Supporting Information

Synthesis and reactivity of tantalum corrole complexes

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A. NMR Spectroscopic Analysis
    A.1 NMR spectroscopy of 1
    A.2 NMR spectroscopy of 2
    A.3 NMR spectroscopy of 3
    A.4 NMR spectroscopy of 4
    A.5 NMR evidence of the reactions of 4 with alcohols

B. UV/Vis spectra of 1, 2, and 4

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A. NMR Spectroscopic Analysis

Figure S1: $^1$H NMR spectrum of (Mes$_2$(p-OMePh)corrole)TaCl$_2$ (1) in C$_6$D$_6$ at 298 K.

Figure S2: $^{13}$C($^1$H) NMR spectrum of 1 in C$_6$D$_6$ at 298 K.
Figure S3: $^1$H NMR spectrum of (Mes$_2$(p-OMePh)corrole)TaMe$_2$ (2) in C$_6$D$_6$ at 298 K.

Figure S4: $^{13}$C($^1$H) NMR spectrum of 2 in C$_6$D$_6$ at 298 K.
Figure S5: $^1$H NMR spectrum of proposed enediolate product 3 formed from the addition of CO to 2 in $C_6D_6$ at 298 K.

Figure S6: $^1$H NMR spectrum of (Mes$_2$(p-OMePh)corrole)Ta(N'TBu) (4) in $C_6D_6$ at 298 K.
Figure S7: $^1$H NMR spectrum of the observed product of the reaction between 4 and Ph$_3$COH in C$_6$D$_6$ at 298K.

Figure S8: $^1$H NMR spectrum of the observed product of the reaction between 4 and 2 equivalents of 4-methylbenzyl alcohol in C$_6$D$_6$ at 298K.
Figure S9: UV/Vis spectrum of 1 recorded in toluene.

Figure S10: UV/Vis spectrum of 2 recorded in toluene.
Figure S11: UV/Vis spectrum of 4 recorded in toluene.