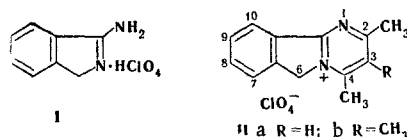


# 6-H-PYRIMIDO[2,1-a]ISOINDOLIUM PERCHLORATES

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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<sup>-1</sup>, which are characteristic for  $\nu_{C=N}$ , and  $\nu_{CH_3}$  bands at 2940–2960 cm<sup>-1</sup> are present in the IR spectra of IIa,b (KBr pellets). The PMR spectra of these compounds (in CF<sub>3</sub>CO<sub>2</sub>H) contain singlets of 6-CH<sub>2</sub> groups at 5.7–5.8 ppm and of 2,4-(CH<sub>3</sub>)<sub>2</sub> 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 N<sub>1</sub> 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-CH<sub>3</sub> group at 2.71 ppm. Compounds IIa,b undergo condensation with p-dimethylaminobenzaldehyde to give deeply colored styryls [ $\lambda_{max}$  675 nm (in alcohol)].

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