The Synthesis and Structure of the Two Hexafluorophosphate Salts $\{Cu[P(C_7H_7)_3](CH_3CN)_2\}PF_6$ and $\{Cu[P(C_7H_7)_3]_2\}PF_6$ Containing the Ligand Tri(1-cyclohepta-2,4,6-trienyl)phosphane

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The reactions of $[Cu(CH_3CN)_4]PF_6$ (**1**) with one or two equivalents of tri(1-cyclohepta-2,4,6-trienyl)phosphane lead to $\{Cu[P(C_7H_7)_3](CH_3CN)_2\}PF_6$ (**2**) and $\{Cu[P(C_7H_7)_3]_2\}PF_6$ (**3**), respectively. According to the X-ray structure analyses, the cations in both **2** and **3** contain copper(I) in a pseudo-tetrahedral coordination sphere, in which a $P(C_7H_7)_3$ ligand provides one or two olefinic bonds for weak interaction with the metal.

Key words: Copper(I) Complexes, Olefinic Phosphanes, X-Ray