

Activation-free one-pot alkynylation–cyclization synthesis of 2-substituted 4-azaindoles and indoles

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SUPPLEMENTARY INFORMATION

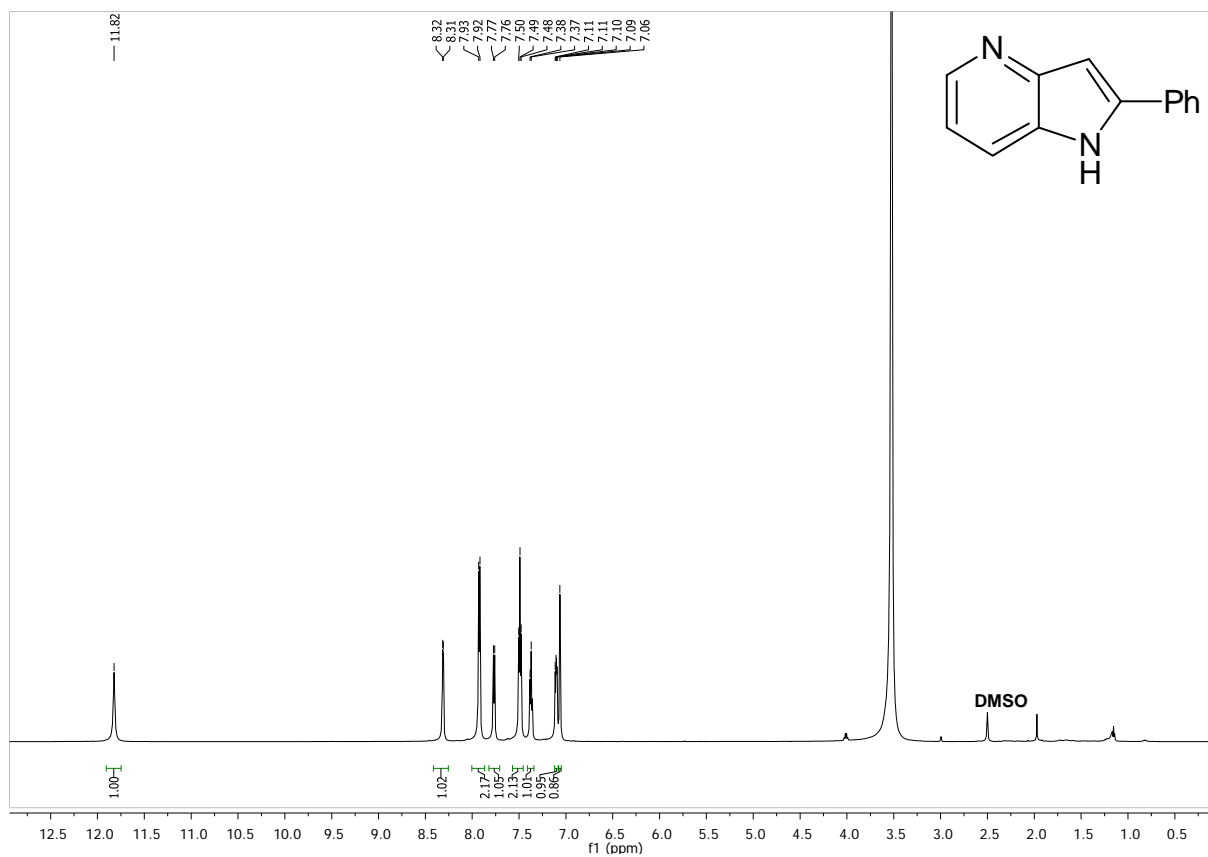
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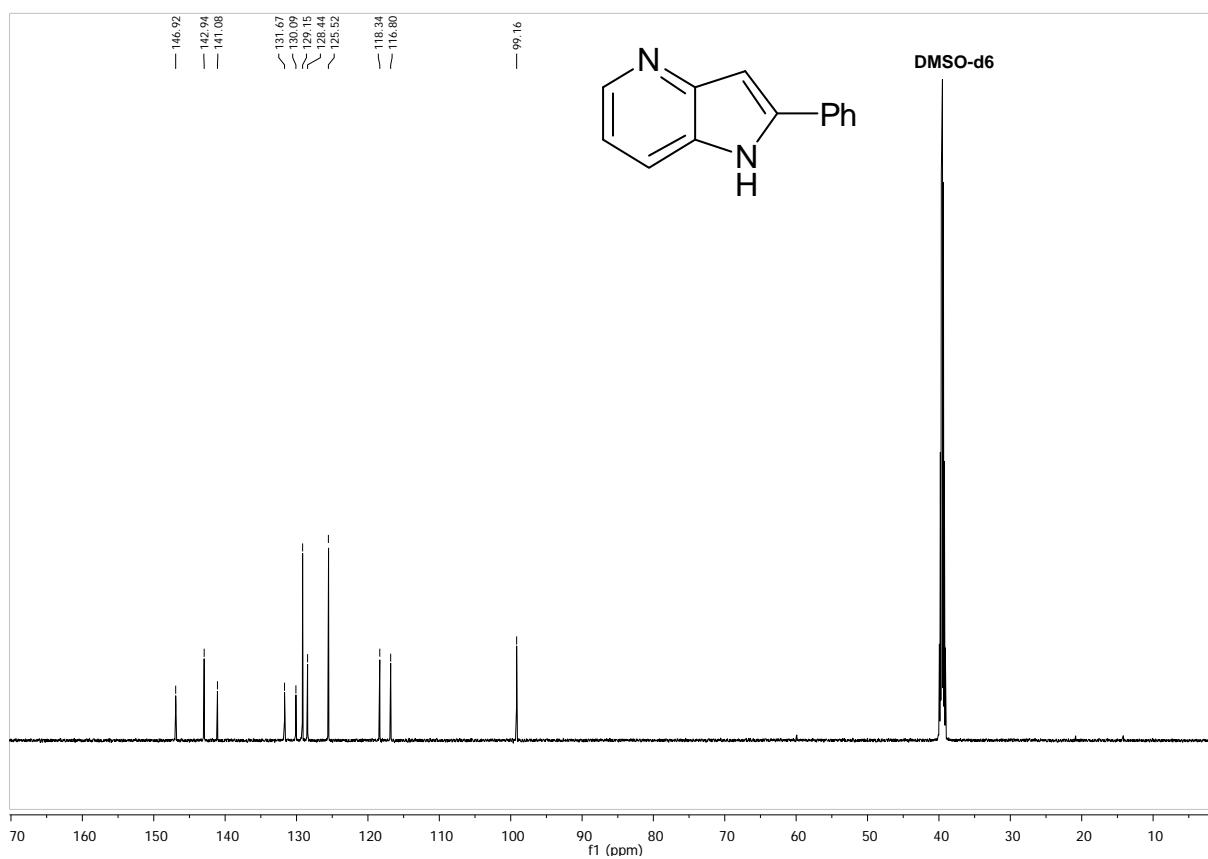
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1 ^1H and ^{13}C NMR and 135DEPT spectra of compounds 3

