DESCRIPTION

Carbohydrate Research publishes reports of original research in the following areas of carbohydrate science: action of enzymes, analytical chemistry, biochemistry (biosynthesis, degradation, structural and functional biochemistry, conformation, molecular recognition, enzyme mechanisms, carbohydrate-processing enzymes, including glycosidases and glycosyltransferases), chemical synthesis, isolation of natural products, physicochemical studies, reactions and their mechanisms, the study of structures and stereochemistry, and technological aspects.

Papers on polysaccharides should have a "molecular" component; that is a paper on new or modified polysaccharides should include structural information and characterization in addition to the usual studies of rheological properties and the like. A paper on a new, naturally occurring polysaccharide should include structural information, defining monosaccharide components and linkage sequence.

Papers devoted wholly or partly to X-ray crystallographic studies, or to computational aspects (molecular mechanics or molecular orbital calculations, simulations via molecular dynamics), will be considered if they meet certain criteria. For computational papers the requirements are that the methods used be specified in sufficient detail to permit replication of the results, and that the conclusions be shown to have relevance to experimental observations - the authors’ own data or data from the literature. Specific directions for the presentation of X-ray data are given below under Results and "discussion".

AUDIENCE

Chemists, Biologists, Biochemists and Medical Researchers/Scientists involved in studies of molecular aspects of glycoscience.

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Title Compounds
3.1.1. Methyl 6-O-tert-butyldimethylsilyl-β-D-allopyranoside (4).

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If there are published physical constants (mp, [α]D, λmax, etc.) for the compound these should be cited, using the following format:

...allyl 2-acetamido-2-deoxy-[α]-L-glucopyranoside (1α): mp 175176 C, lit.⁶ 172174 C; [α]D 25 +155 (c 1.43, water), lit.⁶ +149; ¹H NMR...

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Additional conventions used in describing higher order data include, for example, the designation of peaks in COSY spectra: Man H-1,2; HOHAHA tracking: GlcNAc H-2,3,4,5,6a,6b etc.; NOE contacts: Glc H-1, Xyl H-4,5e, etc. For designating resonances in oligosaccharides, the sugar units should be numbered with Roman numerals I, II, III, etc. beginning at the reducing (upstream) end of the molecule. (See IUPAC Nomenclature for Carbohydrates, 2-CARB-37.2.) The individual resonances are numbered with Roman numeral superscripts as, for example, the following: H-3I, H-3II, H-3III.

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