METHOD OF OBTAINING PYRROLE DERIVATIVES

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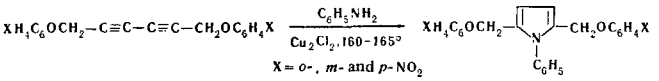
A method is known for obtaining pyrrole derivatives by the cyclization of diacetylenic compounds with primary amines [1,2].

In the present letter we describe the preparation of 2,5-bis(nitrophenoxymethyl)-1-phenylpyrrole by the reaction of diacetylenic glycols [3] with aniline in the presence of Cu_2Cl_2 as catalyst



A mixture of bis(o-nitrophenoxy)hexa-2,4-diyne (0.1 mole), freshly-distilled aniline (0.1 mole), and cuprous chloride (0.01 mole) in an organic solvent was heated at 160–165° C for 1 hr and was poured into 250 ml of water, after which 50 ml of HCl (1:20) was added, the mixture was extracted with ether [4], and the extract was dried over K_2CO_3 and the solvent was evaporated off. The resulting residue was recrystallized from heptane or hexane. Yield 66–67%, mp 113–116° C. Found, %: C 64.42; H 4.23; N 9.32. Calculated for $C_{24}H_{19}O_6N_3$, %: C 64.71; H 4.24; N 9.43.

The IR spectrum had absorption bands in the following regions (cm^{-1}): 1250–1240 (C—O—C), 1310–1300, 1520–1515, 3440–3420.

REFERENCES

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