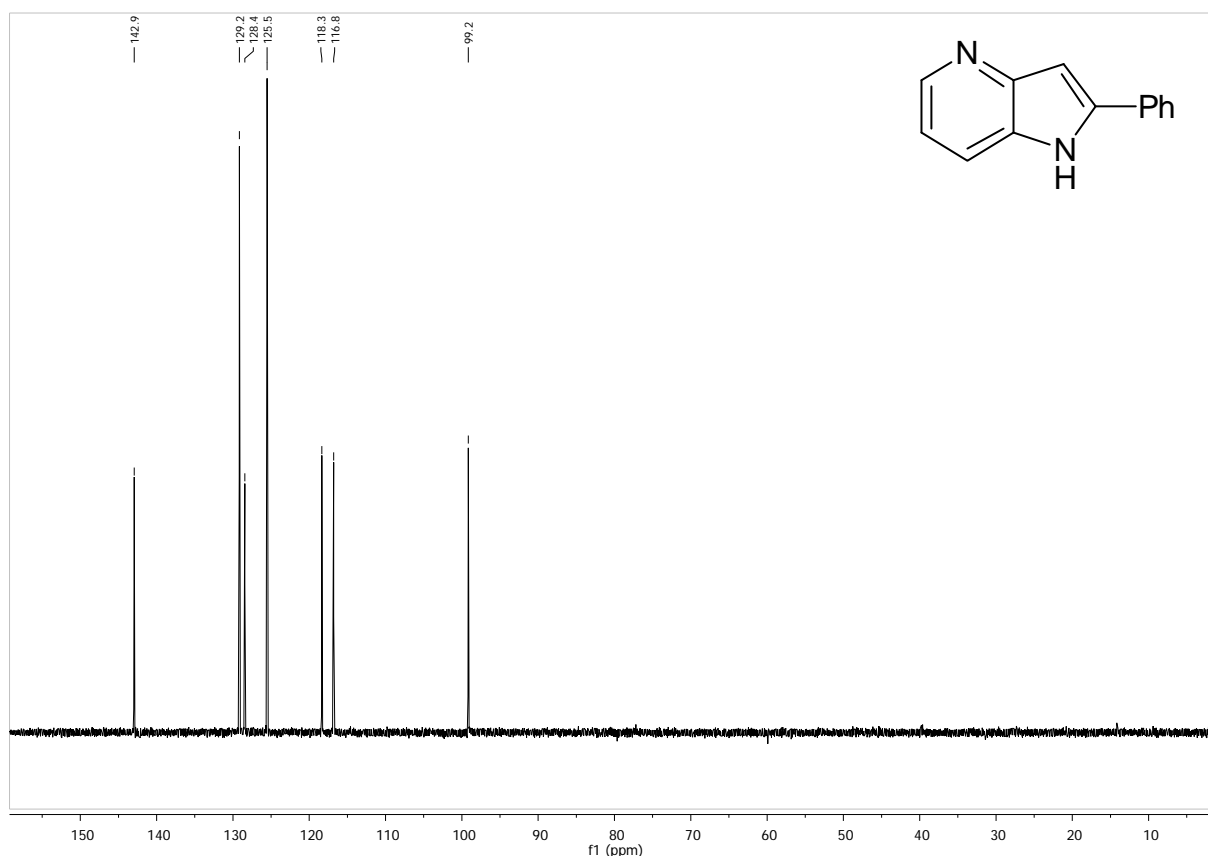
1.1 2-Phenyl-1*H*-pyrrolo[3,2-*b*]pyridine (3a)



