Supporting Information for

Cyclopalladated Complexes Containing 2-$C_6R_4PPh_2$ Ligands (R = H, F): One-Electron Electrochemical Reduction Leading to Metal–Carbon σ-Bond Cleavage via Palladium(I)

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All potentials are referenced to the $DmFc^{0/+}$ redox couple.

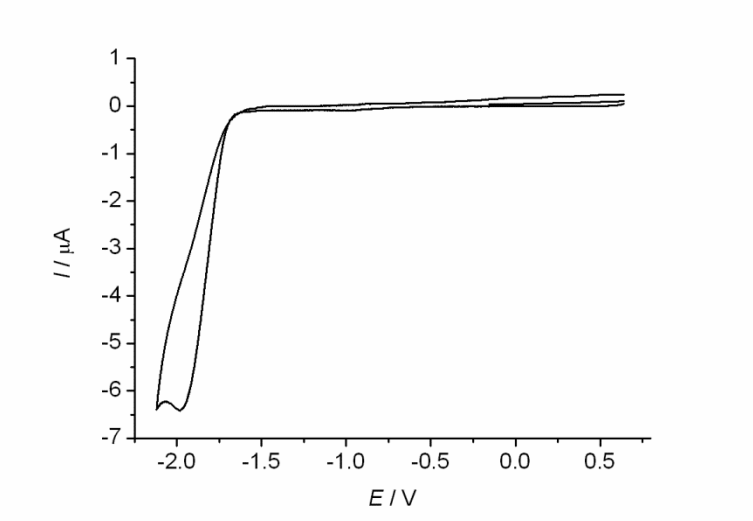

Figure S1. Cyclic voltammogram of a 1 mM solution of [$PdBr(PPh_3)(\kappa^2$-2-$C_6H_4PPh_2$)] (**1**) in CH_3CN containing 0.1 M [Bu_4N][PF_6] at a 1 mm diameter glassy carbon electrode. Scan rate: 100 mV s^{-1}.

