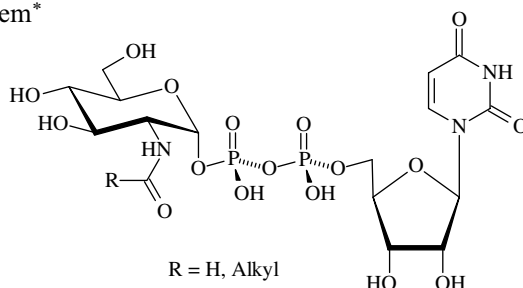


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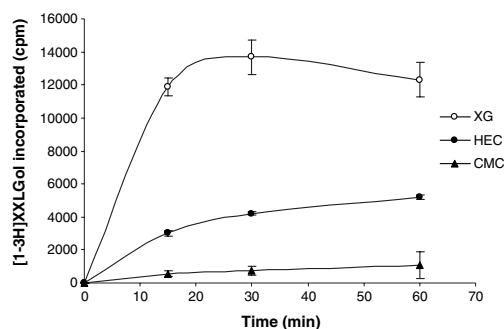
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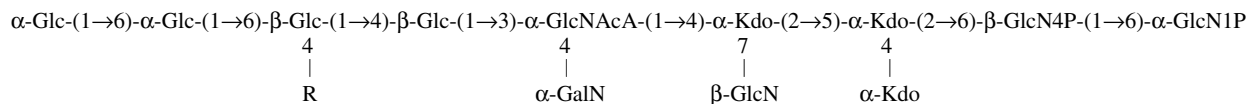
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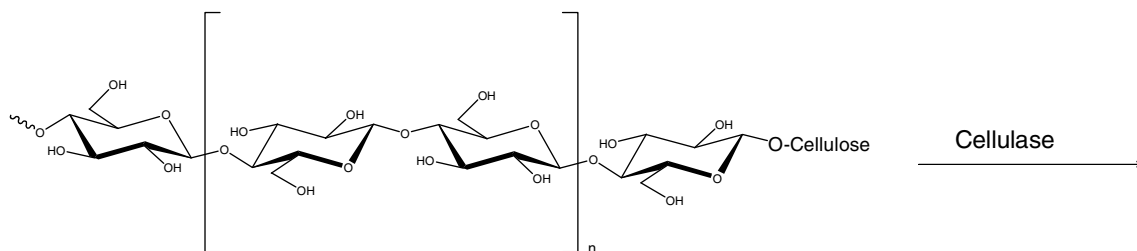
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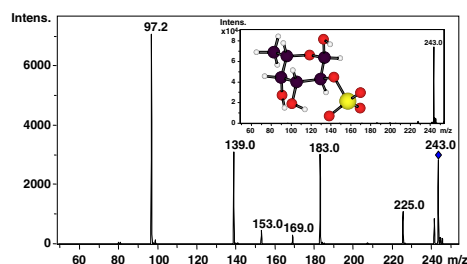
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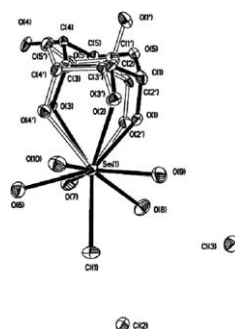
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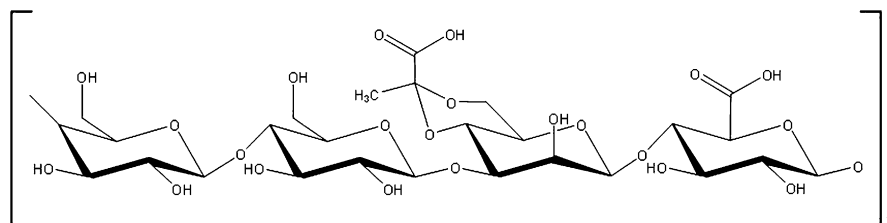
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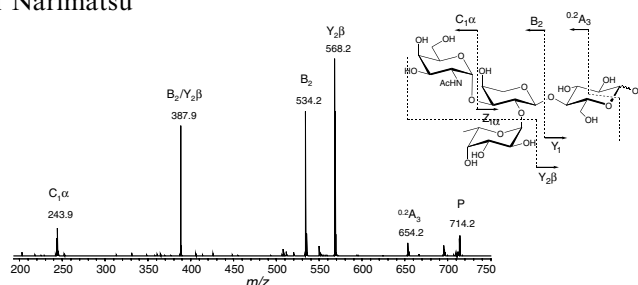
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A computational study of structure–reactivity relationships in Na-adduct oligosaccharides in collision-induced dissociation reactions

