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# New Phenoxyl Radical Complexes of Manganese, Gallium, Indium and Iron Based on an $H_2$bbpen Ligand Derivative

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**Table S1.** $^1$H NMR chemical shifts (ppm), assignments and multiplicity for complex **2** and **3** in $CD_3CN$

| Complex **2** | | | Complex **3** | | |
|---|---|---|---|---|---|
| Chem. Shift | Mult. | Assign. | Chem. shift | Mult. | Assign. |
| 8.95 | d ($^3J_{H6/H5}$ 5.4 Hz) | $2H_6$ | 8.94 | d ($^3J_{H6/H5}$ 5.2 Hz) | $2H_6$ |
| 8.05 | dd ($^3J_{H4/H5}$ 7.9 Hz, $^3J_{H4/H3}$ 7.9 Hz) | $2H_4$ | 7.89 | dd ($^3J_{H4/H5}$ 7.8 Hz, $^3J_{H4/H3}$ 7.8 Hz) | $2H_4$ |
| 7.56 | dd ($^3J_{H5/H6}$ 6.3 Hz, $^3J_{H5/H4}$ 6.3 Hz) | $2H_5$ | 7.48 | dd ($^3J_{H5/H6}$ 6.2 Hz, $^3J_{H5/H4}$ 6.2 Hz) | $2H_5$ |
| 7.40 | d ($^3J_{H3/H4}$ 7.9 Hz) | $2H_3$ | 7.16 | d ($^3J_{H3/H4}$ 7.9 Hz) | $2H_3$ |
| 7.22 | d ($^4J_{H8/H7}$ 2.2 Hz) | $2H_8$ | 7.10-7.07 | m | $2H_8$ $2H_7$ |
| 6.97 | d ($^4J_{H7/H8}$ 2.2 Hz) | $2H_7$ | 4.47 | d ($^2J$ 18 Hz) | $2H_{2py}$ |
| 4.57 | d ($^2J$ 19 Hz) | $2H_{2py}$ | 4.31 | d ($^2J$ 12 Hz) | $2H_{2ph}$ |
| 4.27 | d ($^2J$ 19 Hz) | $2H_{2'py}$ | 4.20 | d ($^2J$ 18 Hz) | $2H_{2'py}$ |
| 4.02 | d ($^2J$ 13 Hz) | $2H_{2ph}$ | 3.85 | d ($^2J$ 12 Hz) | $2H_{2'ph}$ |
| 3.85 | d ($^2J$ 13 Hz) | $2H_{2'ph}$ | 3.35 | d ($^2J$ 10.4 Hz) | $2H_1$ |
| 3.27 | d ($^2J$ 10 Hz) | $2H_1$ | 3.15 | d ($^2J$ 10.4 Hz) | $2H_{1'}$ |
| 2.96 | d ($^2J$ 10 Hz) | $2H_{1'}$ | 1.36 | s | $18H_9$ |

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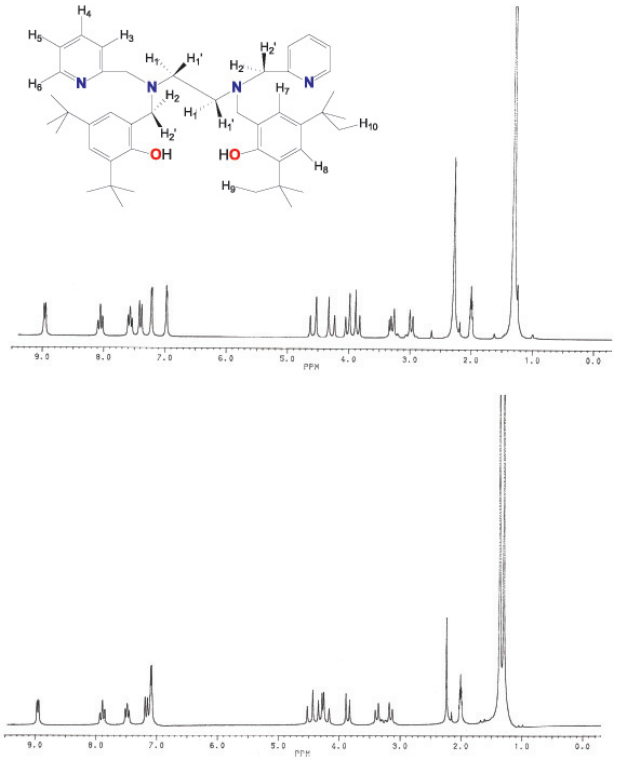


**Figure S1.** $^{1}$H NMR spectra of complex **2** (top) and complex **3** (bottom) in $CD_3CN$. Inset: schematic representation for $^{1}$H NMR interpretation.

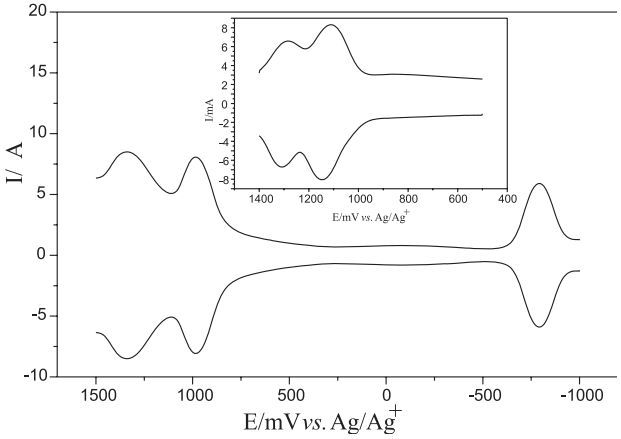


**Figure S2.** Square wave voltammogram of complex **4** in $CH_2Cl_2$ (0.1 mol $dm^{-3}$ [(TBA)$PF_6$]): glass carbon working electrode. Conditions: see Table 4. Inset square wave voltammogram of complex **3**.

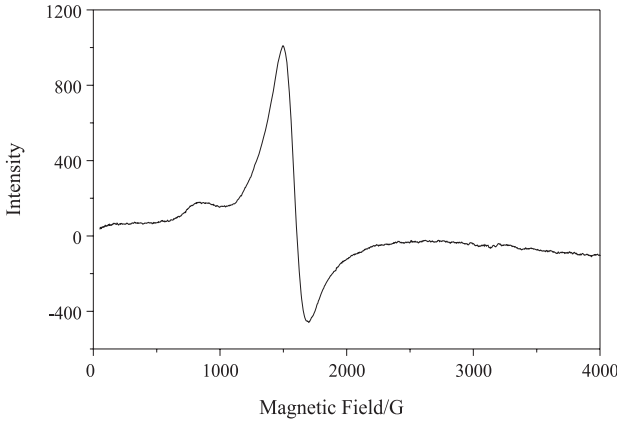


**Figure S3.** X-band EPR spectrum of complex **4** in $CH_2Cl_2$ at 77K.