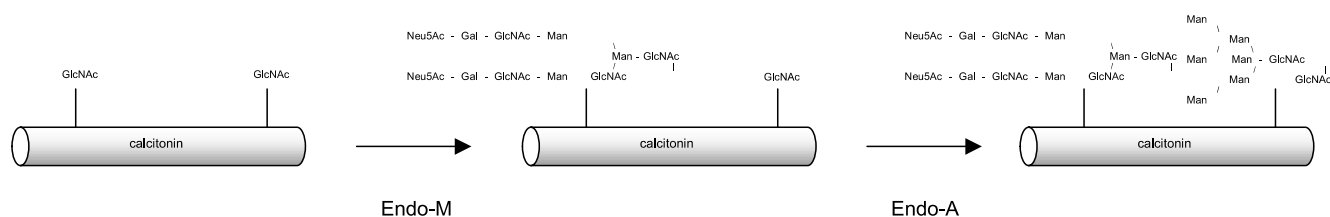


## Contents

### FULL PAPERS

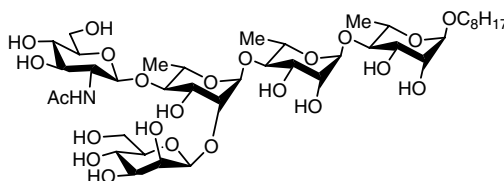
#### Chemo-enzymatic synthesis of eel calcitonin glycosylated at two sites with the same and different carbohydrate structures pp 181–190

Katsuji Haneda,\* Midori Takeuchi, Mizuka Tagashira, Toshiyuki Inazu, Kazunori Toma,\* Yukihiro Isogai, Masayuki Hori, Kazuo Kobayashi, Makoto Takeuchi, Kaoru Takegawa and Kenji Yamamoto



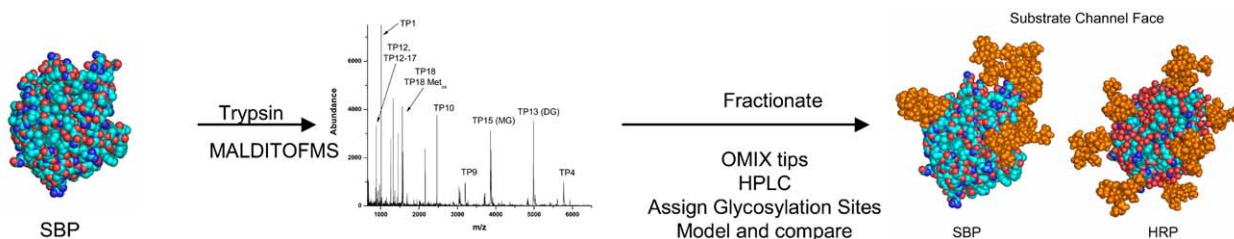
#### Synthesis of the pentasaccharide repeating unit of latosillan pp 191–197

Yuxia Hua, Junjun Xiao, Yingshen Huang and Yuguo Du\*



#### Asymmetric glycosylation of soybean seed coat peroxidase pp 198–209

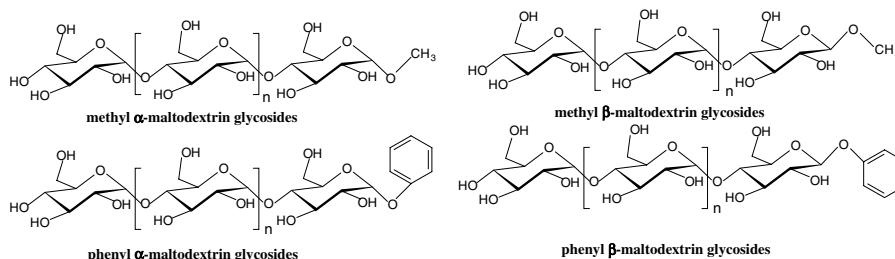
James S. S. Gray\* and Rex Montgomery



## Optimized synthesis of specific sizes of maltodextrin glycosides by the coupling reactions of *Bacillus macerans* cyclomaltodextrin glucanyltransferase

pp 210–217

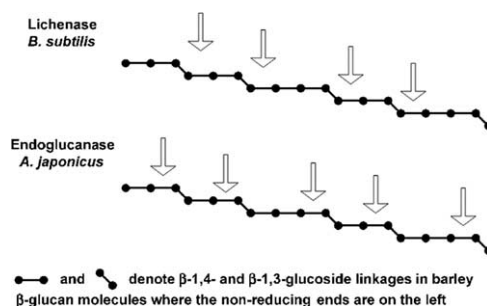
Seung-Heon Yoon and John F. Robyt\*



## A lichenase-like family 12 *endo*-(1→4)- $\beta$ -glucanase from *Aspergillus japonicus*: study of the substrate specificity and mode of action on $\beta$ -glucans in comparison with other glycoside hydrolases

pp 218–229

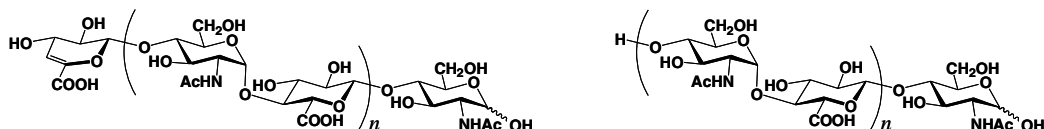
Sergei G. Grishutin, Alexander V. Gusakov,\* Ekaterina I. Dzedzyulya and Arkady P. Sinitsyn



