

AZIRIDINES AS KEY COMPOUNDS FOR THE SYNTHESIS OF C-GLYCOSIDES

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Thanks to plants, carbohydrates are an inexhaustible source of substrates for the synthesis of many chemical compounds. Understanding the role carbohydrates and glycoconjugates play in living organisms is the basis for the development of more and more effective therapeutic agents. An extremely important element in the construction of glycosides and glycoconjugates is the glycosidic bond, which is an essential part of such important substances as: antibiotics, antineoplastic drugs and cardiac glycosides. Therefore, research on glycosylation reactions is such an important research problem in carbohydrate chemistry. In nature, carbohydrate connections are based on *O*- and *N*-glycosidic bonds, but studies show that they are not stable enough under therapeutic conditions [1]. Replacement of this type of bonds with a *C*-glycosidic bond leads to derivatives with excellent chemical and enzymatic stability without negative influence on their biological properties [2,3].

The statement will present a synthesis path of new building blocks, which originality is based on the use of aziridine as a connector with a defined configuration that combines an aminoacid with a saccharide (Fig. 1).

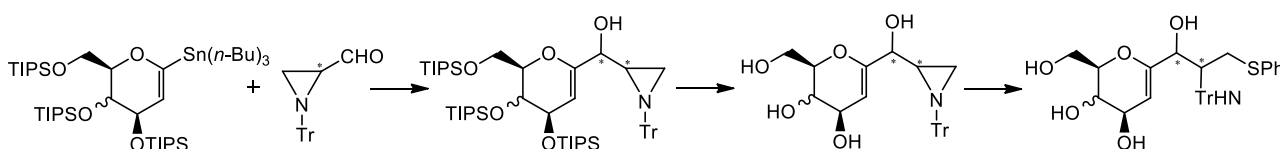


Fig. 1. Scheme of planned synthesis steps.

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[3] D. E. Levy, *The Chemistry of C-Glycosides* (Pergamon, Oxford, 1995).