

Comment on Note Added in Proof, page 78

Infrared Spectroscopic Studies on Metal Carbonyl Compounds

XX. Assignment in the C–O stretching region of the binuclear mixed carbonyl compound $\text{MnRe}(\text{CO})_{10}$: Force and interaction constants calculation

(Inorg. Chim. Acta, 14 (1975) 65 - 78)

We would like to thank Dr. Bor for the opportunity to comment on his paper and the note added in proof. We agree with Dr. Bor that the major discrepancies between our results on $\text{MnRe}(\text{CO})_{10}$ and those of Dr. Bor lie in the assignment of the $B_1(\text{Mn})$ mode and the lower E vibration.

We have assigned the $B_1(\text{Mn})$ and E modes on the basis of the solid state and solution Raman spectra of $\text{MnRe}(\text{CO})_{10}$ (G. O. Evans, *Ph.D. Thesis*, Florida State University, 1970). The B_1 mode is expected to be intense in the Raman spectrum (Kaeszi *et al.*, *J. Am. Chem. Soc.*, 89, 2844 (1967)) and is assigned to

the strong band at 2007 cm^{-1} . The E vibration at 1976 cm^{-1} is admittedly weak but is reproducible. On the other hand, we do not find any evidence for a band at 2030 cm^{-1} . Since Dr. Bor agrees with our assignment of the $B_1(\text{Re})$ mode to a strong band at 2039 cm^{-1} , we find his assignment of $B_1(\text{Mn})$ unacceptable without any explanation for the loss of intensity.

We should also like to point out that two of the assignments (bands denoted T^* and W^*) of Bor *et al.* are definitely not fundamentals of $\text{MnRe}^{(12}\text{CO})_{10}$ but arise from vibrational modes of the ^{13}CO -substituted species.

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