

## PREPARATION, CHARACTERIZATION, STABILITY AND REACTIONS OF POLYFLUORINATED ALKENYL AND ARYL ORGANOMETALLIC REAGENTS

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A variety of polyfluorinated organometallic reagents of the general structure,  $R_F(R_F')C=CXM$ , where  $R_F = F, CF_3, C_3F_7$ ;  $R_F' = F, CF_3, C_6H_5, C_6F_5, H, CF_3, Cl$ ;  $X = F, Br, Cl, H, M$ , and  $M = Zn, Cd, Cu, Ag$ ; have been prepared by direct reaction of the metal powder with the appropriate vinyl halide or dihalide. Similarly polyfluorinated aryl organometallics of the type  $Ar_F M$  and  $Ar_F(M)_2$ , where  $M = Zn, Cd, Cu, Ag$  have been prepared directly from the metal powder and the appropriate aryl halide or aryl dihalide. Factors which effect the stability and/or reactivity of these reagents will be discussed as well as illustrative examples of the application of these reagents for the preparation of polyfluorinated olefins, dienes, cumulenes, styrenes and functionalized derivatives of these classes of compounds.