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Synthesis and structure of palladium complex $[Ph_4P]_2[PdCl_4]$

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Abstract

The reaction of chloride tetraphenylantimony with dichloride palladium (2:1 mol.) in water was conducted to synthesize the complex $[Ph_4P]^+_2[PdCl_4]^{2-}$ (**I**). According to X-ray data, the crystal **I** contains tetrahedral cations of tetraphenylphosphonium (CPC 107.74(10)-113.23(11)°, C-P 1.798(2)-1.804(2) Å) and planar anions $[PdCl_4]^{2-}$ (*cis*-ClPdCl 89.82(4)° and 90.18(4)°, Pd-Cl 2.2987(8)-2.3243(9) Å), in which the palladium atom is located in the center of inversion.