

Übergangsmetall-substituierte Phosphane, Arsane und Stibane, LIX [1]. Ein Addukt des Me₃P-substituierten Ferrio-diphenylphosphans Cp(OC)(Me₃P)Fe-PPh₂ mit Methylisothiocyanat: Darstellung, Protonierung und Methylierung

Transition Metal Substituted Phosphanes, Arsanes and Stibanes, LIX [1].

An Adduct of the Me₃P-Substituted Ferrio-diphenylphosphane Cp(OC)(Me₃P)Fe-PPh₂
and Methylisothiocyanate: Synthesis, Protonation, and Methylation

Wolfgang Malisch*, André Spörl, Katharina Thirase, Oliver Fey

^a Institut für Anorganische Chemie der Universität Würzburg,
Am Hubland, D-97074 Würzburg, Germany

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Treatment of the ferrio-phosphane Cp(OC)₂Fe-PPh₂ (**1**) with Me₃P (**2**) yields Cp(OC)(Me₃P)Fe-PPh₂ (**3**) *via* CO-substitution. Reaction of **3** with methylisothiocyanate (**4**) leads to the formation of the adduct Cp(OC)(Me₃P)Fe-PPh₂-C(S)NMe (**5**), which is regioselectively methylated at the sulfur atom with MeI (**6a**) or MeSO₃CF₃ (**6b**), respectively, to give the cationic complexes [Cp(OC)(Me₃P)Fe-PPh₂-C(SMe)=NMe]⁺I⁻/CF₃SO₃ (**7a,b**). In contrast, protonation with CF₃SO₃H (**8**) occurs at the nitrogen atom, yielding [Cp(OC)(Me₃P)Fe-PPh₂-C(S)-N(H)Me]⁺CF₃SO₃⁻ (**9**). The structures of **7b** and **9** have been determined by X-ray diffraction analysis.

* Sonderdruckanforderungen an Prof. Dr. W. Malisch; Fax: +49 931 8884618, E-mail: Wolfgang.Malisch@mail.uni-wuerzburg.de