

# Quinoxaline–Benzimidazole Rearrangement in the Synthesis of Benzimidazole-Based Podands

V. A. Mamedov, A. A. Kalinin, A. T. Gubaidullin, E. A. Gorbunova, and I. A. Litvinov

*Arbuzov Institute of Organic and Physical Chemistry, Kazan Research Center, Russian Academy of Sciences,  
ul. Arbuzova 8, Kazan, 420088 Tatarstan, Russia  
e-mail: mamedov@iopc.kcn.ru*

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**Abstract**—Alkylation of 3-benzoylquinoxalin-2(1*H*)-one with 1,5-dibromo-3-oxapentane, 1,8-dibromo-3,6-dioxaoctane, and  $\alpha,\omega$ -dihaloalkanes with different lengths of the polymethylene chain gave the corresponding quinoxaline podands. In the reaction with 1,2-dibromoethane, the N,O- rather than N,N'-alkylation product was obtained. The reaction of the obtained quinoxaline-based podands with benzene-1,2-diamine followed the quinoxaline–benzimidazole rearrangement pattern with formation of 2-(3-phenylquinoxalin-2-yl)benzimidazole-based podands.

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