

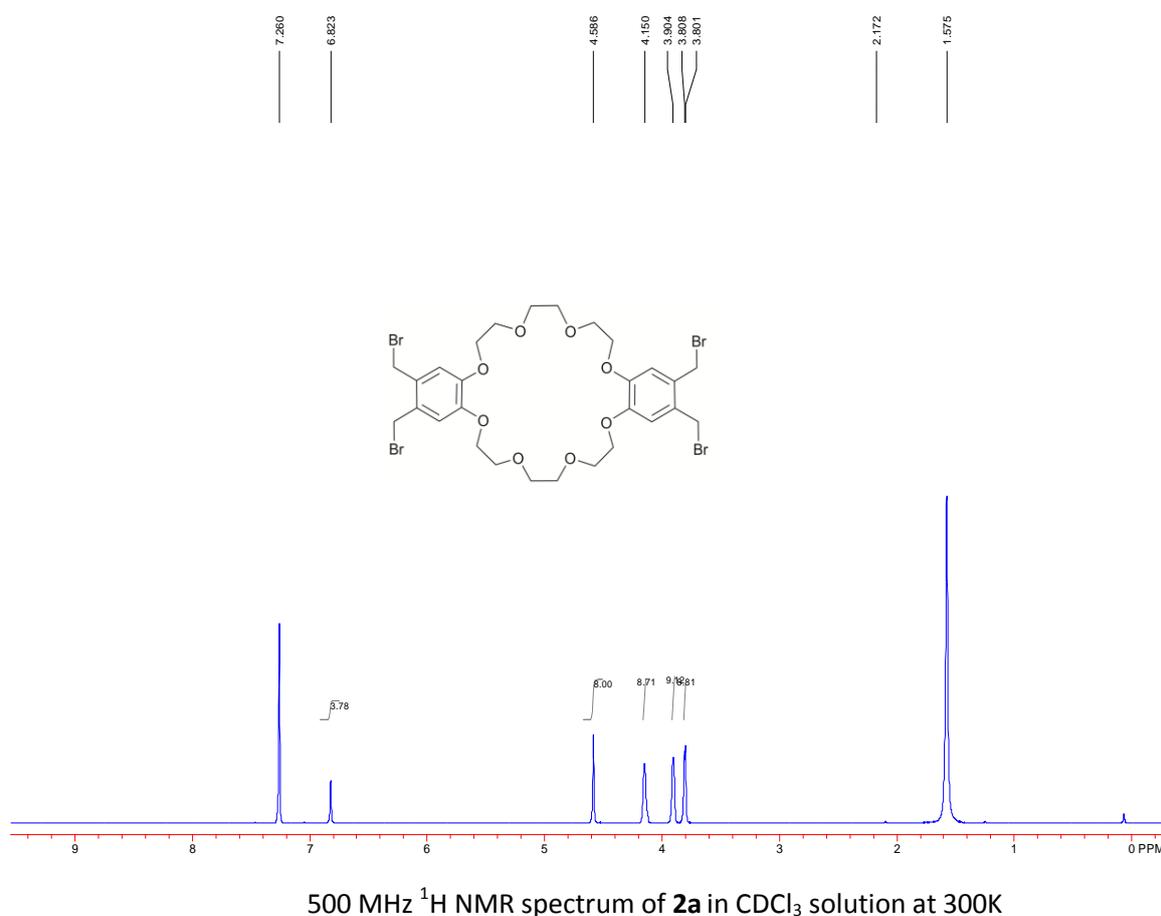
Electronic Supplementary Information for:

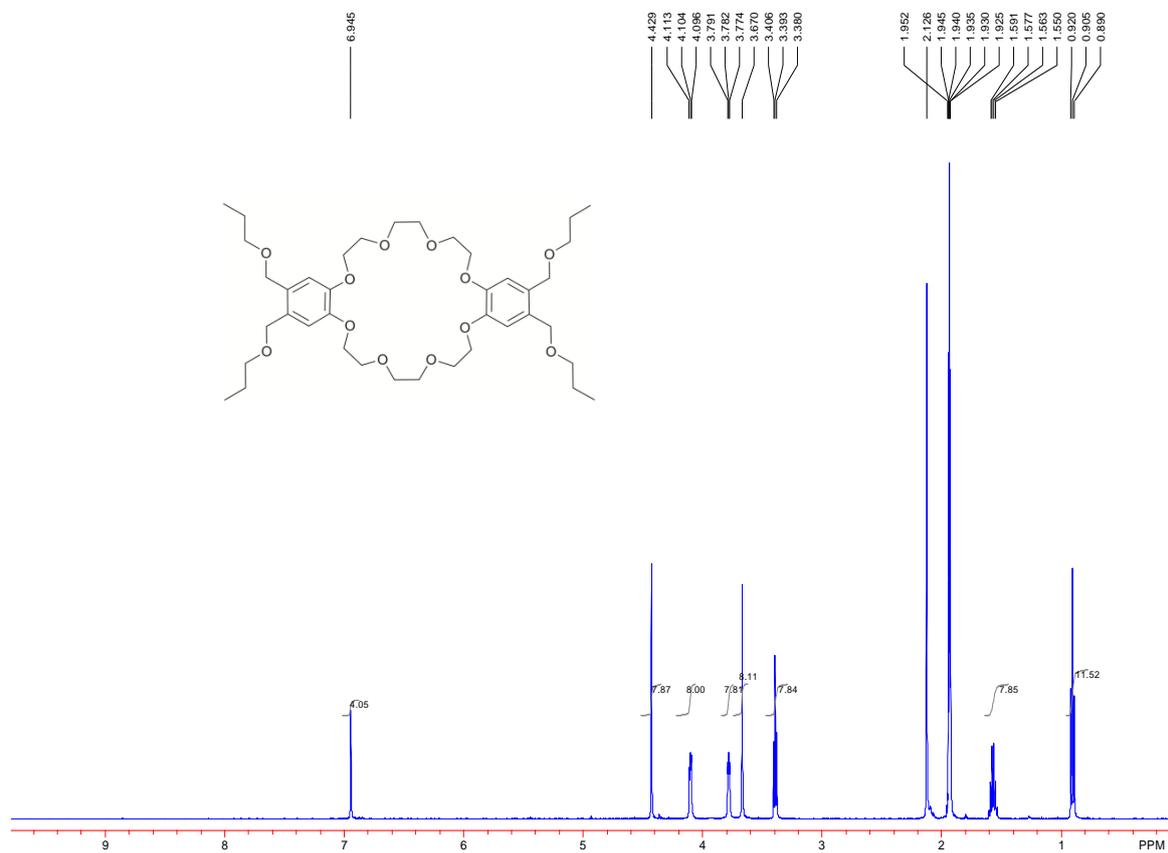
[2]Pseudorotaxanes, [2]rotaxanes and metal-organic rotaxane frameworks containing tetra-substituted dibenzo[24]crown-8 wheels