## Microscale preparation of even- and odd-numbered *N*-acetylheparosan oligosaccharides

pp 230–237

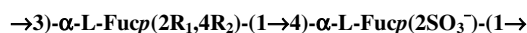
Toshikazu Minamisawa, Kiyoshi Suzuki, Naoko Kajimoto, Masami Iida, Hiroshi Maeda and Jun Hirabayashi\*



## Structure of a fucoidan from the brown seaweed *Fucus serratus* L.

pp 238–245

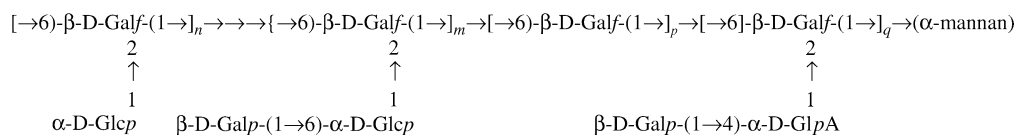
Maria I. Bilan, Alexey A. Grachev, Alexander S. Shashkov, Nikolay E. Nifantiev and Anatolii I. Usov\*

(a) (~50%):  $R_1 = \text{SO}_3^-$ ,  $R_2 = \text{H}$ (b) (~50%):  $R_1 = \text{H}$ ,  $R_2 = \alpha\text{-L-Fucp-(1}\rightarrow 4\text{)-}\alpha\text{-L-Fucp}(2\text{SO}_3^-)\text{-(1}\rightarrow 3\text{)-}\alpha\text{-L-Fucp}(2\text{SO}_3^-)\text{-(1}\rightarrow$ ,  
the terminal residue may also be 4-monosulfated or 2,4-disulfated.

Acetates (one per every 10 fucose residues) occupy C-3 and C-4 in a ratio of about 7:3.

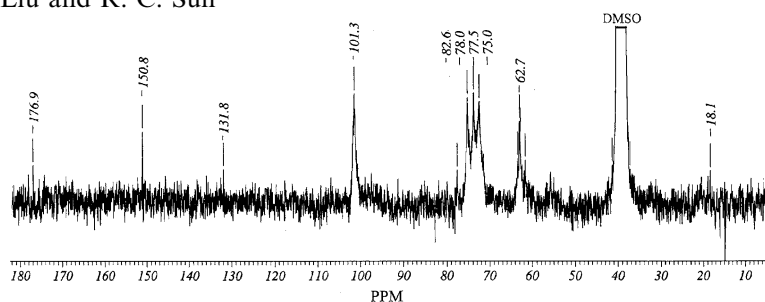
**Structural elucidation of fungal polysaccharides isolated from the cell wall of *Plectosphaerella cucumerina* and *Verticillium* spp.**

pp 246–252

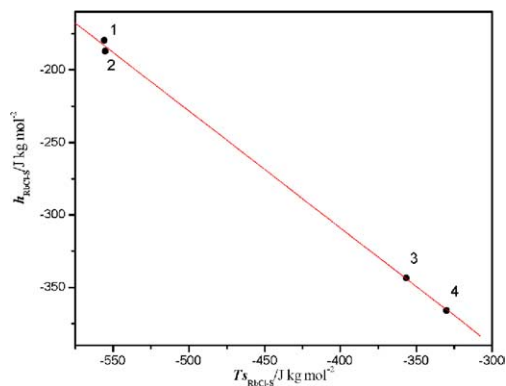
Oussama Ahrazem, Alicia Prieto, María Inmaculada Giménez-Abián, Juan Antonio Leal,\*  
Jesús Jiménez-Barbero and Manuel BernabéThe idealized repeating unit of the polysaccharide isolated from *P. cucumerina* is proposed to be:**Comparative study of alkali- and acidic organic solvent-soluble hemicellulosic polysaccharides from sugarcane bagasse**

