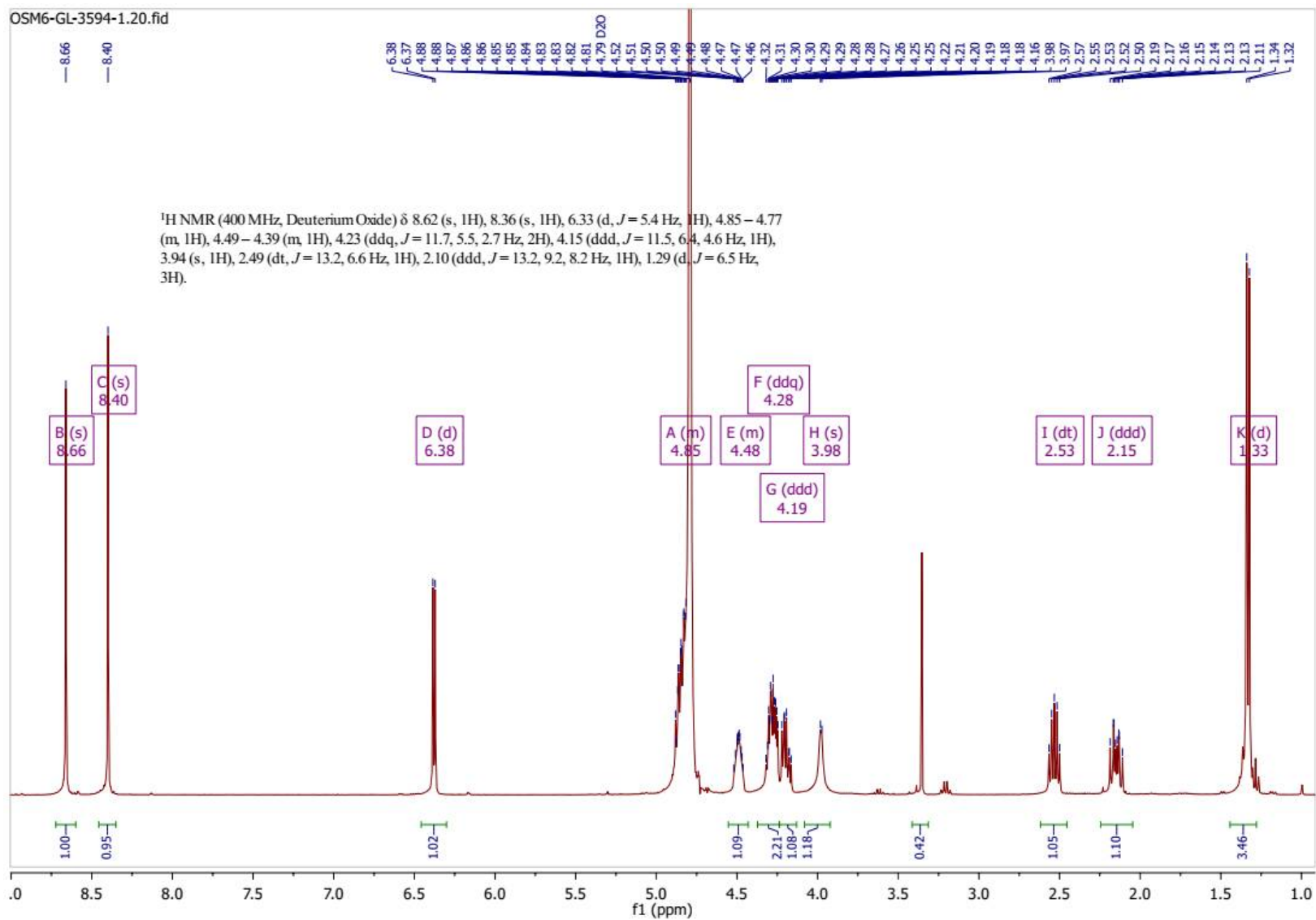


**Figure S15.**  $^1\text{H}$  NMR of compound **17** (400 MHz, Methanol- $d_4$ ).

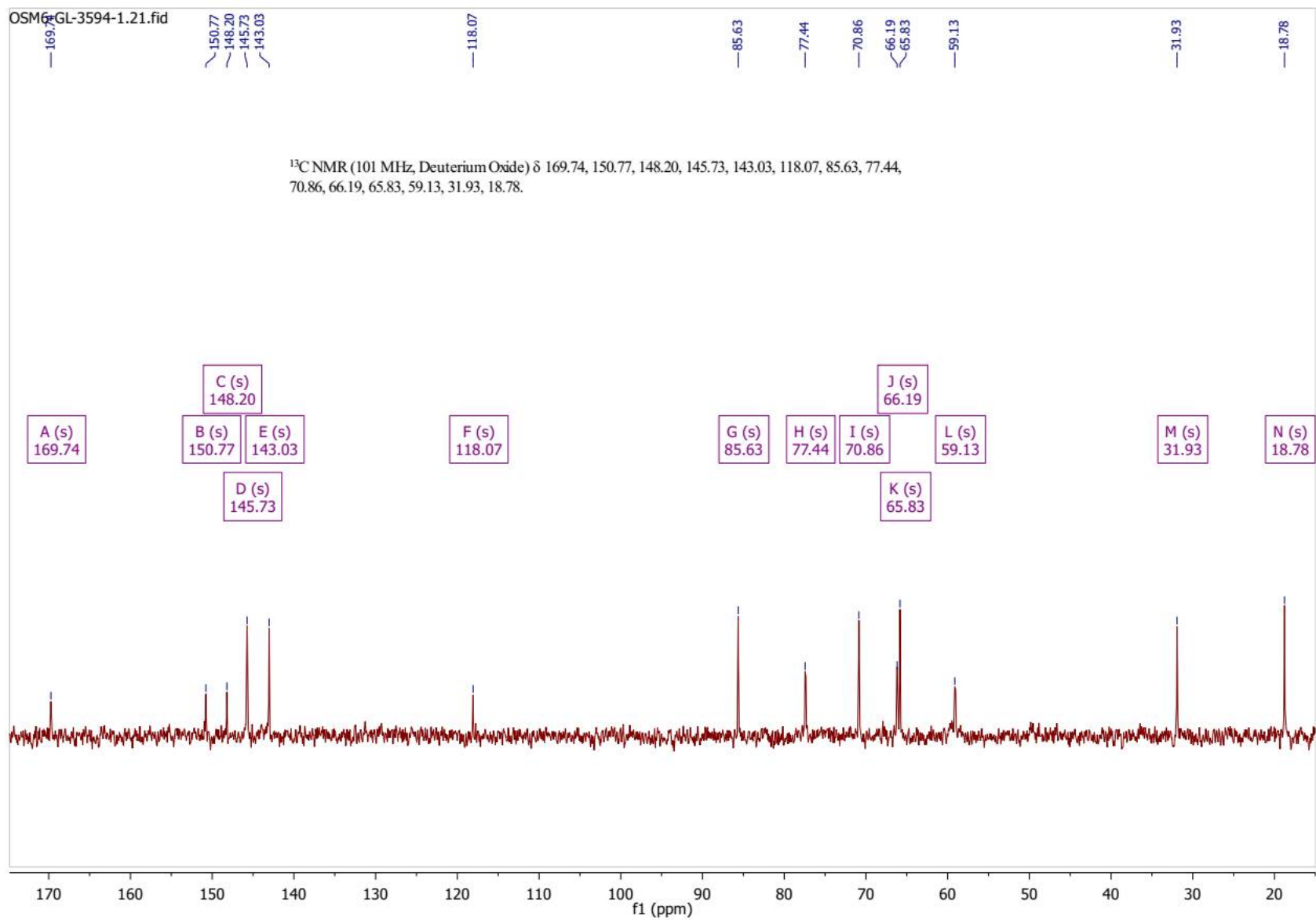




