II. Pale yellow rods, mp 202–203° C (ethanol–acetone, 4:3), yield 50% by direct synthesis and 60% by indirect. Found, %: N 7.41. Calculated for $C_{22}H_{22}N_2O_4$, %: N 7.40. IR spectrum (in KBr): 1260 and 1760 cm^{-1} (ester bond); 1360 and 1540 cm^{-1} (nitro group).

IV. Yellow rhombs, mp 174–175° C (ethanol), yield 73%. Found, %: N 8.17. Calculated for $C_{20}H_{20}N_2O_3$, %: N 8.33. IR spectrum (in KBr): 3530 cm^{-1} (hydroxy group); 1360 and 1540 cm^{-1} (nitro group). **Picrate,** mp 182.5–183° C (decomp., methanol–benzene, 1:1). Found, %: N 13.01. Calculated for $C_{20}H_{20}N_2O_3 \cdot C_6H_3N_3O_7$, %: N 12.39. **Hydrochloride,** mp 189.5–190.5° C (ethyl acetate–dioxane, 1:1). Found, %: N 7.51. Calculated for $C_{20}H_{20}N_2O_3 \cdot HCl$, %: N 7.52.

V. Sirupy oil (purified chromatographically), yield 68%. Found, %: N 8.89. Calculated for $C_{20}H_{18}N_2O_2$, %: N 8.80. **Picrate,** mp 176–177° C (methanol–benzene, 1:1). Found, %: N 13.17. Calculated for $C_{20}H_{18}N_2O_2 \cdot C_6H_3N_3O_7$, %: N 12.79. **Hydrochloride,** mp 118–120° C (ethyl acetate). Found, %: N 7.92. Calculated for $C_{20}H_{18}N_2O_2 \cdot HCl$, %: N 7.89.

The chromatography was carried out on alumina of activity II and the IR spectra were recorded on a UR-10 spectrometer.

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SYNTHESIS OF DERIVATIVES OF IMIDAZO[1,2-a]IMIDAZOLE

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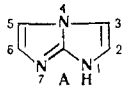
The preparation of derivatives of imidazo[1,2-a]imidazole (**A**) from α-amino aldehydes is known [1]. In analogy with the synthesis of derivatives of imidazo[1,2-a]benzimidazole [2] and imidazo[1,2-f]-purine [3], by the reaction of 1-alkyl-2-aminoimidazoles with α-halo ketones we have obtained 3-acylmethyl-1-alkyl-2-iminoimidazolines, which, on being heated with mineral acids, cyclize to the derivatives **A**. With secondary α-halo ketones, the reaction takes place in one stage with the formation of the derivatives **A**.



2-Imino-1-methyl-3-phenacylimidazoline hydrobromide (I). Mp 234–236° C (decomp.) (methanol). Found, %: C 48.70; H 4.50; Br 27.00; N 14.35. Calculated for $C_{12}H_{13}N_3O \cdot HBr$, %: C 48.67; H 4.76; Br 26.98; N 14.19. **3-(p-Bromophenacyl)-2-imino-1-methylimidazoline hydrobromide (II).** Mp 233–234° C (decomp., ethanol). Found, %: C 40.58; H 3.36; Br (total) 45.27; Br (ion) 22.48; N 11.71. Calculated for $C_{12}H_{12}BrN_3O \cdot HBr$, %: C 40.36; H 3.10; Br (total) 44.76; Br (ion) 22.38; N 11.77. **1-Methyl-6-phenylimidazo[1,2-a]imidazole hydrobromide (III).** Mp 207–208° C (decomp., methanol). Found, %: C 48.56; H 4.84; Br 27.46; N 13.99. Calculated for $C_{12}H_{11}N_3 \cdot HBr \cdot H_2O$, %: C 48.67; H 4.76; Br 26.98; N 14.19. **6-(p-Bromophenyl)-1-methylimidazo[1,2-a]imidazole hydrobromide (IV).** Mp 224–225° C (decomp., methanol). Found, %: C 39.98; H 3.31; Br 45.24; N 11.73. Calculated for $C_{12}H_{10}Br$, %: C 40.36; H 3.10; Br 44.76; N 11.77. **1,5-Dimethyl-6-phenylimidazo[1,2-a]imidazole, picrate** (V). Mp 162–163° C (methanol). Found, %: C 51.57; H 3.72; N 19.17. Calculated for $C_{13}H_{13}N_3 \cdot C_6H_3N_3O_7$ %: C 51.82; H 3.66; N 19.09. **1,6-Dimethylimidazo[1,2-a]imidazole, picrate** (VI). Mp 209–210° C (decomp., methanol). Found, %: C 52.16; H 3.86; N 19.30. Calculated for $C_{13}H_{13}N_3O_7$, %: C 51.82; H 3.66; N 19.09.

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