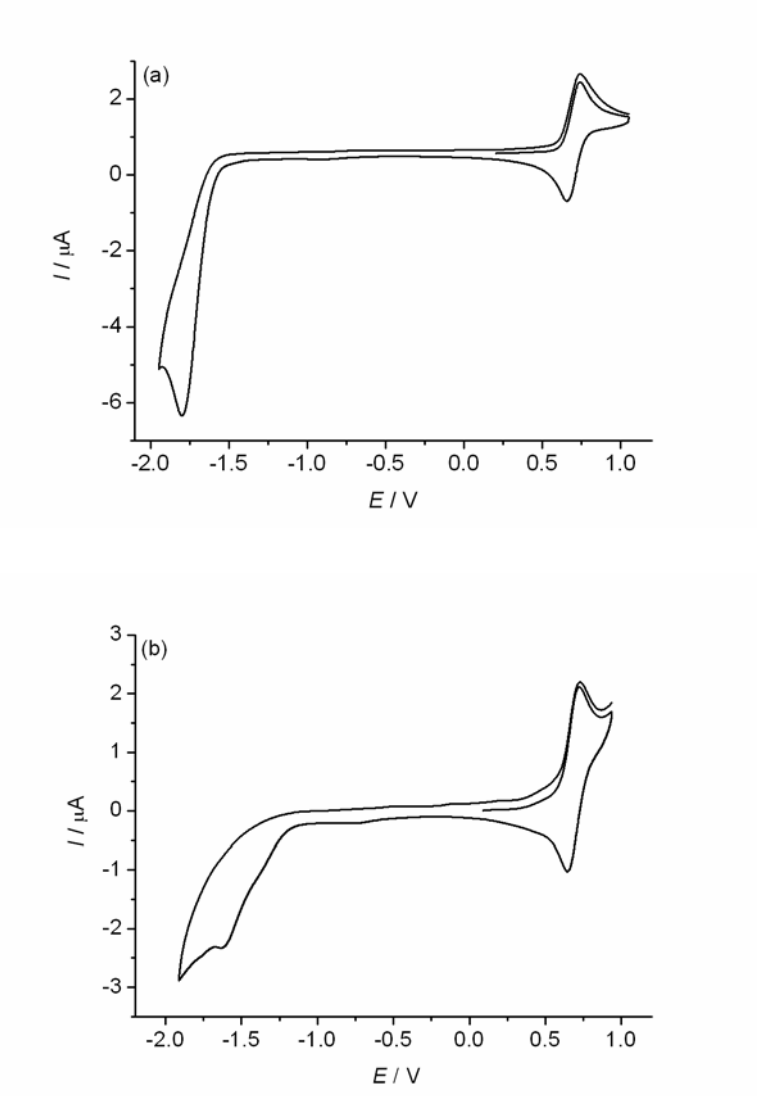

Figure S2. Cyclic voltammogram of a 1 mM solution of [PdBr(PPh_2Fc)(κ^2-2-$C_6H_4PPh_2$)] (**2**) containing 0.1 M [Bu_4N][PF_6] at a 1 mm diameter glassy carbon electrode in (a) CH_2Cl_2 and (b) CH_3CN. Scan rate: 100 mV s^{-1}.

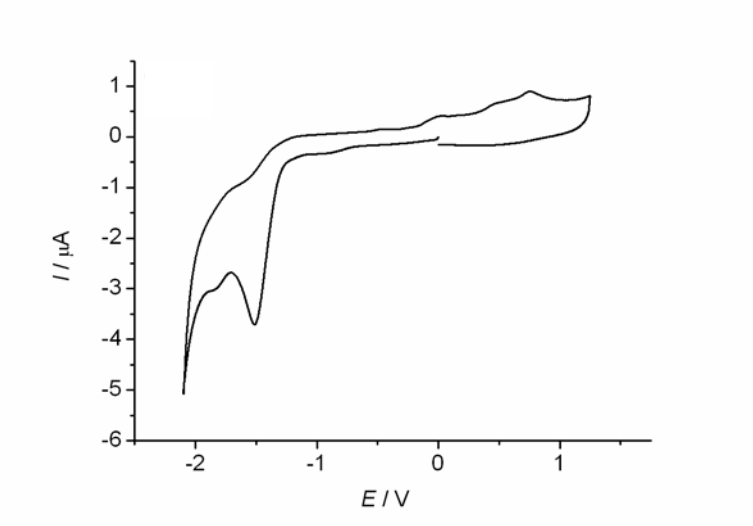

Figure S3. Cyclic voltammogram of 1 mM [PdBr(PPh_3)(κ^2-2-$C_6F_4PPh_2$)] (**4**) in CH_2Cl_2 containing 0.1 M [Bu_4N][PF_6] at a 1 mm glassy carbon electrode. Scan rate: 200 mV s^{-1}.

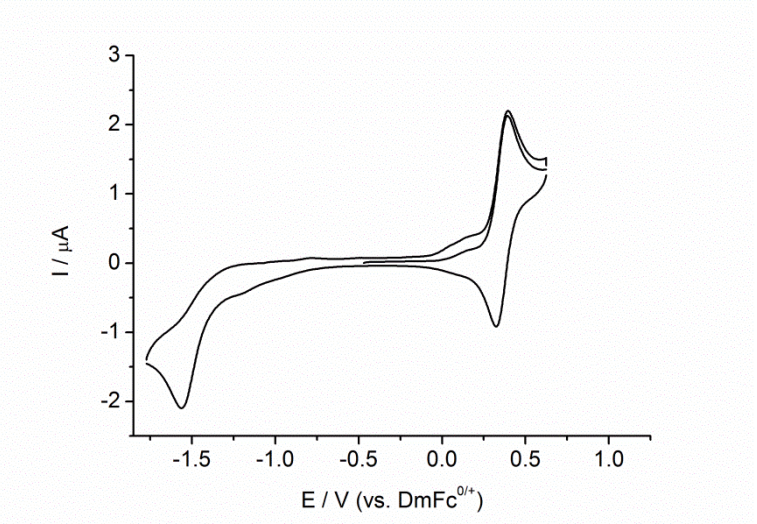

Figure S4. Cyclic voltammogram of a 1 mM solution of [PdBr(PPh_2Fc)(κ^2-2-$C_6F_4PPh_2$)] (**5**) in CH_2Cl_2 containing 0.1 M [Bu_4N][PF_6]. Scan rate: 100 mV s^{-1}.

