

Molecular Origami of Fe(CO)5

given information

ElementNames	[(Fe) (C) (C) (C) (C) (C)]	
distance	180.090	Fe ¹ -C ³
distance	180.431	Fe ¹ -C ¹
distance	180.439	Fe ¹ -C ⁴
distance	181.053	Fe ¹ -C ²
distance	181.059	Fe ¹ -C ⁵
angle	89.462	C ³ -Fe ¹ -C ²
	254.2	C ³ -C ²
angle	89.462	C ⁵ -Fe ¹ -C ³
	254.2	C ⁵ -C ³
angle	90.160	C ⁵ -Fe ¹ -C ⁴
	256.	C ⁵ -C ⁴
angle	90.163	C ² -Fe ¹ -C ¹
	256.	C ² -C ¹
angle	90.392	C ⁴ -Fe ¹ -C ²
	256.5	C ⁴ -C ²
angle	90.397	C ⁵ -Fe ¹ -C ¹
	256.5	C ⁵ -C ¹
angle	117.771	C ⁴ -Fe ¹ -C ¹
	309.	C ⁴ -C ¹
angle	121.114	C ⁴ -Fe ¹ -C ³
	314.	C ⁴ -C ³
angle	121.115	C ³ -Fe ¹ -C ¹
	314.	C ³ -C ¹
angle	178.924	C ⁵ -Fe ¹ -C ²
	362.1	C ⁵ -C ²
dopage	T	
AutoAlign	F	

structure type: XABCDE

ORTEP diagram of the 175M:1 $\text{Fe}(\text{CO})_5$ complex. The structure shows a zigzag chain of five ferrocene-like units. Each unit consists of an iron atom (Fe) coordinated to five terminal carbonyl (C) groups. The units are linked by bridging carbonyl groups. Bond lengths and angles are provided for each unit. The structure is shown in a perspective view with thermal ellipsoids at the 50% probability level.

View -1

actual size: 321 685