FURO[2,3-c]PYRYLIUM - A NEW HETEROAROMATIC SYSTEM

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UDC 547.728'816'828.07

Furo[2,3-b]pyrylium [1] and furo[3,2-c]pyrylium [2] salts are known. During the development of the acid-catalyzed heterocyclization reaction [3], we synthesized previously unknown furo[2,3-c]pyrylium salts. Thus, 5,7-dimethylfuro[2,3-c]pyrylium perchlorate (II) was isolated in a yield of 65% by the acylation of 3-acetonylfuran (I) with the mixture of acetic anhydride and 70% perchloric acid; (II) had the mp 155-157°C (with decomposition). The PMR spectrum (CF₃COOH) is given by the following δ values: 3.0 (3H, singlet, 5-CH₃), 3.2 (3H, singlet, 7-CH₃), 7.4 (1H, doublet, J = 2 Hz, 3-H), 8.0 (1H, singlet, 4-H), and 8.75 ppm (1H, doublet, J = 2 Hz, 2-H). The initial 3-acetonylfuran was obtained from 3-bromofuran by the method of [4]. On the reaction of the salt (II) with ammonia, 5,7-dimethylfuro[2,3-c]pyridine (III) is obtained.



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