

# Thermal decomposition of ascorbic acid

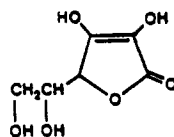
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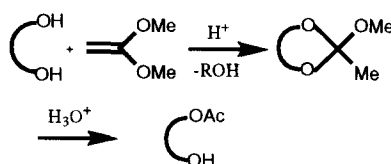
Thermal degradation of L-ascorbic acid at 300 °C (dry) and at 180°C (in propylene glycol) was investigated.



# Further examples of orthoesterification under kinetically controlled conditions. Application to the selective acylation of sucrose, maltose and $\alpha$ , $\alpha$ -trehalose

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# Synthesis of 1,2,3-tri-*O*- $\beta$ -D-lactosyl-D-threitol and 1-*O*-benzyl-2,3,4-tri-*O*- $\beta$ -D-lactosyl-D-threitol

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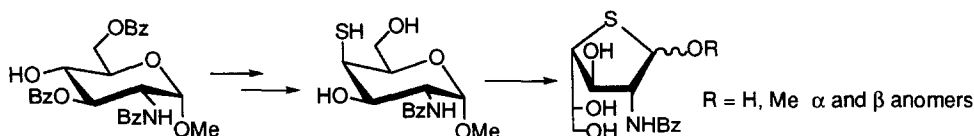
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The title compounds were synthesized via coupling of 2,3,6,2,3,4,6-hepta-*O*-acetyl-D-lactosyl bromide with 1,4-di-*O*-benzyl-D-threitol with subsequent deprotection, glycosylation, and deacetylation.

# 4-Thiopyranoside and 4-thiofuranoside derivatives of D-galactosamine

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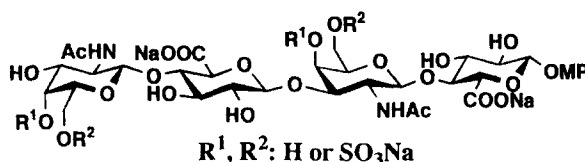
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## Synthetic approach towards sulfated chondroitin di-, tri- and tetrasaccharides corresponding to the repeating unit

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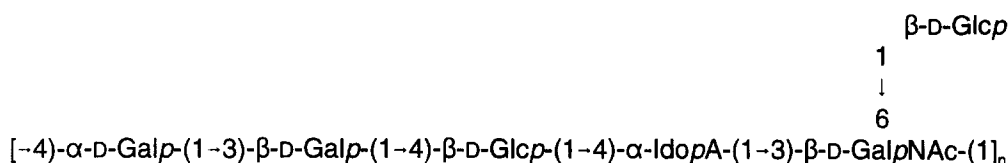
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## Structure of the capsular polysaccharide of *Clostridium perfringens* Hobbs 10 determined by NMR spectroscopy

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## Methods for the assay of 1,5-anhydro-D-fructose and α-1,4-glucan lyase

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The title sugar and lyase were examined with 11 assay methods. The finding that the sugar exhibits extraordinarily high reducing power and reacts with cold alkaline 3,5-dinitrosalicylic acid reagent forms the basis for its quantitative and specific assay.

## Transglycosylation activity of α-D-galactosidase from *Trichoderma reesei*: An investigation of the active site

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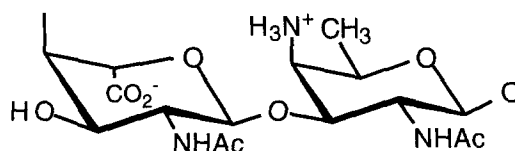
<sup>a</sup>Petersburg Nuclear Physics Institute, Molecular and Radiation Biophysics Division, Gatchina, St. Petersburg, 188350, Russia  
<sup>b</sup>St. Petersburg Technical University, Department of Biophysics, 29 Polytechnicheskaya str., St. Petersburg, 195251, Russia

The transglycosylation reactions catalyzed by α-D-galactosidase from *Trichoderma reesei* were studied. Transglycosylation of the substrate suggests a model for the enzyme active center. It is proposed that the active center includes two galactose-binding sites and a hydrophobic site.

### Conformational stabilization of the altruronic acid residue in the O-specific polysaccharide of *Shigella sonnei* / *Plesiomonas shigelloides*

Gyula Batta <sup>a</sup>, András Lipták <sup>a</sup>, Rachel Schneerson <sup>b</sup>, Vince Pozsgay <sup>b</sup>

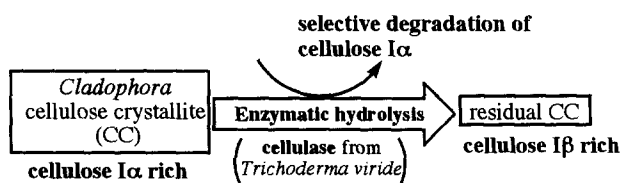
<sup>a</sup> Kossuth Lajos University, Debrecen, Hungary, <sup>b</sup> National Institutes of Health, Bethesda, MD, U.S.A.



### Selective degradation of the cellulose I<sub>α</sub> component in *Cladophora* cellulose with *Trichoderma viride* cellulase

Noriko Hayashi<sup>a,\*</sup>, Junji Sugiyama<sup>b</sup>, Takeshi Okano<sup>c</sup>, Mitsuro Ishihara<sup>a</sup>

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### The production of a new water-soluble polysaccharide by *Acetobacter xylinum* NCI 1005 and its structural analysis by NMR spectroscopy

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Division of Molecular Chemistry, Graduate School of Engineering, Hokkaido University, Sapporo 060 (Japan)

A new water-soluble polysaccharide (WSP) was isolated from a culture of *Acetobacter xylinum* NCI 1005 grown on sucrose. The structure of the WSP was analyzed by NMR spectroscopy and determined to be a β-(2 → 6)-linked polyfructan.