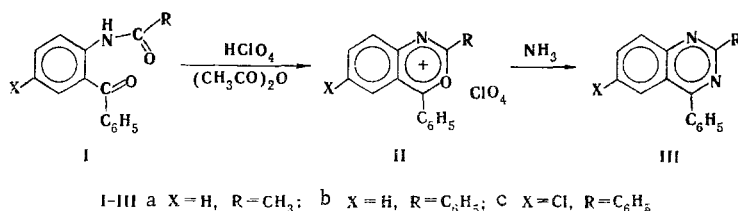


4-AZA-2-BENZOPYRYLIUM SALTS

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UDC 547.814'856'867.2

We have found that 4-aza-2-benzopyrylium perchlorates (II), the benzo analogs of the 3-azapyrylium salts obtained by Schmidt [1], are formed in 90-95% yields by brief heating on a boiling-water bath of a mixture of o-acylaminobenzophenone (I), acetic anhydride, and 70% perchloric acid (1:10:1).



Thus, for example, we obtained 1,3-diphenyl-4-aza-2-benzopyrylium perchlorate (IIb), with mp 164-165° (from acetic anhydride containing acetic acid), in 95% yield. The IR spectra of salts II contain the characteristic absorption bands of the aromatic cation, which are close with respect to their position and intensities to the bands in the spectra of 2-benzopyrylium salts.

The reaction of II with ammonia gives substituted quinazolines III. For example, IIb gives 2,4-diphenylquinazoline (IIIb), with mp 119-120° (from hexane), in 79% yield.

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Institute of Physical-Organic Chemistry and Carbon Chemistry, Academy of Sciences of the Ukrainian SSR, Donetsk. Translated from *Khimiya Geterotsiklicheskikh Soedinenii*, No. 9, p. 1286, September, 1976. Original article submitted November 24, 1975.

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