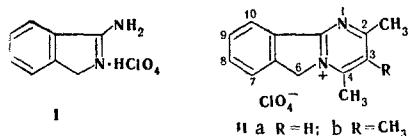


6-H-PYRIMIDO[2,1-a]ISOINDOLIUM PERCHLORATES

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We have observed that the previously unknown 6H-pyrimido[2,1-a]isoindolium salts (IIa, b) can be obtained by condensation of 1-aminoisoindole perchlorate (I) with acetylacetone or 3-methylacetylacetone. Thus



a mixture of 2.3 g of I and 3 g of acetylacetone was heated at 130–140°C for 24 h, and the precipitated crystals were treated with acetone, removed by filtration, and washed with acetone and ether to give 2.17 g (75%) colorless crystals of IIa with mp 228–229°C (from alcohol). Compound IIb, with mp 208–209°C (from alcohol), was similarly obtained in 84% yield.

Strong bands at 1615 and 1630 cm⁻¹, which are characteristic for ν C = N, and ν CH₃ bands at 2940–2960 cm⁻¹ are present in the IR spectra of IIa, b (KBr pellets). The PMR spectra of these compounds (in CF₃CO₂H) contain singlets of 6-CH₂ groups at 5.7–5.8 ppm and of 2,4-(CH₃)₂ groups at 3.10 ppm, as well as broad 7,8,9-H singlets at 7.9 ppm. As a result of the deshielding effect of the electron pair of the N₁ atom on the signal of the 10-H proton, the latter shows up in the spectrum in the form of a weak-field doublet at 8.33 ppm with J = 8 Hz. In addition, the spectrum of IIa contains a signal of the 3-H proton at 7.67 ppm, and the spectrum of IIb contains a signal of the 3-CH₃ group at 2.71 ppm. Compounds IIa, b undergo condensation with p-dimethylaminobenzaldehyde to give deeply colored styryls [λ_{max} 675 nm (in alcohol)].

The results of elementary analysis for N and Cl of IIa, b were in agreement with the calculated values.