

## Microwave-assisted Rapid and Regioselective Synthesis of *N*-(alkoxycarbonylmethyl) Nucleobases in Water

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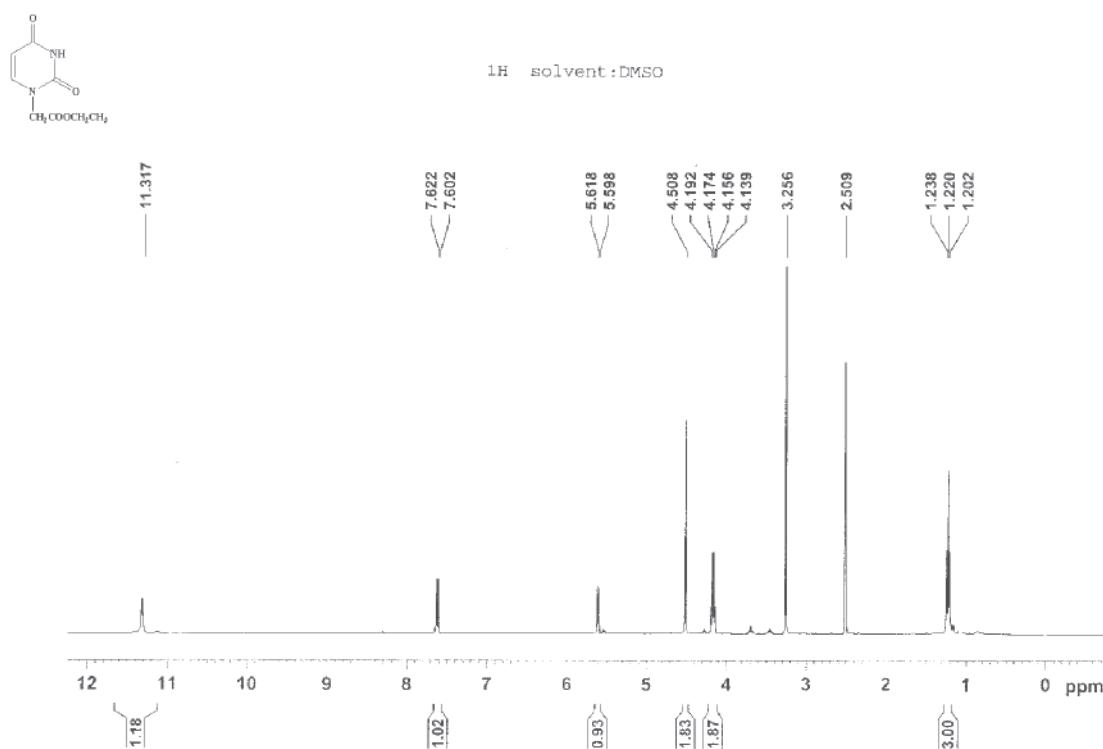


Figure S1. <sup>1</sup>H NMR spectrum of compound 7a (400 MHz, DMSO-d<sub>6</sub>).

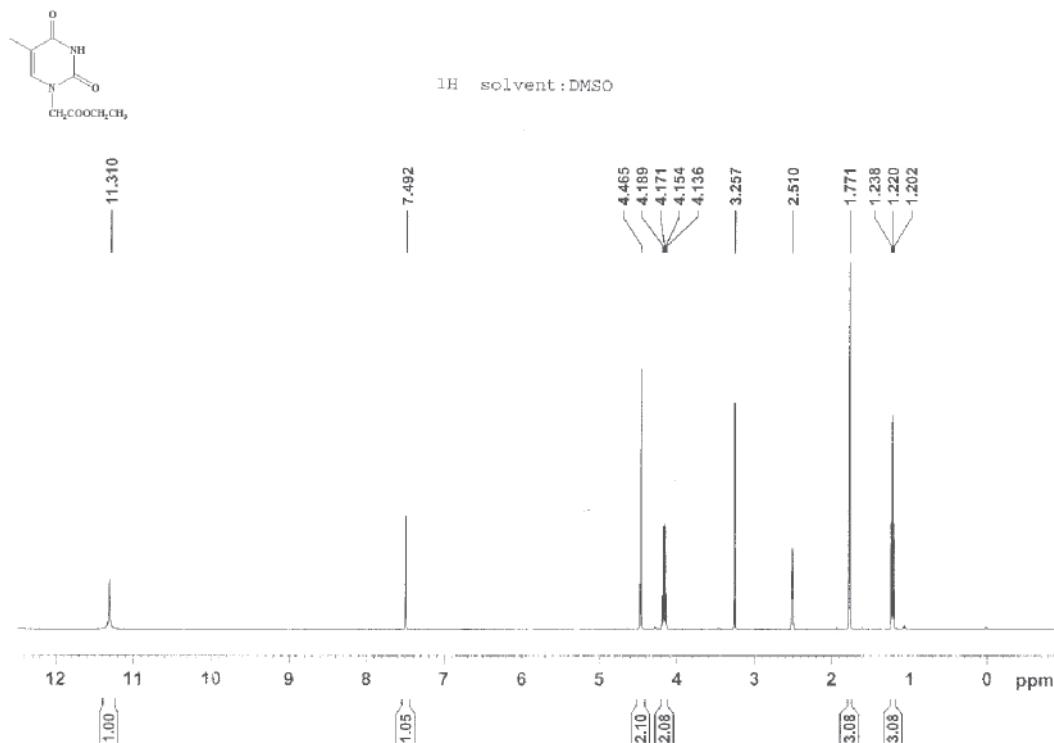


Figure S2. <sup>1</sup>H NMR spectrum of compound 7b (400 MHz, DMSO-*d*<sub>6</sub>).

