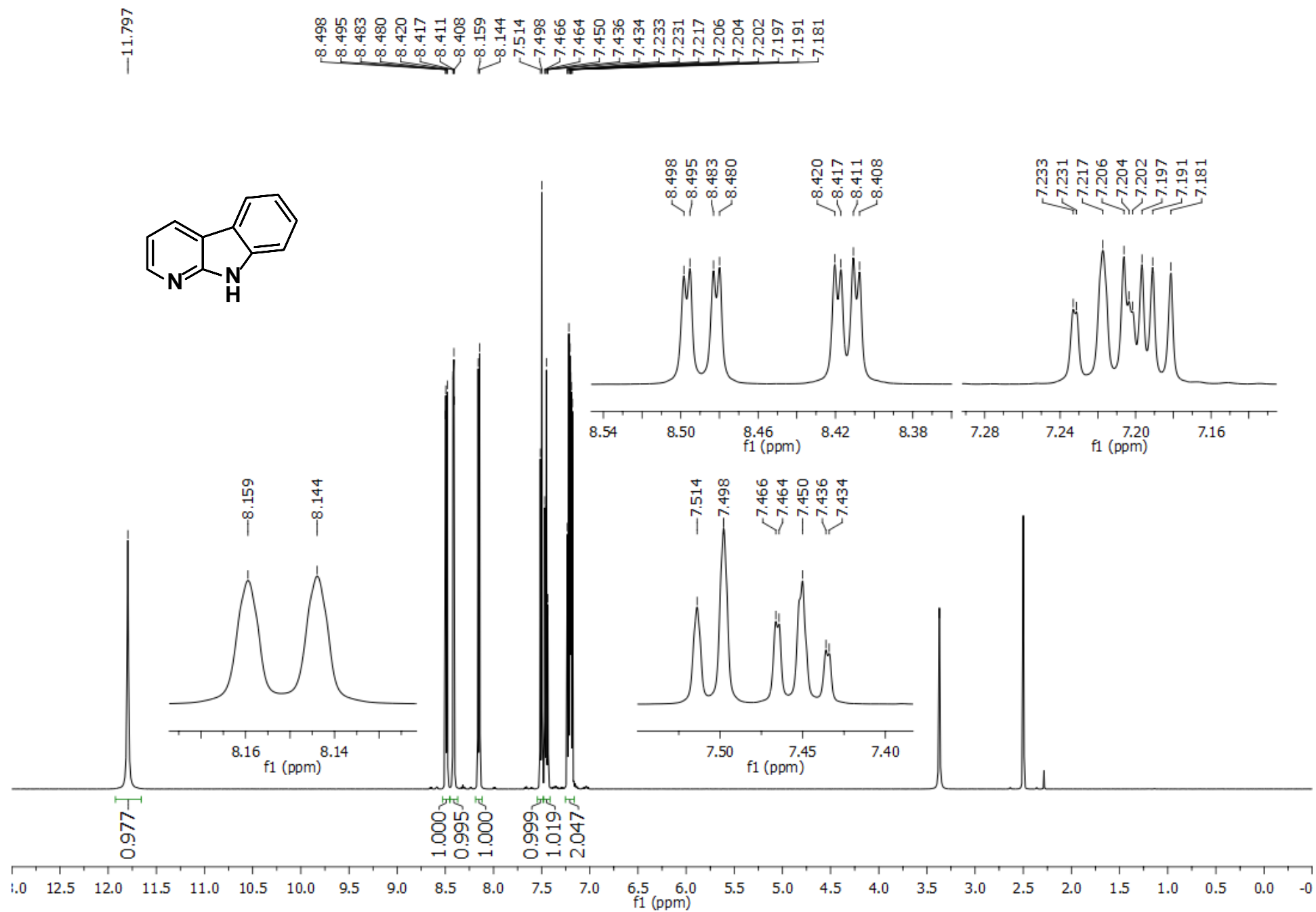
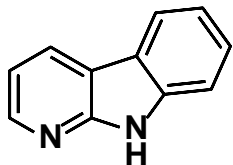


α -Carboline (^1H NMR, 500 MHz, DMSO)



α -Carboline (^1H NMR, 600 MHz, DMSO) – QNMR Analysis (d1 = 50 s, 1 scan) after trituration with CH_3CN