^1H NMR spectrum of **3a** (DMSO- d_6 , 600 MHz, 293 K).

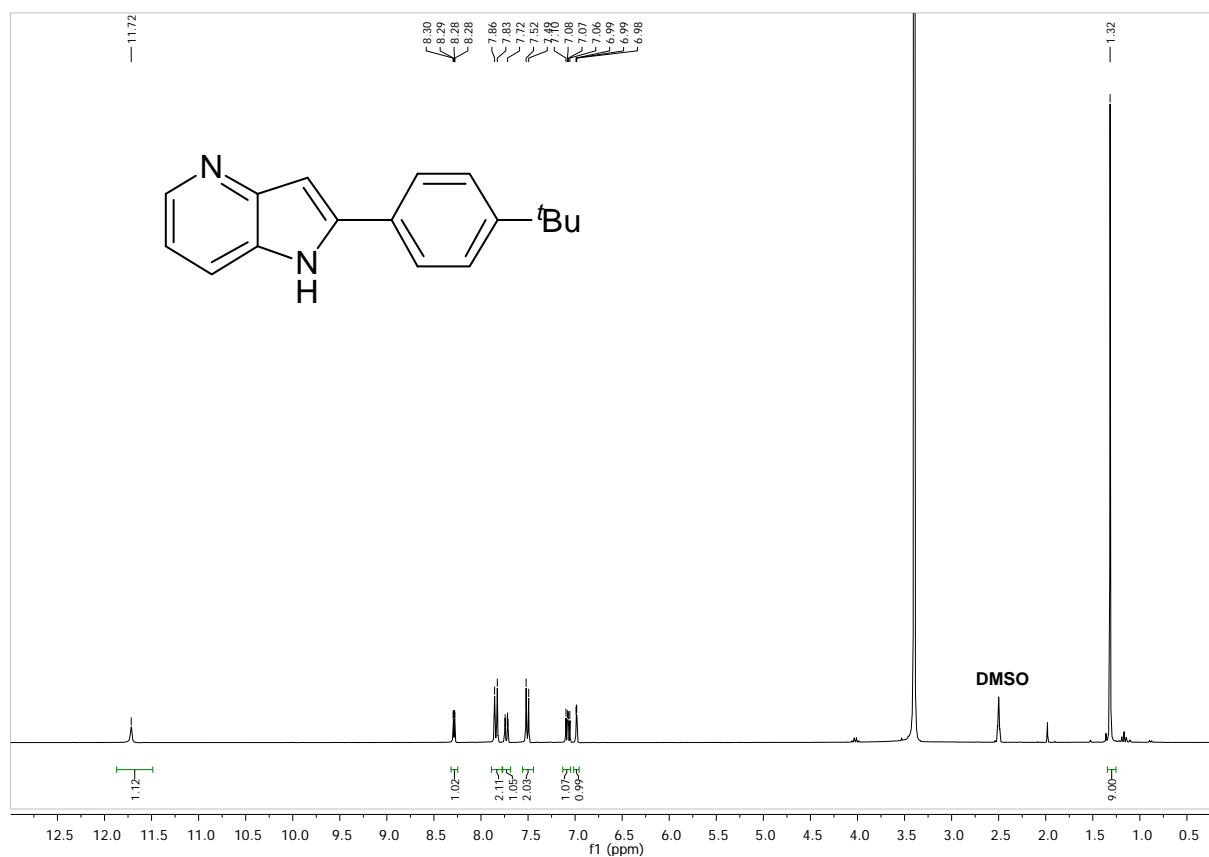


¹³C NMR spectrum of **3a** (DMSO-d₆, 150 MHz, 293 K).

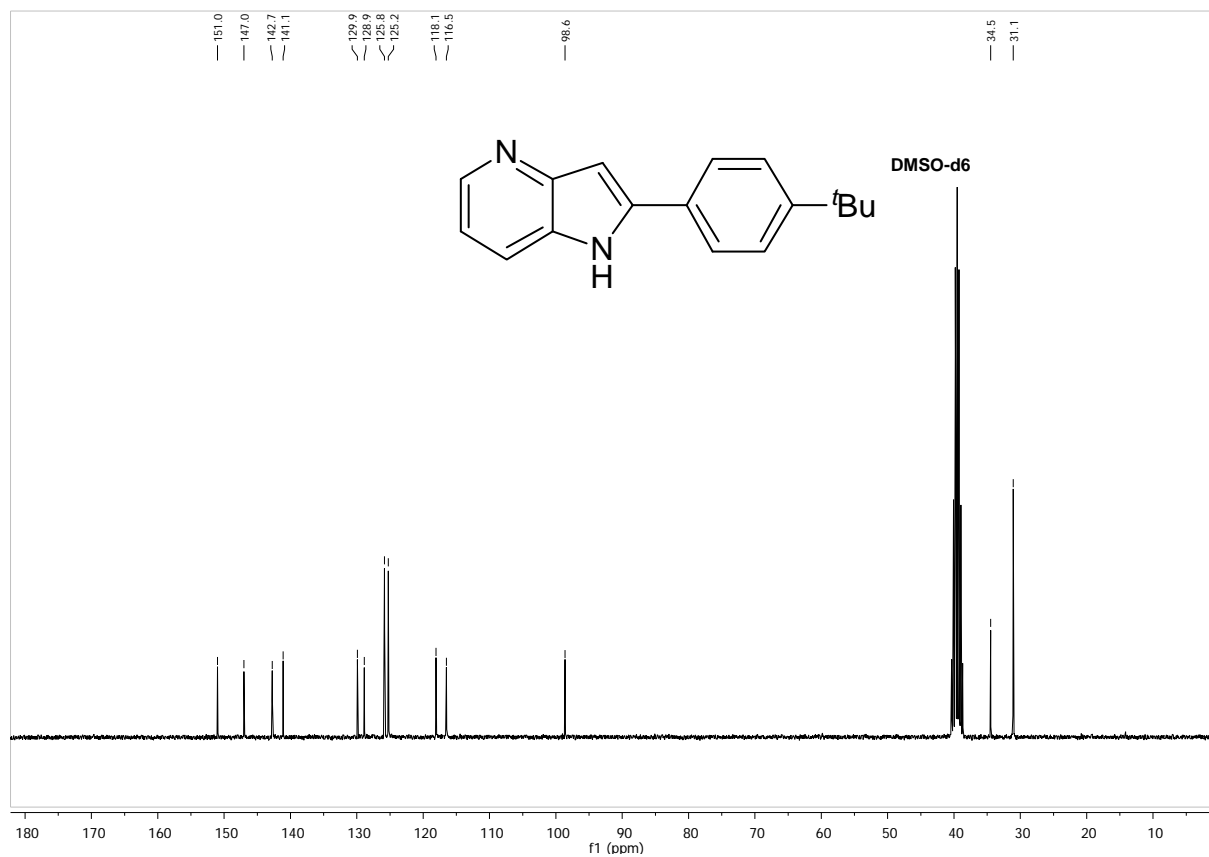


¹³⁵DEPT NMR spectrum of **3a** (DMSO-d₆, 293 K).

