The reactions of \([\text{Cu(CH}_3\text{CN)}_4]\)PF\(_6\) (1) with one or two equivalents of tri(1-cyclohepta-2,4,6-trienyl)phosphane lead to \([\text{Cu}[\text{P(C}_7\text{H}_7)_3]\text{(CH}_3\text{CN)}_2]\)PF\(_6\) (2) and \([\text{Cu}[\text{P(C}_7\text{H}_7)_3]_2]\)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\(_7\)H\(_7\))\(_3\) ligand provides one or two olefinic bonds for weak interaction with the metal.

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