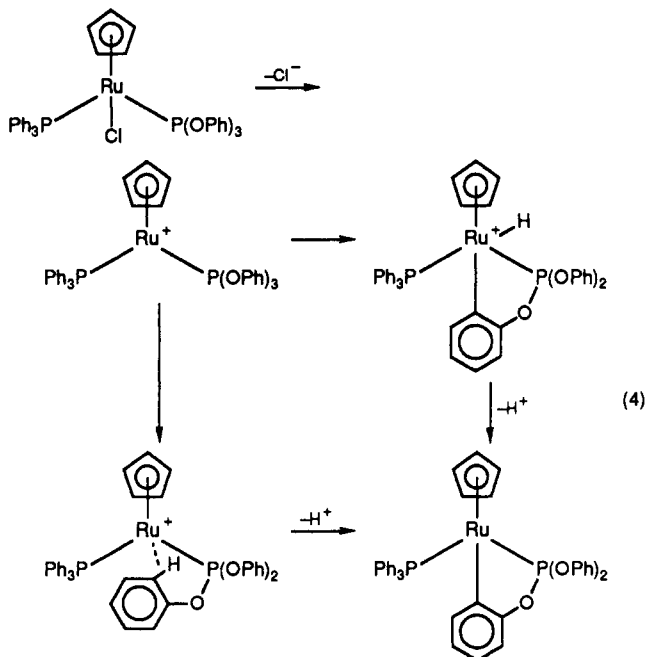


(OPh)<sub>3</sub>), each of which is thermally stable under these experimental conditions.

For the case of  $\eta^5\text{-cpRuCl(PPh}_3\text{)(P(OPh)}_3\text{)}$ , we propose that intramolecular attack occurs at the ruthenium center via the solvated coordination site, followed by base-induced deprotonation of the unobserved intermediate (eq 4).



These observations provide a clear example of intramolecular C-H bond cleavage being induced by the proximal generation of a vacant coordination site at a cationic metal center. This approach to effecting cyclometalation is preferable to thermolysis routes, where high-temperature reflux conditions can frequently lead to undesirable side products. Mechanistically, we cannot differentiate between a pathway involving oxidative addition at ruthenium(II) or electrophilic attack by the cationic metal center.<sup>14</sup> Either pathway is favored by the generation of a vacant coordination site, but electrophilic attack at the ortho C-H bond is further favored by the generation of a cationic ruthenium(II) center. Cyclometalation induced by thermolysis of  $\eta^5\text{-cpRuCl}_2$  is less favored because it requires either attack at a coordinatively saturated center or prior ligand dissociation for attack. In both procedures, the final deprotonation step is carried out by using an amine base.

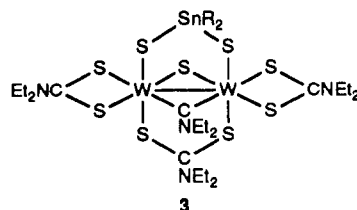
**Acknowledgment.** We thank the Louisiana Board of Regents for support of the research. We thank Johnson Matthey, Inc., for a loan of hydrated ruthenium trichloride. We thank the Office of Naval Research for funds to purchase the FT-IR spectrometer.

**Supplementary Material Available:** Tables of positional parameters, bond distances and angles, calculated hydrogen atom positional parameters, general displacement parameters, anisotropic displacements, and torsion angles (14 pages); table of observed and calculated structure factors for  $[\text{cpRuCl(PPh}_3\text{)(P(OMe)}_3\text{)}]$  (48 pages). Ordering information is given on any current masthead page.

## Additions and Corrections

Peter B. Hitchcock, Michael F. Lappert,\* and Michael J. McGeary\*: Stannadesulfurization of a Bis(diethyldithiocarbamato)tungsten(II) Complex: Formation of an (Aminocarbonyl)tungsten Complex. **1990**, 9, 2645.

At the bottom of the second column of page 2645, complex 3 was incorrectly formulated and the bridging dithiocarbamate ligand was omitted. The formula should read



Robert W. Waymouth, Kristine S. Potter, William P. Schaefer, and Robert H. Grubbs\*: Structure of a Trinuclear Zr<sub>2</sub>Al  $\mu$ -Ketone Complex with a Bridging Trigonal-Bipyramidal Methyl Group. **1990**, 9, 2843.

The first partial sentence on page 2844 should read "...the bridging methyl located."<sup>4b</sup>