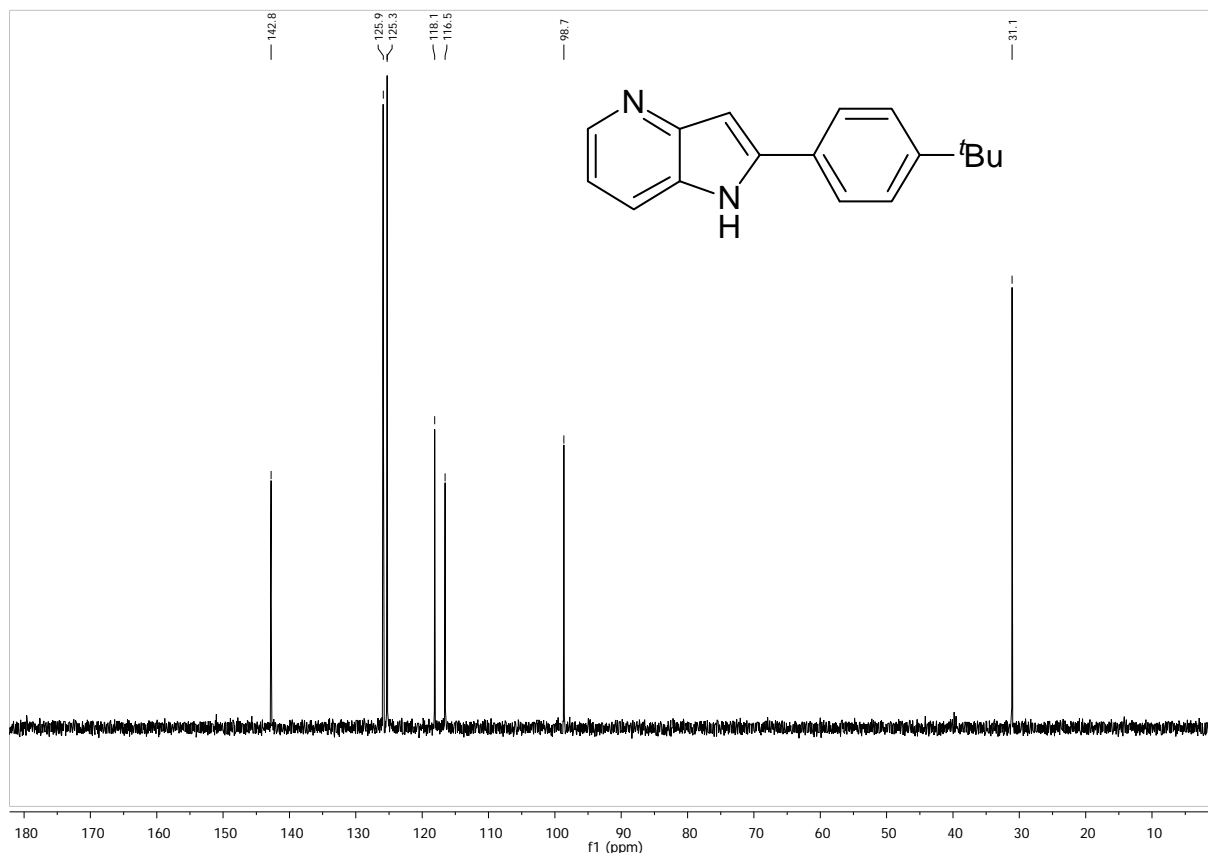
1.2 2-(4-(*tert*-Butyl)phenyl)-1*H*-pyrrolo[3,2-*b*]pyridine (3b)