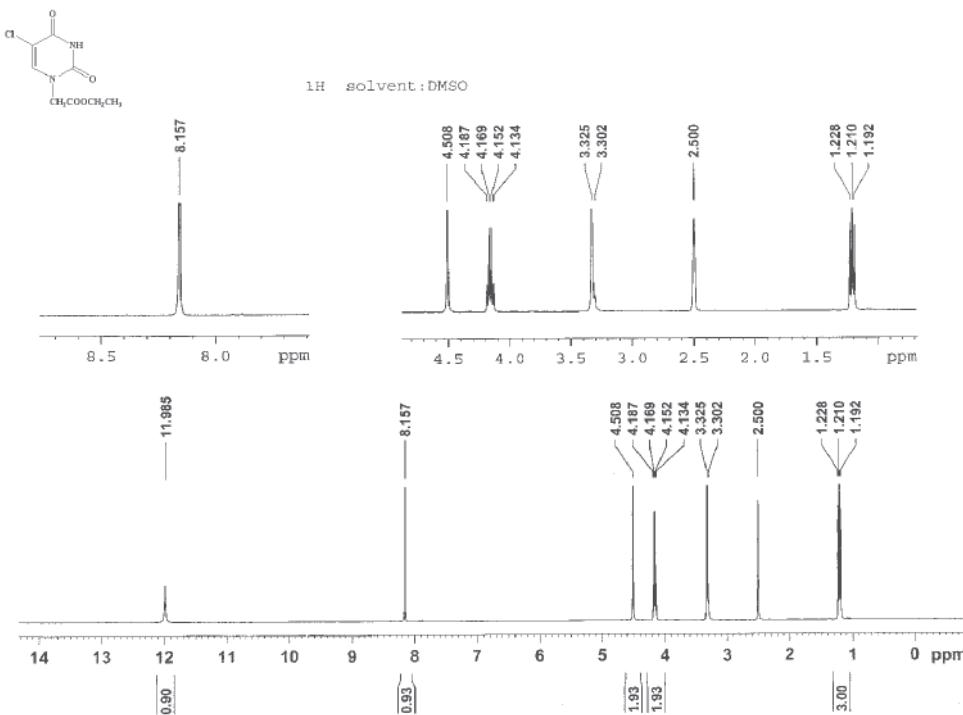
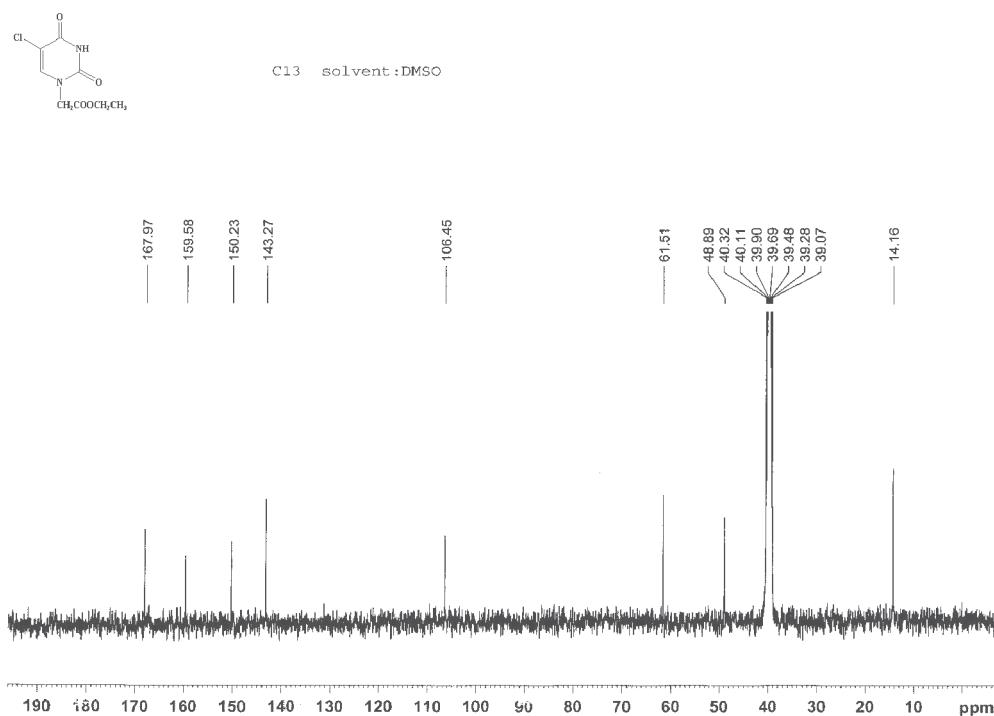
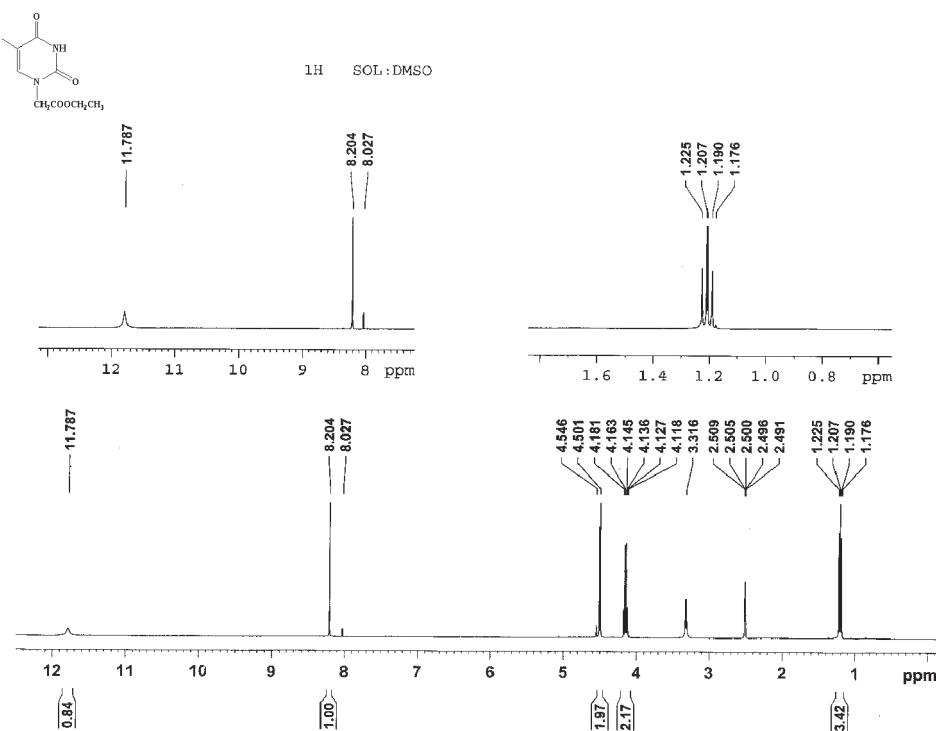


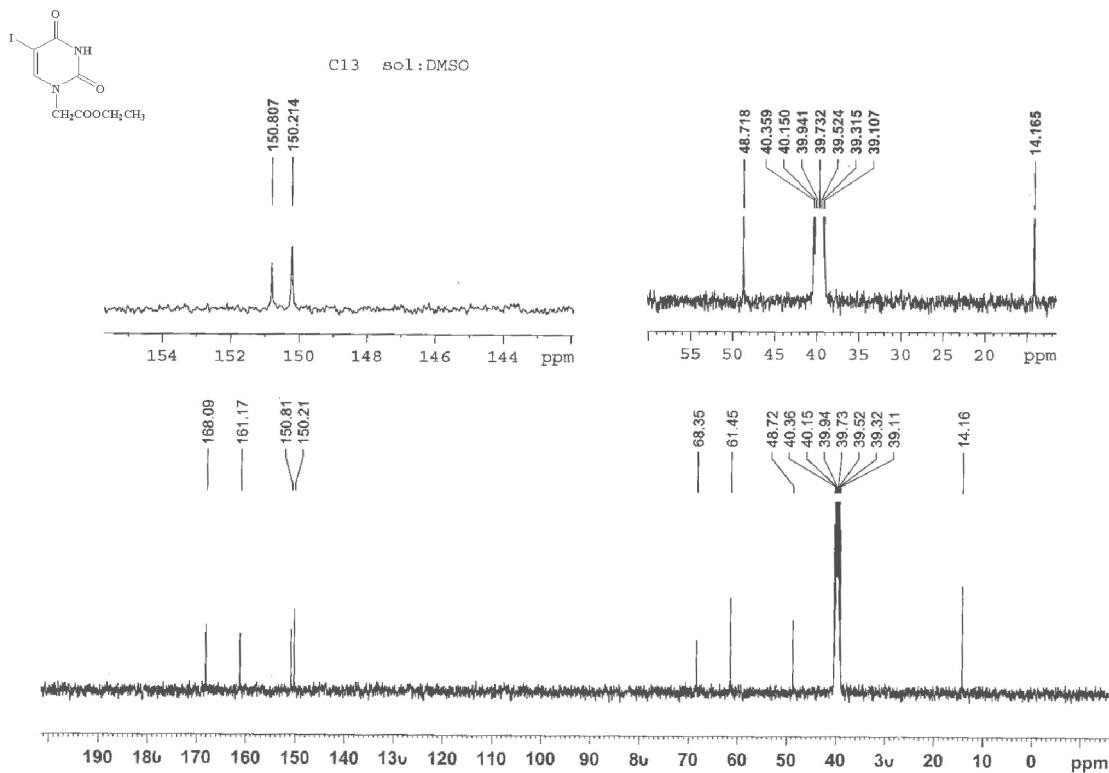
Figure S3. <sup>1</sup>H NMR spectrum of compound 7c (400 MHz, DMSO-*d*<sub>6</sub>).



