ing places where it should multiply  $\tau^{-1}$ : the left side of eq 3; twice near the bottom of p 6970; and in the ordinates of Figure 2. Reference 15 in Figure 2 should be 19a. The second line in eq 2 should begin with  $\gamma_{\text{MeSO}}$ , instead of  $\gamma_{\text{Me}}\gamma_{\text{SO}}$ . In footnote 21, the second last equality should end with  $\delta C_{\text{HOMeSO}}$ , instead of  $\delta C_{\text{MeSO}}$ . The inequality at the bottom of p 6971 should read In > Ga < Al. All numerical results remain unchanged.

Stereochemistry at Trivalent Nitrogen. V. Origin of Sulfur-Nitrogen Torsional Barriers in N-Sulfenylsulfonamides [J. Amer. Chem. Soc., 91, 2180 (1969)]. By MORTON RABAN and FREEMAN B. JONES, JR., Department of Chemistry, Wayne State University, Detroit, Michigan 48202.

A redetermination of the free energies of activation reported in our communication has indicated that the value reported for one of these compounds is in error.

The free energy of activation for N-isopropyl-2,4-dinitrobenzenesulfenyl-4-nitrobenzesulfonamide (2c) is 18.9 rather than 15.6 kcal/mol as reported. This change substantially alters the Hammett reaction constant for series 2 from 3.0 to 0.9.

The corrected values are more in accord with expectation and do not substantially alter our interpretation of the phenomena observed.

Nuclear Magnetic Resonance Spectroscopy. Carbon-13 Spectra of Steroids [J. Amer. Chem. Soc., 91, 7445 (1969)]. By Hans J. Reich, Manfred Jautelat, Mark T. Messe, Frank J. Weigert, and John D. Roberts, Gates and Crellin Laboratories of Chemistry, California Institute of Technology, Pasadena, California 91109.

On page 7452, the formulas for 12 and 13 are both upside down and interchanged. The correct identifications and structures are

androstane-3,17-dione, 12

5-dehydroisoandrosterone, 13

Thermolysis of Pentacyclo[4.4.0.0<sup>2,5</sup>.0<sup>3,8</sup>.0<sup>4,7</sup>]dec-9-ene [J. Amer. Chem. Soc., 91, 7512 (1969)]. By H. H. Westberg, E. N. Cain, and S. Masamune, Department of Chemistry, University of Alberta, Edmonton, Alberta, Canada.

On page 7513, column 2, line 16, "During this process, 2' was completely equilibrated with 4'' should read "During this process 2' was largely, if not completely (calcd for 100% scrambling: 0.67 D at C-1, -8, and -9; experimental error: probably 0.1 D), equilibrated with 4''.

On the Probable Intermediacy of Tetrahedrane [J. Amer. Chem. Soc., 92, 406 (1970)]. By Philip B. Shevlin and Alfred P. Wolf, Chemistry Department, Brookhaven National Laboratory, Upton, New York 11973.

There is a regrettable arithmetic error in Table II. In the last column, under calculated % of total activity, 12.9, 61.8, 25.3 actually should read 9.2, 65.6, and 25.2. Fortunately this does not change the argument any. The numbers are basically within experimental error and far away from what might be expected from a random distribution.

Magnetic Resonance Studies of Some Low-Spin d<sup>5</sup> Tris Diimine Complexes [J. Amer. Chem. Soc., 92, 2343 (1970)]. By RICHARD E. DESIMONE and RUSSELL S. DRAGO, W. A. Noyes Laboratory, University of Illinois, Urbana, Illinois.

Equation 5 should read

$$|-\rangle = -\sin \alpha |0^{-}\rangle + \cos \alpha [\sqrt{2/3}|2^{+}\rangle - \sqrt{1/3}|-1^{+}\rangle]$$
 (5)

In our derivation and solution of eq 1-8, we inadvertantly used a convention opposite to that stated in the text and also opposite to that used by ref 17. We define the axial field to be negative if the singlet lies lowest. A negative v as found now implies an A ground state in agreement with Figgis. No calculated quantities are affected.

Figure 2 is now a diagram with a *positive* trigonal field by our definition.

In Table II,  $\Delta \nu_{6,6}$  for Fe(4,4'dmb)<sub>3</sub>(PF<sub>6</sub>)<sub>3</sub> = +3139.

The right-hand side of eq 11 should be preceded by a minus sign.

## Book Reviews

**Spectroscopy**. Edited by D. R. Browning, Department of Chemistry, Bristol Polytechnic, Bristol, England. McGraw-Hill Publishing Co., Maidenhead, Berkshire, England. 1970. vii + 183 pp.  $14 \times 22$  cm. \$8.50.

Electronic, infrared, Raman, mass, nmr, esr, and atomic emission, absorption, and fluorescence spectroscopy, all in 183 pages! This is rather like a tour of "Fourteen Foreign Countries in Ten Days"; it can be done in the sense that the visitor can say afterwards that he has been there, and has learned some names to throw

around. But apart from this, unless the guide has gone to special pains to explain some item to him, all that the tourist is likely to be left with is a confused jumble of impressions and of people talking in strange languages on every side throughout the trip.

In a tour, at least the guide is likely to remain the same person throughout, whereas in this book, the ten chapters are independently contributed by six different authors. This leads to differences in the quality of writing and minor confusions and contradictions. For example, one author says (p 25) that vacuum spectrometers have to be used below 2000 Å because of atmospheric absorption,