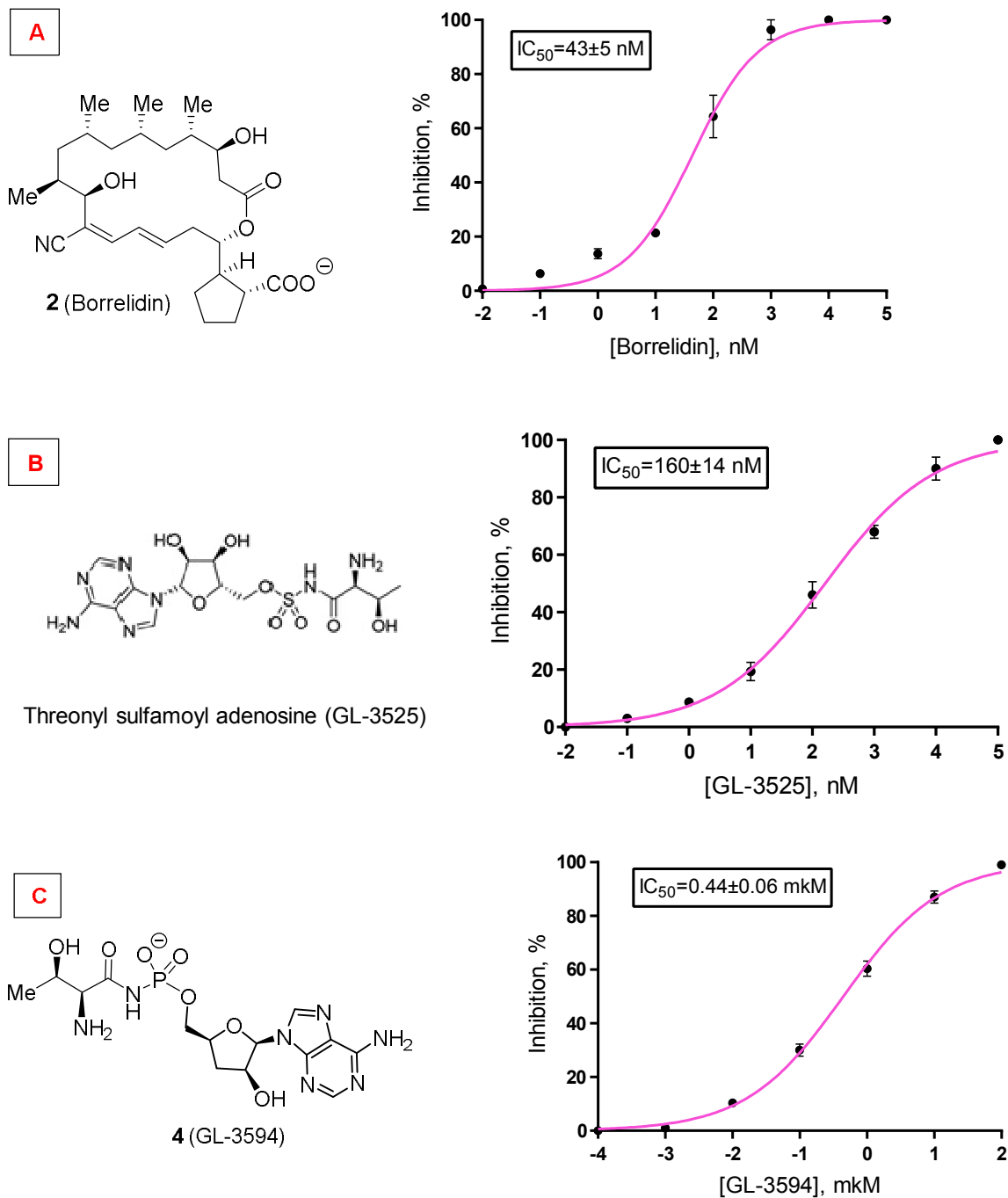
**Figure S16.**  $^1\text{H}$  NMR of compound **4** (400 MHz,  $\text{D}_2\text{O}$ ).



