(m), 950 (s), 940 (vs), 590 (m), 500 (s), 335 (m, br).

X-ray Crystallography. A crystal of $Mo_2(NMe_2)_4Me_2$ measuring ca. 0.2 × 0.25 × 0.4 mm was mounted in a thin-walled glass capillary embedded in epoxy resin with the major crystal axis nearly coincident with the ϕ axis of the goniometer. Crystal quality was checked with ω scans of several intense low-angle reflections which had peak widths at half-height of ca. 0.2°. Cell constants and axial photographs indicated that the crystal belonged to the monoclinic system with a = 15.342 (2) Å, b = 13.578 (2) Å, c = 8.264 (1) Å, β = 97.26 (1)°, and V = 1707.7 (4) Å^3. The observed volume is consistent with that expected for $Z = 4$.

Data were collected at 22 ± 2 °C on a Syntex $P\bar{1}$ autodiffractometer equipped with a graphite crystal monochromator in the incident beam and using M Kα (λ 0.710730 Å) radiation. The θ–2θ scan technique was used with scans ranging from 1.1° above and 1.1° below the calculated Kα_1, Kα_2 doublet, with variable scan speeds from 4.0 to 24.0°/min, and with a scan to background time ratio of 2.0. The intensities of three standard reflections were monitored frequently throughout data collection and showed no decrease in intensity. The integrated intensities of 2240 unique, nonsystematically absent reflections having $0° < 2\theta < 45°$ were recorded. The data were reduced to a set of relative $|F_o|^2$ values and were not corrected for absorption (μ = 14.3 cm^{-1}). The 1716 reflections having $|F_o|^2 > 3\sigma(|F_o|^2)$ were used in subsequent structure solution and refinement. Systematic absences on $0k0$ ($k = 2n + 1$) and $h0l$ ($l = 2n + 1$) uniquely determined the space group to be $P2_1/c$ (No. 14).

Since the cell constants of $Mo_2(NMe_2)_4Me_2$ were very similar to those of $Mo_2(NMe_2)_4Cl_2$ and both compounds crystallized in the same space group, the starting atomic positions for $Mo_2(NMe_2)_4Me_2$ were taken from the $Mo_2(NMe_2)_4Cl_2$ structure,[6] assuming Mo–Me = Mo–Cl. The positions were sufficiently close to allow refinement to proceed smoothly to convergence. In the final stages of refinement anisotropic thermal parameters were used for all atoms. The final unweighted and weighted residuals were $R_1 = 0.037$ and $R_2 = 0.060$, respectively. A value of 0.07 was used for p in the calculation of the weights. The esd of an observation of unit weight was 1.412. The largest peaks in a final difference Fourier map were about where some methyl-group hydrogen atoms might be expected, but no attempt was made to introduce or refine these.

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Registry No. $Mo_2Me_2(NMe_2)_4$, 67030-82-4; $Mo_2Cl_2(NMe_2)_4$, 63301-82-6.

Supplementary Material Available: A table of observed and calculated structure factors (8 pages). Ordering information is given on any current masthead page.

References and Notes

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Additions and Corrections

1977, Volume 16

Stephen D. Robinson* and Arvind Sahajpal: Complexes of the Platinum Metals. 10. Dithioformato Derivatives of Ruthenium, Osmium, and Iridium.

Page 2718. An unfortunate mistake appears in the abstract to this paper because of a computer system error which occurred in a recycling process after proof had been approved by the author. The correct version of the abstract should read: "Insertion" of carbon disulfide into platinum metal–hydrogen bonds has been employed to synthesize a range of new dithioformato complexes. Products prepared in this manner include the species $[MX(S_2CH)(CO)(PPh_3)_2]$ (two isomers; M = Ru or Os; X = Cl, Br, or $OCOCF_3$), $[M(S_2CH)_2(PPh_3)_2]$, $[IrCl_2(S_2CH)(PPh_3)_2]$, and $[IrH_2(S_2CH)(PPh_3)_2]$. Phosphine substitution reactions have been employed to prepare the species $[MCl(S_2CH)(CO)(PMe_2Ph)_2]$ and $[MCl(S_2CH)(CO)(PMePh_2)_2]$. The stereochemistry of each new complex has been assigned by reference to the ^1H NMR spectrum of the dithioformate (S_2CH) ligands and has been confirmed where appropriate by use of high-field (metal hydride) resonances, virtual coupling patterns of the PMe_nPh_{3-n} (n = 1 or 2) ligands, or the ^{31}P NMR pattern of the phosphine ligands.—Stephen D. Robinson

R. E. Noftle,* R. R. Smardzewski, and W. B. Fox: Gas-Phase Raman Spectrum of Pentafluorosulfur Chloride, SF_5Cl.

Page 3380. In Table I under ν, cm^{-1}, 951.4 should read 851.4. The number is correct in the text.—R. E. Noftle