Darren J. Mercer, Joe Yacoub, Kelong Zhu, Stephanie K. Loeb and Stephen J. Loeb*

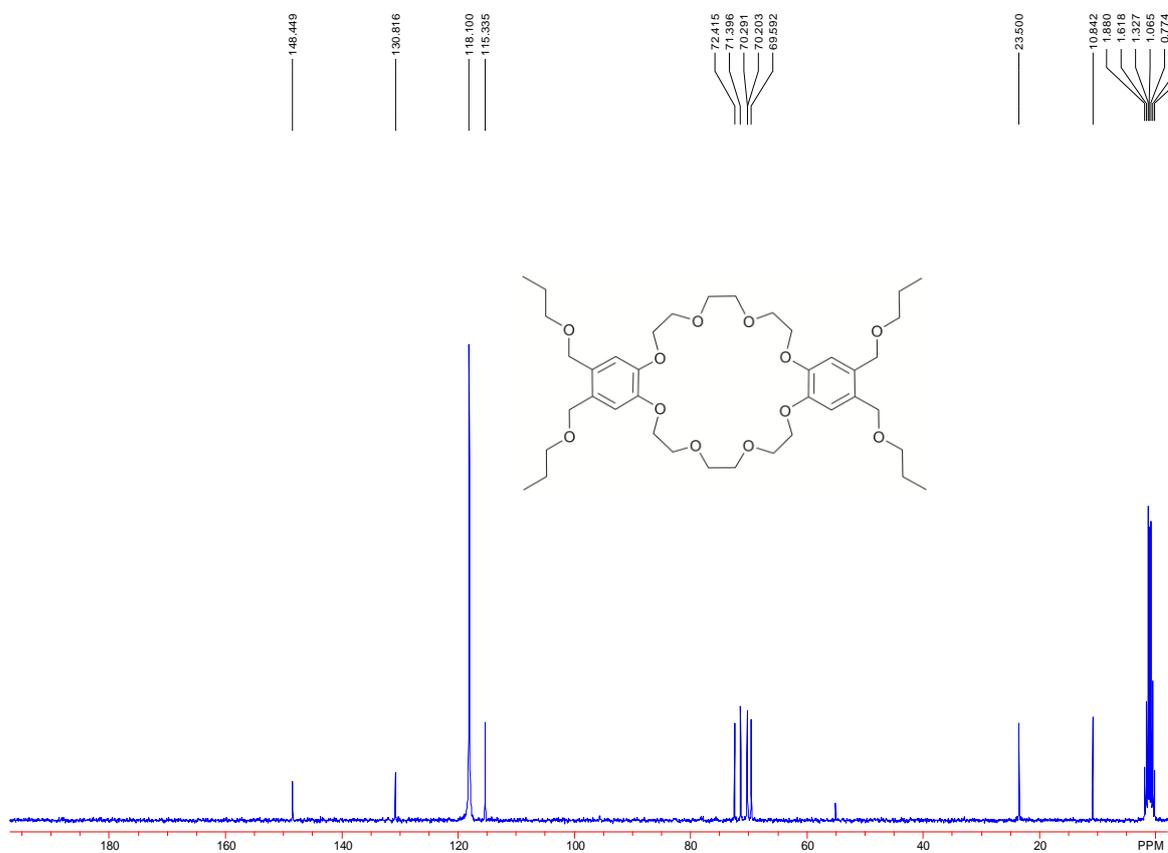
NMR Spectral Details

¹ H NMR spectrum of 2a	S-1
¹ H and ¹³ C NMR spectra of 2b	S-2
¹ H and ¹³ C NMR spectra of 2c	S-3
¹ H and ¹³ C NMR spectra of 2d	S-4
¹ H and ¹³ C NMR spectra of 2e	S-5
¹ H NMR and ¹³ C spectra of [4< 2b] [OTf] ₄	S-6
¹ H NMR and ¹³ C spectra of [4< 2c] [OTf] ₄	S-7
¹ H NMR and ¹³ C spectra of [4< 2d] [OTf] ₄	S-8
¹ H NMR and ¹³ C spectra of [4< 2e] [OTf] ₄	S-9
¹ H NMR spectra of [5< 2e] [OTf] ₄	S-10
¹ H NMR spectra of [(Ru(terpy)) ₂ (5< 2e)] [OTf] ₈	S-10

