

Supporting information

Table S1 Electrochemical data ^a for [Fe(L)Cl₃] and [Fe(L)(DBC)Cl] ^b in DMF at 25.0 ± 0.2 °C at a scan rate of 50 mV s⁻¹ (CV) and 5 mV s⁻¹ (DPV)

Complexes	E_{pc} (V)	E_{pa} (V)	ΔE_p (mV)	$E_{1/2}$ (V)		Redox process
				CV	DPV	
[Fe(L1)Cl ₃]	-0.510	-0.358	152	-0.434	-0.425	Fe ^{III} → Fe ^{II}
+H ₂ DBC	-0.380	-0.162	218	-0.271	-0.280	DBSQ → H ₂ DBC
	-0.508	-0.370	138	-0.439	-0.412	Fe ^{III} → Fe ^{II}
[Fe(L1)(DBC)Cl]	-0.324	-0.166	158	-0.245	-0.223	DBSQ → DBC
	–	–	–	–	–	Fe ^{III} → Fe ^{II}
[Fe(L2)Cl ₃]	-0.488	-0.360	128	-0.424	-0.411	Fe ^{III} → Fe ^{II}
+H ₂ DBC	-0.376	-0.156	220	-0.266	-0.255	DBSQ → H ₂ DBC
	-0.500	-0.376	124	-0.438	-0.401	Fe ^{III} → Fe ^{II}
[Fe(L2)(DBC)Cl]	-0.332	-0.160	172	-0.246	-0.213	DBSQ → DBC
	–	–	–	–	–	Fe ^{III} → Fe ^{II}
[Fe(L3)Cl ₃]	-0.502	-0.336	166	-0.419	-0.402	Fe ^{III} → Fe ^{II}
+H ₂ DBC	-0.384	-0.140	244	-0.262	-0.275	DBSQ → H ₂ DBC
	-0.510	-0.342	168	-0.426	-0.431	Fe ^{III} → Fe ^{II}
[Fe(L3)(DBC)Cl]	-0.320	-0.150	170	-0.235	-0.217	DBSQ → DBC

	–	–	–	–	–	Fe ^{III} → Fe ^{II}
[Fe(L4)Cl ₃]	-0.422	-0.278	144	-0.350	-0.329	Fe ^{III} → Fe ^{II}
+H ₂ DBC	-0.358	-0.134	224	-0.246	-0.241	DBSQ → H ₂ DBC
	-0.498	-0.356	142	-0.427	-0.435	Fe ^{III} → Fe ^{II}
[Fe(L4)(DBC)Cl]	-0.276	-0.138	138	-0.207	-0.209	DBSQ → DBC
	–	–	–	–	–	Fe ^{III} → Fe ^{II}
[Fe(L5)Cl ₃]	-0.377	-0.149	228	-0.263	-0.276	Fe ^{III} → Fe ^{II}
+H ₂ DBC	-0.082	-0.018	64	-0.050	-0.031	DBSQ → H ₂ DBC
	-0.378	-0.262	116	-0.320	-0.308	Fe ^{III} → Fe ^{II}
[Fe(L5)(DBC)Cl]	–	–	–	–	-0.039	DBSQ → DBC
	-0.362	-0.299	63	-0.330	-0.314	Fe ^{III} → Fe ^{II}
[Fe(L6)Cl ₃]	-0.364	-0.147	217	-0.255	-0.280	Fe ^{III} → Fe ^{II}
+H ₂ DBC	-0.068	0.016	84	-0.026	-0.045	DBSQ → H ₂ DBC
	-0.356	-0.230	126	-0.293	-0.273	Fe ^{III} → Fe ^{II}
[Fe(L6)(DBC)Cl]	-0.103	0.027	130	-0.038	-0.053	DBSQ → DBC
	–	–	–	–	–	Fe ^{III} → Fe ^{II}
[Fe(L7)Cl ₃]	-0.430	-0.230	200	-0.330	-0.312	Fe ^{III} → Fe ^{II}
+H ₂ DBC	0.042	-0.069	111	-0.013	+0.025	DBSQ → H ₂ DBC

	-0.396	-0.208	188	-0.302	-0.289	Fe ^{III} → Fe ^{II}
[Fe(L7)(DBC)Cl]	–	–	–	–	-0.017	DBSQ → DBC
	–	–	–	–	–	Fe ^{III} → Fe ^{II}

^a Potential measured vs. Ag(s)/AgNO₃ (0.01 M, 0.10 M TBAP); add 0.544 V to convert to NHE

^b Generated by adding one equivalent of H₂DBC and two equivalents of triethylamine to complex [Fe(L)Cl₃].