

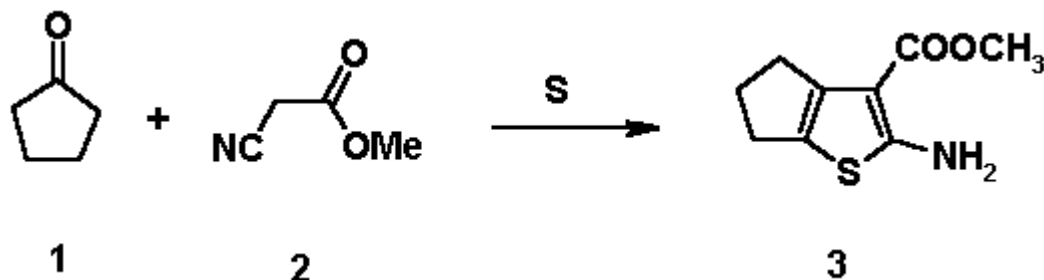
Molbank 2003, M341

www.molbank.org**Methyl 2-Amino-5,6-dihydro-4H-cyclopenta[b]thiophene-3-carboxylate****Abdullah Mohamed Asiri**

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Received: 5 March 2003 / Accepted 4 June 2003 / Published 21 June 2003

Keywords: thiophene, Gewald reaction, cyclopentanone

To a mixture containing cyclopentanone (8.49 g, 0.1 mol), methyl cyanoacetate (10.0 g, 0.1 mol) and sulfur (3.21 g, 0.1 mol) in methanol (20 ml), morpholine (10 ml) was added dropwise over a period of 30 minutes at 35 °C. The reaction mixture was heated at 45 °C with stirring for 3 hrs, then was allowed to cool to room temperature. The precipitated powder was filtered and washed with ethanol (2x30 ml). Recrystallization from ethanol gave pale yellow powder (13.0g, 65 %).

M.p. 185-186°C (Ethanol, uncorrected).

IR (KBr) (cm⁻¹; KBr Disk) 3410, 3293 (NH), 1652 (C=O), 1596 (NH), 1351 (C-N).¹H-NMR (400 MHz; CDCl₃; Me₄Si, dH): 2.31 (2H, m, CH₂CH₂CH₂), 2.71 (2H, t, J = 6.70 Hz, CH₂CH₂CH₂), 2.2.8 (2H, t, J = 7.00 Hz, CH₂CH₂CH₂), 3.78 (3H, s, CH₃O), 5.87 (2H, bs, NH₂).¹³C-NMR (dC): 26.12 (CH₂CH₂CH₂), 27.82 (CH₂CH₂CH₂), 29.66 (CH₂CH₂CH₂), 49.56 (CH₃O), 99.66, 119.16, 141.01, 164.98, 166.99 (CO).Elemental Analysis: Calculated for C₉H₁₃NO₂S (199.27): C 54.25 %, H 6.58 %, N 7.03 %, S 16.09 %; found : C 54.11 %, H 6.46 %, N 7.03 %, S 15.89 %.**References**

1. Gewald, K.; Schinke, E.; Böttcher, H. *Chem. Ber.* **1966**, *99*, 94-100.
2. Gewald, K.; Neumann, G. *Chem. Ber.* **1968**, *101*, 1933-1939.

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