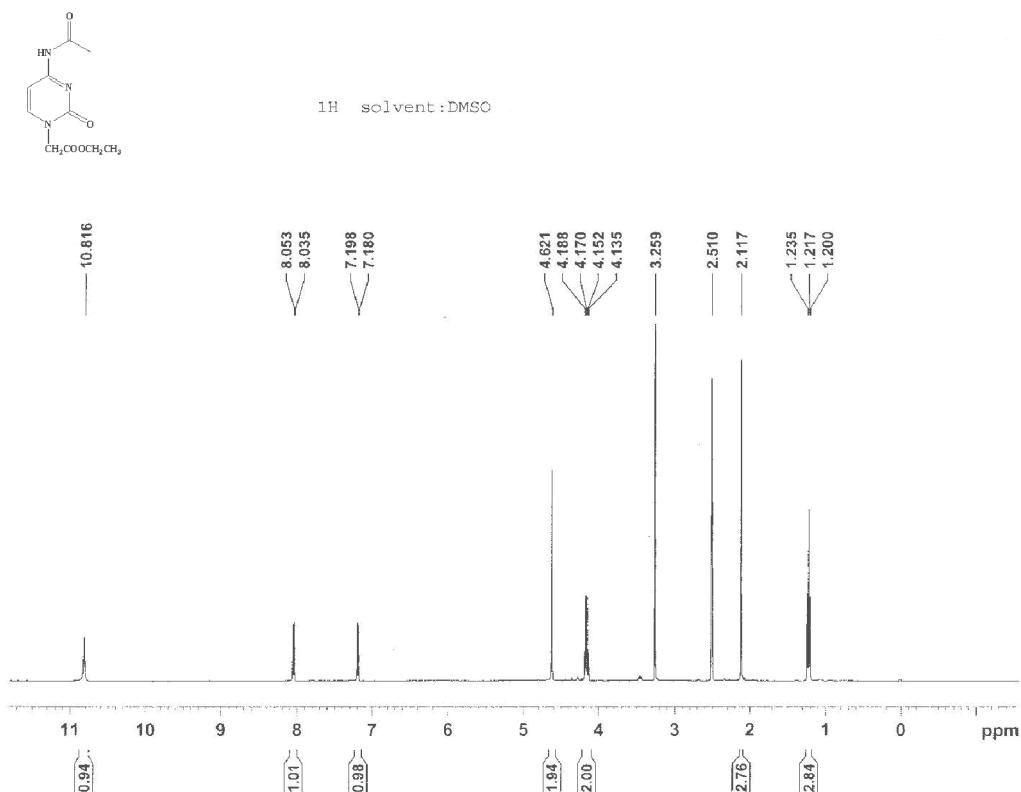
**Figure S4.**  $^{13}\text{C}$  NMR spectrum of compound **7c** (100 MHz,  $\text{DMSO}-d_6$ ).



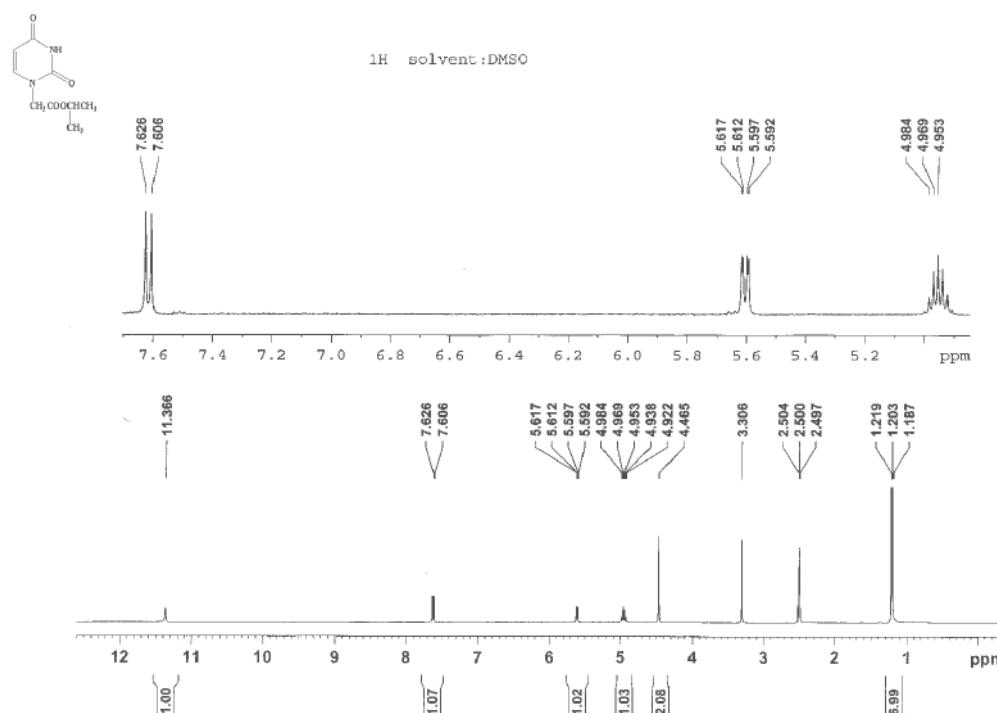
**Figure S5.**  $^1\text{H}$  NMR spectrum of compound **7d** (400 MHz,  $\text{DMSO}-d_6$ ).



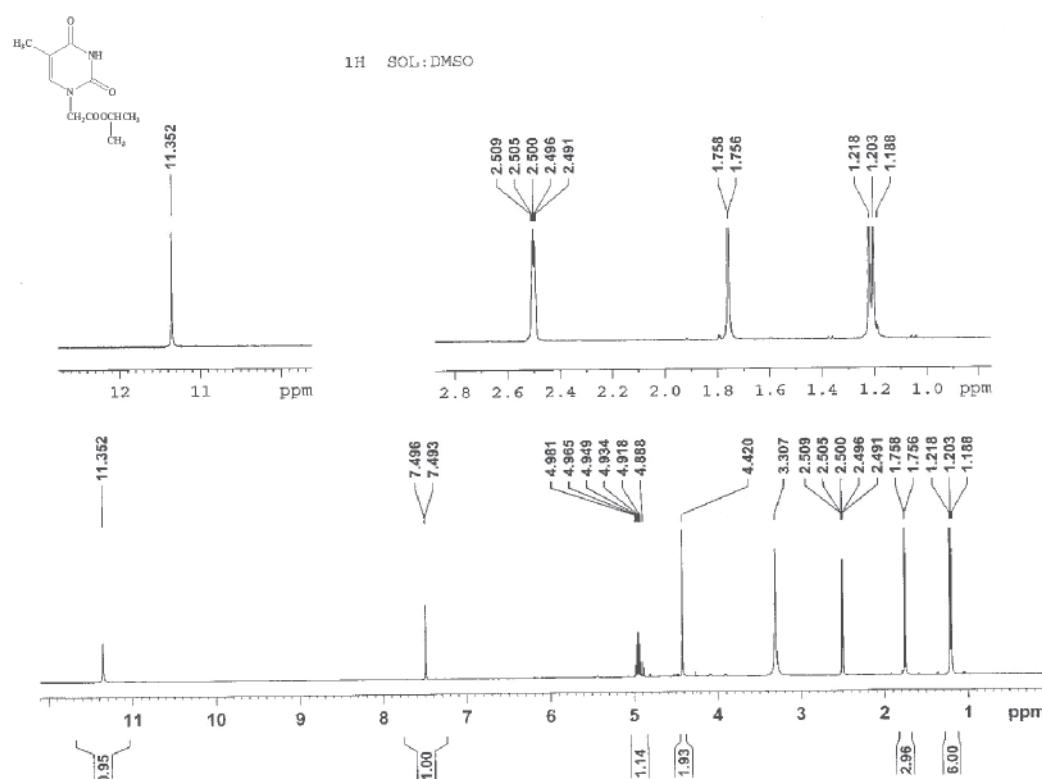
**Figure S6.** <sup>13</sup>C NMR spectrum of compound 7d (100 MHz,  $\text{DMSO}-d_6$ ).



