UDC 547.859 + 542.95

SYNTHESIS OF IMIDAZO[1, 2-*f*]PURINE DERIVATIVES

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Apparently the heterocyclic system imidazo[1, 2-*f*]purine is hitherto undescribed. Synthesis of a number of derivatives of the tricyclic system A has now been effected by applying imidazole ring closure of heterocyclic 2-amino com-

A

pounds [1-3], using methods described in the literature. Reaction of 8-aminotheophylline with α-halogenoketones gives 7-β-ketoalkyl(aryl)-8-aminotheophyllines, cyclized to derivatives of A by heating with acids or treatment with dehydrating agents.

7-Phenacyl-8-aminotheophylline, mp 248-150° (decomp, from alcohol). Found: C 57.52; H 4.71; N 22.45%. Calculated for $C_{15}H_{15}N_5O_3$: C 57.50; H 4.83; N 22.35%.

2-Phenyl-6,8-dimethylimidazo[1, 2-*f*]xanthine, decomp >320° (from AcOH). Found: C 60.97; H 4.41; N 23.90%. Calculated for $C_{15}H_{13}N_5O_2$: C 61.01; H 4.44; N 23.72%.

7-p-Bromophenacyl-8-aminotheophylline, mp 270-275° (decomp, from alcohol). Found: C 45.66; H 3.84; Br 20.32; N 17.97%. Calculated for $C_{15}H_{14}BrN_5O_3$: C 45.91; H 3.60; Br 20.37; N 17.86%.

2-p-Bromophenyl-6,8-dimethylimidazo[1, 2-*f*]xanthine, decomp >325° (from AcOH). Found: C 47.95; H 3.39; N 18.91%. Calculated for $C_{15}H_{12}BrN_5O_2$: C 48.14; H 3.23; N 18.72%.

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SYNTHESIS AND ACIDOCHROMIC CONDENSATION OF BENZYL-β-ANILINOETHYLAMIDE

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It has been shown that treatment of ethyl β-anilinoethyloxaminate (I) with phenylmagnesium bromide gives benzyl-β-(N-anilino)ethylamide (II). Treatment of the latter with acetic anhydride give benzyl-β-(N-acetylamino)ethylamide (III), which on treatment with concentrated sulfuric acid undergoes the acidochromic condensation. From the equation for the reaction and the analytical results, the product is assigned the structure 2-[N-(β-aminoethyl)acetamide]-triphenylacetic acid lactam (IV).