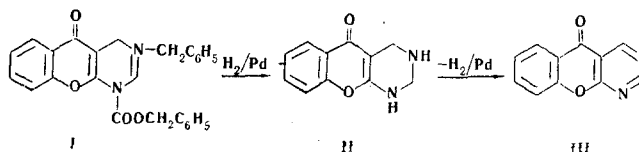


SYNTHESIS OF A NEW HETEROAROMATIC SYSTEM -
5-OXO-5H-CHROMENO[2,3-d]PYRIMIDINESh. M. Glozman, L. A. Zhmurenko,
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A new heteroaromatic system - unsubstituted 5-oxo-5H-chromeno[2,3-d]pyrimidine (III) - was synthesized by the debenzoylation of the previously obtained [1] 1-carbobenzoxy-3-benzyl-5-oxo-5H-1,2,3,4-tetrahydrochromeno[2,3-d]pyrimidine (I) to 5-oxo-5H-1,2,3,4-tetrahydrochromeno[2,3-d]pyrimidine (II) and subsequent dehydrogenation.



EXPERIMENTAL

5-Oxo-5H-1,2,3,4-tetrahydrochromeno[2,3-d]pyrimidine (II). A suspension of 5.4 g (0.013 mole) of I in 100 ml of hot alcohol was hydrogenated over 1.5 g of 10% Pd/BaSO₄ until 0.026 mole of hydrogen had been absorbed to give 1.8 g (70%) of II with mp 209-210° (dec.). Found: C 65.3; H 5.0; N 13.7%. C₁₁H₁₀N₂O₂. Calculated: C 65.3; H 5.0; N 13.9%.

5-Oxo-5H-chromeno[2,3-d]pyrimidine (III). A solution of 0.61 g (0.003 mole) of II in 70 ml of absolute xylene and 0.6 g of 10% Pd/BaSO₄ was refluxed for 20 h to give 0.4 g (66%) of III with mp 144-145° (from alcohol). Found: C 66.5; H 2.8; N 14.1%. C₁₁H₈N₂O₂. Calculated: C 66.7; H 3.1; N 14.1%.

The structures of II and III were confirmed by the PMR spectra (solutions in F₃CCOOH).

LITERATURE CITED

1. V. A. Zagorevskii, Sh. M. Glozman, and L. A. Zhmurenko, *Khim. Geterotsikl. Soedin.*, 1015 (1970).

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