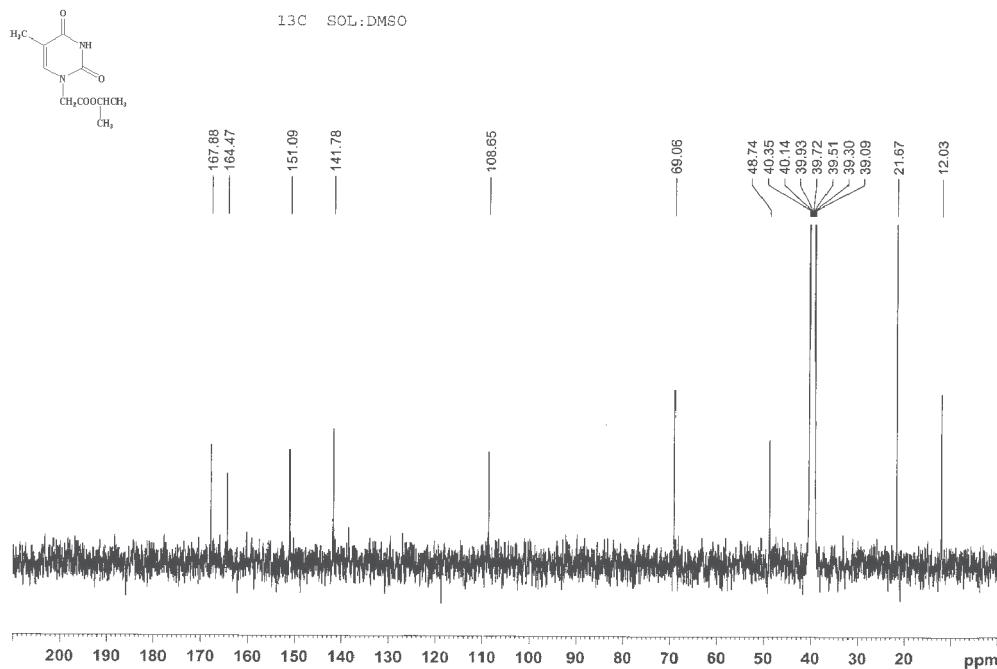
**Figure S7.** <sup>1</sup>H NMR spectrum of compound 7e (400 MHz,  $\text{DMSO}-d_6$ ).



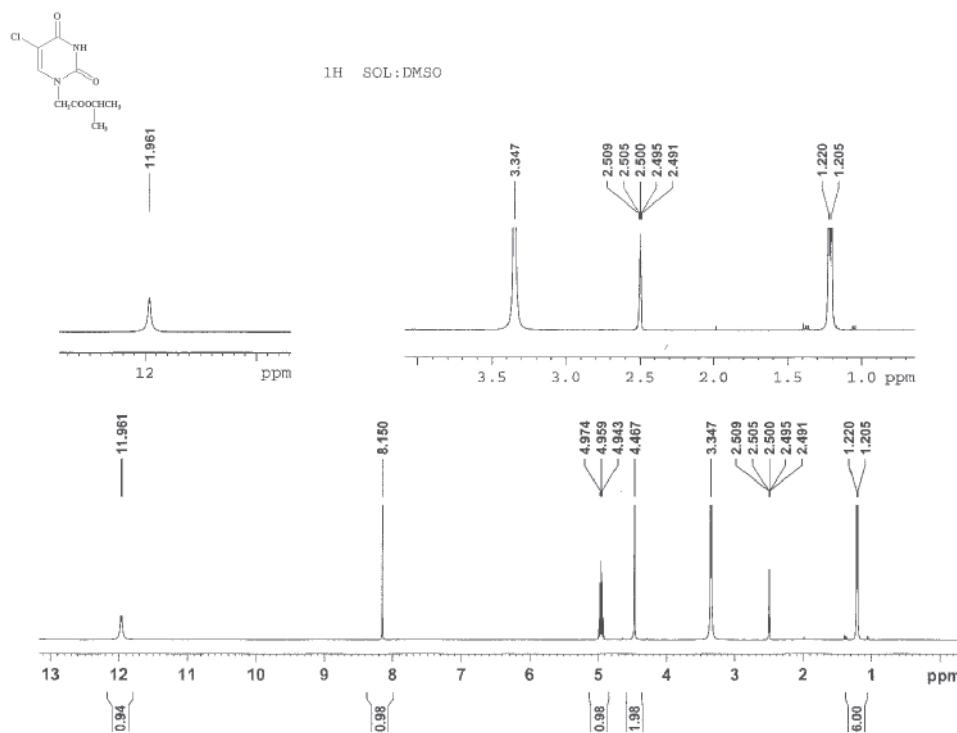
**Figure S8.**  $^1\text{H}$  NMR spectrum of compound **7f** (400 MHz,  $\text{DMSO}-d_6$ ).



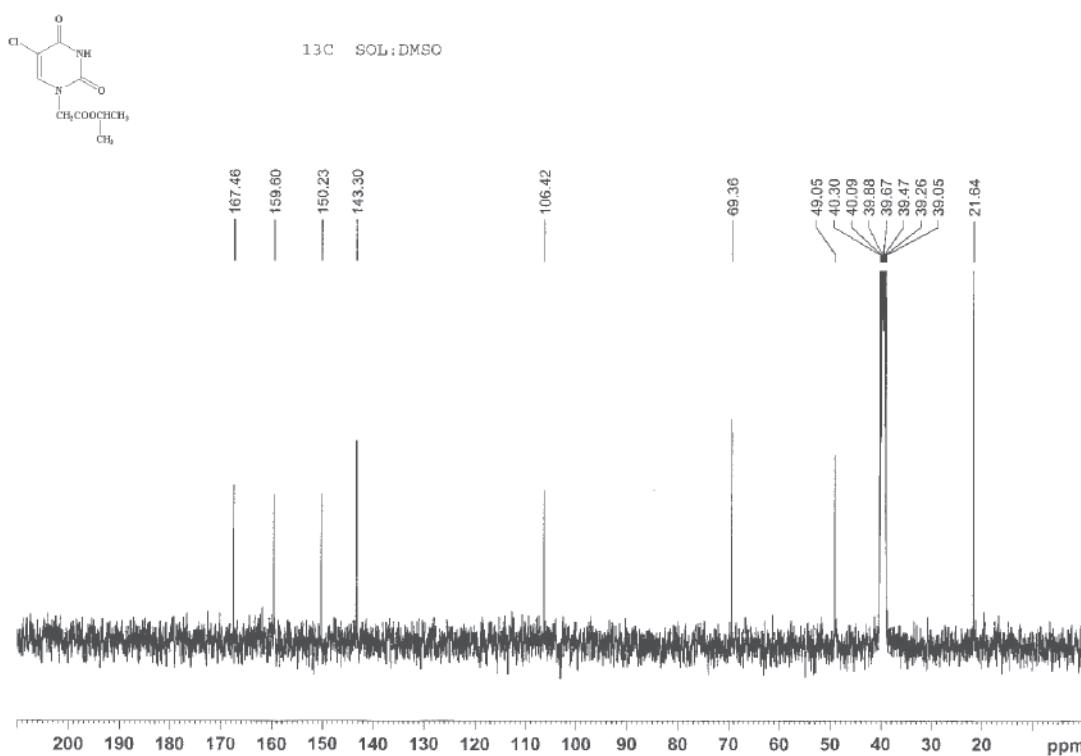
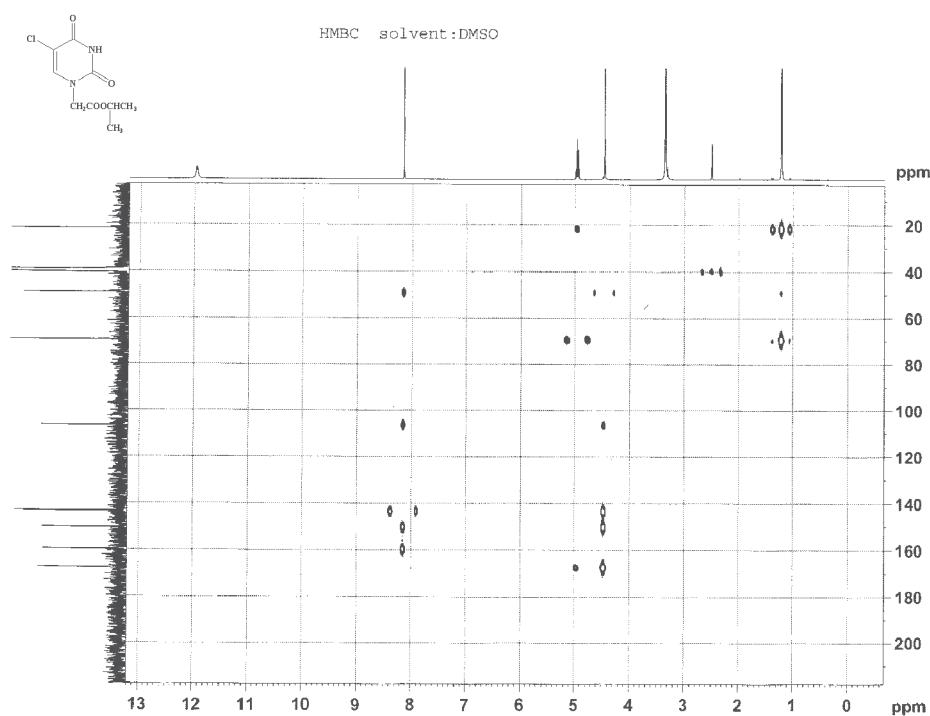
**Figure S9.**  $^1\text{H}$  NMR spectrum of compound **7g** (400 MHz,  $\text{DMSO}-d_6$ ).

