

Electronic Supplementary Information (ESI)

Contrasting reactivity behaviour of [RuHCl(CO)(PNP)] complex with electrophilic reagents XOTf (X = H, CH₃, Me₃Si)

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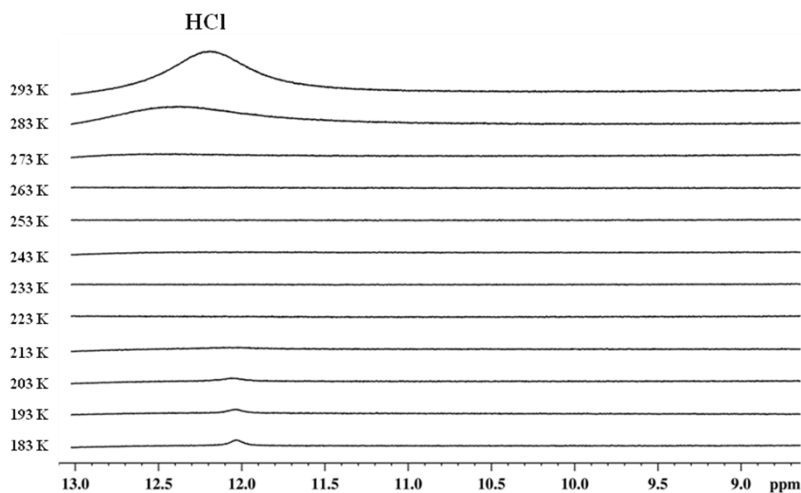


Fig. S1. VT ¹H NMR spectral stack plot of the reaction of complex **1** with HOTf in CD₂Cl₂. The downfield region shows the formation of HCl

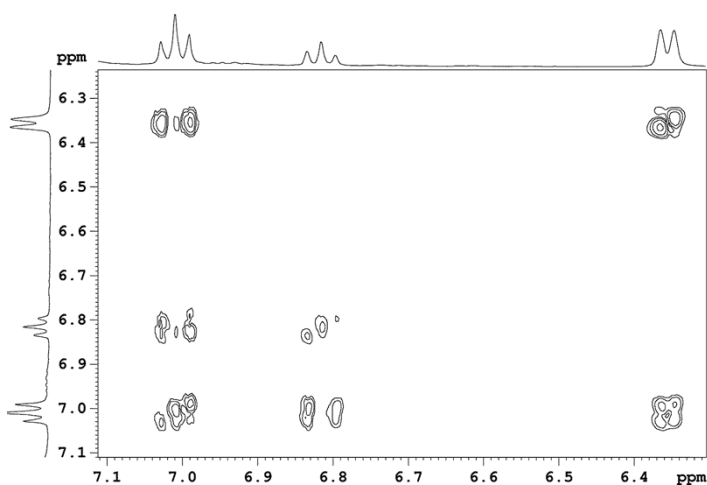


Fig. S2. Partial ¹H-¹H COSY NMR spectrum of complex [RuH(CO)(PNP)][BAR₄^f] (**5a**) in CD₂Cl₂ at room temperature

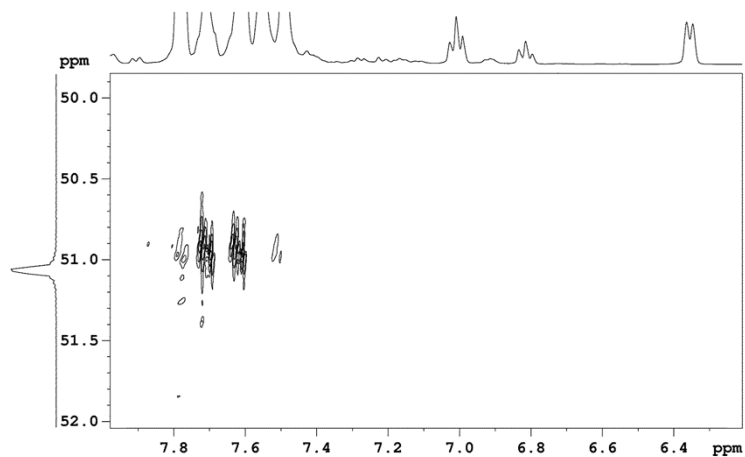


Fig. S3. Partial ^1H - ^{31}P HMQC NMR spectrum of complex $[\text{RuH}(\text{CO})(\text{PNP})][\text{BAR}_4^{\text{f}}]$ (**5a**) in CD_2Cl_2 at room temperature

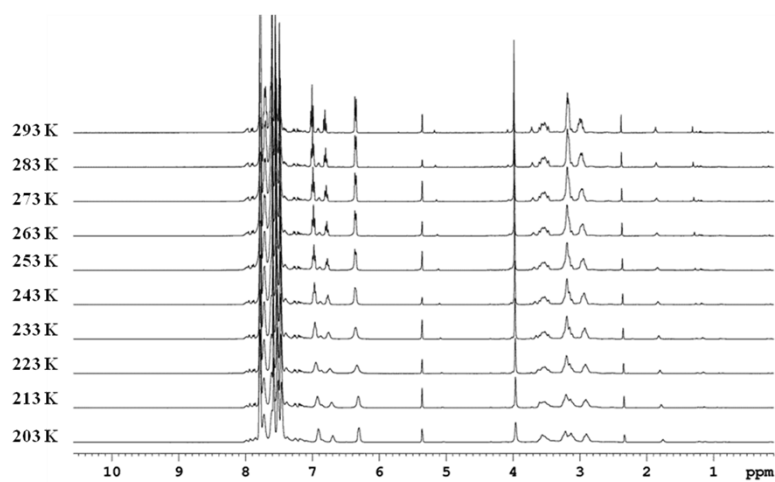


Fig. S4. Partial VT ^1H NMR spectrum of complex $[\text{RuH}(\text{CO})(\text{PNP})][\text{BAR}_4^{\text{f}}]$ (**5a**) in CD_2Cl_2

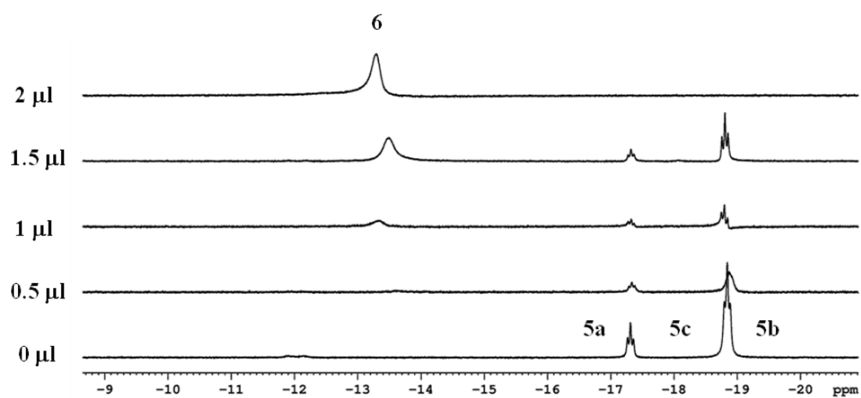


Fig S5: Partial ¹H NMR stack plot of the titration of **5a**, **5b** and **5c** with CH₃CN in CD₂Cl₂. The volume of added CH₃CN is given in the left hand side of the plot. NMR spectra were recorded at 213 K.