UV spectrum (methanol, λ_{max} , nm (ε_{max}): 224.5 (5800), 313 (5100). The elemental analyses were in accord with the formula of (I) and (III).

An unidentified product with δ 8 ppm was detected in the reaction mixture by ³¹P NMR spectroscopy.

SELECTIVITY OF THE ACYLATION OF N-PHENYLMALEIMIDE

D. B. Sanzhizhapov, D. M. Mognonov,

V. V. Khakhinov, and N. S. Érdyneev

UDC 542.951.1:547.586.71

We have observed that in the reaction of N-phenylmaleimide with acetyl chloride in the presence of lewis acids the acylation has a selective nature depending on the solvent. In nitrobenzene a hydrogen atom on the ring is replaced [1], with the formation of,4-acetyl-N-phenylmaleimide (III), and in pyridine, acetyl chloride is added at the carbon-carbon double bond [2]. In the latter case, the resulting α -acetyl- β -chloro-N-phenylsuccinimide (IV) easily releases HCl, being converted to α -acetyl-N-phenylmaleimide (V)



Compound (III) was synthesized by the reaction of 3.28 g of (I), 1.42 g of (II), and 2.66 g of AlCl₃ in 20 ml of nitrobenzene at 0°C for 3 h, 52.6% yield, mp 163-164°C. IR spectrum (ν , cm⁻¹): 1720, 1780 (C=0), 830 (n-C₆H₄), 2950 (CH₃). Found: C 65.42; H 5.36; N 6.98%. C₁₂H₉NO₃. Calculated: C 66.04; H 5.54; N 6.42%.

Compound (V) was obtained similarly in 50 ml of pyridine, 83.1% yield, mp 233-235°. IR spectrum (ν , cm⁻¹): 1710, 1780 (C=0), 700, 760 (C₆ H₅), 2930 (CH₃). Found: C 65.31; H 5.28; N 6.87%. C₁₂H₉NO₃. Calculated: C 66.04; H 5.54; N 6.42%.

LITERATURE CITED

C. Gourmelen, Y. Gaff, and B. Tutour, Bull. Soc. Chim. Fr., 1715 (1974).
N. K. Kochetkov, Usp. Khim., 24, 32 (1955).

Institute of Natural Sciences, Buryat and Siberian Branch, Academy of Sciences of the USSR, Ulan-Ude. Translated from Izvestiya Akademii Nauk SSSR, No. 7, p. 1685, July, 1983. Original article submitted February 25, 1983.

1533