SCALABLE SYNTHESIS OF SUGAR-DERIVED SPIRO-OXAZOLIDINONES *VIA* CARBAMATE INTERMEDIATES

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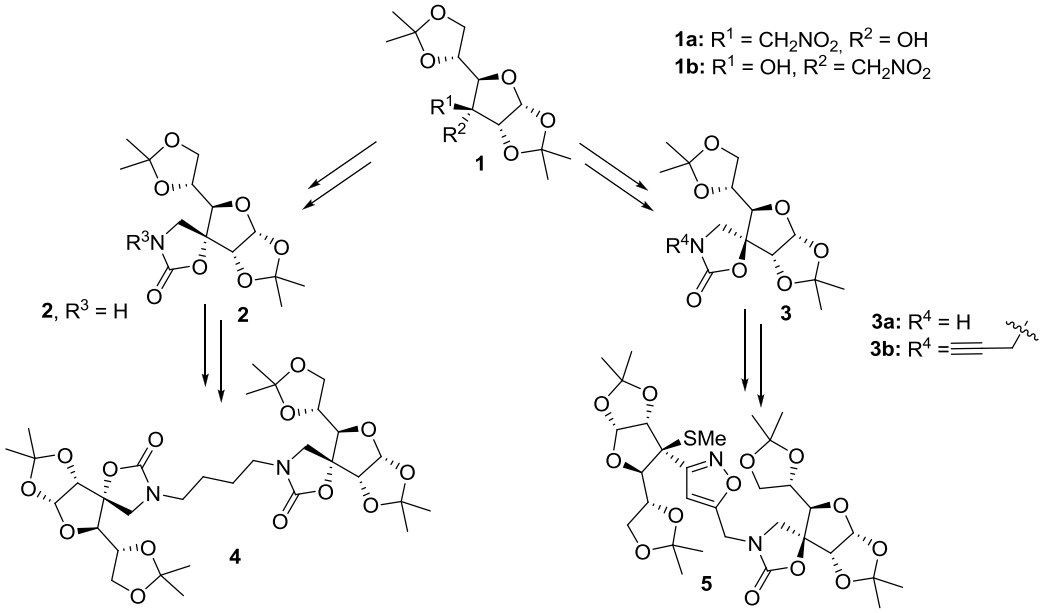
Oxazolidinones are important as chiral auxiliaries and as protecting groups in organic synthesis, as ligands for metal catalysts, and as biologically active pharmaceutical agents.[1] On the other hand, monosaccharides provide an excellent platform to tailor molecular diversity by appending desired substitutes at selected positions around the sugar scaffold.[2] Herein, we present the scalable synthesis of carbohydrate-spiro-oxazolidinones with *gluco*- and *allo*-configuration.[3]

Spirocycles **2** and **3** were obtained from diacetone-D-glucose. Oxidation of the latter followed by Henry reaction produces separable diastereomeric mixture of nitroalcohols **1**. Each of the diastereoisomers was transformed into corresponding amino alcohol**.** In order to obtain the oxazolidinones **3a** with *gluco*-configuration we have used Moffatt dehydration-rehydration sequence as intermediate reaction.[4] The amino group can be transformed into phenyl- or benzylcarbamate. Further, the previously obtained carbamates are converted into spiro-oxazolidinones **2** and **3** by intramolecular cyclization under basic conditions.

The present approach allows to prepare the target spiro-oxazolidinones in a multi-gram scale within excellent isolated yields. Attempts to use the title products in asymmetric synthesis will be discussed.



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