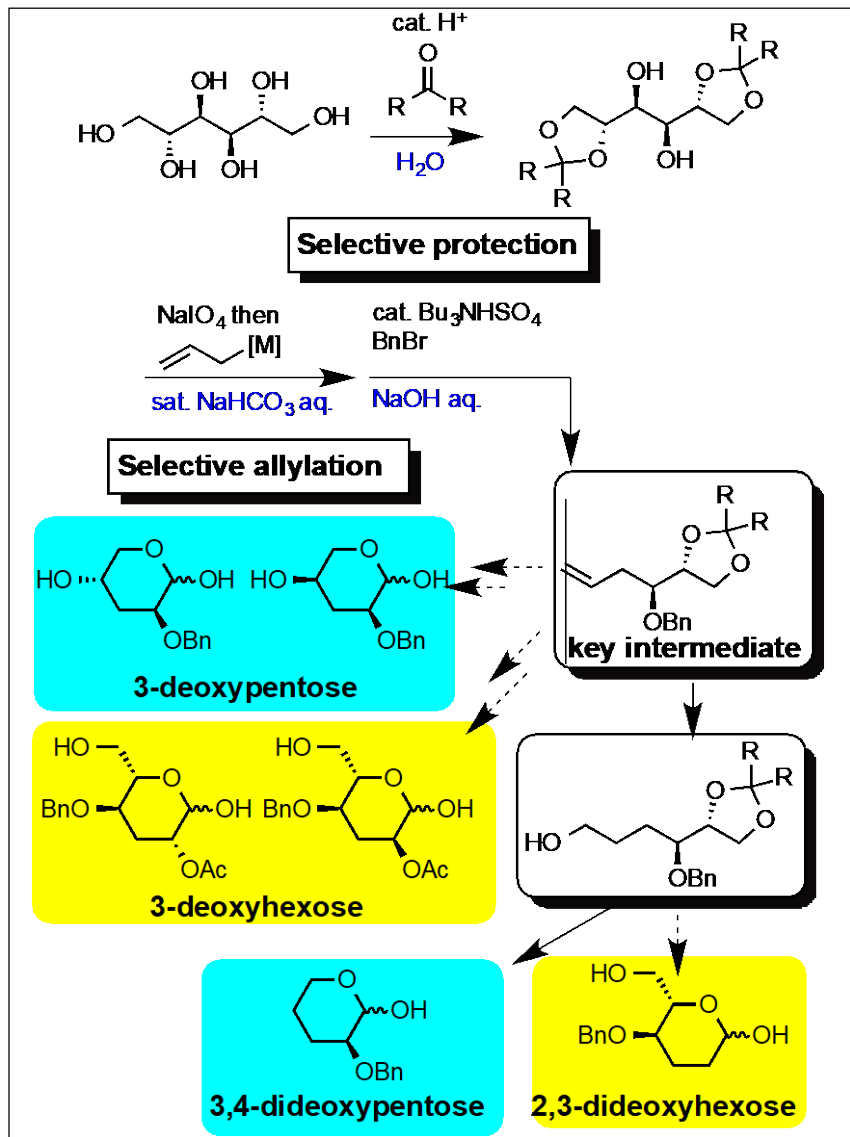




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Synthesis of Deoxysacchrides in Water

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Content:

From the view point of "Green Sustainable Chemistry", now I research the development of the synthetic method of functionality material without organic solvents. Deoxysaccharides are one of the constitution unit of a natural product and pharmaceutical products, which has a big influence on the expression of our living body function. To synthesis of deoxysacchrides many protection/deprotection steps are required in organic solvents, because of its have hydrophilicity.

To overcome these problems, I developing the synthetic method of the deoxy sugars in water, including pentose (five monosaccharides) and hexose (six monosaccharides) from a common unit. Also I am trying to synthesis of natural bioactive compounds only in water. In the future, for the no use of any organic solvents even in the extraction or purification steps, I am planning to apply this method to the flow chemistry by using the immobilized catalyst in the column.

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