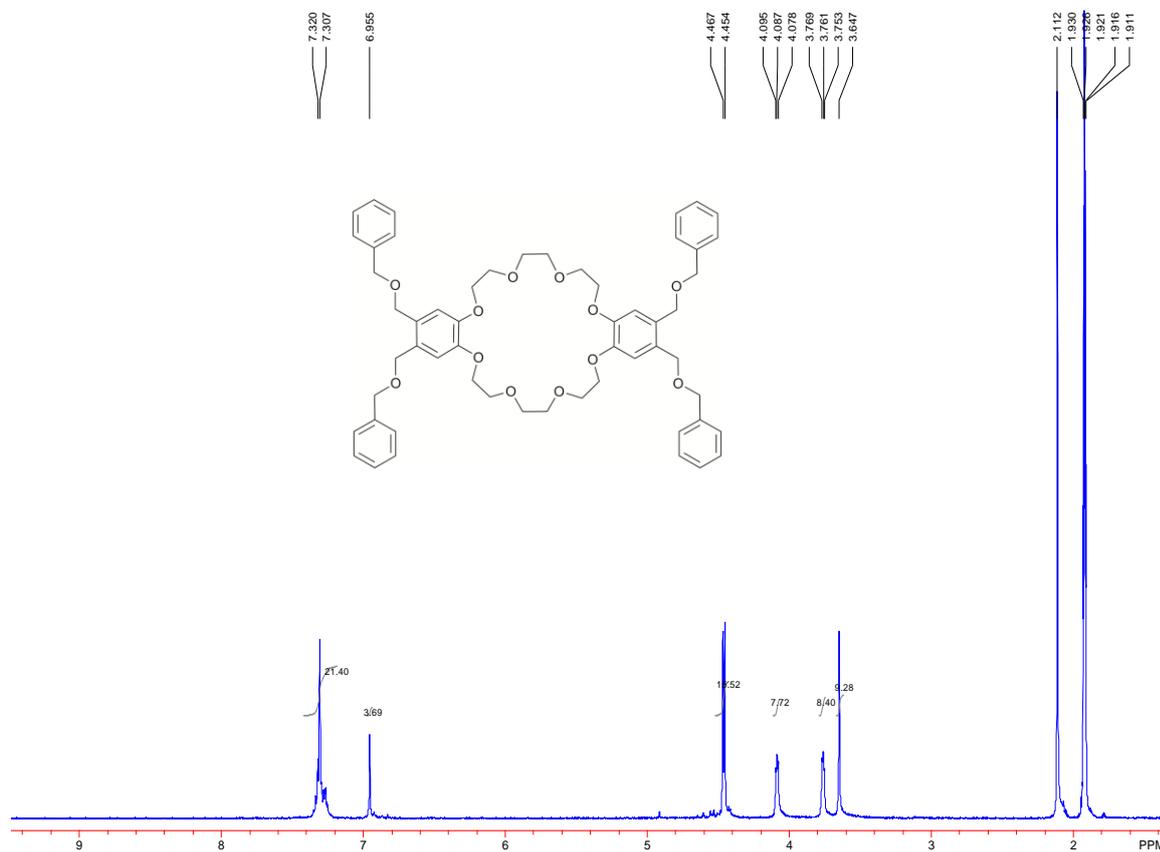




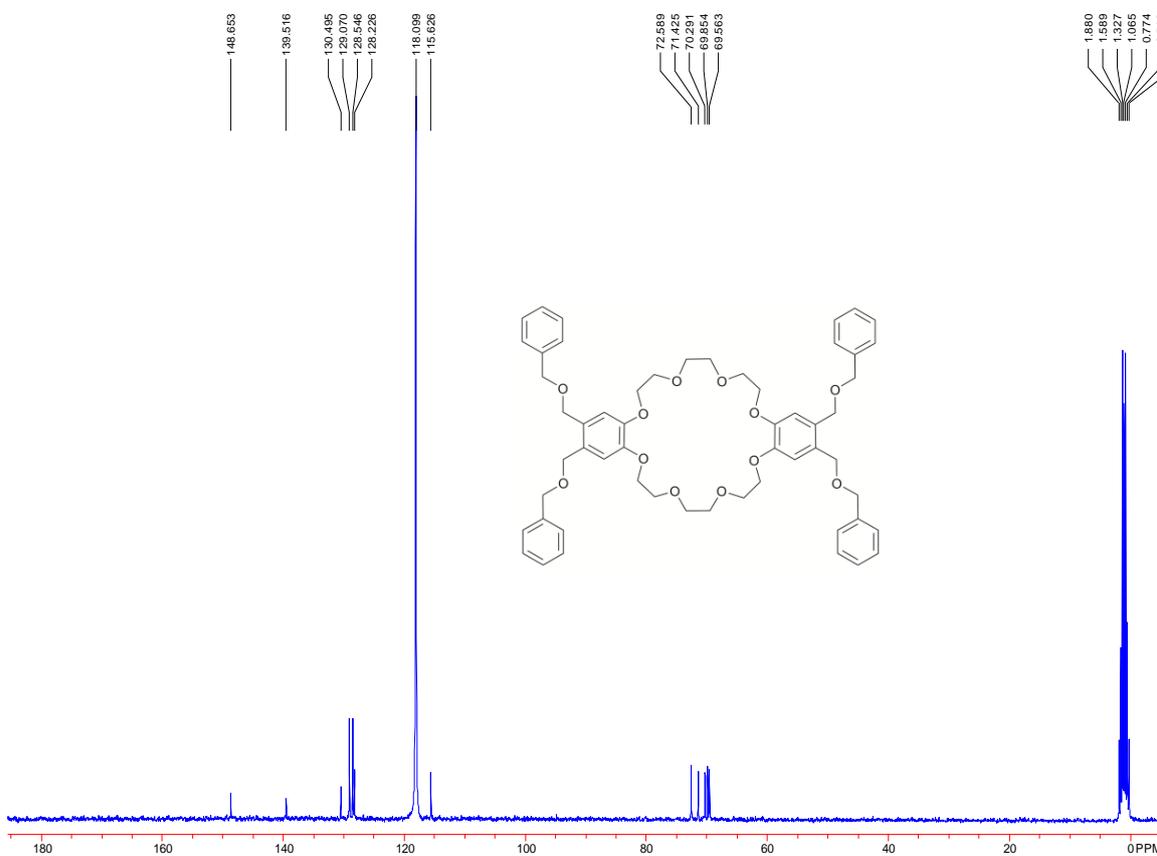
500 MHz ^1H NMR spectrum of **2b** in CD_3CN solution at 300K



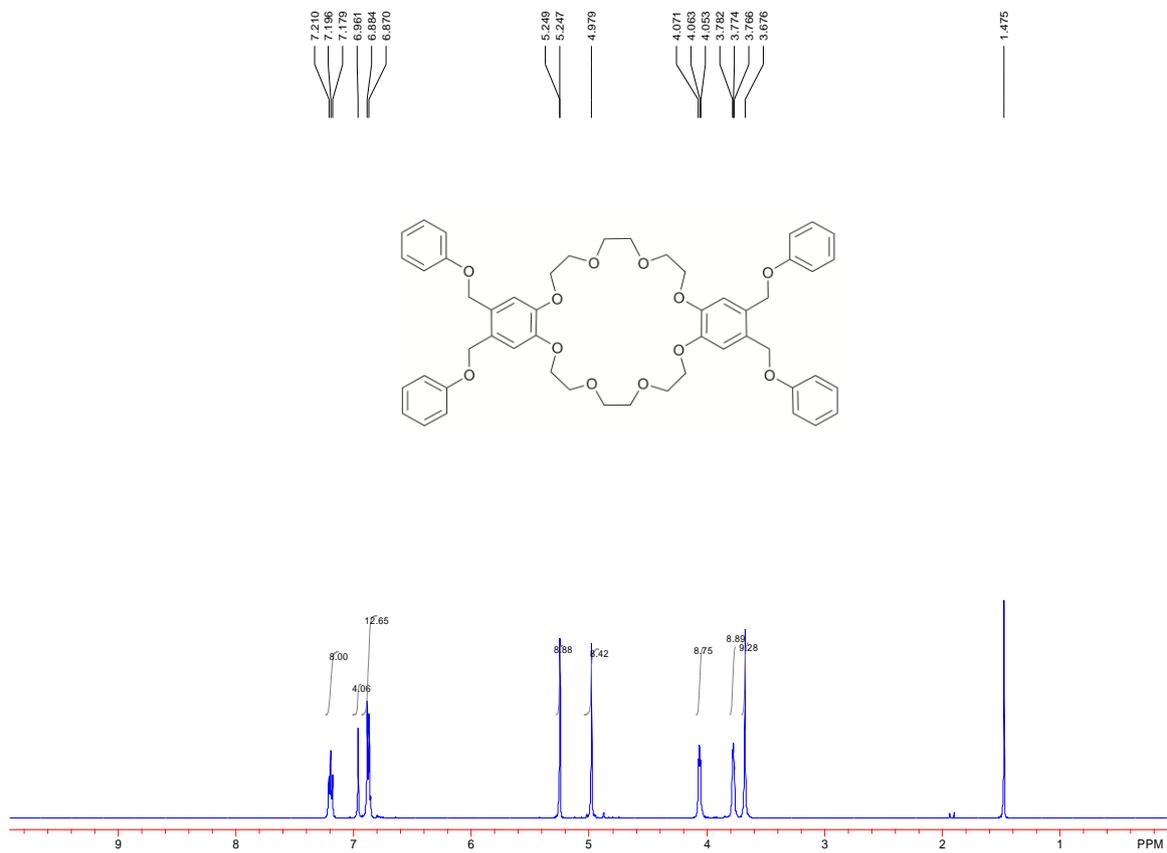
125 MHz ^{13}C NMR spectrum of **2b** in CD_3CN solution at 300K



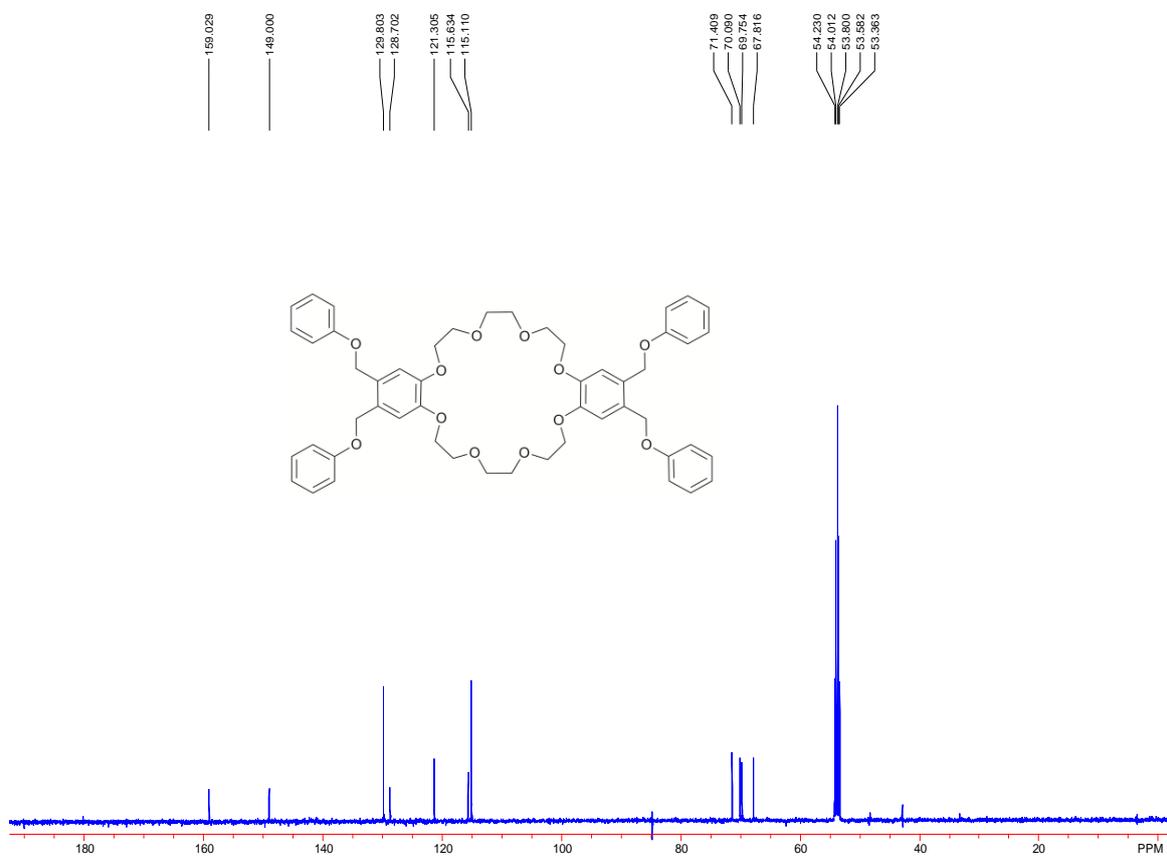
500 MHz ^1H NMR spectrum of **2c** in CD_3CN solution at 300K



