Synthesis and reactions of some derivatives of (3,6*S*,9*R*,10*R*,11*S*)-1,4,7-trioxaspiro[5,5]undecane-3,9,10,11-tetrol: novel quasi-saccharides

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Abstract

The title compound was obtained by reductive ozonolysis of allyl β-D-fructopyranoside. The synthesis and characterization of a number of C-3-substituted derivatives using conventional carbohydrate procedures is described. Some of the products may be of biological interest as carbohydrate mimics. The structures of two of the basic products (**8**and **9**) were substantiated by X-ray diffraction studies.

Keywords

Spiro-fructosides-quasisaccharides;

Carbohydrates mimics;

X-ray diffraction