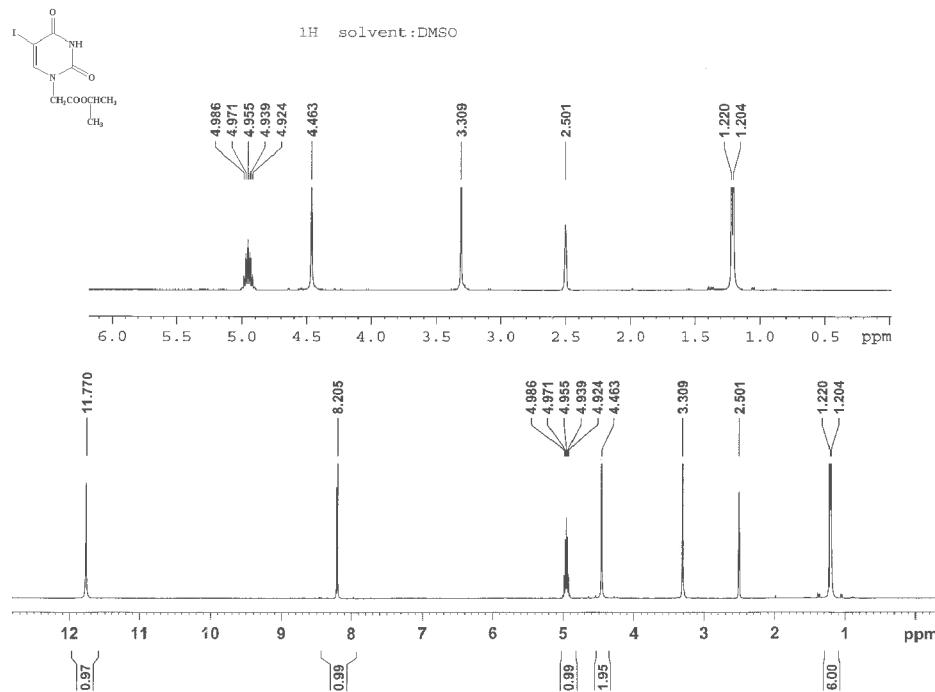


**Figure S10.** <sup>13</sup>C NMR spectrum of compound 7g (100 MHz, DMSO-*d*<sub>6</sub>).

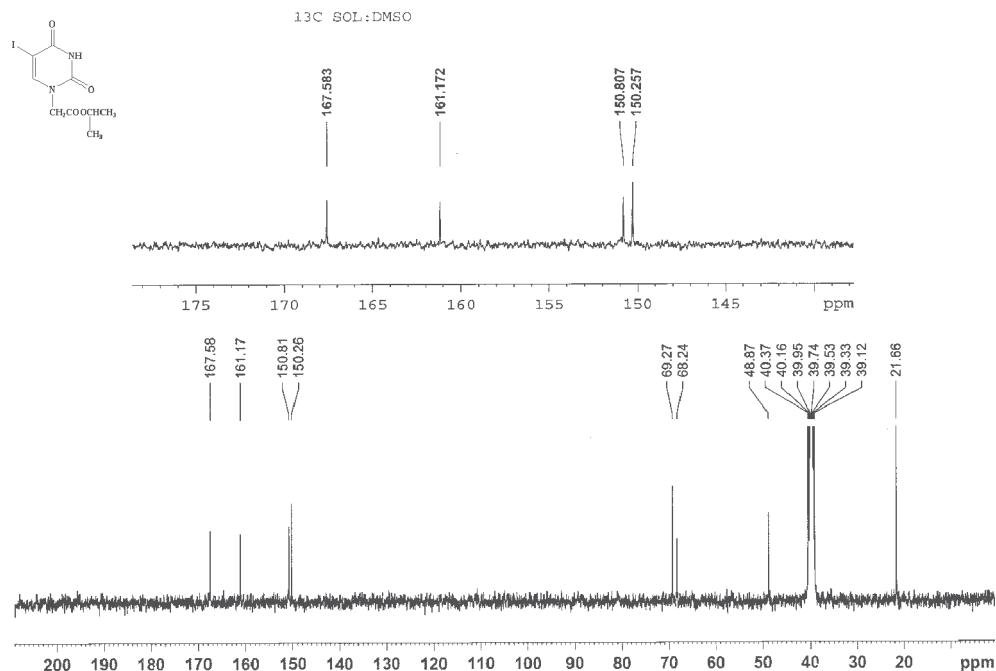


**Figure S11.** <sup>1</sup>H NMR spectrum of compound 7h (400 MHz, DMSO-*d*<sub>6</sub>).

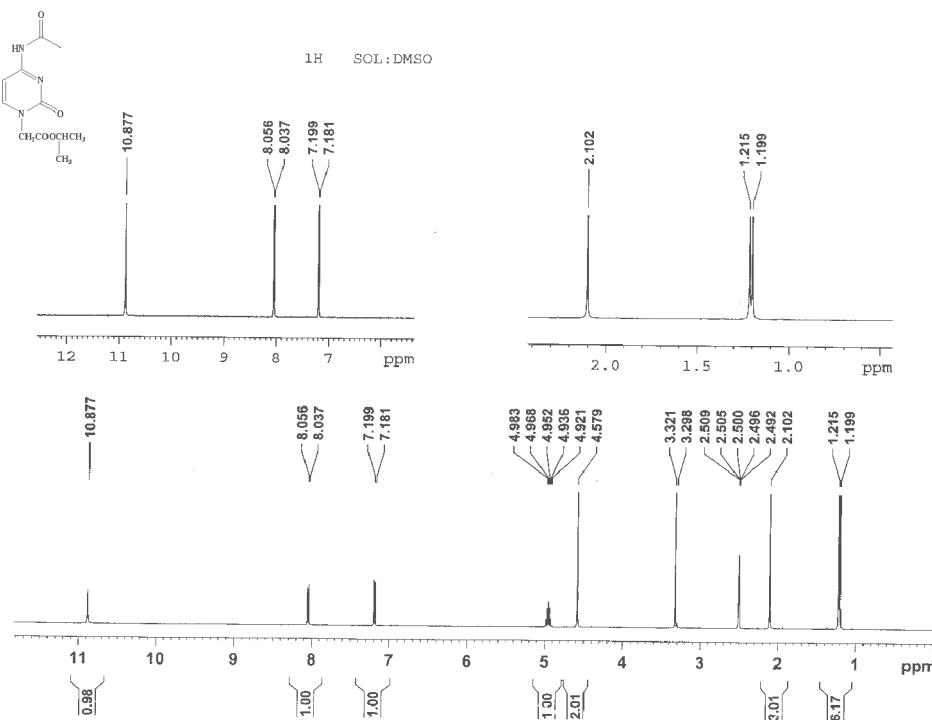
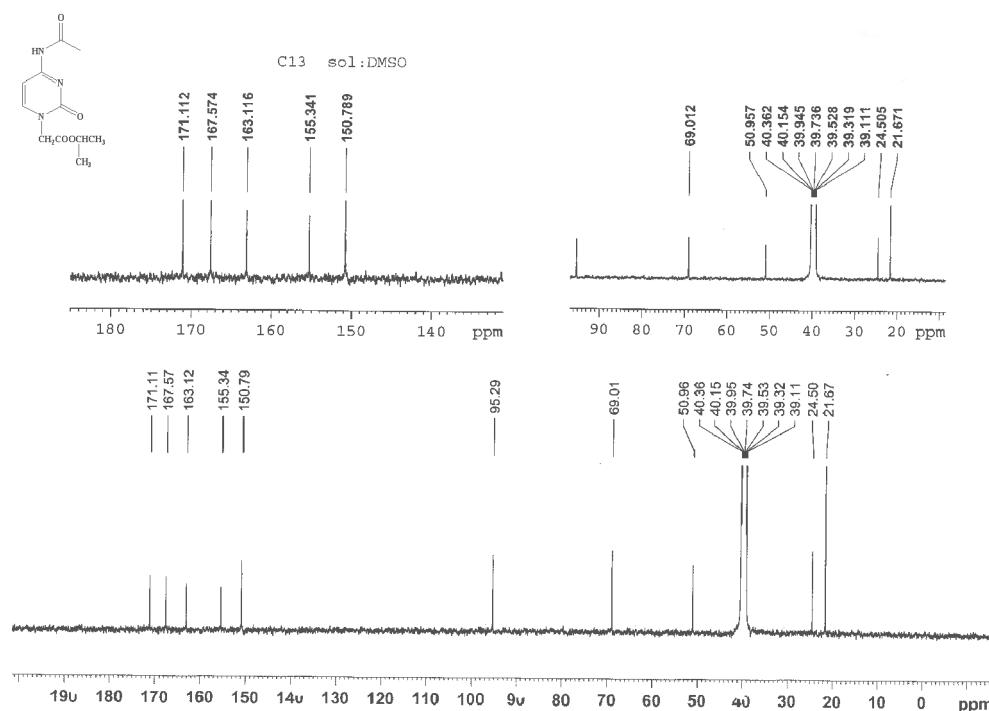
**Figure S12.**  $^{13}\text{C}$  NMR spectrum of compound **7h** (100 MHz,  $\text{DMSO}-d_6$ ).**Figure S13.** HMBC spectrum of compound **7h** ( $^1\text{H} / ^{13}\text{C}$  NMR 400 MHz / 100 MHz,  $\text{DMSO}-d_6$ ).



