carbonato group based on infrared spectroscopy,[17] the copper(I) bicarbonate is dimeric and bridged by a single oxygen atom of the bicarbonate group. This latter structural type is uncommon in bicarbonate or carboxylate complexes,[18] although it is proposed on metal surfaces.[19] In the present instance the bridging of a single oxygen atom of the bicarbonate to the two copper(I) centers is complemented by strong intermolecular hydrogen-bonding. This mode of interaction as compared to the more common $\mu$-O,O′ binding should allow for a shorter Cu$\cdots$Cu separation. However, because of the steric bulk of the triphenylphosphine ligands, the Cu$\cdots$Cu separation is actually longer at 3.30 Å (see space-filling model in Figure 5). For example, the Cu$\cdots$Cu distances in $Cu_2(O_2CCH_3)_2$ and $Cu_2(O_2CCH_3)_2$(dppe) are 2.556(2)[20] and 2.712(2) Å,[21] respectively.

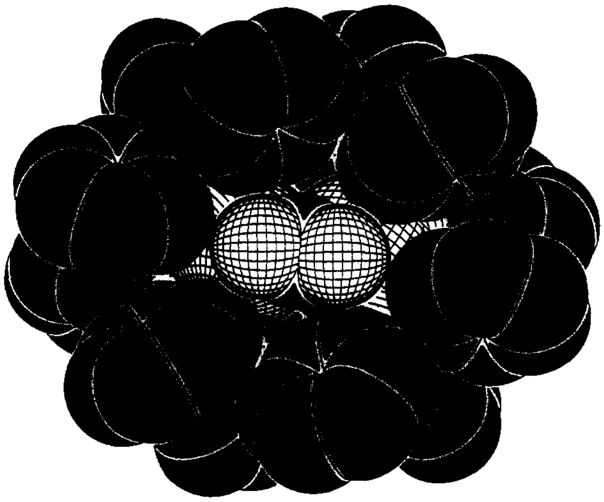

**Figure 5.** Space-filling model of complex **2**. The two central atoms (crosshatched) are O(1)'s bound to a single C(1) (black, behind).

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**Supporting Information Available:** Tables of anisotropic thermal parameters, bond lengths, and bond angles and fully labeled ORTEP diagrams for complexes **1** and **2** (11 pages). Ordering information is given on any current masthead pages.

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(17) Looney, A.; Han, R.; McNeill, K.; Parkin, G. *J. Am. Chem. Soc.* **1993**, *115*, 4690.

(18) (a) Prince, R. H. *In Comprehensive Coordination Chemistry*; Wilkinson, G., Gillard, R. D., McCleverty, J. A., Eds.; Pergamon: Oxford, U.K., 1987; Vol. 5, p 925. (b) Chen, X.-M.; Tong, Y.-X; Mak, T. C. W. *Inorg. Chem.* **1994**, *33*, 4586.

(19) Albert, M. R.; Yates, J. T., Jr. *The Surface Scientist's Guide to Organometallic Chemistry*; American Chemical Society: Washington, DC, 1987; p 82.

(20) (a) Drew, M. G. B.; Edwards, D. A.; Richards, R. *J. Chem. Soc., Chem. Commun.* **1973**, 124. (b) Mounts, R. D.; Ogura, T.; Fernando, Q. *Inorg. Chem.* **1974**, *13*, 802.

(21) Darensbourg, D. J.; Longridge, E. M.; Khandelwal, B.; Reibenspies, J. H. *J. Coord. Chem.* **1994**, *32*, 27.

# Additions and Corrections

1995, Volume 34

**Jiann T. Lin,* Shih-Sheng Sun, Jiann Jung Wu, Liangshiu Lee, Kuan-Jiuh Lin, and Yi Fong Huang**: Dinuclear Metal Carbonyls Bridged by Pyridyl Ligands Incorporating an Alkyne Entity.

Page 2329. In Table 5, footnote *e* should be corrected to **24** = $(CO)_4(PPh_3)W(\eta^1$-**DPB**$)$. In Figure 2, the ordinate scale should be an order of magnitude greater; that is, $\nu_{MLCT}$ $(cm^{-1})$ values should be corrected to 25 000, ..., 17 000.

Page 2330. In the first line of the figure caption for Figure 3, "Electroni Pergamon Pressc spectra..." should be corrected to "Electronic spectra...".

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