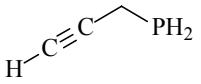
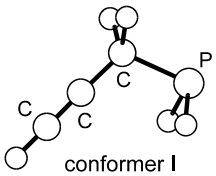
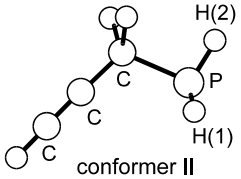
386 **C_3H_5P** **2-Propynylphosphine** **C_s** (conformer I)
MW **C_1** (conformer II)



θ_0	deg [a])	
	conformer I	conformer II
C–C–P–H [b])	±47(1)	
C–C–P–H(1) [b])		73(1)
C–C–P–H(2) [b])		167(1)



conformer I



conformer II

Two conformers, I and II, were detected. Conformer I has a symmetry plane with both hydrogen atoms of the phosphino group pointing toward the triple bond, while only one of the hydrogen atoms of the phosphino group points toward the triple bond in II. Conformer I is 1.5(20) kJ mol^{-1} more stable than II. Many of the transitions of II were split into two components because of tunneling of the phosphino group; the tunneling frequencies are 0.814(42) MHz and 11.49(18) MHz in the ground and first excited states of the C–P torsion, respectively.

[a]) Uncertainties were not estimated in the original paper.
[b]) Dihedral angle, measured from the *synperiplanar* position.

Demaison, J., Guillemin, J.-C., Møllendal, H.: Inorg. Chem. **40** (2001) 3719.