

## Single Atom Bridged Porphyrin Dimers, and a Possible Carbon Sandwich

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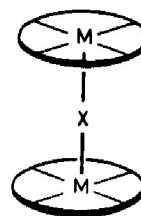
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**Summary** An orbital diagram constructed for  $N_4M-X-MN_4$  where  $N_4$  is a model for a porphyrin ring, M a transition metal, and X a monatomic bridge (O, N, or C) accounts for the electronic structure and bonding preferences of the X = O and N species, and predicts a closed shell for the carbido bridged complex.

Two Schiff-base, porphyrin, or other macrocycle metal complexes may be linked at the metal through a single atom X, as illustrated schematically (1). The oxygen bridged dimers are well represented by  $(Fe-salen)_2O$  or  $(Fe-TPP)_2O$



(1)