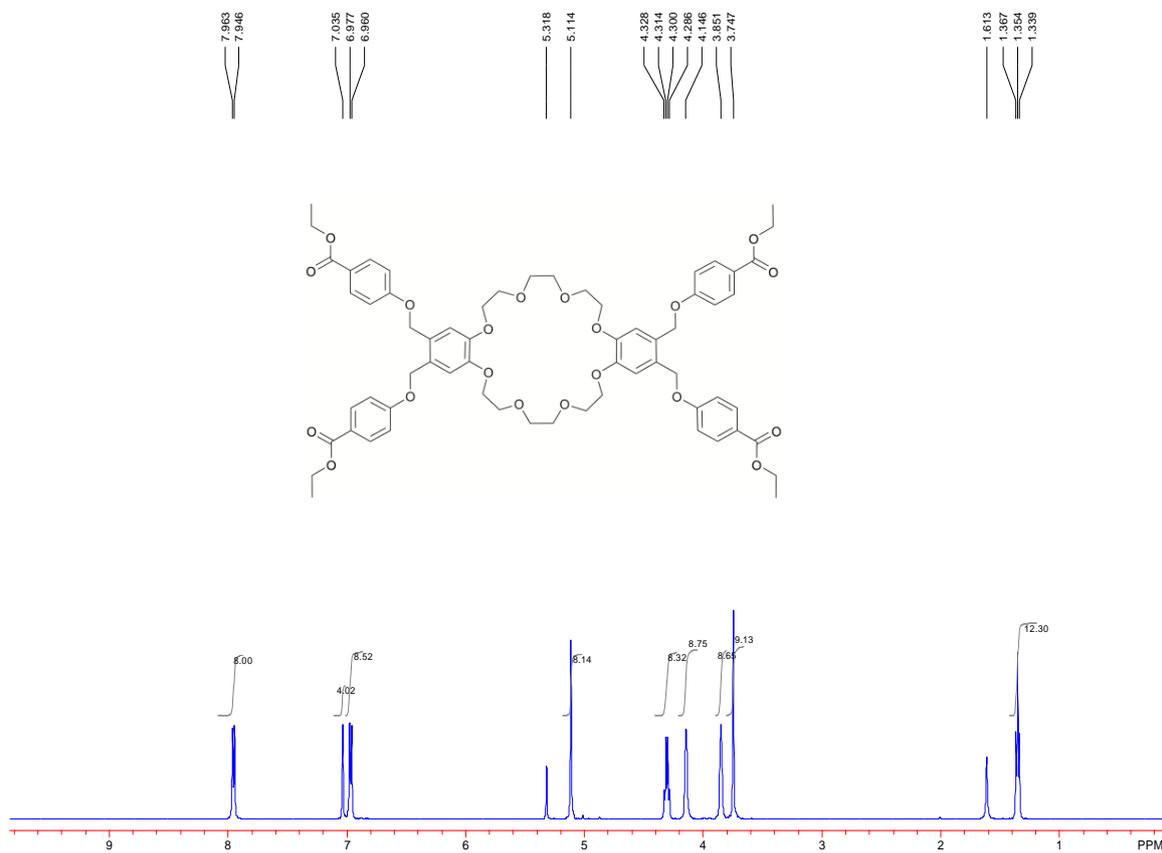
125 MHz ^{13}C NMR spectrum of **2c** in CD_3CN solution at 300K



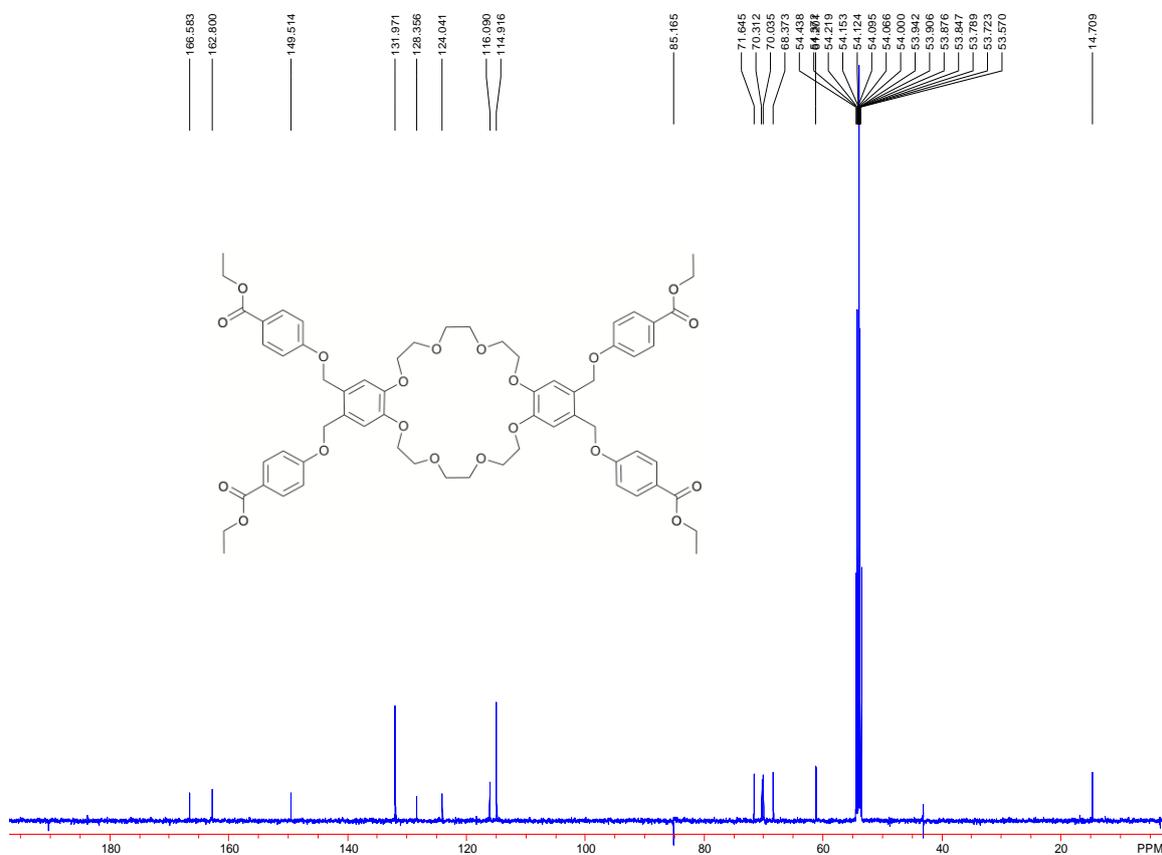
500 MHz ¹H NMR spectrum of **2d** in CD₃CN solution at 300K



