Synthesis of the G–C DNA Base Hybrid with a Functional Tail

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Supporting Information

Table of Contents

General Experimental Procedures	p. S-2
¹ H and ¹³ C-NMR Spectra	p. S-3 - S-22

General Experimental Procedures

NMR spectra were referenced to the solvent peak ($\delta_{\text{H}} = 7.27$ and $\delta_{\text{C}} = 77.0$ ppm for CDCl_3 ; 2.52 and 39.5 ppm for d_6 -DMSO). All non-aqueous reactions were carried out under an atmosphere of dry nitrogen. The 0.4 M aq. phosphate buffer used in these procedures was an equimolar mixture of disodium hydrogen orthophosphate and potassium dihydrogen orthophosphate. All reagents were supplied commercially and used without further purification. Flash column chromatography was carried out with Merck Kieselgel 60 (230–400 mesh).

FIGURE 1. ^1H NMR spectrum of **5**.

FIGURE 3. ^1H NMR spectrum of **6**.

FIGURE 4. ^{13}C NMR spectrum of **6**.

FIGURE 5. ^1H NMR spectrum of 7.

FIGURE 6. ^{13}C NMR spectrum of **7**.

FIGURE 7. ^1H NMR spectrum of **8**.

FIGURE 8. ^{13}C NMR spectrum of **8**.

FIGURE 9. ^1H NMR spectrum of **2**.

FIGURE 10. ^{13}C NMR spectrum of **2**.

FIGURE 11. ^1H NMR spectrum of **9a**.

FIGURE 12. ^{13}C NMR spectrum of **9a**.

FIGURE 13. ^1H NMR spectrum of **9b**.

FIGURE 14. ^{13}C NMR spectrum of **9b**.

FIGURE 15. ^1H NMR spectrum of **10**.

FIGURE 16. ^{13}C NMR spectrum of **10**.

FIGURE 17. ^1H NMR spectrum of **11**.

FIGURE 18. ^{13}C NMR spectrum of **11**.

FIGURE 19. ^1H NMR spectrum of **3**.

FIGURE 20. ^{13}C NMR spectrum of **3**.