The change from spectrum II to spectrum IV on dehydration of the specimens can be attributed to the removal of the water molecule from complex II. Hydration a second time naturally leads to the restoration of the original spectrum. Complex I, the parameters of which do not show any changes on dehydration, is apparently more stable to thermal treatment, and its structure is preserved. An increase in the concentration of complex I on dehydration is possible if the loss of a water molecule by complex II is accompanied by the introduction of an oxygen atom of an adjacent phosphonic acid residue in its place. If however the position of the water molecule removed remains unoccupied, complex IV, with symmetry C_{4V} (CrY₄X), is formed. Another structure may also be suggested for complex IV. It is possible that complex IV is produced when two water molecules are removed simultaneously from complex II, and in this case complex IV should be assigned the formula CrY₄. Thus the ESR method has made it possible to establish the existence of several Cr(III) complexes in the resin phase, with different structures, and to investigate the conditions for their existence.

LITERATURE CITED

- 1. G. Manecke and H. Heller, Khim. Tekhnol. Polimerov, 7, No. 3 (1963).
- 2. G. Manecke, K. Stockhausen, and P. Gergs, Makromol. Chem., 128, 229 (1969).
- 3. S. M. Balakin, V. M. Balakin, Yu. M. Kozhevnikov, et al., Production and Processing of Plastics and Synthetic Resins [in Russian], No. 7, NIIPM (1973), p. 23.
- 4. E. I. Kazantsev, V. S. Pakholkov, Z. Yu. Kokoshko, and O. N. Chupakhin, Ion-Exchange
- Materials, Their Preparation and Properties [in Russian, Izd-vo UPI, Sverdlovsk (1969). 5. G. Burns, J. Appl. Phys., 32, 2048 (1961).
- 6. W. Low, Paramagnetic Resonance in Solids: Solid State Physics, Academic Press (1960).
- 7. G. P. Vishnevskaya, A. S. Zaporozhets, V. V. Pushkarev, and B. A. Volkov, Teor. Eksp. Khim., 9, 776 (1973).
- L. L. van Reijen, Electron Spin Resonance Study of Pentavalent and Trivalent Chromium, Multiply, Amsterdam (1964).
- 9. G. P. Vishnevksaya, A. S. Zaporozhets, V. V. Pushkarev, et al., Zh. Neorgan. Khim., <u>18</u>, 2772 (1973).
- 10. V. D. Eristavi et al., Proceedings of the Georgian Polytechnic Institute, Chemistry and Chemical Technology [in Russian], No. 5 (153), Izd-vo GPI, Tbilisi (1972), p. 47.
- F. I. Brouchek, M. I. Goguadze, Ts. N. Gudushauri, and Ts. V. Khutsishvili, Proceedings of the Georgian Polytechnic Institute, Chemistry and Chemical Technology [in Russian], No. 5 (153), Izd-vo GPI, Tbilisi (1972), p. 59.

ERRATA

In Vol. 10, No. 5, p. 505 of Teoreticheskaya i Éksperimental'naya Khimiya, the footnote to Table 1 was omitted from the translation. The note should read as follows:

Note. The value of ϑ_1 was estimated from the temperature variation of the relaxation times T_1 and T_2 ; V_1 corresponds to the activation energy for T_1 and T_2 in the interval $\vartheta_2 \leq \vartheta \leq \vartheta_1$; V_2 is the activation energy of the rotation of the methyl groups.

In the same issue on p. 565, line 7 from the bottom, a sentence was omitted from the translation. The sentence should be inserted as follows:

In view of this, to obtain the one-electron reduced form of T^+ we used the method for the generation of radical (MB)[•] [3]. "The appearance of absorption bands at 435 nm and the appearance of an ESR signal were detected in a freshly prepared solution of T^+ in piperidine (Fig. 3a)."