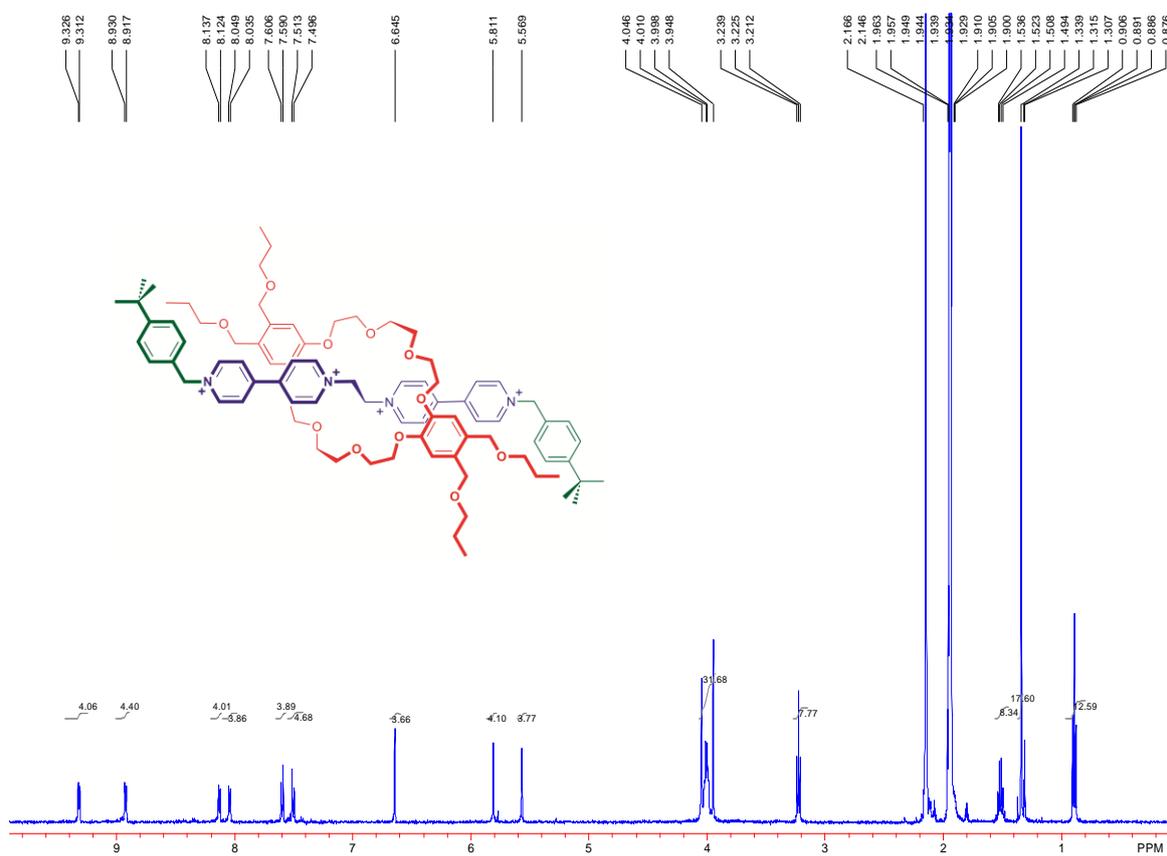
125 MHz ¹³C NMR spectrum of **2d** in CD₂Cl₂ solution at 300K



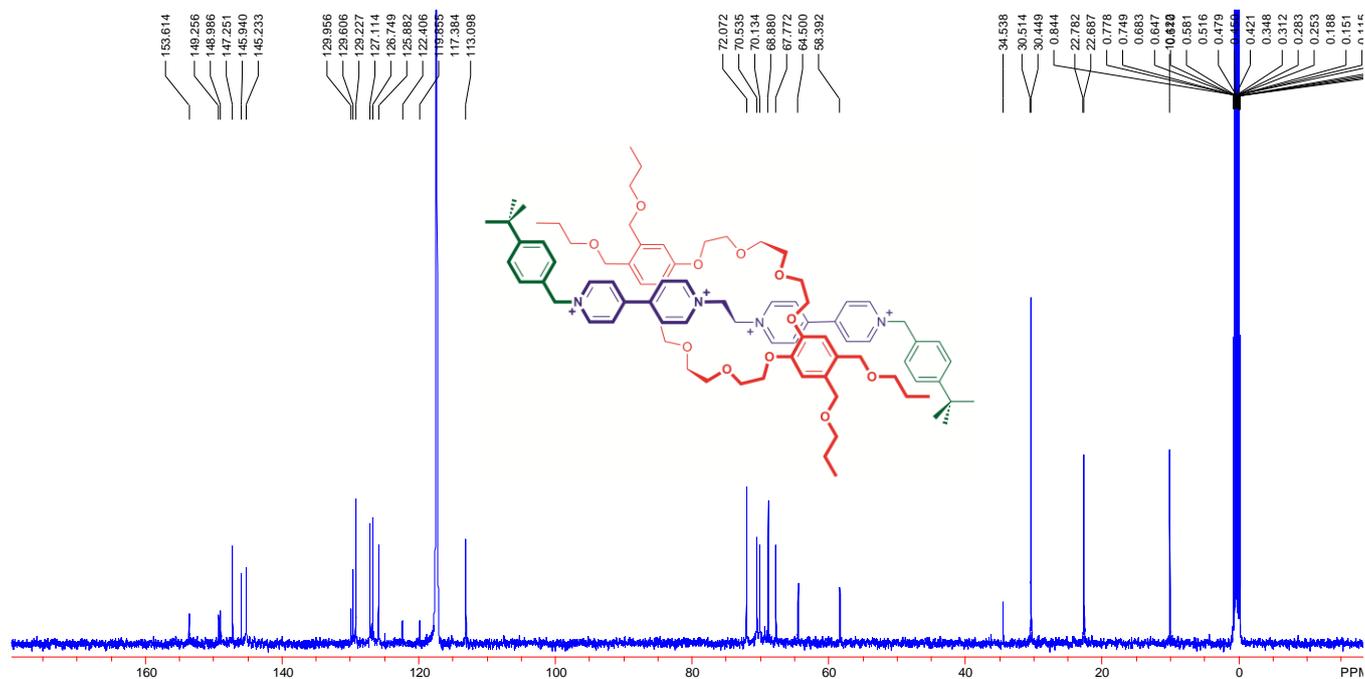
500 MHz ¹H NMR spectrum of **2e** in CD₂Cl₂ solution at 300K



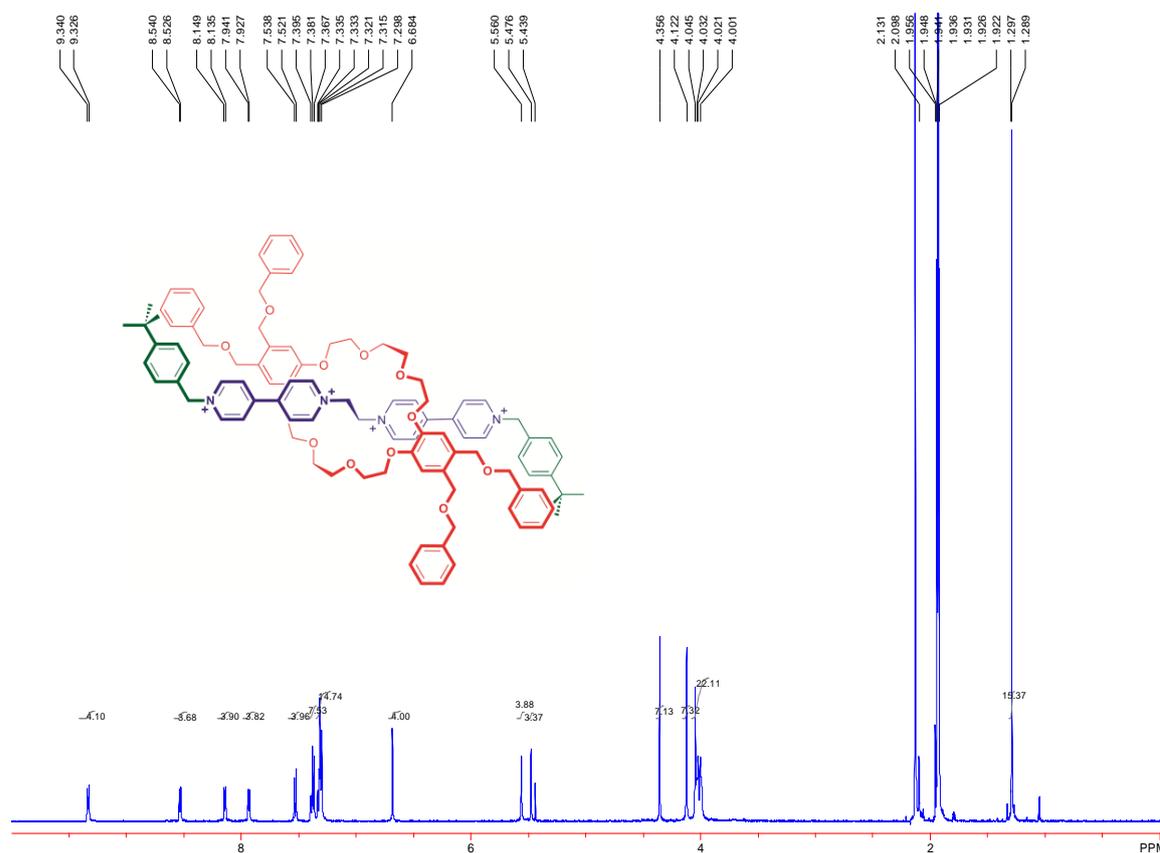
125 MHz ¹³C NMR spectrum of **2e** in CD₂Cl₂ solution at 300K