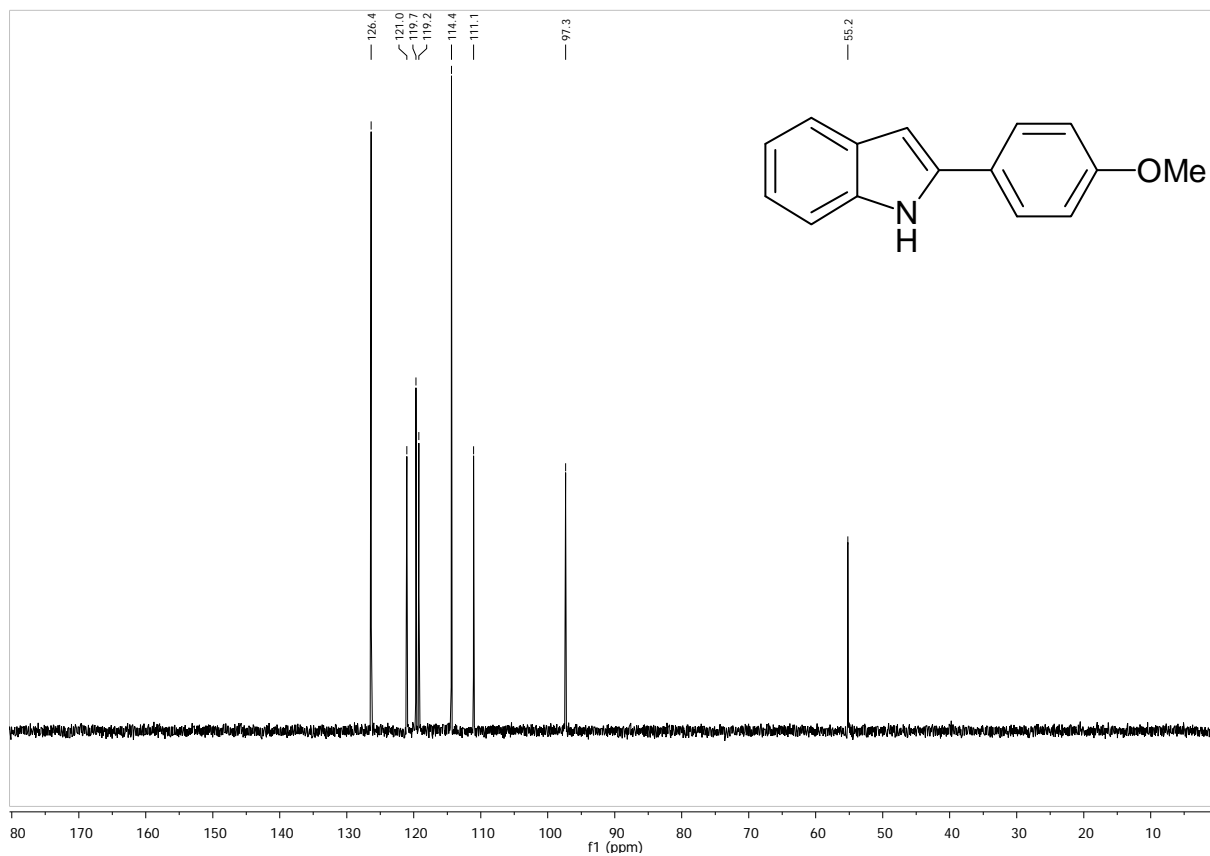
¹H NMR spectrum of **3b** (DMSO-*d*₆, 300 MHz, 293 K).



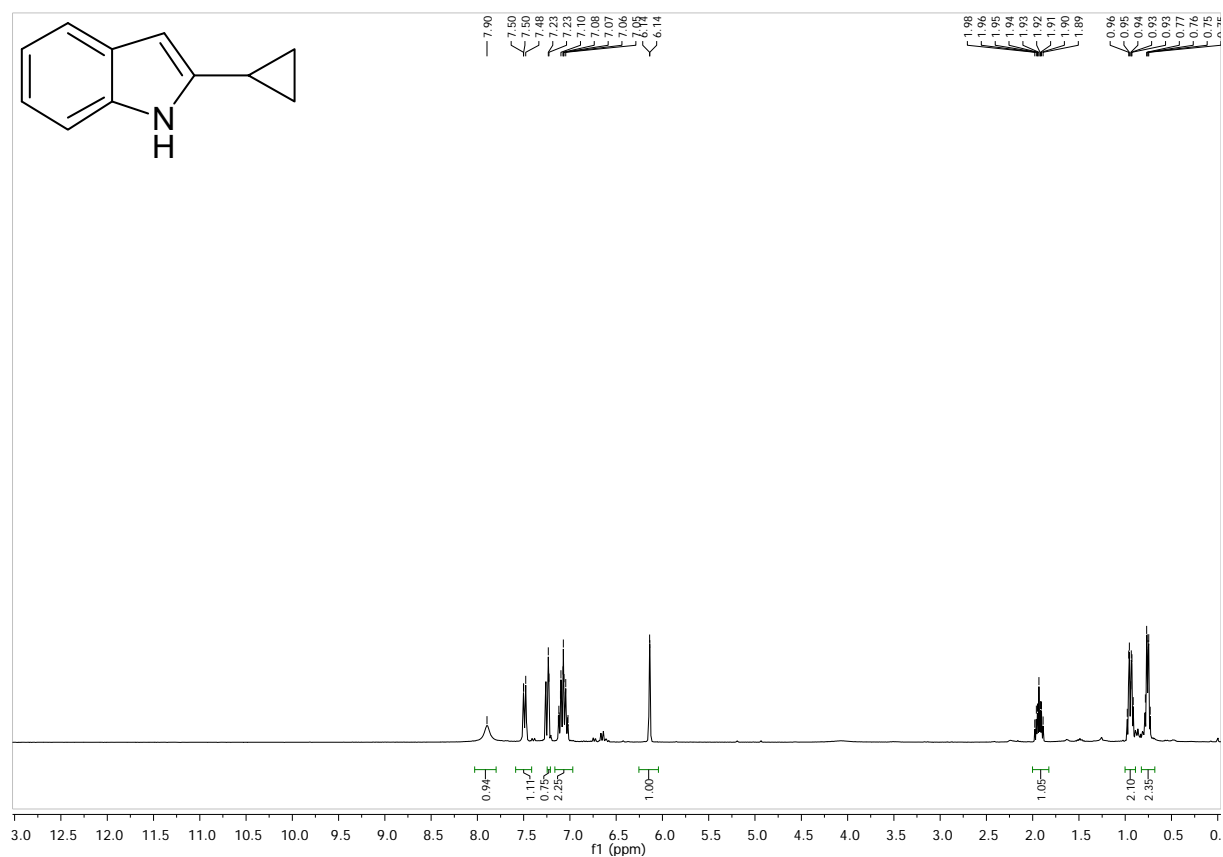
¹³C NMR spectrum of **3b** (DMSO-*d*₆, 75 MHz, 293 K).



