Letters to the Editor

1,2-Diphenylbenzoimidazole

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Benzoimidazoles are synthesized most often by condensation of aromatic *ortho*-diamines with derivatives of carboxylic acids followed by cyclization of the resulting *ortho*-aminoamide.^{1,2} The drawbacks of this method include the problem of selective acylation involving one of the two *ortho*-amino groups and the low accessibility of the initial compounds.



Reagents and conditions: i. PhNH₂, Py, DMF, 4 h, 120 °C, argon. ii. H_2O_2 , 3 h, 80 °C.

1,2-Diphenylbenzoimidazole (1) is of interest because it models the elementary unit of thermally stable N-phenyl-substituted polybenzoimidazoles. We prepared compound 1 by condensation of N-phenylbenzoimidoyl chloride (2) with aniline followed by oxidative dehydrocyclization of N,N'-diphenylbenzamidine (3).

Compound 3, yield 75%, m.p. 144-145 °C. Found (%): C, 83.25; H, 5.98; N, 10.25. $C_{19}H_{16}N_2$. Calculated (%): C, 83.79; H, 5.92; N, 10.28.

Compound 1, yield 67%, m.p. 111-112 °C (lit.³: 112-113 °C). Found (%): C, 84.35; H, 5.28; N, 10.34. C₁₉H₁₄N₂. Calculated (%): C, 84.41; H, 5.22; N, 10.36.

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Received October 29, 1998; in revised form December 8. 1998

Translated from Izvestiya Akademii Nauk. Seriya Khimicheskaya, No. 3, pp. 626-627, March, 1999.

1066-5285/99/4803-0620 \$22.00 © 1999 Kluwer Academic/Plenum Publishers