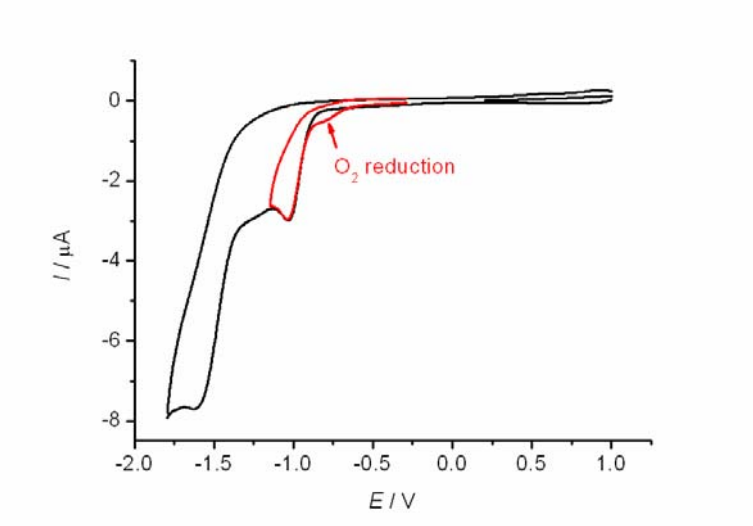

Figure S5. Cyclic voltammogram of a 1 mM solution of $[Pd_2(\mu\text{-}Br)_2(\kappa^2\text{-}2\text{-}C_6F_4PPh_2)_2]$ (**7**) in CH_2Cl_2 containing 0.1 M $[Bu_4N][PF_6]$. Scan rate: 100 mV s^{-1}. Black trace: without the presence of oxygen, red trace: with the presence of oxygen.

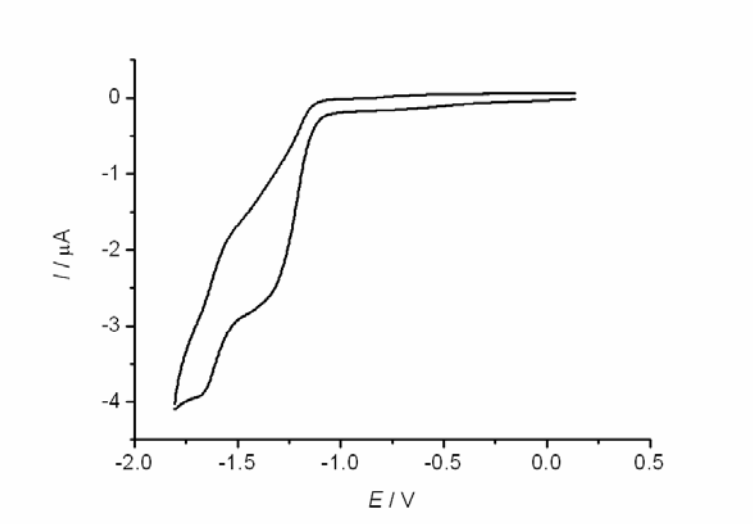

Figure S6. Cyclic voltammogram of a 0.7 mM solution of $[Pd_2Br_2(NCMe)_2(\mu\text{-}2\text{-}C_6F_4PPh_2)_2]$ (**9**) in CH_2Cl_2 containing 0.1 M $[Bu_4N][PF_6]$. Scan rate: 100 mV s^{-1}.