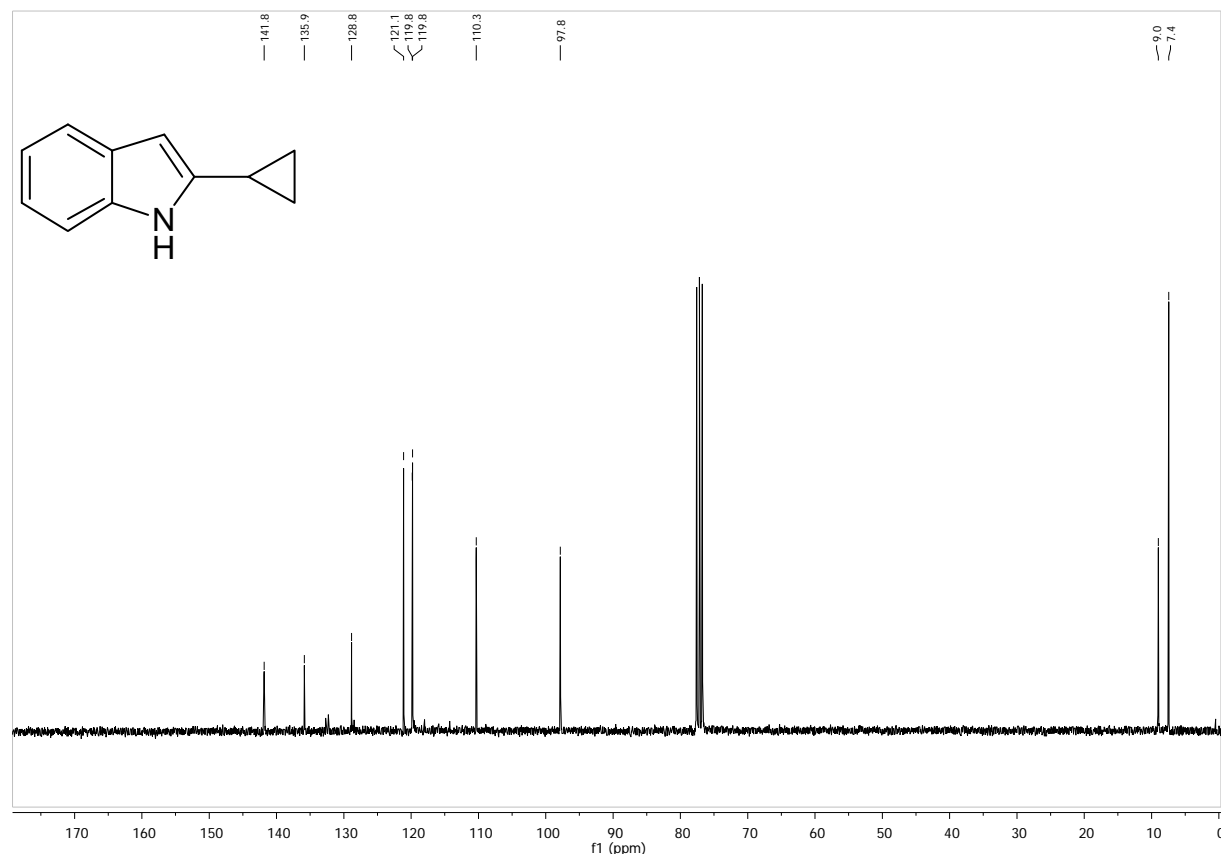
135DEPT NMR spectrum of **3b** (DMSO-d₆, 293 K).