$$\text{Molar ratio} = \frac{1}{\frac{2.709}{3}} = 1.1074197$$

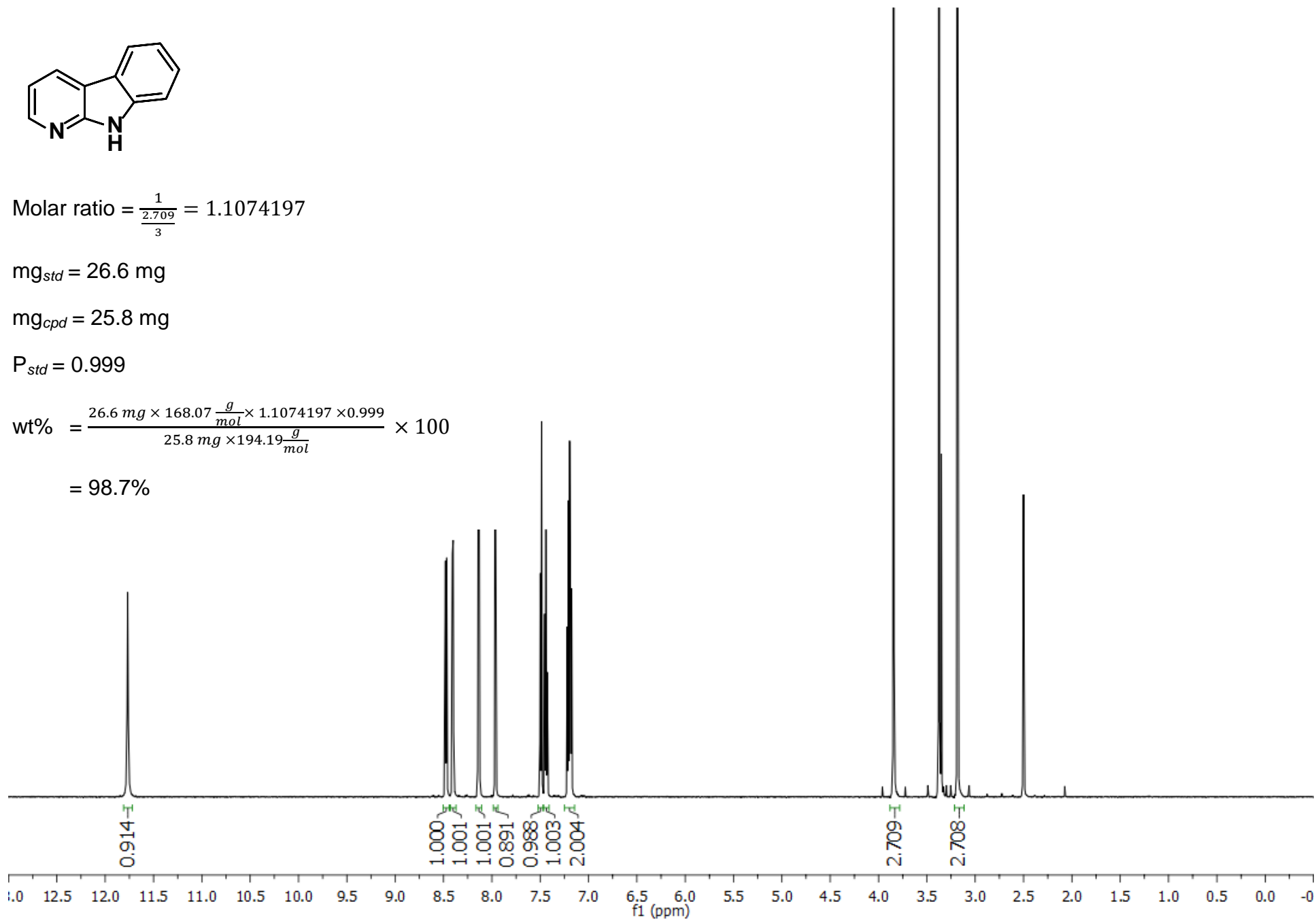
$$\text{mg}_{\text{std}} = 26.6 \text{ mg}$$

$$\text{mg}_{\text{cpd}} = 25.8 \text{ mg}$$

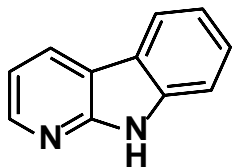
$$P_{\text{std}} = 0.999$$

$$\text{wt}\% = \frac{26.6 \text{ mg} \times 168.07 \frac{\text{g}}{\text{mol}} \times 1.1074197 \times 0.999}{25.8 \text{ mg} \times 194.19 \frac{\text{g}}{\text{mol}}} \times 100$$

$$= 98.7\%$$



α -Carboline (^1H NMR, 600 MHz, DMSO) – QNMR Analysis (d1 = 50 s, 1 scan) after recrystallization in PhMe



$$\text{Molar ratio} = \frac{1}{\frac{2.676}{3}} = 1.1210762$$

$$\text{mg}_{std} = 26.6 \text{ mg}$$

$$\text{mg}_{cpd} = 25.8 \text{ mg}$$

$$P_{std} = 0.999$$

$$\text{wt\%} = \frac{26.6 \text{ mg} \times 168.07 \frac{\text{g}}{\text{mol}} \times 1.1210762 \times 0.999}{25.8 \text{ mg} \times 194.19 \frac{\text{g}}{\text{mol}}} \times 100$$

$$= 99.9\%$$

