Oxazole: yield 74-80%, bp 95-96°C (0.5 mm), n_D^{20} 1.4774. IR spectrum: 1735 (C=O), 1625 (C=N), 1535 cm^{-1} (C=C). PMR spectrum (CCl_4): 1.30 and 1.40 (CH_3, t, J = 7.5 Hz), 4.17 and 4.40 (CH_2, quart), 7.35 ppm (H, s). Found: N 7.7%. $C_8H_{11}NO_4$. Calculated: N 7.6%.

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CONDENSED PYRANOISOQUINOLINES

Yu. M. Volovenko, V. A. Litenko, and F. S. Babichev

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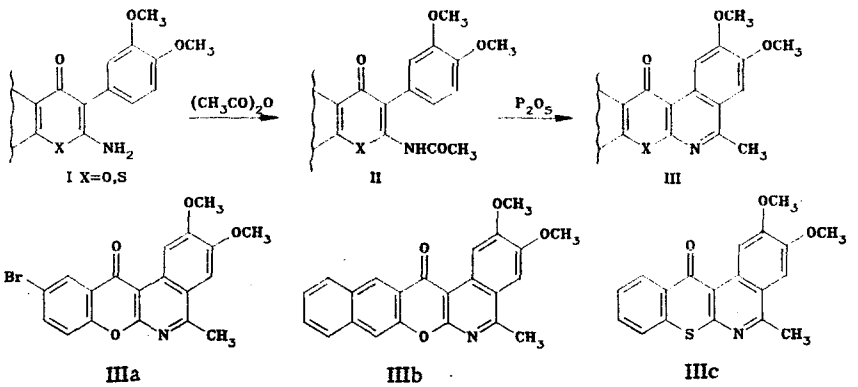
The acylation of 4H-2-amino-3-(3,4-dimethoxyphenyl)areno[b]pyran-4-ones (I) by acetic anhydride in pyridine leads to the corresponding N-acetyl derivatives (II) [1]. Treatment of the latter with phosphoric anhydride in chlorobenzene (boiling for 8-12 h) is accompanied by cyclodehydration and the formation of an isoquinoline ring. Derivatives of new heterocyclic polynuclear systems were thus obtained: benzo[5,6]pyrano-[2,3-c]isoquinoline (IIIa), naphtho[2',3'-5,6]pyrano[2,3-c]isoquinoline (IIIb) and benzo[5,6]-1-thiapyrano[2,3-c]isoquinoline (IIIc).



Data of elemental analysis correspond to the empirical formulas: $C_{19}H_{14}BrNO_4$ [IIIa, mp 285°C (from DMFA)], $C_{23}H_{17}NO_4$ [IIIb, mp 317-318°C (from DMFA)], $C_{19}H_{15}NO_3S$ [IIIc, mp 256°C (from DMFA)]. In the IR spectra of the compounds obtained, the pyran ring carbonyl group absorbs at 1660-1650 cm^{-1}, and there is no absorption above 3050 cm^{-1}. Of the two possible cyclization paths, only one exists: The isomer shown in the scheme is formed, as confirmed by the presence of a one-proton singlet at 9.7 (1-H) and 7.8 ppm (4-H) in the PMR spectra of compounds III (in CF_3COOD).

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T. G. Shevchenko Kiev State University, Kiev 252017.

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