

Facile Activation of Carbon-Fluorine Bonds: Inner Sphere Construction of New Fluorinated Organic Ligands

Russell P. Hughes

Chemistry Department, Dartmouth College, 6128 Burke Laboratories, Hanover NH 03755

Activation of carbon-fluorine bonds, coupled with construction of new carbon-hydrogen and carbon-fluorine bonds, in the inner sphere of metals provides new routes to a variety of new fluorocarbon ligands. The bonding and reactivity of compounds containing fluorinated metal-carbon multiple bonds will also be discussed.

- (1) Huang, H.; Hughes, R. P.; Landis, C. R.; Rheingold, A. L., *J. Am. Chem. Soc.* **2006**, *128*, 7454-7455.
- (2) Bourgeois, C. J.; Hughes, R. P.; Yuan, J.; DiPasquale, A. G.; Rheingold, A. L., *Organometallics* **2006**, *25*, 2908-2910.
- (3) Hughes, R. P.; Laritchev, R. B.; Yuan, J.; Golen, J. A.; Rucker, A. N.; Rheingold, A. L., *J. Am. Chem. Soc.* **2005**, *127*, 15020-15021.