Electronic Supplementary Material (ESI) for Dalton Transactions


# (α-Diimine)tricarbonylhalorhenium complexes: The oxidation side

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**Electronic supplementary information (ESI)**

**Figure S1:** Cyclic voltammogram of $Re(dab)(CO)_3Br$ in $CH_2Cl_2$/0.1 mol $dm^{-3}$ $Bu_4NPF_6$, scan rate 100 mV $s^{-1}$.

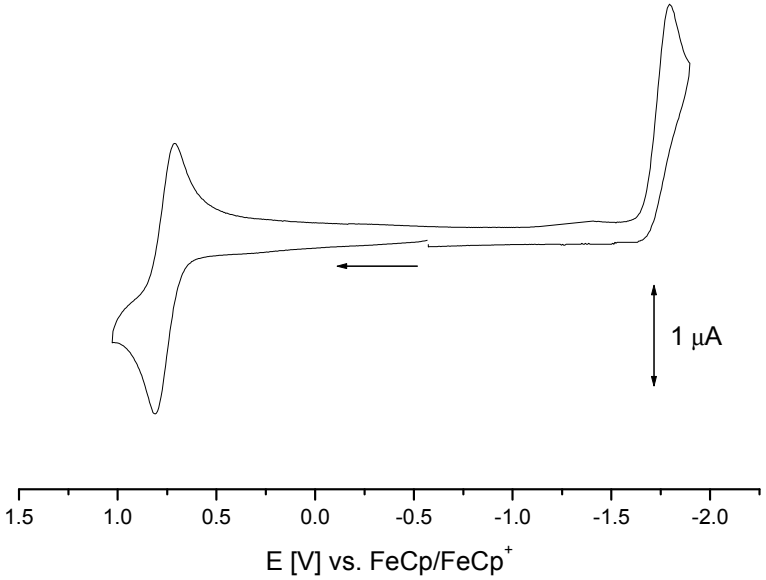


**Figure S2:** Cyclic voltammogram of $Re(sdi)(CO)_3Cl$ in $CH_2Cl_2$/0.1 mol $dm^{-3}$ $Bu_4NPF_6$, scan rate 100 mV $s^{-1}$.

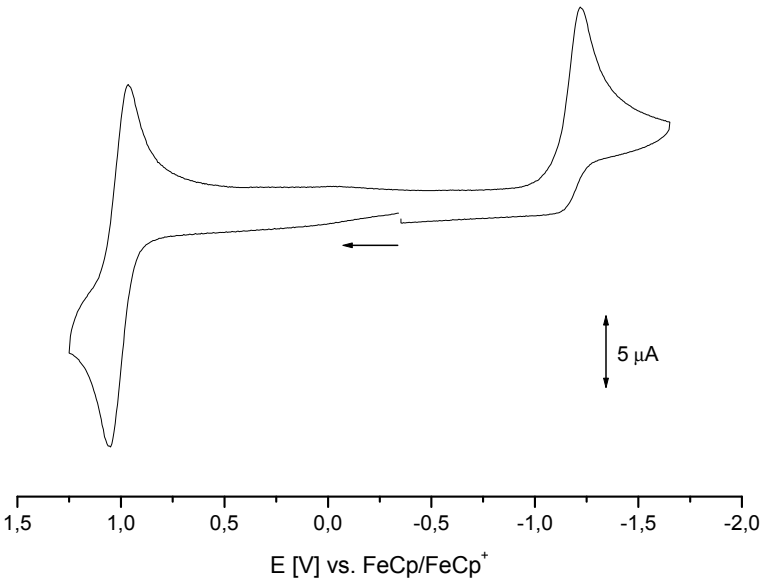

**Figure S3:** Cyclic voltammogram of Re(sdi)$(CO)_3$Br in $CH_2Cl_2$/0.1 mol $dm^{-3}$ $Bu_4NPF_6$, scan rate 100 mV $s^{-1}$.

