

Synthesis of Chiral Benzacridone Derivatives by Three-Component Condensation

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Abstract—A three-component condensation of (2-bornylidene)acetaldehyde and 2-naphthylamine with various, in particular, dissymmetrical, cyclic β -diketones afforded derivatives of 12-(2-bornylidene)methyl-8,9,10,12-tetrahydro-7H-benzo[*a*]acridin-11-one containing in the structure three and more asymmetrical carbon atoms. Steric factors govern the prevailing formation of (12*R*)-isomers of benzacridones (*R*/*S*H \approx 7 : 5) and the orientation of the substituents of the cyclohexenone fragment. These factors ensure also the regiospecificity of the reaction leading exclusively to the formation of 8,9-disubstituted benzacridones at the use of 4,5-disubstituted cyclohexane-1,3-diones.

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