

Stereochemistry of the Intramolecular Cycloaddition of Some Alkenes with 2-Furyl-1,2,3,4-tetrahydroquinolines

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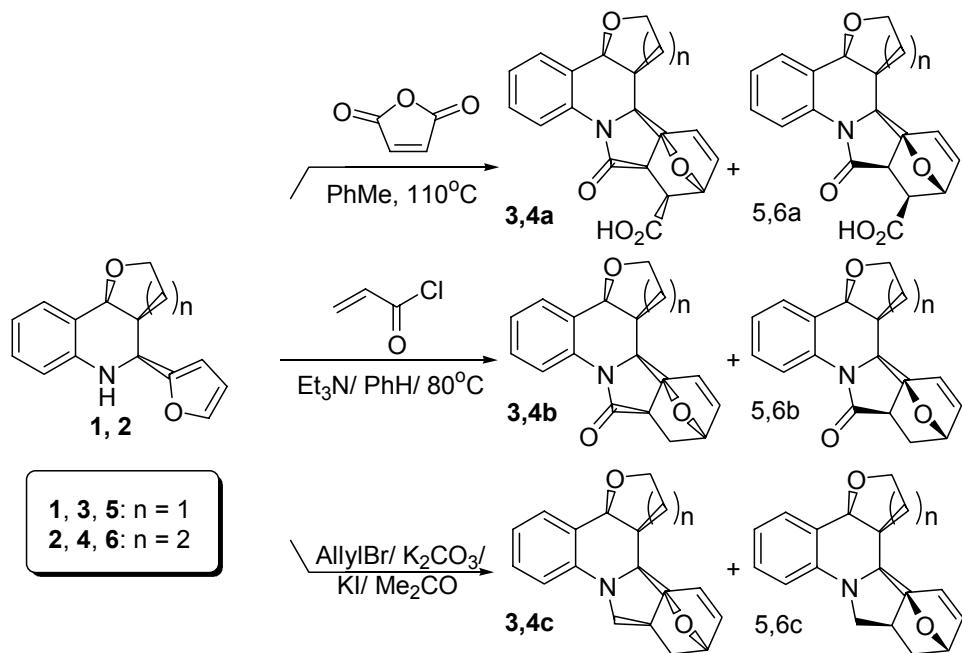
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Interaction of 5-(2-furyl)-3,4,4a,5,6,10b-hexahydro-2*H*-pyrano[3,2-*c*]quinoline (**2**)^{1,2} and 4-(2-furyl)-2,3,3a,4,5,9b-hexahydrofuro[3,2-*c*]quinoline (**1**)³ with maleic anhydride, acryloyl chloride and allyl bromide was studied.

The *N*-acylation (alkylation for **c**) of furfurylamines **1**, **2** and subsequent intramolecular Diels-Alder reaction provided the *exo*-cycloadducts **3-6** in high yields. In all cases all-*cis*-derivatives **3**, **4** predominated. The structures of compounds **3b** and **4c** have been established by *X*-ray analysis.



1. L.S. Povarov, V.I. Grigos, B.M. Mikchaylov, *Bull.Acad.Sci. USSR, Div.Chem.Sci. (Russ.)* **1963**, 2039.
2. L.S. Povarov, V.I. Grigos, R.A. Karakchanov, B.M. Mikchaylov, *Bull. Acad. Sci. USSR, Div. Chem. Sci. (Russ.)* **1964**, 179.
3. L.S. Povarov, V.I. Grigos, B.M. Mikchaylov, *Bull.Acad.Sci. USSR, Div.Chem.Sci. (Russ.)* **1965**, 2164.

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