SUGAR BASED SPIROOXAZOLIDINONES

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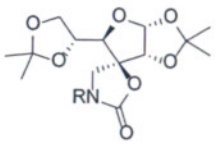
N-Acyl-oxazolidinones have found extensive applications in the asymmetric synthesis as chiral auxiliaries. Present work describes an optimized protocol for the synthesis of carbohydrate derived spirooxazolidinones (**1**).[1] Commercially available diacetone-D-glucose was chosen as a convenient starting material[2] for the preparation of spirooxazolidinones in seven steps with a combined yield of 36% on a 10 g scale. The method of *N*-acylation with acylchlorides for both types of spirooxazolidinones was developed to study the diastereoselective alkylation at α-position. To explore the scope and reactivity of the obtained compounds, a small combinatorial library of novel *N*-alkyl-spirooxazolidinones derivatives was generated with individual product yields reaching up to 88%.



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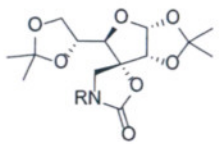

1b

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References:

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