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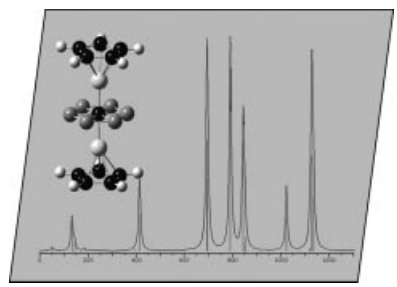
COVER PICTURE

The cover picture shows the structure and IR spectrum of a novel triple-decker complex $(C_5H_5)Fe(B_6C)Fe(C_5H_5)$ obtained by density functional calculations. Similar results on a series of $(C_nH_n)M(B_6X)M(C_nH_n)$ (M = Fe, Ru, Mn, Re; X = B, C, N; n = 5, 6) complexes containing planar hexacoordinate carbon or other nonmetal atoms at the centers of the B_6X middle-deckers were also obtained. Natural orbital analyses indicate that the nonmetal centers X follow the octet rule in these complexes, and effective d−π coordination interactions exist between the partially filled Fe 3d orbitals and the delocalized π orbitals of the three parallel ligands. This work provides strong theoretical evidence to facilitate future experimental characterization of the long-sought planar hexacoordinate carbon atom and expands the structural domain of traditional sandwich-type transition-metal complexes. Details are discussed in the article by S.-D. Li et al. on p. 2567 ff.



MICROREVIEW

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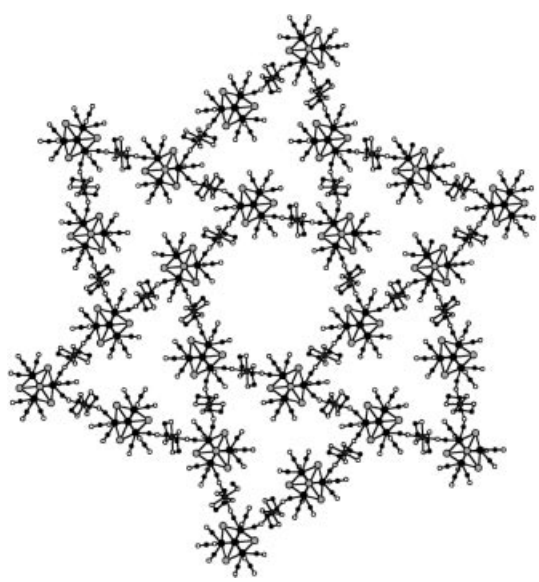

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