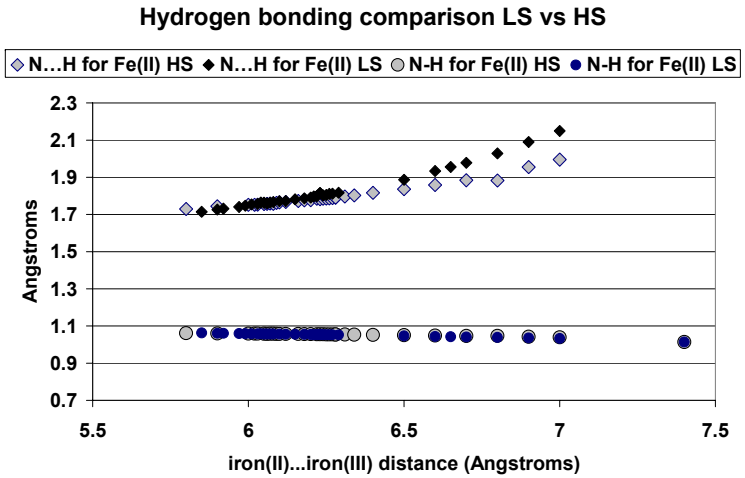
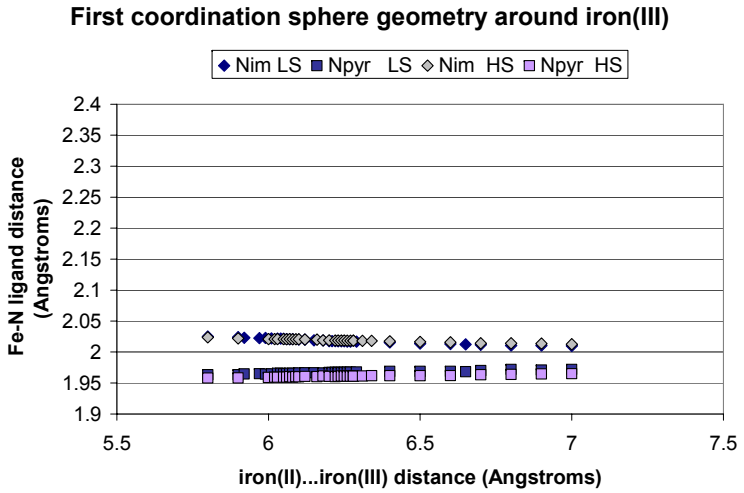
Electronic Supplemental Information for:

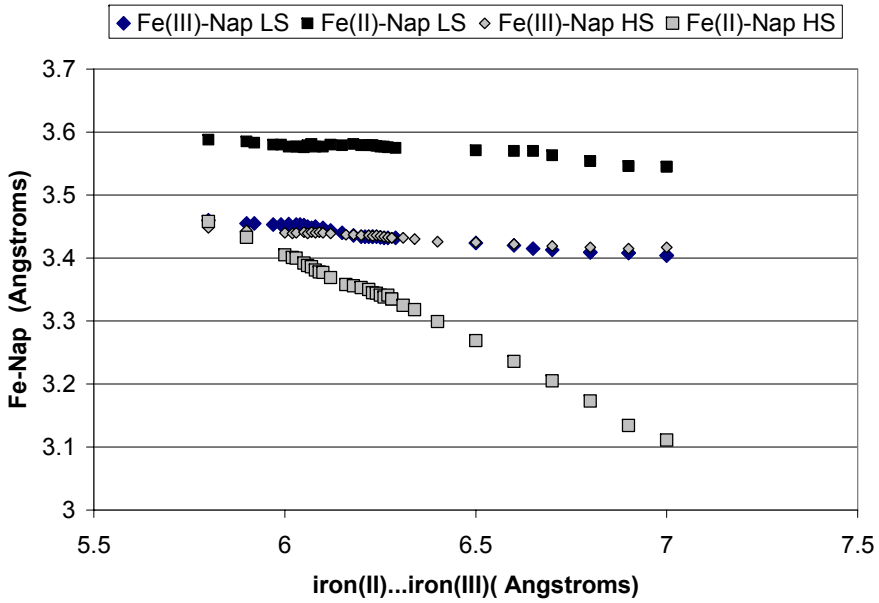
"Synthesis and characterization of homo- and heterodinuclear M(II)-M(III)' (M(II)= Mn or Fe, M(III)' = Fe or Co) mixed-valence supramolecular pseudo-dimers. The effect of hydrogen bonding on spin state selection of M(II)"



ESI Figure 1. The variation of $N_{pyrazole}$-H and $N_{pyrazolate}\cdots H$ as a function of iron(II)-iron(III) distance in $\{[Fe(LS)H_3L^1][FeL^1]\}^{2+}$ and $\{[Fe(HS)H_3L^1][FeL^1]\}^{2+}$.



ESI Figure 2. The variation LS Fe(III)-N_{imine} and LS Fe(III)-$N_{pyrazolate}$ bond distances as a function of iron(II)-iron(III) distance in $\{[Fe(LS)H_3L^1][FeL^1]\}^{2+}$ and $\{[Fe(HS)H_3L^1][FeL^1]\}^{2+}$. Note that these bonds are essentially invariant with iron(II)-iron(III) distance and the spin state of iron(II) and that the Fe(III)-$N_{pyrazolate}$ distance is less than the Fe(III)-N_{imine} distance as experimentally observed.



ESI Figure 3. The variation of Fe-N_{ap} bond distances as a function of iron(II)-iron(III) distance in $\{[Fe(LS)H_3L^1][FeL^1]\}^{2+}$and $\{[Fe(HS)H_3L^1][FeL^1]\}^{2+}$. Note that only iron(II) HS shows any significant variation and that as the HS iron(II) approaches the LS iron(III) it will undergo a SC requiring a drastically increased Fe(II)-N_{ap} distance as is experimentally observed.