

$\text{CH}_2\text{As})_2\text{Mo}_5\text{O}_{21}]^{4-}$, have been structurally characterized.¹¹ The bond order sums for the five Mo–O bonds that anchor each arsonate unit are 1.9 in both cases. The structure has a 2-fold symmetry, and the arsonate unit on one side of the $(\text{MoO}_3)_5$ ring is bound to the ring as strongly as the one on the other. The sums for the arsonate units in a Matsumoto-type molybdoarsonate are, however, significantly different. The sum for the arsonate unit on the α side of structurally characterized $[(\text{C}_6\text{H}_5\text{As})_2\text{Mo}_6\text{O}_{24}(\text{OH}_2)]^{4-}$ is 2.1, and the sum for the other is 1.6. Thus the arsonate unit that has only four Mo–O bonds is bound to the $(\text{MoO}_3)_x$ ring more weakly than that on the α side and those in (10, 5, 2).

This difference of the total strength of the bonds that anchor the arsonate units can explain different dynamic behaviors of (10, 5, 2) and (12, 6, 2) mentioned above. The cumulative strength of the Mo–O bonds that hold arsonate units to the

$(\text{MoO}_3)_5$ ring of (10, 5, 2) is relatively strong and makes this species nonlabile on the ^1H NMR time scale. The arsonate unit on the α side of (12, 6, 2) is bound to the $(\text{MoO}_3)_6$ ring even more strongly, but the one on the β side is held less tightly and is vulnerable to intermolecular exchange. If we make a rough assumption that the activation enthalpy for the exchange reaction between the Mo_6As_2 species and free methylarsonate corresponds to the energy needed to break the four Mo–O bonds that hold the arsonate unit to the ring, the average bond energy for these bonds can be estimated to be 16 kJ mol^{-1} .

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Supporting Information Available: Figures 3 and 4, showing results of the *pqr* search and spin saturation transfer experiments (2 pages). Ordering information is given on any current masthead page.

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Additions and Corrections

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I. Antes, S. Dapprich, G. Frenking, and P. Schwerdtfeger*: Stability of Group 11 Carbonyl Complexes Cl-M-CO ($\text{M} = \text{Cu, Ag, Au}$).

Pages 2089–2096. In the original paper we presented ab initio calculations on group 11 carbonyl complexes Cl-M-CO ($\text{M} = \text{Cu, Ag, Au}$). While ClAuCO is a well-characterized compound and ClAgCO is unknown, we overlooked two important papers on ClCuCO by Jagner et al.^{1,2} In their first paper,¹ Håkansson and Jagner characterized ClCuCO as a white solid with chloride-bridged layers with significant deviation from linearity. Hence it may be difficult to compare their experimental work with our theoretical work. Nevertheless, the experimental Cu–C distance of 1.86 \AA is somehow larger than our calculated MP2 value of 1.73 \AA for the free species. The Cu–Cl distance of $2.35\text{--}2.37 \text{ \AA}$ is significantly larger compared to that of the free ClCuCO species (2.03 \AA at the MP2 level), probably due to the bridging behavior of the chlorine ligand. In a subsequent paper Jagner et al. studied the infrared spectrum of solid ClCuCO .² Their CO stretching frequency is in good agreement with our calculated value.

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(1) Håkansson, M.; Jagner, S. *Inorg. Chem.* **1990**, *29*, 5241.

(2) Håkansson, M.; Jagner, S.; Kettle, S. F. *Spectrochim. Acta, A* **1992**, *48*, 1149.

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