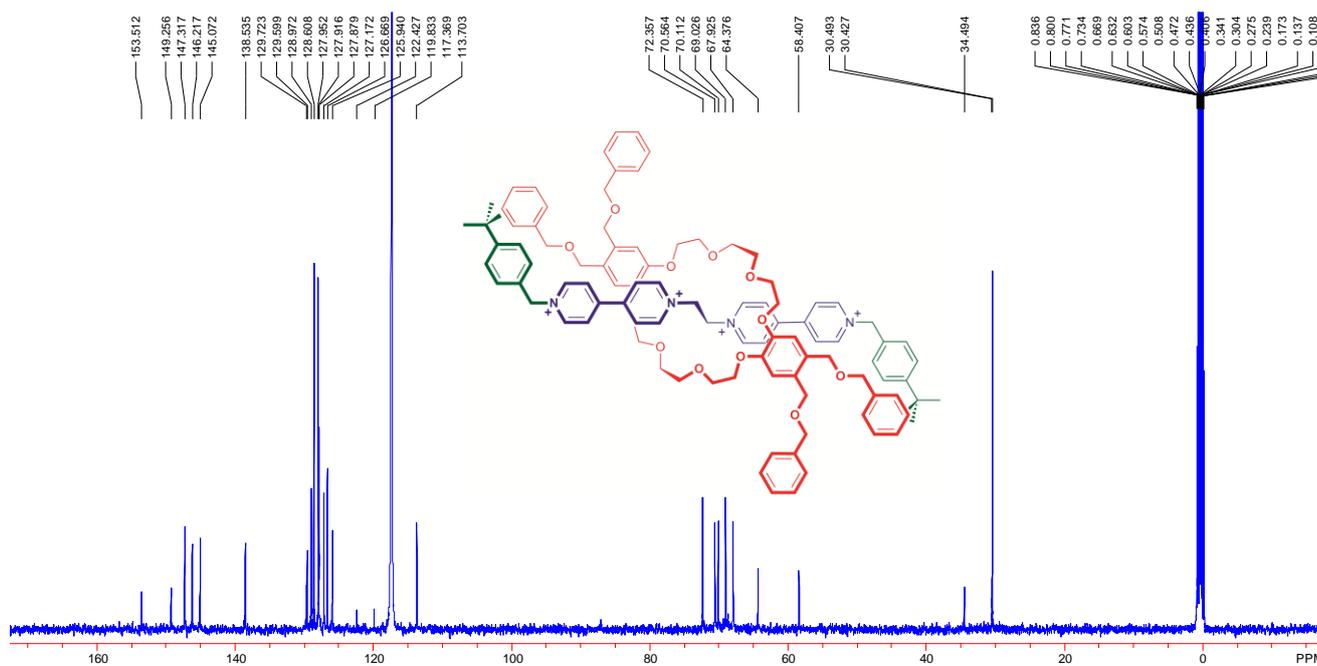
500 MHz ^1H NMR spectrum of [4-2b][OTf]₄ in CD₃CN solution at 300K



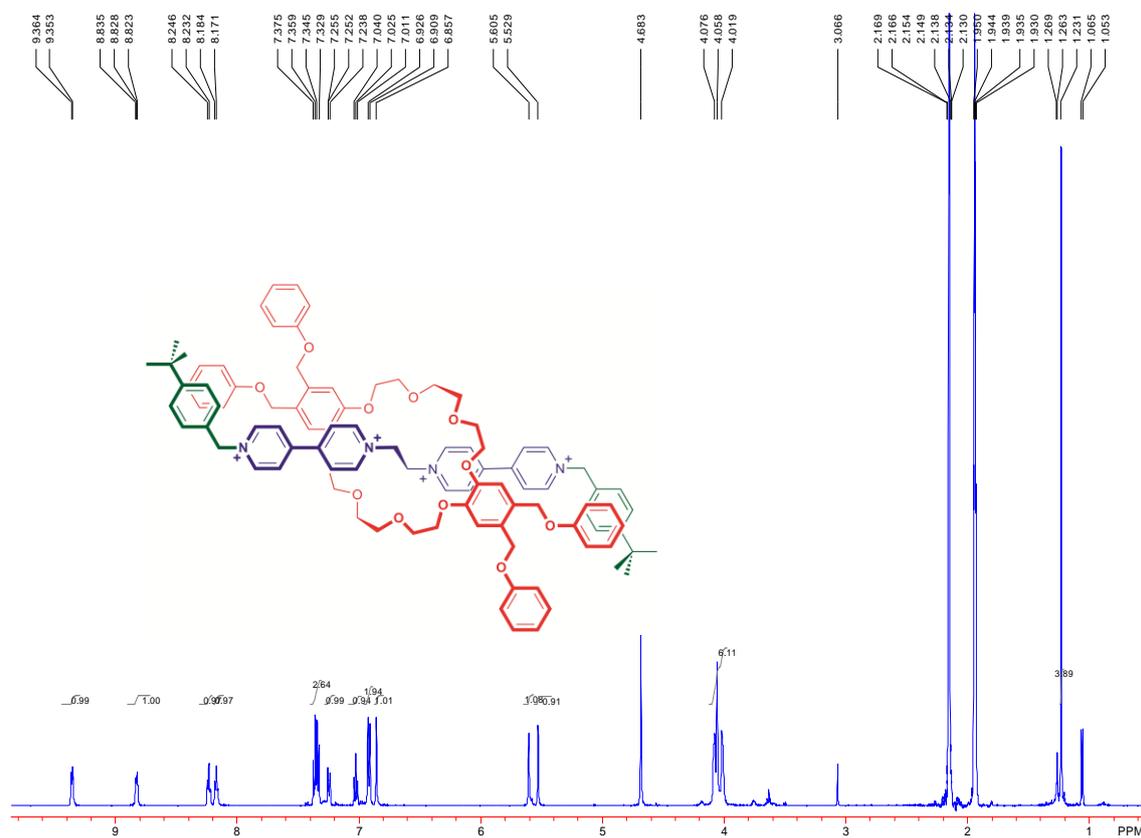
125 MHz ^{13}C NMR spectrum of [4-2b][OTf]₄ in CD₃CN solution at 300K