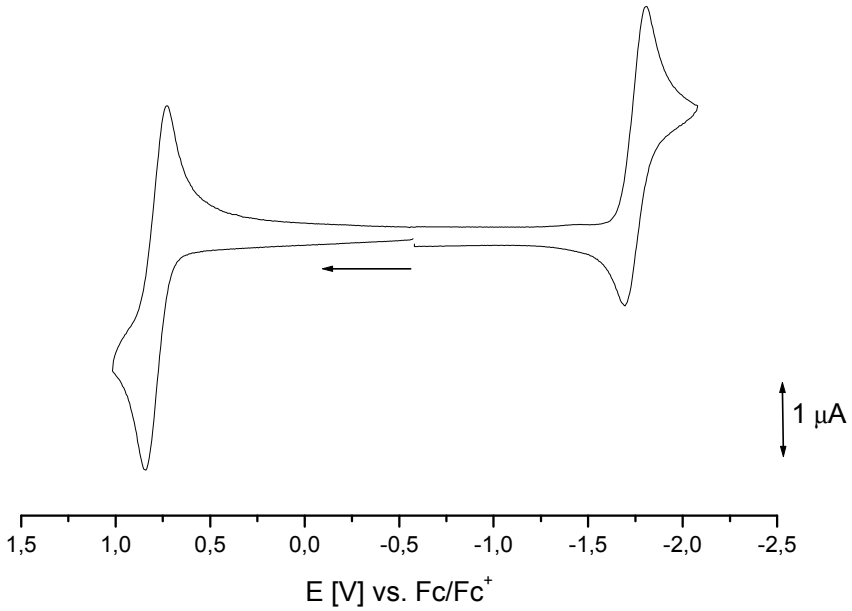

**Figure S4** Molecular structure of **1** in the crystal

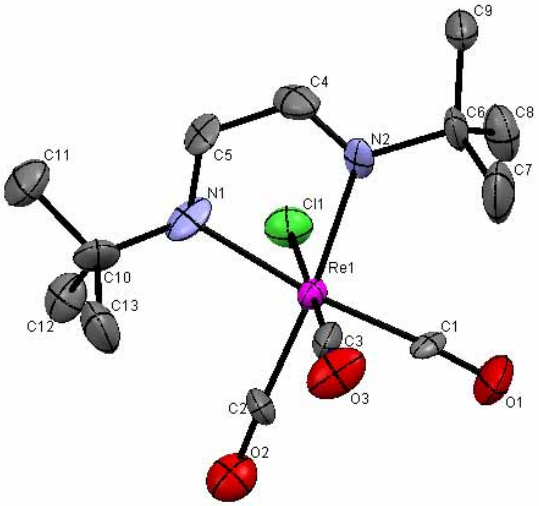

**Figure S5.** IR-spectroelectrochemical reduction of [$Re(CO)_3Cl(^tBu\text{-}DAB)$] in $CH_3CN$ / 0.1 mol $dm^{-3}$ $Bu_4NPF_6$.

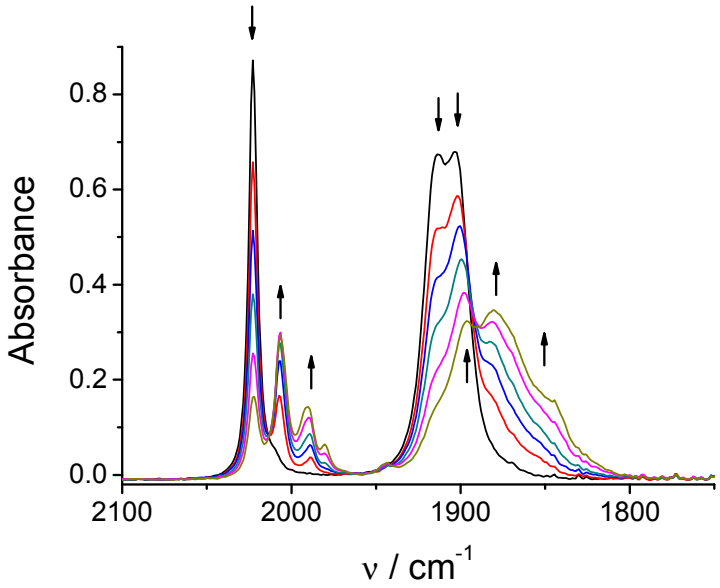


**Figure S6.** IR-spectroelectrochemical reduction of [$Re(CO)_3Cl(^tBu\text{-}DAB)$] in $CH_3CN$ / 0.05 mol $dm^{-3}$ $Bu_4NPF_6$ / 0.05 mol $dm^{-3}$ $Bu_4NCl$

