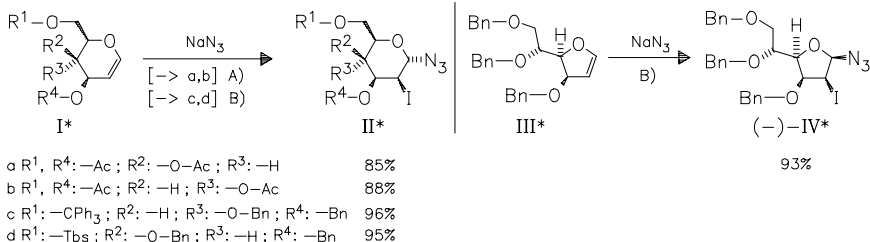


Carbohydrates

U 0500

20- 182

Conversion of Glycals to 1-Azido-2-iodo Sugars Using N-Iodosuccinimide/Sodium Azide or Potassium Iodide/Oxone Reagent Systems: Application in the Synthesis of Methyl N-Acetyl- α -D-lividossaminide (IX). — Two new, mild, and stereoselective methods to prepare 1-azido-2-iodo sugars are reported. Interestingly, the reaction of pyran glycals leads to trans-iodo azides, whereas starting from furan glycals, cis-isomers are obtained. Treatment of glycal (III) with NaN_3 according to A) does not give the expected azide (IV) but the furan derivative (V) (no yield given). The iodo azides can smoothly be converted into diverse aminoglycosides such as (IX) as an integral part of some antibiotics such as lividomycin. — (RAWAL, G. K.; RANI, S.; MADHUSUDANAN, K. P.; VANKAR*, Y. D.; Synthesis 2007, 2, 294-298; Dep. Chem., Indian Inst. Technol., Kanpur 208 016, India; Eng.) — Jannicke

A): KI, Oxone, Al₂O₃, CHCl₃, 25°C

B): NIS, MeCN, 0°C

