

**342**      **C<sub>3</sub>HP**  
MW, *ab initio*  
calculations

**1-Phospha-1,3-butadiyne**  
2-Propynylidynephosphine

**C<sub>∞v</sub>**  
HC≡C–C≡P

$r_0$	Å
H–C	1.05577(3)
C≡C	1.21393(5)
C–C	1.3658(2)
C≡P	1.5540(2)

$r_s$	Å
H–C	1.055763(4)
C≡C	1.213923(8)
C–C	1.3677(2)
C≡P	1.5515(3)

$r_e^a)$	Å
H–C	1.06174(4)
C≡C	1.21364(7)
C–C	1.3660(3)
C≡P	1.5523(2)

<sup>a)</sup> Derived by combining the observed ground-state rotational constants with the vibration-rotation coupling constants from CCSD(T)/cc-pVQZ calculations.

Bizzocchi, L., Degli Esposti, C., Botschwina, P.: Chem. Phys. Lett. **319** (2000) 411.

Replaces [II/25C \(3, 1045\)](#)