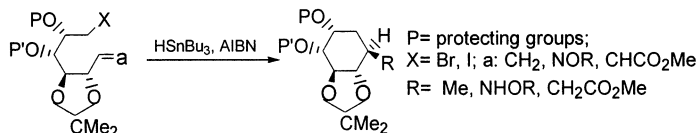


## Free-radical mediated synthesis of enantiomerically pure, highly functionalized inositols from carbohydrates

*Carbohydr. Res.* **2001**, 332, 341

José Marco-Contelles, Carmen Pozuelo, Elsa de Opazo

*Laboratorio de Radicales Libres, Instituto de Química Organica General (CSIC), C/ Juan de la Cierva 3, E-28006 Madrid, Spain*



## Synthesis and structure determination of some sugar amino acids related to alanine and 6-deoxymannojirimycin

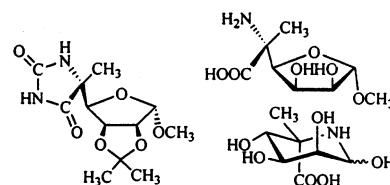
*Carbohydr. Res.* **2001**, 332, 351

Miroslav Košíš,<sup>a</sup> Bohumil Steiner,<sup>a</sup> Júlia Mičová,<sup>a</sup>  
Vratislav Langer,<sup>b</sup> Marián Ďurík,<sup>c</sup> Dalma Gyepesová<sup>c</sup>

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<sup>b</sup>*Department of Inorganic Environmental Chemistry, Chalmers University of Technology, SE-41296 Gothenburg, Sweden*

<sup>c</sup>*Institute of Inorganic Chemistry, Slovak Academy of Sciences, SK-84236 Bratislava, Slovak Republic*

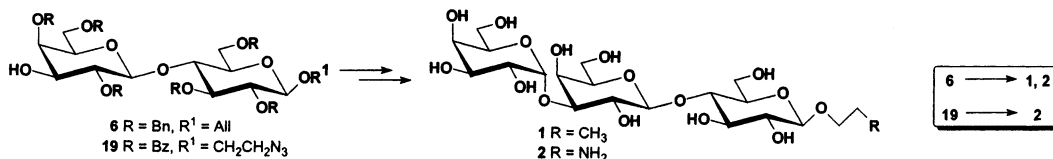


## Synthesis of propyl and 2-aminoethyl glycosides of α-D-galactosyl-(1 → 3')-β-lactoside

*Carbohydr. Res.* **2001**, 332, 363

Olga N. Yudina, Andrei A. Sherman, Nikolay E. Nifantiev

*N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Leninsky prospect 47, 119992 Moscow B-334, Russia*

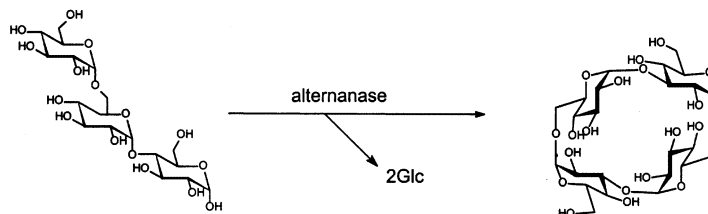


## The hydrolytic and transferase action of alternanase on oligosaccharides

*Carbohydr. Res.* **2001**, 332, 373

Gregory L. Côté, Jeffrey A. Ahlgren

*Fermentation Biochemistry Research Unit, National Center for Agricultural Utilization Research, Agricultural Research Service, USDA, 1815 North University Street, Peoria, IL 61604, USA*



## Rapid and simple preparation of N-linked oligosaccharides by cellulose-column chromatography

*Carbohydr. Res.* **2001**, 332, 381

Yoshitaka Shimizu, Munehiro Nakata, Yasuhiro Kuroda, Fumihiko Tsutsumi, Naoya Kojima, Tsuguo Mizuochi

*Department of Applied Biochemistry, Tokai University, Hiratsuka, Kanagawa 259-1292, Japan*

As a means of preparing N-linked oligosaccharides, a method has been developed by cellulose-column chromatography. The N-linked oligosaccharides were quantitatively prepared from hydrazinolysates by elution with (1:1) ethanol–water and these had as high a quality as those prepared by conventional paper chromatography.

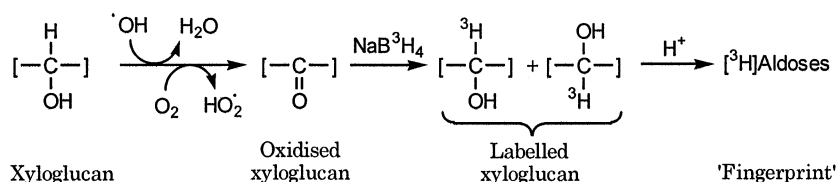
## Characteristics of xyloglucan after attack by hydroxyl radicals

*Carbohydr. Res.* **2001**, 332, 389

Janice G. Miller, Stephen C. Fry

*Edinburgh Cell Wall Group, Institute of Cell and Molecular Biology, The University of Edinburgh, Daniel Rutherford Building, The King's Buildings, Mayfield Road, Edinburgh EH9 3JH, UK*

$\cdot\text{OH}$  radicals, generated by ascorbate +  $\text{O}_2$ , cause non-enzymic scission of the plant cell-wall polysaccharide, xyloglucan. A sensitive method is proposed for 'fingerprinting'  $\cdot\text{OH}$ -attacked xyloglucan by  $^3\text{H}$ -labelling.

