Abstract

The reaction of 2 mol equiv. of $[\text{Mo(NO)}(\text{HB(dmpz)}_3)\text{X}_2]$ ($\text{(HBdmpz)}_3 = \text{tris}(3,5$-dimethylpyrazolyl)borate; $X = \text{Cl or I}$) with Schiff base ligands derived by condensation of 2 mol equiv. of $\text{para}$- and $\text{meta}$-hydroxybenzaldehyde with $1,4-$C$_6$H$_4$(NH$_2$)$_2$ and $1,6-$NH$_2$(CH$_2$)$_6$NH$_2$ afforded monometallic complexes $[\text{Mo(NO)} \{\text{H(dmpz3)}\} \text{X(OC6H4 CHO)}]$. Sodium borohydride reduction of the Schiff bases obtained from the hydroxybenzaldehydes and $1,4-$C$_6$H$_4$(NH$_2$)$_2$ followed by reaction with $[\text{Mo(NO)}\{\text{HB(dmpz)}_3 \text{Cl}_2\}]$ afforded the bimetallic species $\{[\text{Mo(NO)}\text{HB(dmpz)}_3\text{Cl}[(\text{OC6H4CH2NH})_2\text{C6H4}]\}$. These compounds were characterized spectroscopically and the structure of a closely related compound, $[\text{Mo(NO)}\{\text{HB(dmpz)}_3\}\text{Cl}[(\text{OC6H3(3-CHO)(4-OH)})], has been determined crystallographically.