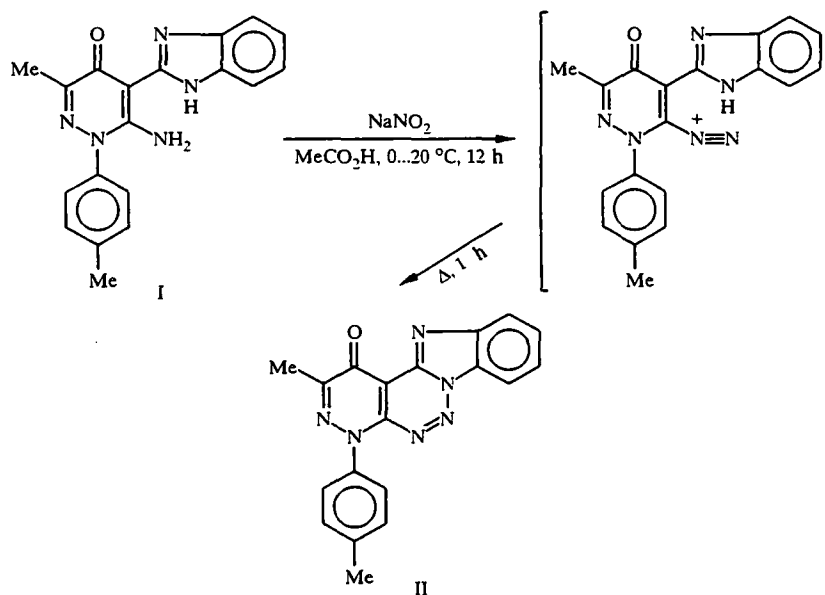


**NEW HETEROCYCLIC SYSTEM — BENZIMIDAZO[1,2-*c*]  
PYRIDAZINO[4,3-*e*]-1,2,3-TRIAZINE**

**Yu. M. Volovenko**

Diazotization of 6-amino-5-(6-benzimidazol-2-yl)-3-methyl-1-(4-tolyl)-4-pyridazinone (I) [1] using sodium nitrite in acetic acid with subsequent heating of the reaction mixture for 1 h is accompanied by N-azo-coupling involving the resultant diazonium group and favorably located nitrogen atom of the benzimidazole system, leading to closure of a triazine ring. This reaction yields a new heterocyclic system, namely, benzimidazo[1,2-*c*]pyridazino[4,3-*e*]-1,2,3-triazine (II).

**10-Methyl-8-(4-tolyl)-8,11-dihydrobenzimidazo[1,2-*c*]pyridazino[4,3-*e*]-1,2,3-triazin-11-one (II)**, mp 239-240°C (from DMF),  $R_f$  0.62 (Silufol UV-254, 9:1 chloroform–methanol 9:1). IR spectrum (KBr): 3140-3080 (C–H), 2910 (–CH<sub>3</sub>), 1635 (C=O), 1610, 1570, 1510 cm<sup>-1</sup> (N=N, C=C, C=N). PMR spectrum in DMSO-*d*<sub>6</sub> at 100 MHz: 2.37 (3H, s, CH<sub>3</sub>–C<sub>6</sub>H<sub>4</sub>), 2.46 (3H, s, CH<sub>3</sub>), 7.4-7.8 (6H, m, arom), 8.11 (1H, d.d,  $J_1^2 = 7$ ,  $J_1^3 = 2$  Hz, 1-H), 8.28 ppm (1H, d.d,  $J_4^3 = 7$ ,  $J_4^2 = 2$  Hz, 4-H). The yield of II was 68%. Found: N, 24.7%. Calculated for C<sub>19</sub>H<sub>14</sub>N<sub>6</sub>O: N, 24.6%.



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