1. $^1$H NMR spectrum of [Co$_2$(2)Cl]CoCl$_4$ in CD$_3$NO$_2$

2. (a) UV spectra of:
   (i) 2 in CH$_3$CN;
   (ii) [Co$_2$(2)Cl]CoCl$_4$ in CH$_3$CN;
   (iii) a mixture of 2 and Co(ClO$_4$)$_2$ (1:1 ratio) in CH$_3$CN;
   (iv) a mixture of 2 and Ni(ClO$_4$)$_2$ (1:1 ratio) in CH$_3$CN.

(b) Visible spectra of:
   (i) a mixture of 2 and Co(ClO$_4$)$_2$ (1:1 ratio) in CH$_3$CN;
   (ii) a mixture of 2 and Ni(ClO$_4$)$_2$ (1:1 ratio) in CH$_3$CN.

1. $^1$H NMR spectrum of [Co$_2$(2)Cl]CoCl$_4$ in CD$_3$NO$_2$
2. UV-vis spectra

(a) UV spectra

(b) Visible spectra