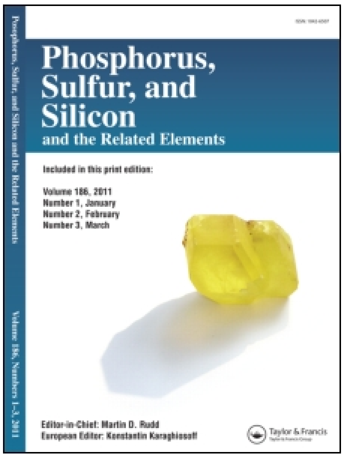

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BENZAZAPHOSPHOLE METAL CARBONYL COMPLEXES: LITHIATION AND SUBSTITUTION REACTIONS

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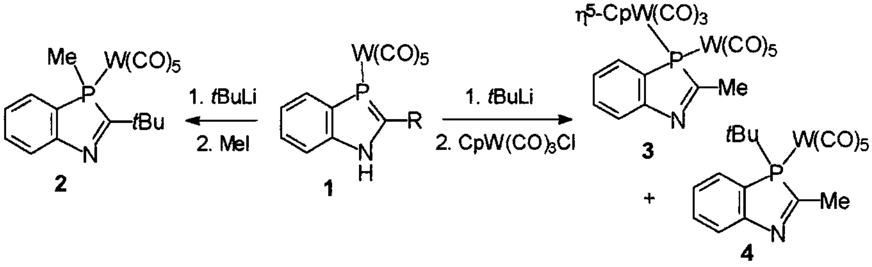
Reaction of 1*H*-1,3-benzazaphospholes with $M(CO)_5(THF)$ yields the respective η^1(P)-metal carbonyl complexes **1**. Small down-field (M = Cr) and even upfield coordination shifts (Mo, W) of the ^{31}P resonance characterize these σ^2-P heterocycles as weak donors but effective acceptor ligands. Treatment of **1** (M = W) with *t*-BuLi furnishes the corresponding lithium 1,3-benzazaphospholide complexes which react with electrophiles at phosphorus yielding **2** and the monomer mixed valence complex **3**. Formation of the minor side product **4** shows that lithiation of the less bulky 2-methylbenzazaphosphole complex is accompanied to a small extent by addition of *t*-BuLi to the P=C bond 1,2.



SCHEME 1

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