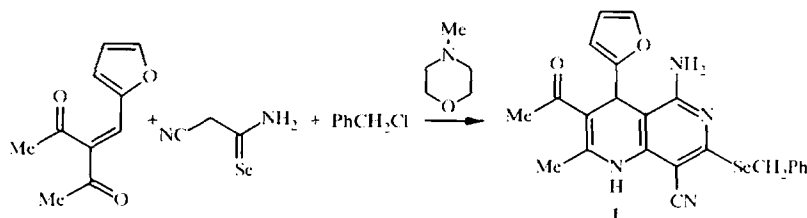


3-(FURFURYLIDENE)ACETYLACETONE IN THE ONE-POT SYNTHESIS OF SUBSTITUTED 3-ACETYL-7-BENZYLSELENO-1,4- DIHYDRO-1,6-NAPHTHYRIDINE

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While continuing research into the processes involved in the "self assembly" of condensed molecules from several simple acyclic components we used 3-(furfurylidene)acetylacetone for the first time in the construction of the 1,6-naphthyridine system. By the one-pot cyclocondensation of the latter with cyanoselenoacetamide and benzyl chloride in the presence of a twofold molar quantity of N-methylmorpholine in absolute ethanol in an atmosphere of argon at room temperature we obtained the previously unknown polysubstituted 1,4-dihydro-1,6-naphthyridine **1**.



3-Acetyl-5-amino-7-benzylseleno-8-cyano-4-(2-furyl)-2-methyl-1,4-dihydro-1,6-naphthyridine (**1**).

Yield 57%; mp 177-179°C (*n*-butyl alcohol). IR spectrum (vaseline oil), cm^{-1} : 3201, 3288, 3347 (NH, NH₂), 2204 (C≡N), 1650 (C=O), 1608 (δ NH₂). ¹H NMR spectrum (DMSO-*d*₆), δ , ppm: 8.78 (1H, br. s, NH); 7.16-7.45 (6H, m, 5-H of furyl, H_m); 7.13 (2H, br. s, NH₂); 6.29 (1H, dd, *J* = 3.0 and 2.2 Hz, 4-H of furyl); 6.10 (1H, d, *J* = 3.0 Hz, 3-H of furyl); 5.24 (1H, s, 4-H); 4.43 and 4.50 (1H each, two d, *J* = 12.5 Hz, SeCH₂); 2.37 (3H, s, CH₃CO); 2.28 (3H, s, 2-CH₃). Found, %: C 59.76; H 4.23; N 12.25; Se 16.97. C₂₃H₂₀N₄O₂Se. Calculated, %: C 59.61; H 4.35; N 12.09; Se 17.04.

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