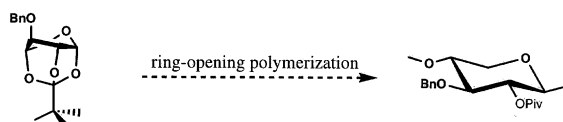


## Synthesis of D-xylopyranan by the ring-opening polymerization of 3-O-benzyl- $\alpha$ -D-xylopyranose 1,2,4-orthopivalate. Attempts to synthesize a stereoregular polymer

*Carbohydr. Res.* **2001**, 332, 405

Michiko Hori, Fumiaki Nakatsubo

*Division of Forest and Biomaterials Science, Graduate School of Agriculture, Kyoto University, Sakyo-ku, Kyoto 606-8502, Japan*



## Molecular and crystal structures of N-aryl- $\beta$ -D-glycopyranosylamines from mannose and galactose

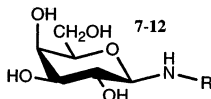
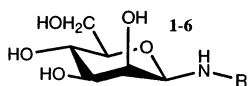
*Carbohydr. Res.* **2001**, 332, 415

Charles R. Ojala,<sup>a</sup> Joanne M. Ostman,<sup>a</sup> Summer E. Hanson,<sup>b</sup> William H. Ojala<sup>b</sup>

<sup>a</sup>*Department of Chemistry, Normandale Community College, Bloomington, MN 55431, USA*

<sup>b</sup>*Department of Chemistry, University of St. Thomas, Mail # OSS 402, 2115 Summit Avenue, St. Paul, MN 55105, USA*

The structures of **1–12** have been determined by means of X-ray crystallography.



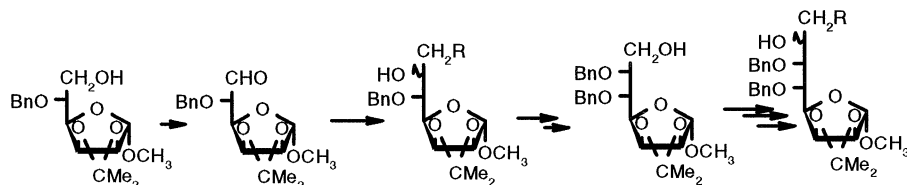
- |  |  |
|--|--|
| <b>1</b> R = <i>p</i> -Br-C <sub>6</sub> H <sub>4</sub>                | <b>7</b> R = C <sub>6</sub> H <sub>5</sub>                             |
| <b>2</b> R = <i>p</i> -CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub>  | <b>8</b> R = <i>p</i> -Cl-C <sub>6</sub> H <sub>4</sub>                |
| <b>3</b> R = <i>m</i> -Cl-C <sub>6</sub> H <sub>4</sub>                | <b>9</b> R = <i>p</i> -Br-C <sub>6</sub> H <sub>4</sub>                |
| <b>4</b> R = <i>p</i> -OCH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub> | <b>10</b> R = <i>p</i> -I-C <sub>6</sub> H <sub>4</sub>                |
| <b>5</b> R = <i>o</i> -Cl-C <sub>6</sub> H <sub>4</sub>                | <b>11</b> R = <i>p</i> -NO <sub>2</sub> -C <sub>6</sub> H <sub>4</sub> |
| <b>6</b> R = <i>o</i> -CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub>  | <b>12</b> R = <i>p</i> -CH <sub>3</sub> -C <sub>6</sub> H <sub>4</sub> |

## From methyl mannosides to methyl octosides by a stepwise homologation with Grignard C<sub>1</sub> reagents

*Carbohydr. Res.* **2001**, *332*, 429

Halszka Stępowaska, Aleksander Zamojski

*Institute of Organic Chemistry, Polish Academy of Sciences, Kasprzaka 44, PL-01224 Warsaw, Poland*



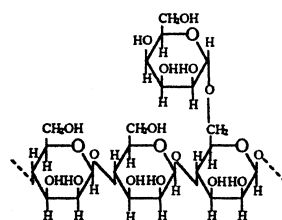
## Structure of a galactomannan from the seeds of *Cassia angustifolia* Vahl

*Carbohydr. Res.* **2001**, *332*, 439

Manjoosha Chaubey, Virendra P. Kapoor

*Phytochemistry Division, National Botanical Research Institute, Rana Pratap Marg, Lucknow-226 001, India*

Man/Gal ratio	2.90 (HPLC)	$\bar{M}_w$	$= 9.66 \times 10^4$
	2.92 (GLC)	$dn/dc$	$= 0.15$
	2.63 ( <sup>13</sup> C NMR)	$[\eta]$	$= 209 \text{ mL/g}$
	2.82 (1H NMR)		



Methylation, periodate oxidation, Smith degradation and NMR studies reveal that the gum possesses the basic structure of legume galactomannans. The seeds have been identified as a new source of commercial gums.