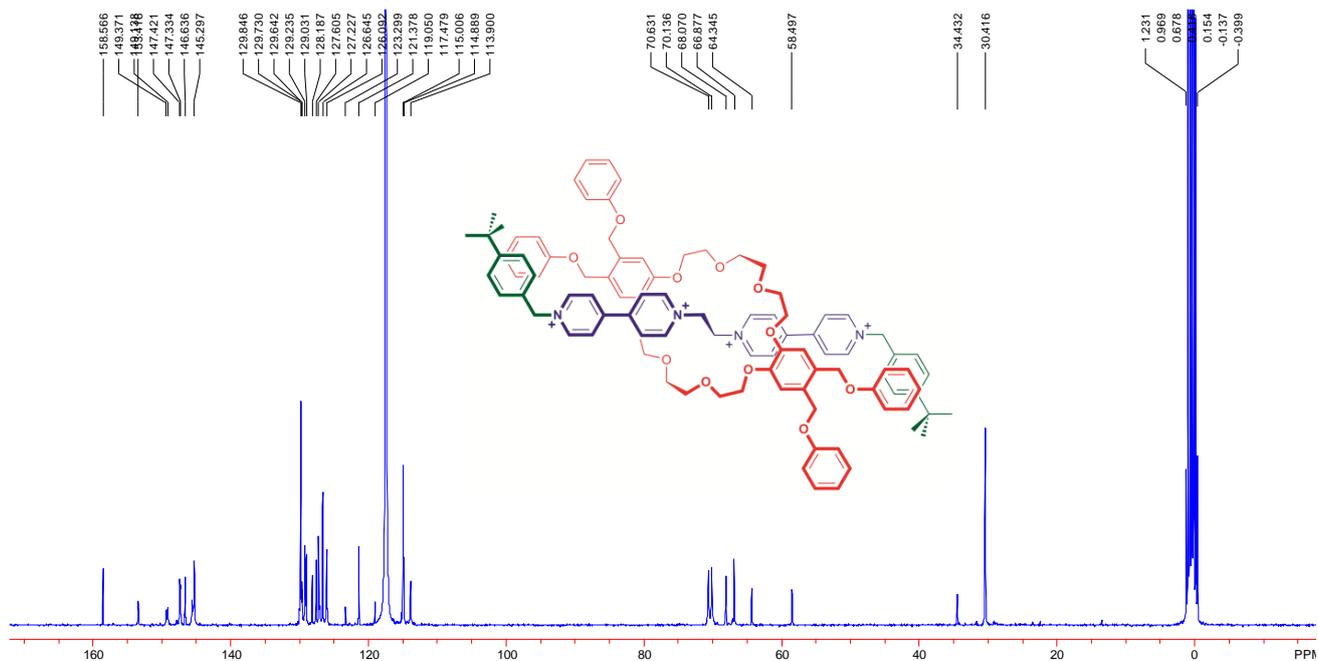
500 MHz ^1H NMR spectrum of [4 $\underline{2}$ c][OTf] $_4$ in CD $_3$ CN solution at 300K



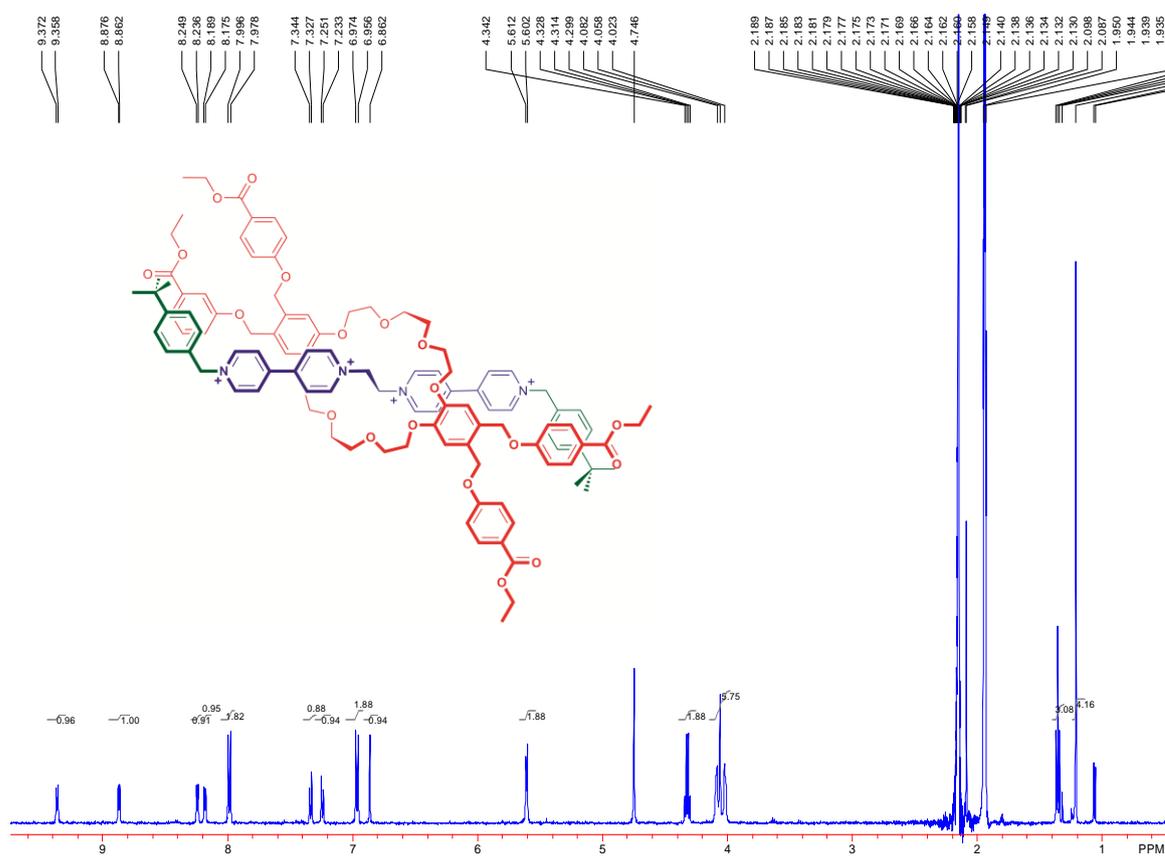
125 MHz ^{13}C NMR spectrum of [4 $\underline{2}$ c][OTf] $_4$ in CD $_3$ CN solution at 300K



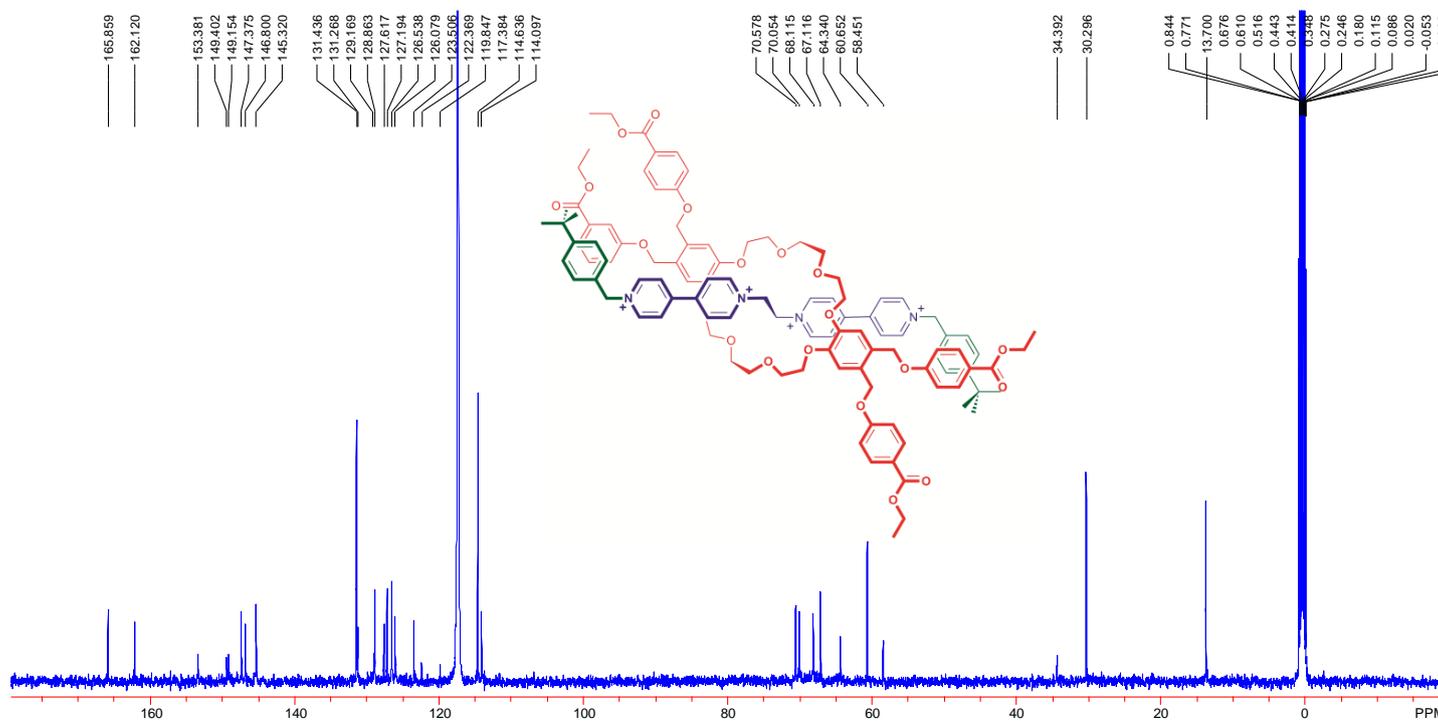
500 MHz ¹H NMR spectrum of [4c2d][OTf]₄ in CD₃NO₂ solution at 300K



