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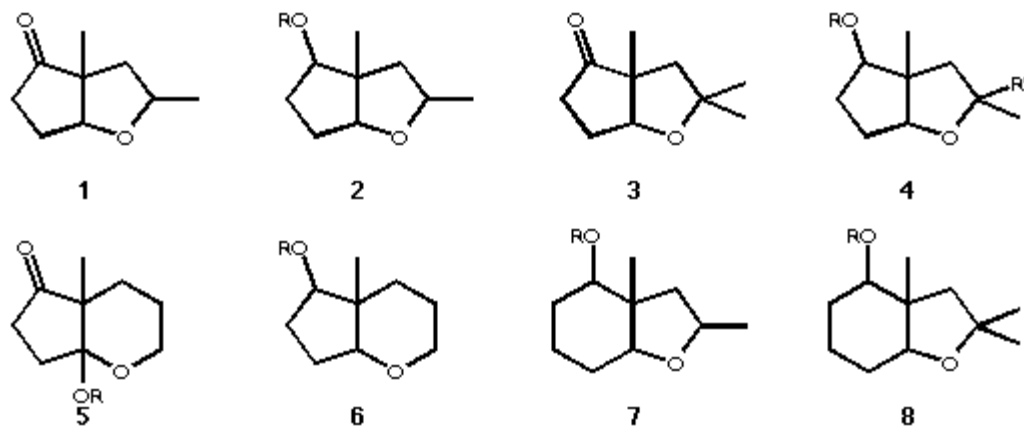
Synthesis of Substituted 2-Oxa-bicyclo[3.3.]octanes and -[4.3.0]nonanes

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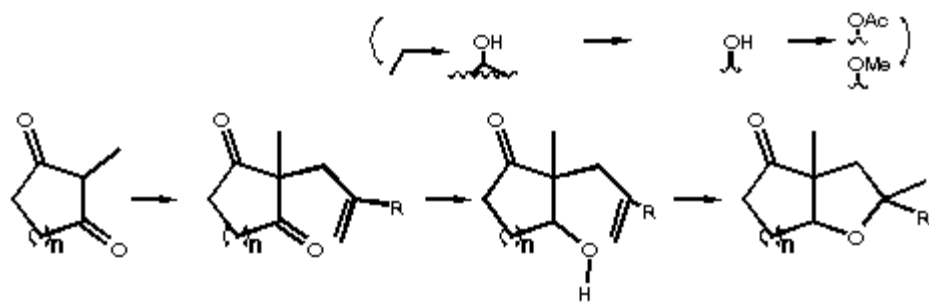
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Oxabicyclo[3.3.0]octanes and -[4.3.0]nonanes have recently been synthesized by Overman *et al.*^[1], and occasionally found as structural frameworks in natural products^{[2],[3]}. The biological activity of many natural oxolane systems encouraged us to search for new ways leading to smaller molecules which may have similar biological activities^[4]. We report on alternative routes to compounds of types **1** - **8**.



Compounds **1** - **8** were obtained by cyclisation of substituted 2-methyl-cycloalkanediones:



Antibacterial activity against *Bacillus subtilis* and *Pseudomonas fluorescens* and antifungal activity against *Cladosporium cucumerinum* was observed with Compounds **2** (R = Ac) and **4** (R = H, R' = Ph).

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4. J. Temper, *Ph. D. Thesis*, University of Hohenheim **1997** (in press).

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