Comparison of Chemical Interactions with Li\(^+\) and Catalytic Reactivity of Electrochemically Generated \([\text{Fe}^{I}\text{ClL}]^{2-}\) and \([\text{Co}^{I}\text{L}]^{-}\) Complexes (L = salen or salophen)

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Supporting Information

Figures S1 – S5
Figure S1. Cyclic voltammograms obtained at a glassy carbon electrode (scan rate = 100 mV s\(^{-1}\)) for reduction of (A) 0.25 mM [Co\(^{II}\)(salen)] and (B) 0.25 mM [Co\(^{II}\)(salophen)] in acetonitrile (0.1 M \([n-\text{Bu}_4\text{N}][\text{PF}_6]\)) containing (a) 0; (b) 0.125; (c) 0.25; (d) 0.375; (e) 0.5 mM LiClO\(_4\).
Figure S2. Comparison of simulated (o o o) and experimental (——) cyclic voltammograms for reduction of 0.25 mM (A) [Co(II)(salen)] and (B) [Co(II)(salophen)] at a glassy carbon electrode in acetonitrile (0.1 M [n-Bu₄N][PF₆]) containing (a) 0; (b) 0.25; (c) 0.5 mM LiClO₄. Simulation parameters are given in the text and Table 2.
Figure S3. Cyclic voltammograms obtained at a glassy carbon electrode (scan rate = 100 mV s\(^{-1}\)) for reduction of 0.25 mM (A) \([\text{Co}^{II}\text{salen}]\) and (B) \([\text{Co}^{II}\text{salophen}]\) in acetonitrile (0.1 M \([n-\text{Bu}_4\text{N}][\text{PF}_6]\)) containing (a) 0; (b) 0.125; (c) 0.25; (d) 0.375; (e) 0.5; (f) 1.0 mM benzyl chloride.
**Figure S4.** Cyclic voltammograms obtained at a glassy carbon electrode (scan rate = 100 mV s$^{-1}$) for reduction of 0.5 mM (A) [Co$^{II}$(salen)] and (B) [Co$^{II}$(salophen)] in acetonitrile (0.1 M [n-Bu$_4$N][PF$_6$]) containing (a) 0; (b) 0.25; (c) 0.5; (d) 1.0 mM bromobenzene.
Figure S5. Cyclic voltammograms obtained at a glassy carbon electrode (scan rate = 100 mV s\(^{-1}\)) for reduction of 0.5 mM (A) [Co\(^{II}\)(salen)] and (B) [Co\(^{II}\)(salophen)] in acetonitrile (0.1 M LiClO\(_4\)) containing 0.25 (b) and 0.5 mM (c) benzyl chloride.