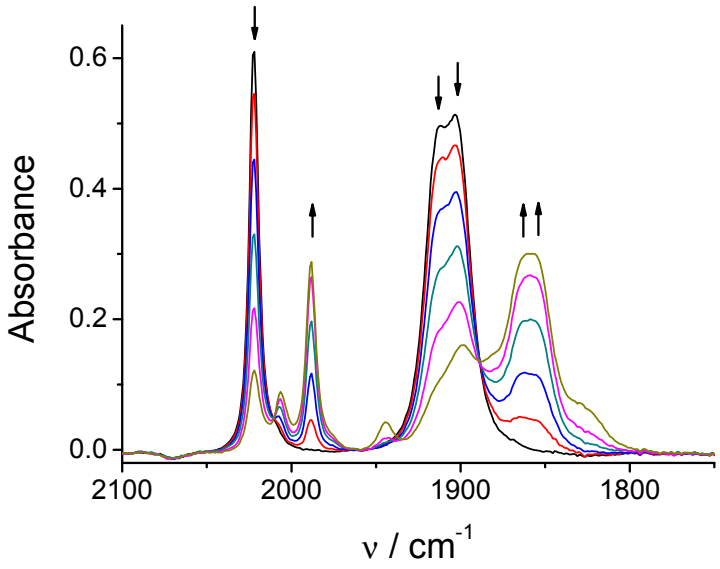

**Figure S7** Shapes of FMOs of [($^t$Bu-DAB)Re(CO)$_3$Cl]

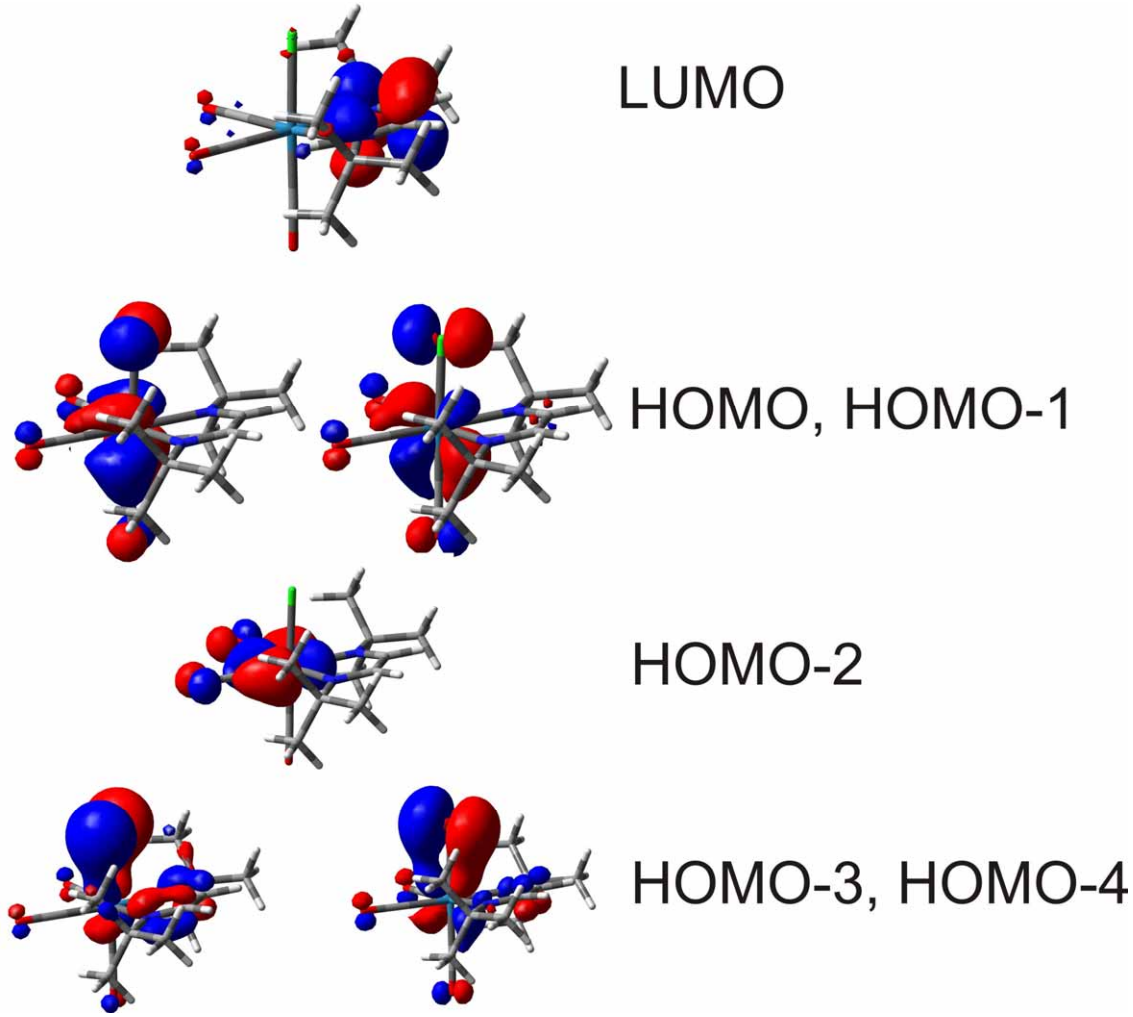

**Figure S8** Shapes of FMOs of $[Re(CO)_3Cl(^tBu\text{-}DAB)]^+$