

Molecular Origami of PPh5

given information

ElementNames	[(P) (C) (C) (C) (C) (C)]	
distance	183.011	P ¹ -C ¹⁸
distance	185.366	P ¹ -C ¹¹
distance	186.545	P ¹ -C ²⁸
distance	198.590	P ¹ -C ⁵
distance	198.833	P ¹ -C ¹
angle	86.256	C ¹⁸ -P ¹ -C ¹
	261.3	C ¹⁸ -C ¹
angle	86.637	C ⁵ -P ¹ -C ²⁸
	264.4	C ⁵ -C ²⁸
angle	91.057	C ⁵ -P ¹ -C ¹¹
	274.1	C ⁵ -C ¹¹
angle	91.464	C ⁵ -P ¹ -C ¹⁸
	273.5	C ⁵ -C ¹⁸
angle	91.911	C ¹¹ -P ¹ -C ¹
	276.3	C ¹¹ -C ¹
angle	92.777	C ²⁸ -P ¹ -C ¹
	279.2	C ²⁸ -C ¹
angle	117.762	C ¹⁸ -P ¹ -C ¹¹
	315.4	C ¹⁸ -C ¹¹
angle	119.570	C ²⁸ -P ¹ -C ¹¹
	321.4	C ²⁸ -C ¹¹
angle	122.659	C ²⁸ -P ¹ -C ¹⁸
	324.3	C ²⁸ -C ¹⁸
angle	176.864	C ⁵ -P ¹ -C ¹
	397.3	C ⁵ -C ¹
dopage	T	
AutoAlign	F	

structure type: XABCDE

ORTEP diagram of the crystal structure of 175M:1 PPh₅. The structure shows a zigzag chain of five phosphorus-containing units. Each unit consists of a central phosphorus atom (P) bonded to three phenyl rings (C1-C6, C7-C12, C13-C18). The phosphorus atoms are labeled P1, P2, P3, P4, and P5. The carbon atoms are labeled C1 through C18 for each unit. The structure is shown with thermal ellipsoids at the 50% probability level. Bond lengths and angles are provided for each unit. The chain is connected by hydrogen bonds between the phenyl rings of adjacent units.

View -1

actual size: 267 712

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