

(dppe)MOR complexes synthesized, and an X-ray diffraction study on a suitable crystal of it was carried out. The conformation and atomic numbering scheme for **9** are shown in Figure 2. Selected bond distances and angles are found in Table III. The Re–O distance of 2.127 (4) Å in this complex is similar to the corresponding distance of 2.143 (4) Å in  $[\text{P}(\text{CH}_3)_2\text{C}_6\text{H}_5]_2(\text{CO})_2\text{ReO}(\text{o}-\text{C}_6\text{H}_4\text{CH}=\text{NC}_6\text{H}_5)^{13}$  and the mean distance of 2.153 (8) Å in  $[\text{Re}(\text{CO})_3\text{C}_6\text{H}_4(\text{O})\text{N}=\text{NC}_6\text{H}_5]_2^{14}$  but appreciably longer than the average distance of 1.965 Å reported for *trans*- $[\text{P}(\text{CH}_3)_3]_2\text{Re}(\text{OC}_6\text{H}_5)_4^{15}$  due in part to the higher oxidation state of the rhenium atom in the latter. The geometry at the metal center is essentially octahedral. The Re–O–C (phenyl) angle is 131.2 (4)°, and the P(1)–Re–P(2) angle is 81.5 (1)°; the latter is similar to the corresponding angle of 82.2 (8)° in *fac*-(CO)<sub>3</sub>-(dppe)ReC(O)Si(C<sub>6</sub>H<sub>5</sub>)<sub>3</sub>.<sup>16</sup>

Insertion of CO into the metal–oxygen bond of **4** and **5** in hexane under high pressure afforded *fac*-(CO)<sub>3</sub>(dppe)MnC(O)-OCH<sub>3</sub> and *fac*-(CO)<sub>3</sub>(dppe)MnC(O)OC<sub>2</sub>H<sub>5</sub>, respectively. To the best of our knowledge, this is a rare example of CO insertion into an octahedral alkoxide complex of known structure.<sup>17</sup> Both associative<sup>18</sup> and ionic<sup>19</sup> mechanisms have been proposed for

analogous CO insertion reactions of 4- and 5-coordinated complexes, respectively. There have been no similar studies in the octahedral case, and we have not attempted to demonstrate a mechanism for our reactions. However, it is important to note that the manganese and rhenium alkoxy carbonyl complexes *fac*-(CO)<sub>3</sub>(dppe)MC(O)OR<sup>9</sup> slowly ionize in polar solvents to produce the relatively unstable  $[(\text{CO})_4(\text{dppe})\text{M}]^+[\text{OR}]^-$  during workup, and accordingly, polar solvents should be avoided in carrying out CO insertion reactions with these materials. Similar treatment of rhenium alkoxides **7** and **8** did not yield any rhenium alkoxy carbonyl complexes. Attempted insertion of C<sub>2</sub>H<sub>4</sub> into the metal–alkoxide bond of **4** in hexane under high pressure afforded only polyethylene. Reaction of **4** with *p*-anisoyl chloride produced methyl *p*-anisate and *fac*-(CO)<sub>3</sub>(dppe)MnCl. Similar reactions of alkoxides and aryloxides with acid chlorides to produce esters have been also observed by others.<sup>20</sup>

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**Supplementary Material Available:** For **9**, tables of anisotropic displacement parameters, H atom coordinates, and bond distances and angles (8 pages); a listing of observed and calculated structure factor amplitudes (25 pages). Ordering information is given on any current masthead page.

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 (20) (a) Garner, C. M.; Fernandez, J. M.; Gladysz, J. A. *Tetrahedron Lett.* **1989**, *30*, 3931. (b) Professor R. G. Bergman and co-workers of the University of California recently synthesized *fac,cis*-(CO)<sub>3</sub>(PPh<sub>3</sub>)<sub>2</sub>Re(OC<sub>6</sub>H<sub>4</sub>CH<sub>3</sub>-*p*), and reaction of this with CH<sub>3</sub>COCl gave methyl *p*-toluate (personal communication from R.G.B.).

## Additions and Corrections

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**R. Guillard,\* N. Jagerovic, A. Tabard, P. Richard, L. Courthaudon, A. Louati, C. Lecomte,\* and K. M. Kadish\*:** Metalloporphyrins Containing  $\sigma$ -Bonded Nitrogen Axial Ligands. 1. Synthesis and Characterization of Indium(III) Porphyrin Complexes. Molecular Structures of (4-Phenyltetrazolato)- and (5-Methyltetrazolato)-(2,3,7,8,12,13,17,18-octaethylporphinato)indium(III).

Page 26. Reference 64 in Table XIV was accidentally deleted and is as follows: Cornillon, J.-L.; Anderson, J. E.; Kadish, K. M. *Inorg. Chem.* **1986**, *25*, 2611.—K. M. Kadish