**Figure S14.** <sup>1</sup>H NMR spectrum of compound 7i (400 MHz, DMSO-*d*<sub>6</sub>).



**Figure S15.** <sup>13</sup>C NMR spectrum of compound 7i (100 MHz, DMSO-*d*<sub>6</sub>).

**Figure S16.** <sup>1</sup>H NMR spectrum of compound 7j (400 MHz, DMSO-*d*<sub>6</sub>).**Figure S17.** <sup>13</sup>C NMR spectrum of compound 7j (100 MHz, DMSO-*d*<sub>6</sub>).

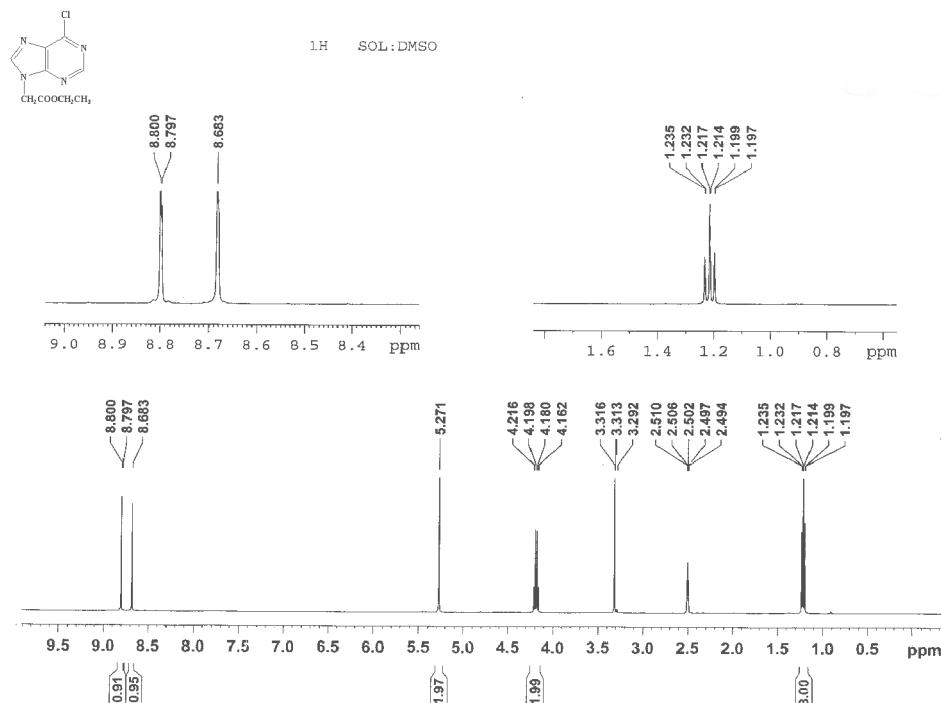


Figure S18. <sup>1</sup>H NMR spectrum of compound 9a (400 MHz, DMSO-*d*<sub>6</sub>).

