

Synthesis of 5-(2-aminoethoxy)-3-methyl-1-phenyl-1H-pyrazolo[4,3-E][1,2,4]triazine

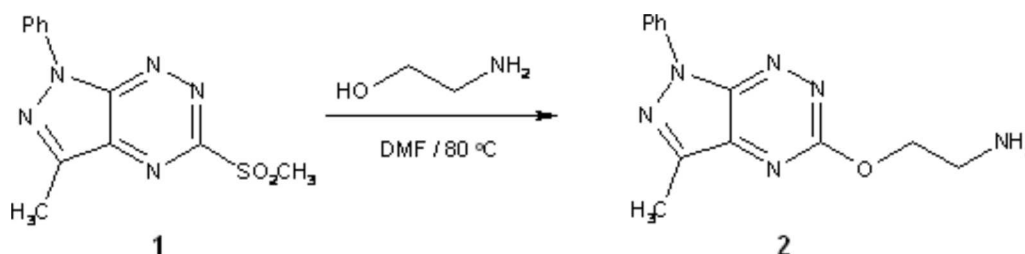
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A variety of naturally occurring O- and N-derivatives of 1H-pyrazolo[4,3-e][1,2,4]triazine exhibit an interesting combination of biological activity [1-2]. As a part of our ongoing research programme [3-6] we have synthesised a novel 5-(2-aminoethoxy)-3-methyl-1-phenyl-1H-pyrazolo[4,3-E][1,2,4]triazine derivative of this ring system based on nucleophilic displacement of methylsulfonyl group [6].



To a solution of sulfone **1** (145 mg, 0.5 mmol) in anhydrous DMF (5 ml) 2-aminoethanol (0.5 ml) was added and the resulting mixture was stirred at 80 °C for 2 h. After pouring onto cold water the precipitate was filtered off, washed with water and recrystallized from ethyl alcohol to give 5-(2-aminoethoxy)-3-methyl-1-phenyl-1H-pyrazolo[4,3-e][1,2,4]triazine (**2**) in 90% yield.

Melting Point: 164 °C.

¹H-NMR (200 MHz, CDCl₃): δ= 2.61 (s, 3H); 3.76-3.81 (m, 2H); 3.96 (t, 2H, J=6.0 Hz); 6.10 (s, 2H); 7.29-7.33 (m, 1H); 7.48-7.56 (m, 2H); 8.26-8.31 (m, 2H).

IR (KBr, cm⁻¹): 3243; 2948; 1580; 1540; 750; 689.

MS (EI, 70eV; *m/z*, %): 270 (68) [M⁺]; 242 (4); 211 (60); 184 (14); 131 (20); 104 (42); 77 (100).

Elemental Analysis: Calculated for C₁₃H₁₄N₆O: C, 57.77%; H, 5.18%; N, 31.11%. Found: C, 57.67%; H, 5.17%; N, 31.16%.

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Sample Availability: Available from MDPI.

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