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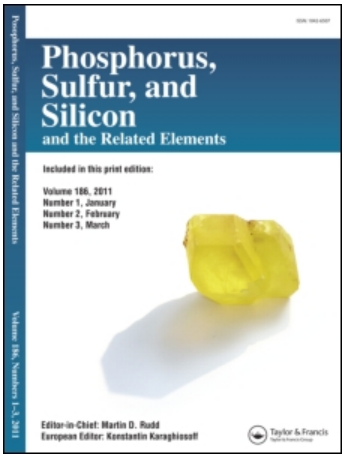

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Functionalization of the Coordinated Cyclopentadienyl Ring by Transfer of Amino Groups on $CpFe(PR_3)(CO)X$ Derivatives - Role of the Phosphorus Ligand

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Functionalization of the Coordinated Cyclopentadienyl Ring by Transfer of Amino Groups on $CpFe(PR_3)(CO)X$ Derivatives - Role of the Phosphorus Ligand

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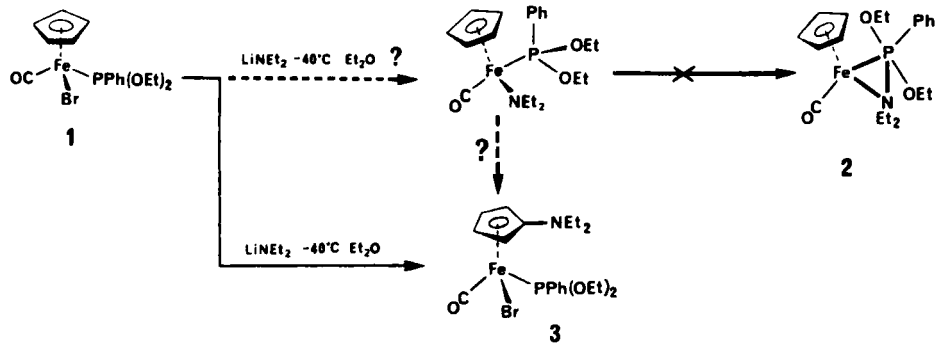
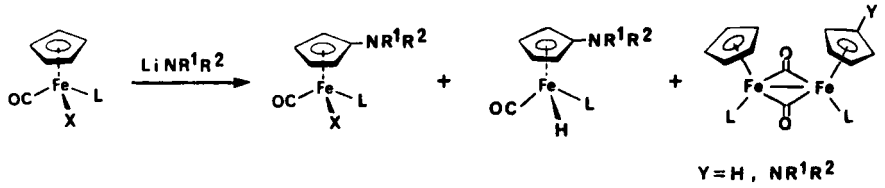
The action of $LiNEt_2$ on the iron derivative **1**, which was expected to yield the acyclic phosphoranide **2**, led in fact to **3**, i.e. to the amination of the cyclopentadienyl ring, thus providing an easy and direct access to an aminofunctionalized cyclopentadienyl iron complex:



The extent and potential of this one-step reaction in synthesis will be presented, and the factors governing the amination of the cyclopentadienyl ring in CpFe(CO)LX derivatives by NR_2^- anions, as a function of R, L and X, will be discussed, together with its mechanism:



X = Cl, Br

L = CO, PPh_3, $P(OPh)_3$, $PhP(OEt)_2$, $PhP(OMe)_2$, $P(OEt)_3$

$R^1 = R^2$ = Me, Et; R^1 = H, R^2 = ^{t}Bu, CH_2Ph.