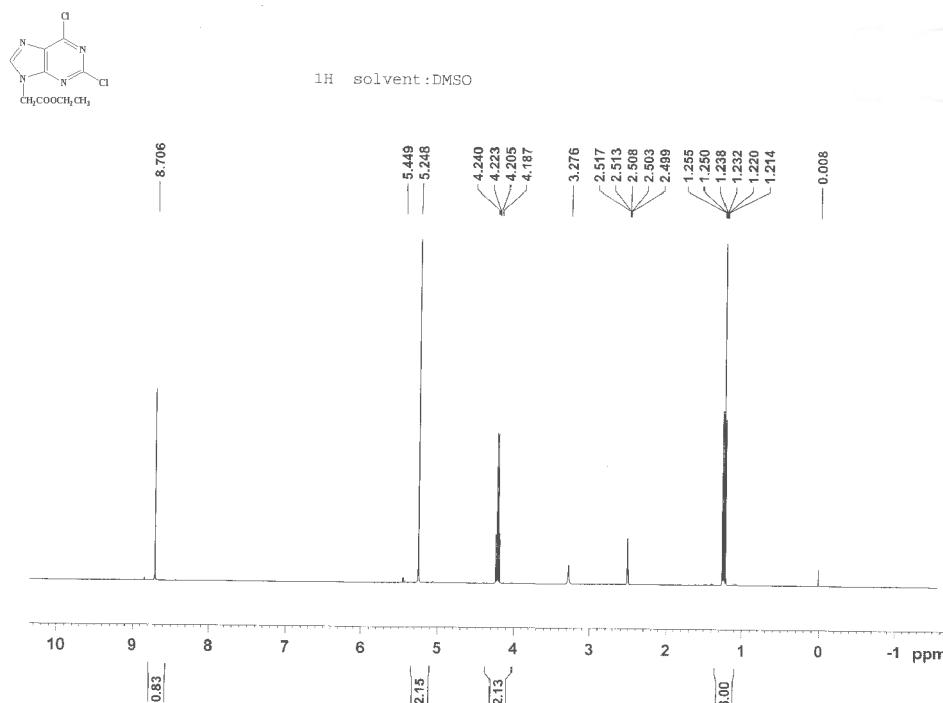
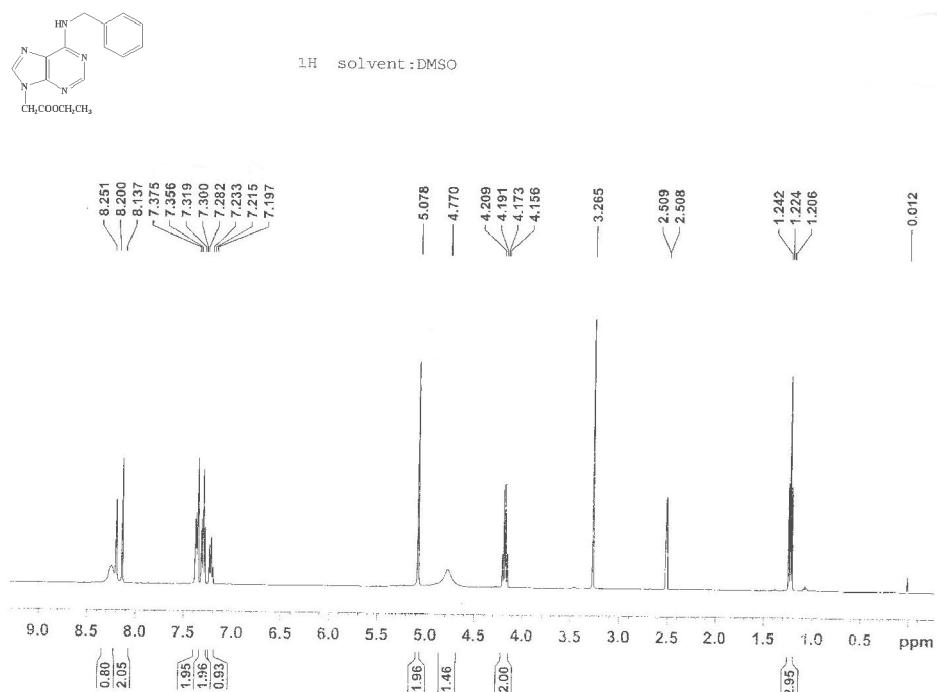
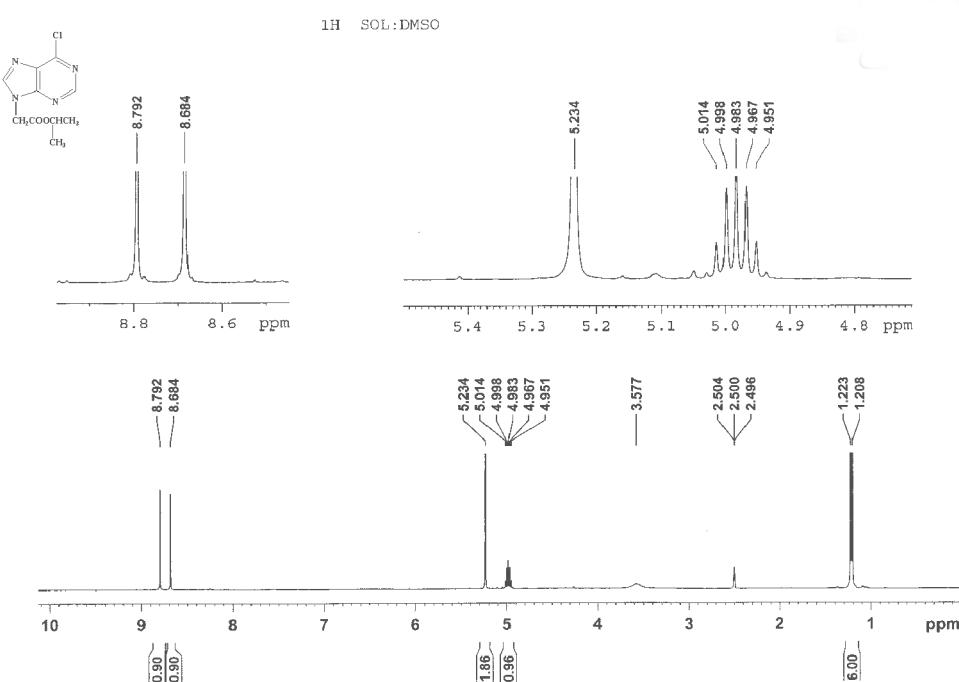
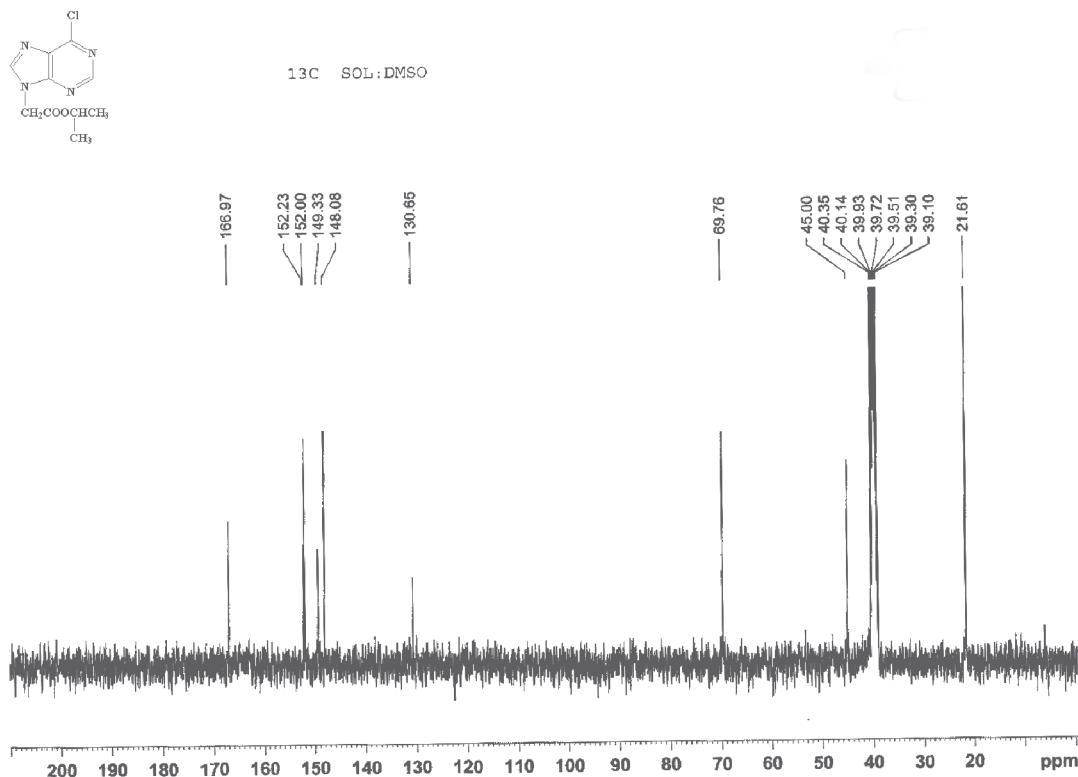
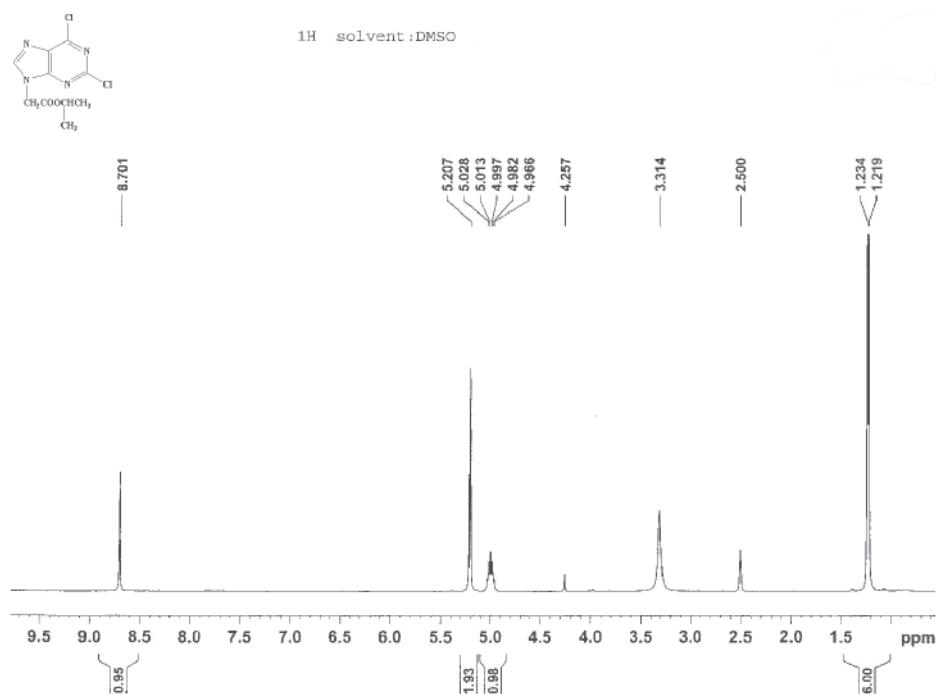


Figure S19. <sup>1</sup>H NMR spectrum of compound 9b (400 MHz, DMSO-*d*<sub>6</sub>).