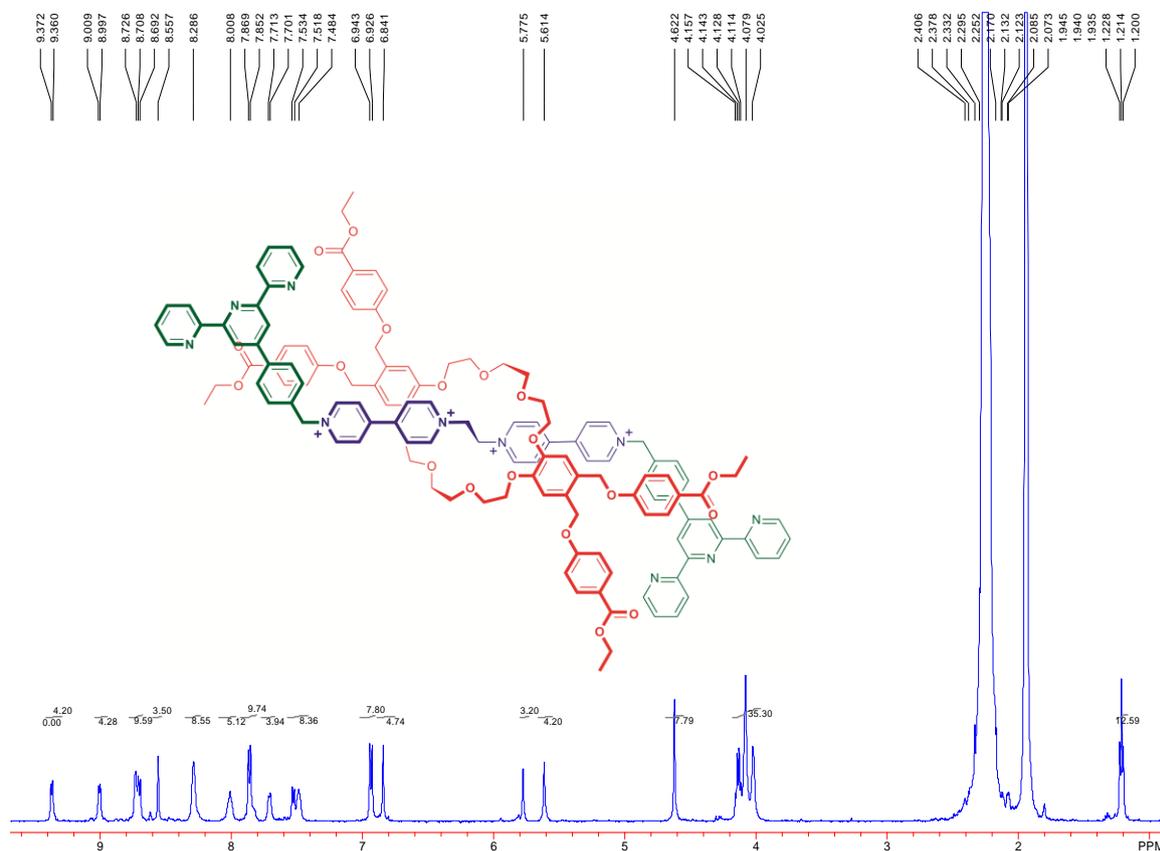
125 MHz ¹³C NMR spectrum of [4c2d][OTf]₄ in CD₃CN solution at 300K



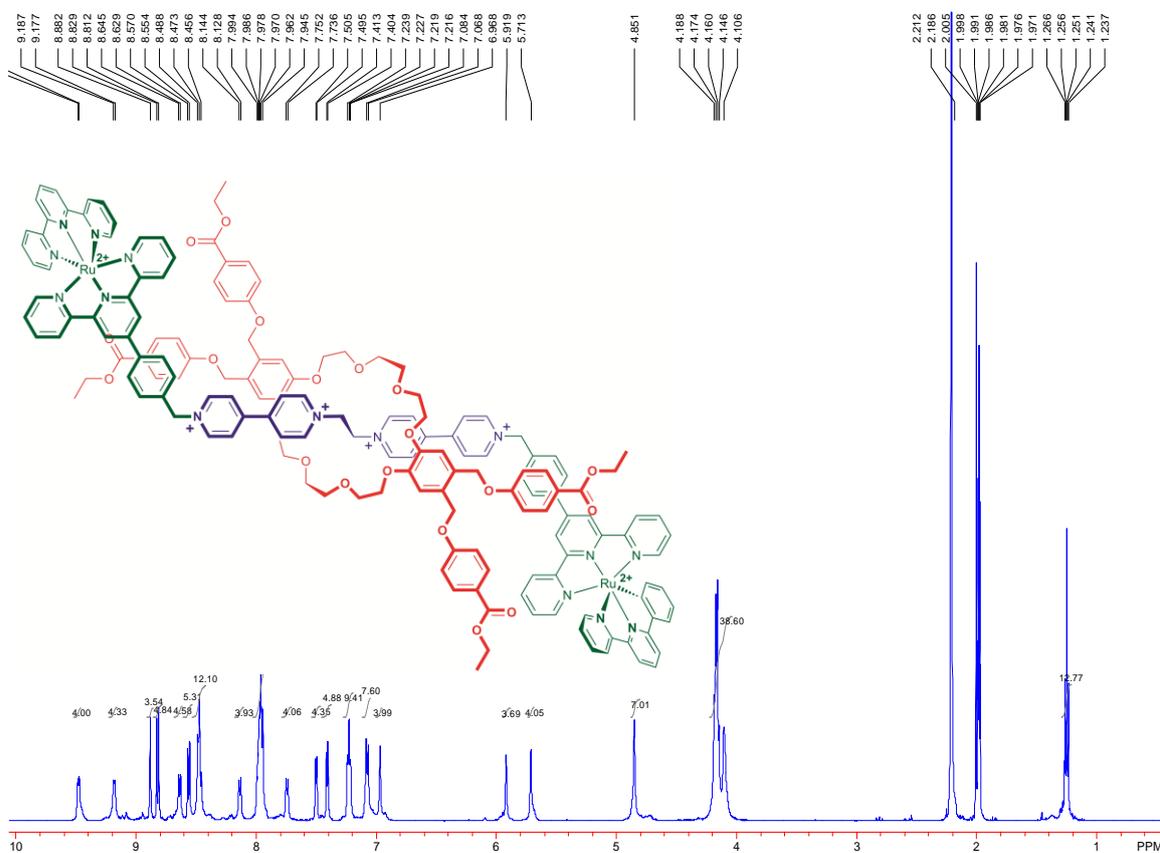
500 MHz ^1H NMR spectrum of $[4-2e][\text{OTf}]_4$ in CD_3NO_2 solution at 300K



125 MHz ^{13}C NMR spectrum of $[4-2e][\text{OTf}]_4$ in CD_3CN solution at 300K



500 MHz ^1H NMR spectrum of $[\mathbf{5C2e}][\text{OTf}]_4$ in CD_3CN solution at 300K



500 MHz ^1H NMR spectrum of $[(\text{Ru}(\text{terpy}))_2(\mathbf{5C2e})][\text{OTf}]_8$ in CD_3CN solution at 300K