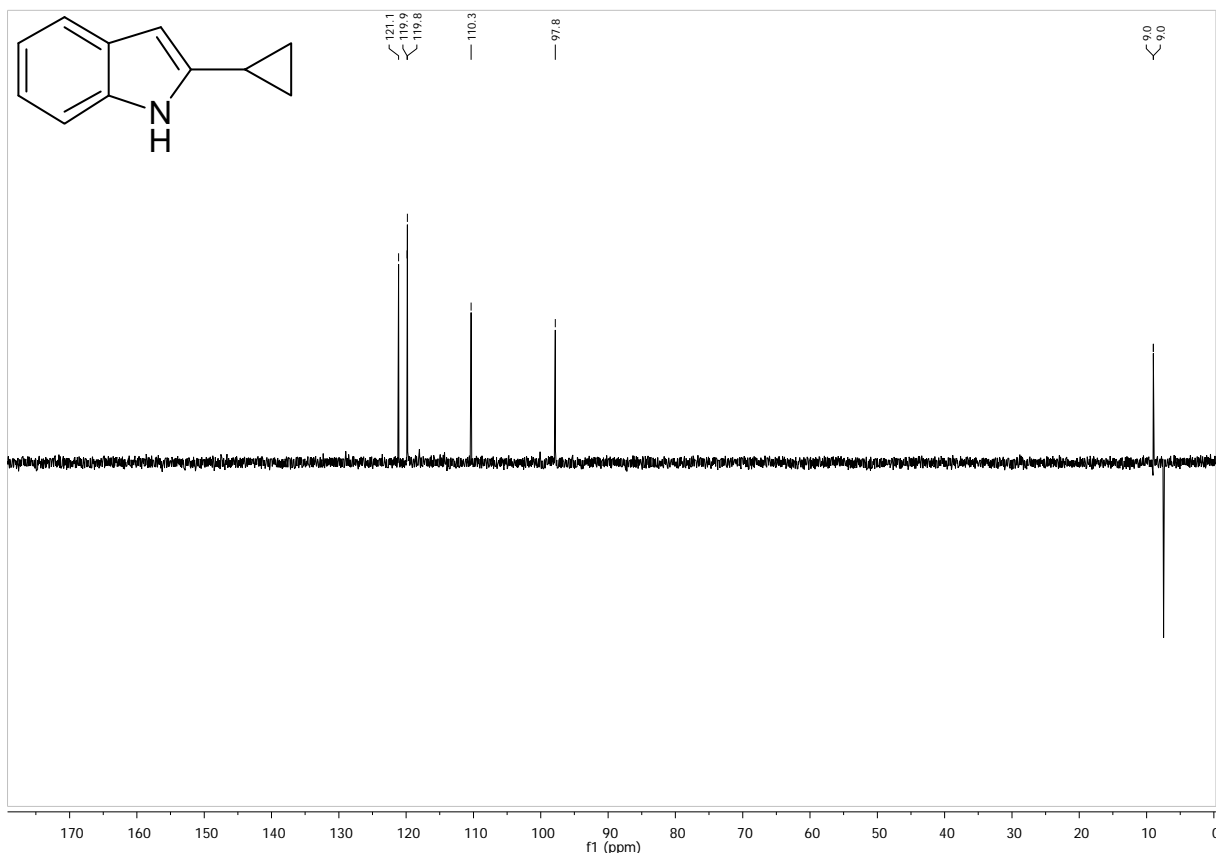
1.10 2-Cyclopropyl-1H-indole (3j)



¹H NMR spectrum of **3j** (CDCl₃, 300 MHz, 293 K).



¹³C NMR spectrum of **3j** (CDCl₃, 75 MHz, 293 K).



¹³⁵DEPT NMR spectrum of **3j** (CDCl₃, 293 K).