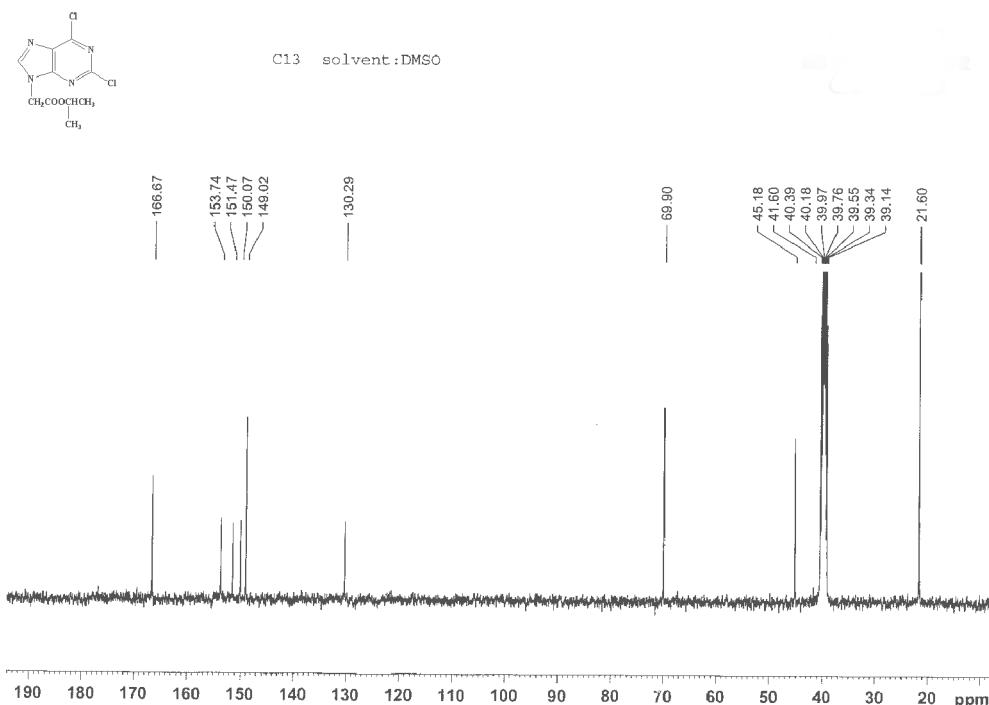
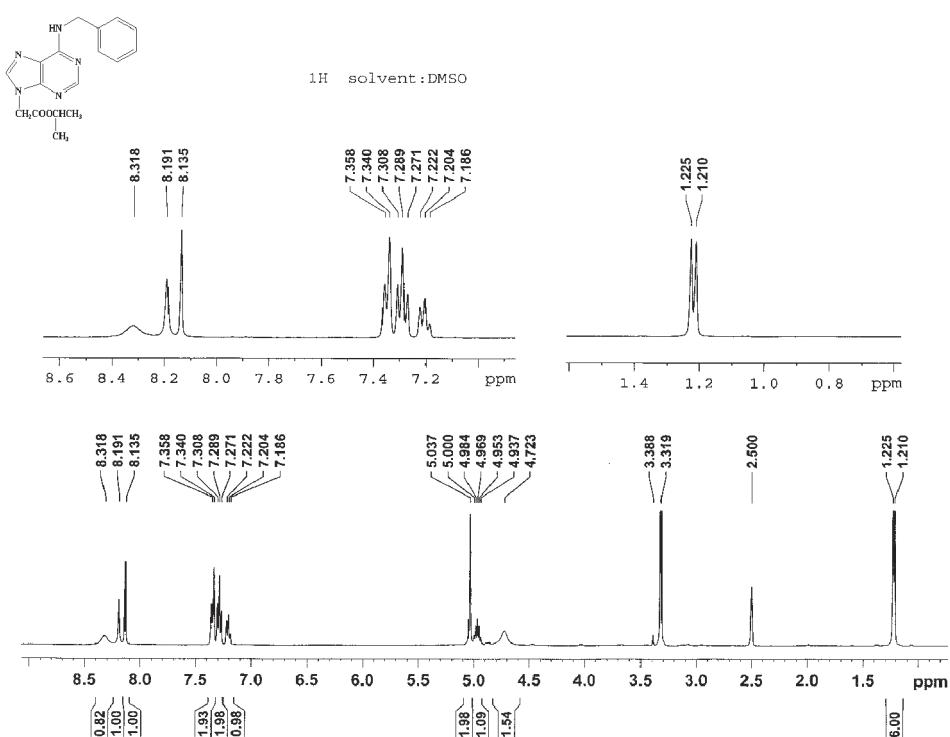
**Figure S20.**  $^1\text{H}$  NMR spectrum of compound **9d** (400 MHz, DMSO- $d_6$ ).**Figure S21.**  $^1\text{H}$  NMR spectrum of compound **9e** (400 MHz, DMSO- $d_6$ ).

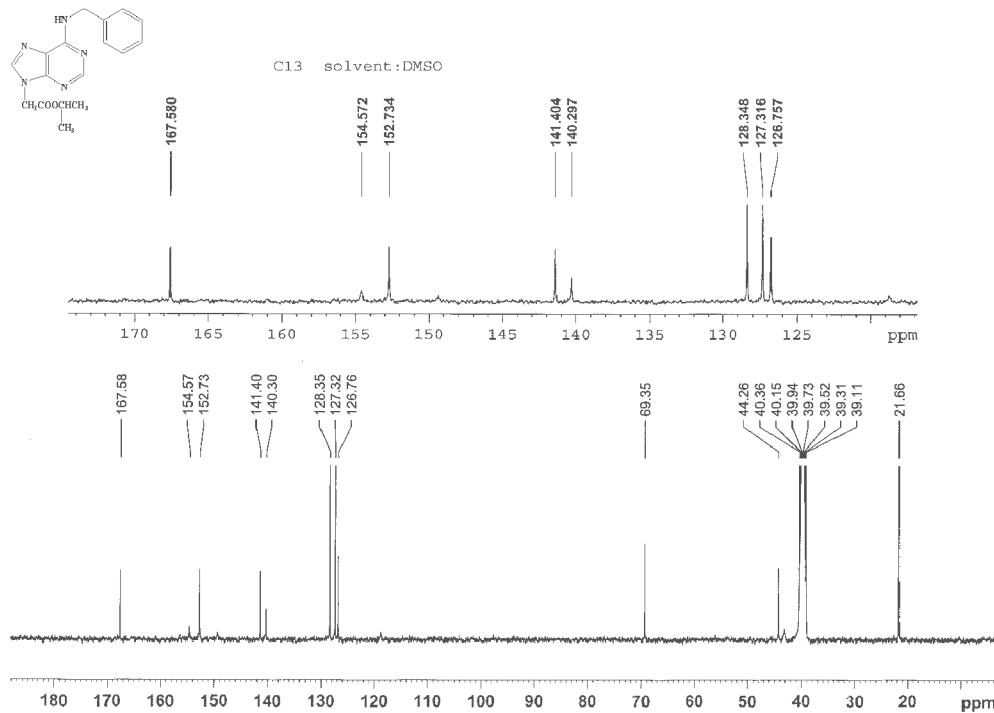


**Figure S22.** <sup>13</sup>C NMR spectrum of compound **9e** (100 MHz, DMSO-*d*<sub>6</sub>).



**Figure S23.** <sup>1</sup>H NMR spectrum of compound **9f** (400 MHz, DMSO-*d*<sub>6</sub>).

**Figure S24.**  $^{13}\text{C}$  NMR spectrum of compound **9f** (100 MHz,  $\text{DMSO}-d_6$ ).**Figure S25.**  $^1\text{H}$  NMR spectrum of compound **9g** (400 MHz,  $\text{DMSO}-d_6$ ).



**Figure S26.**  $^{13}\text{C}$  NMR spectrum of compound **9g** (100 MHz,  $\text{DMSO}-d_6$ ).