pp 253–261

F. Xu, J. X. Sun, C. F. Liu and R. C. Sun\*

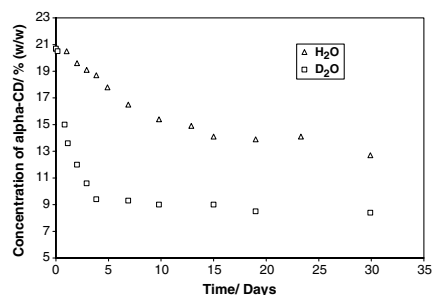
**Thermodynamics of the interaction of RbCl with some monosaccharides (D-glucose, D-galactose, D-xylose, and D-arabinose) in aqueous solutions at 298.15 K**

pp 262–269

Yucheng Jiang,\* Mancheng Hu, Shuni Li,  
Jianji Wang and Kelei Zhuo**Solubility of cyclomaltooligosaccharides (cyclodextrins) in H<sub>2</sub>O and D<sub>2</sub>O: a comparative study**

pp 270–274

Edvaldo Sabadini,\* Terence Cosgrove and Fernanda do Carmo Egídio

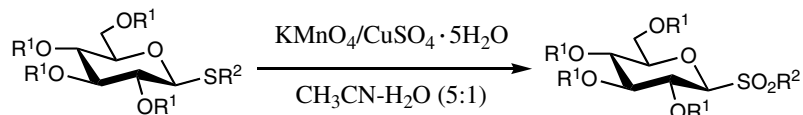
Kinetic of crystallization of  $\alpha$ -CD in H<sub>2</sub>O and D<sub>2</sub>O from saturated solutions at 25 °C.

## NOTES

**Fast oxidation of thioglycosides to glycosyl sulfones using  $\text{KMnO}_4/\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$  under neutral reaction conditions**

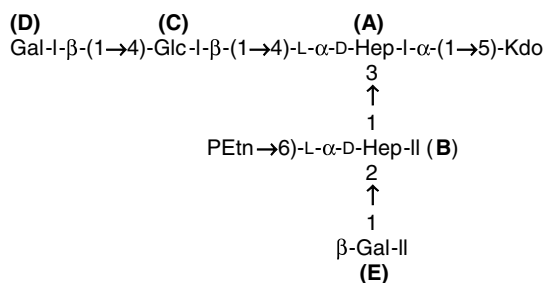
pp 275–280

Geetanjali Agnihotri and Anup Kumar Misra\*

**Structural analysis of the lipooligosaccharide-derived oligosaccharide of *Histophilus somni* (*Haemophilus somnus*) strain 8025**

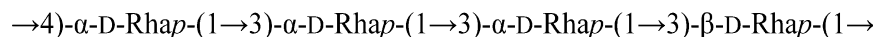
pp 281–284

Frank St. Michael, Thomas J. Inzana and Andrew D. Cox\*

**The structure of a putative exopolysaccharide of *Burkholderia gladioli* pv. *agaricicola***

pp 285–288

Zbigniew Kaczynski, Gnuni Karapetyan, Antonio Evidente, Nicola S. Iacobellis and Otto Holst\*

The structure of a putative exopolysaccharide from *Burkholderia gladioli* pv. *agaricicola* was identified as**New starches from traditional Chinese medicine (TCM)—Chinese yam (*Dioscorea opposita* Thunb.) cultivars**

pp 289–293

Wang Shujun, Yu Jinglin, Gao Wenyan,\* Liu Hongyan and Xiao Peigen

Starches separated from two different *Dioscorea opposita* Thunb. cultivars were investigated for morphological, particle size analysis, thermal, and crystal properties. These properties were studied by scanning electron microscope (SEM), light scattering particle size analyzer (LSPSA), differential scanning calorimeter (DSC), and small-angle X-ray diffraction (SAXS).

\*Corresponding author

## COVER

Image represents a key process of malaria parasites multiplying in, and rupturing from the human blood cell. The parasite surface is coated with glycosylphosphatidylinositols (GPIs), which have been identified as the malaria toxin by a collaborative effort between the research groups headed by Peter Seeberger (Swiss Federal Institute of Technology (ETH) Zürich, Switzerland) and Louis Schofield (Walter and Eliza Hall Institute of Medical Research, Australia). The space filling model represents the native GPI molecule from malaria parasite that has been chemically synthesized by the Seeberger group. Professor Peter Seeberger was presented with the Carbohydrate Research Award at the 13th European Carbohydrate Symposium (Bratislava, 2005).

© 2006 P. H. Seeberger, L. Schofield, X. Liu and B. Berry. Published by Elsevier Ltd.



Full text of this journal is available, on-line from **ScienceDirect**. Visit [www.sciencedirect.com](http://www.sciencedirect.com) for more information.



This journal is part of **ContentsDirect**, the *free* alerting service which sends tables of contents by e-mail for Elsevier books and journals. You can register for **ContentsDirect** online at: <http://contentsdirect.elsevier.com>

Indexed/Abstracted in: Chem. Abstr.: Curr. Contents: Phys., Chem. & Earth Sci. Life Sci. Current Awareness in Bio. Sci (CABS). Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database which is available on STN® International.



ISSN 0008-6215