An evidence of mixed-valence electron transfer in the inverted Marcus region

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The rates electron transfer ket for the mixed-valence complexes [Cd(dppe)Fe-CN-MLn]+2, MLn = Cp(dppe)Fe, Mn(CO)2dppmP(OPh)3 and other cyanide bridged complexes were estimated from the intervalence transition parameters. The ket values correlate inversely with the free-energy driving force (-?G°) estimated from the half-wave potentials. The results can be interpreted as an evidence of the inverted region of Marcus in mixed-valence complexes.