

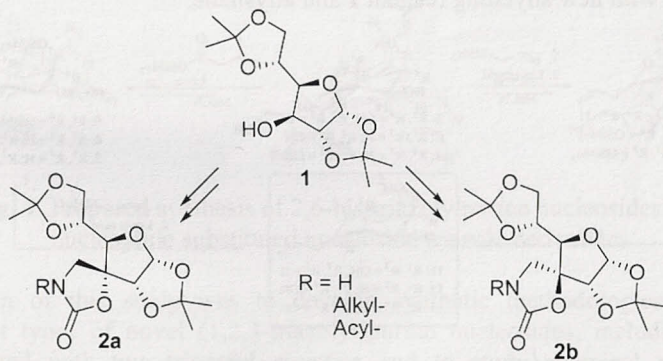
SYNTHESIS OF *ALLO*- AND *GLUCO*- FURANOSE-OXAZOLIDINONE DERIVATIVES WITH SPIROCYCLIC JUNCTION

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Oxazolidinones are a novel class of antibacterial agents with demonstrated activity against Gram-positive bacteria including methicillin-resistant *Staphylococcus aureus* (MRSA) and *enterococci* [1]. Moreover carbohydrates are ideal scaffolds to generate libraries of bioactive compounds [2]. The synthesis of two diastereoisomeric series of oxazolidinone-carbohydrate conjugates with spiro-junction is described.

The starting material to prepare glucose-based spiro-oxazolidinones and their derivates is diacetone-D-glucose **1**. Oxidation of the latter followed by Henry reaction produces a separable diastereomeric mixture of nitroalcohols. The next step is reduction of nitro compounds to amines. An amino group can be protected by phenyloxycarbonyl- or benzyloxycarbonyl- group. The target of spiro-oxazolidinones are obtained through intramolecular cyclization.



REFERENCES

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2. Nicotra, F.; Cipolla, L.; Ferla, B.; Airoidi, C.; Zona, C.; Orsato, A.; Shaikh, N.; Russo, L. *Biotechn.* **2009**, 144, 234.