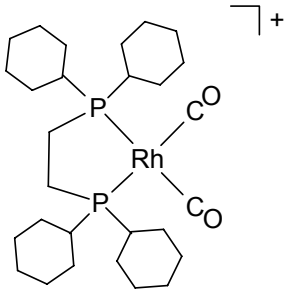
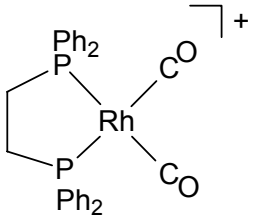
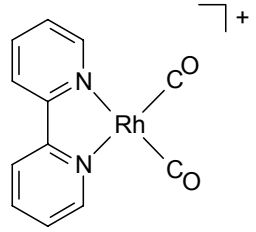
Electronic Supplementary Information for Dalton Transactions

Supplementary Information for

NiN_2S_2 COMPLEXES AS METALLODITHIOLATE LIGANDS TO Rh^{I}, Rh^{II}, AND Rh^{III}

Table 1S. $[(L\text{-}L)Rh(CO)_2]^+$ complexes with ν(CO) stretching frequencies and catalytic processes

Complex	ν(CO) (cm^{-1})	Catalysis
	2086, 2027	Decarbonylation [18]
	2100, 2055	Methylacetylene oligomerization [19]
	2103, 2044	Carbonylation of Methanol [20]

Electrochemistry

Figure 1S. Cyclic and square wave voltammograms the of a) anodic and b) cathodic regions of a 1.0 mM solution of $[Rh(\mathbf{Ni\text{-}1'})_3][I]_3$ in 0.1 M *n*-Bu_4NBF_4 at a scan rate of 100 mV/s.

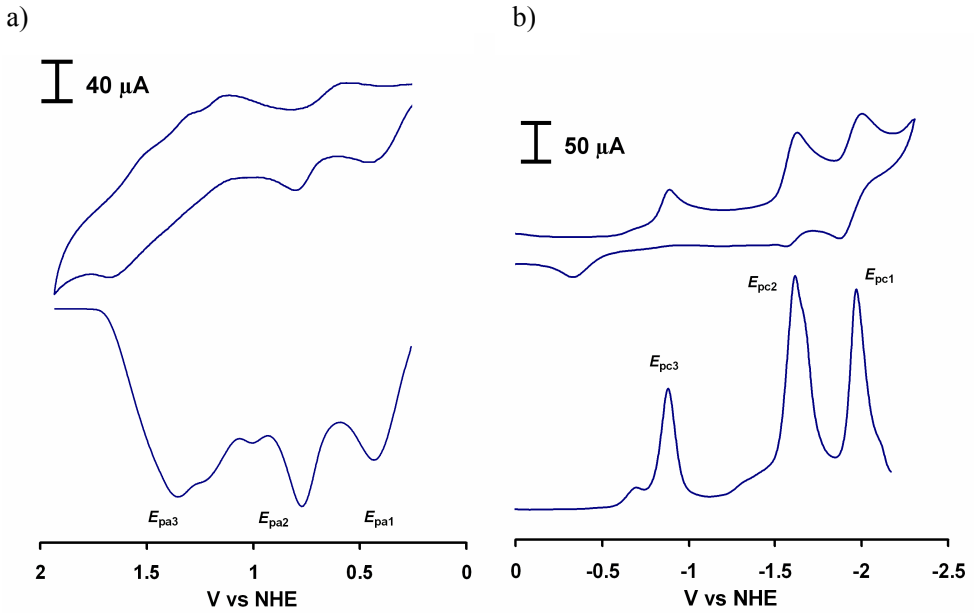


Figure 2S. Cyclic and square wave voltammograms the of a) anodic and b) cathodic regions of a 0.1 mM solution of $[Rh_2(\mathbf{Ni\text{-}1'})_4][O_2CCF_3]_4$ in 0.1 M *n*-Bu_4NBF_4 at a scan rate of 100 mV/s.

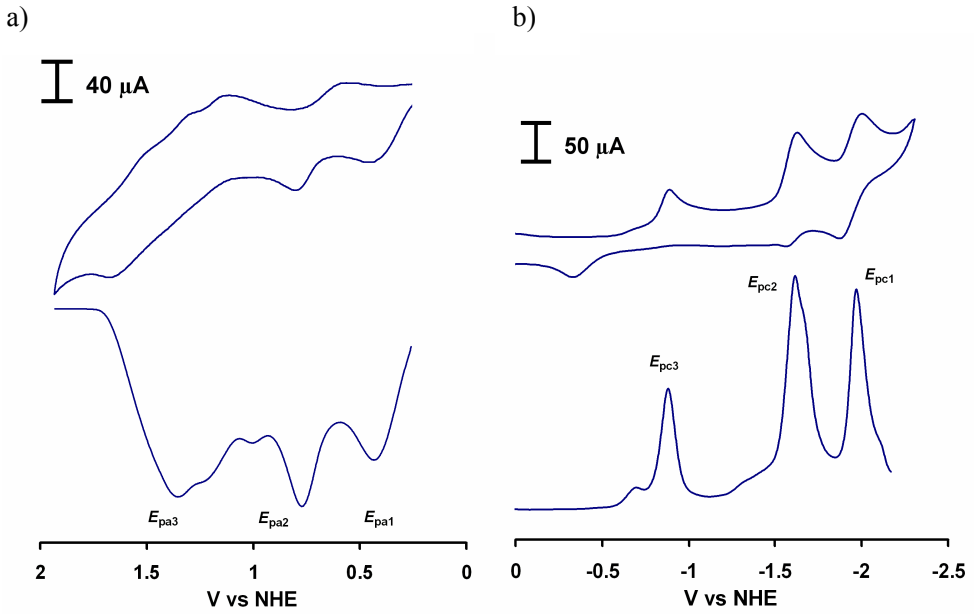


Figure 3S. Comparison on the reduction regions of a 1.0 mM solution of $[Rh(\mathbf{Ni\text{-}1'})_3][I]_3$ in 0.1 M *n*-Bu_4NBF_4 at a scan rate of 100 mV/s a) $[Ru(bpy)_3]^{2+}$ and b) $[Rh(\mathbf{Ni\text{-}1'})_3]^{3+}$.