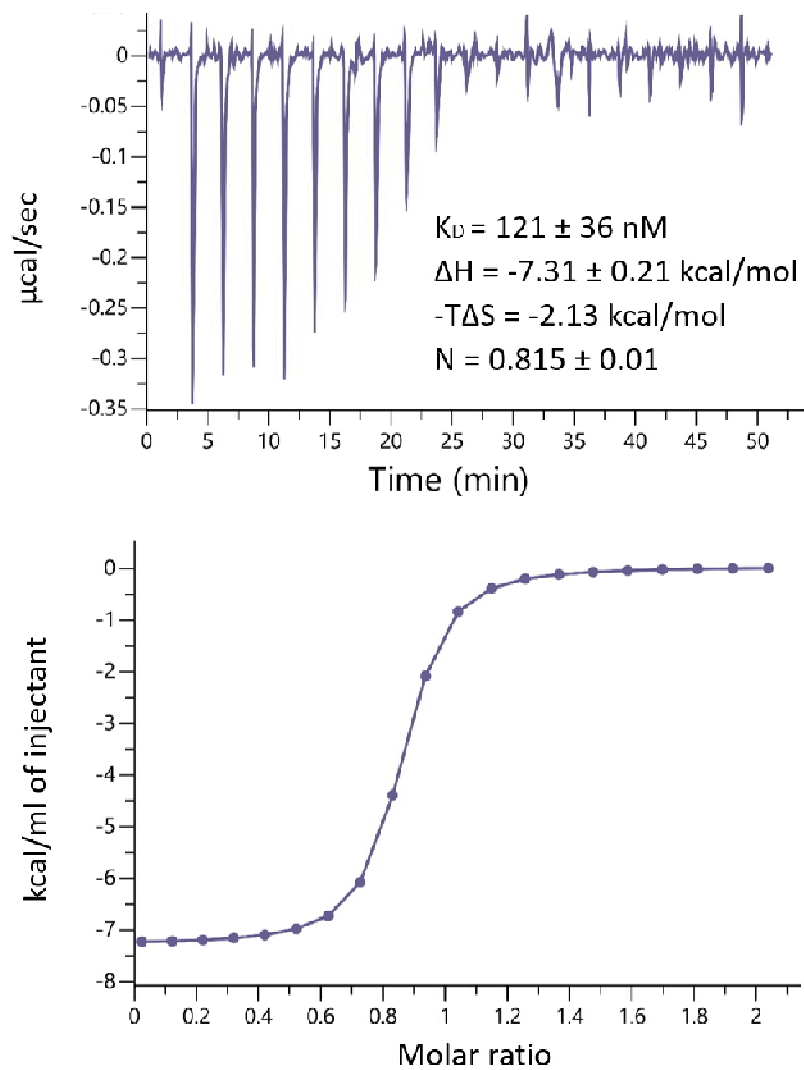
**Figure S17.**  $^{13}\text{C}$  NMR of compound **4** (101 MHz,  $\text{D}_2\text{O}$ ).



## 2. Biochemical and biophysical characterization data



**Figure S18.** Inhibition potency of *Plasmodium Falciparum* ThrRS by borrelidin (A); threonyl sulfamoyl adenosine (B); compound 4 (C)



**Figure S19.** ITC titration data for EcThrRS interaction with compound 4 (GL3594) in buffer (20 mM Tris, 300 mM NaCl, 1 mM TCEP, pH = 8.0) at 25°C.