

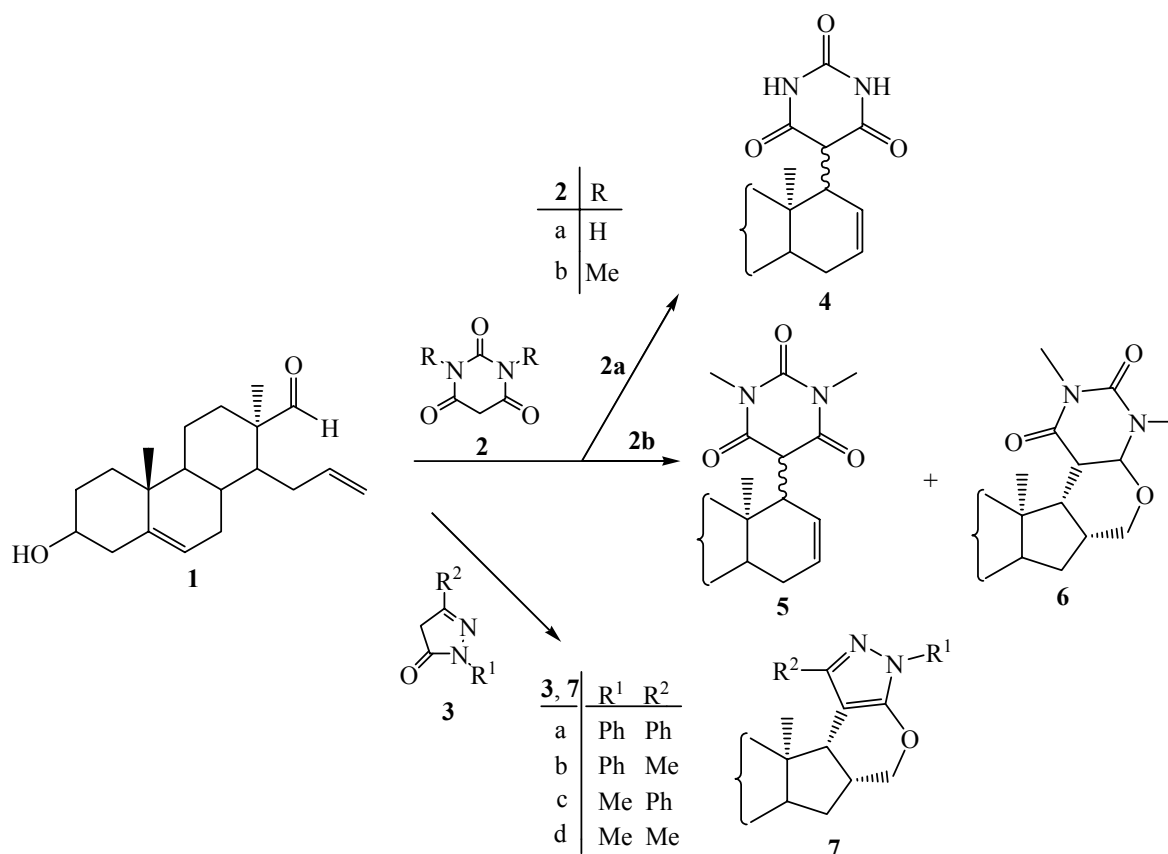
SYNTHESIS OF 13 α -DEHIDRO-EPIANDROSTERONE DERIVATIVES BY DOMINO KNOEVENAGEL HETERO DIELS-ALDER REACTION

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Based on our earlier results [1, 2] we studied the chemo-, regio- and stereoselectivity of the domino Knoevenagel hetero Diels-Alder reaction of a 13 α -seco-dehidro-epiandrosterone derivative with different 1,3-dicarbonyl compounds. The reaction of **1** with barbituric acid (**2a**) produced unsaturated 13 α -D-homo-dehidro-epiandrosterone derivative (**4**). **1** with 1,3-dimethylbarbituric acid (**2b**) gave unsaturated D-homo (**5**) and 16 α ,17 α -condensed compound (**6**). In the case of substituted pyrazolone reagents (**3a-d**) we obtained 16 α ,17 α -condensed compounds (**7a-d**) as main products.



[1] L. F. Tietze, *J. Heterocycl. Chem.* **27** (1990) 47.

[2] L. F. Tietze, J. Wölfling, Gy. Schneider, *Chem. Ber.* **124** (1991) 591.