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Kazuhiko Fukui,* Akihiko Kameyama, Yuri Mukai, Katsutoshi Takahashi, Noriko Ikeda, Yutaka Akiyama and Hisashi Narimatsu

**Identification of polysaccharides from pericarp tissues of litchi (*Litchi chinensis* Sonn.) fruit in relation to their antioxidant activities**

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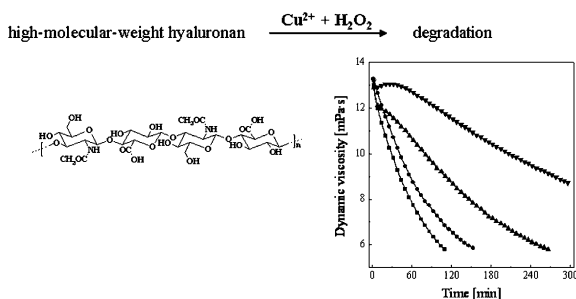
Bao Yang, Jinshui Wang, Mouming Zhao,* Yang Liu, Wei Wang and Yueming Jiang

The purified polysaccharide from pericarp tissues of litchi fruit is comprised of mannose, galactose and arabinose. It exhibits strong antioxidant activity and can be explored as a novel potential antioxidant.

Degradation of high-molecular-weight hyaluronan by hydrogen peroxide in the presence of cupric ions

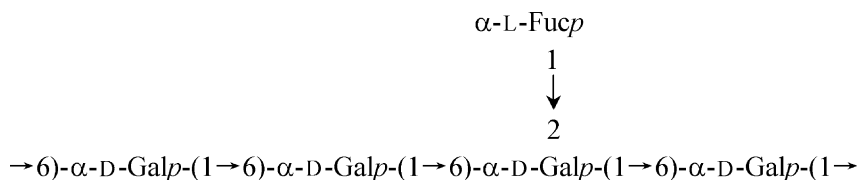
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Ladislav Šoltés,* Vlasta Brezová, Monika Stankovská, Grigorij Kogan and Peter Gemeiner

**Structural elucidation of a novel fucogalactan that contains 3-O-methyl rhamnose isolated from the fruiting bodies of the fungus, *Hericium erinaceus***

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An-qiang Zhang, Jing-song Zhang,* Qing-jiu Tang, Wei Jia, Yan Yang, Yan-fang Liu, Jun-min Fan and Ying-jie Pan*



Dynamics of water in supercooled aqueous solutions of glucose and poly(ethylene glycol)s as studied by dielectric spectroscopy

pp 650–662

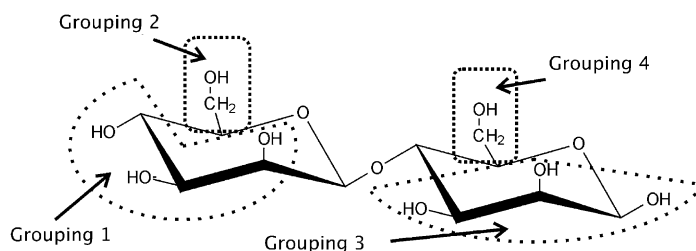
Madhusudan Tyagi and S. S. N. Murthy*

The dielectric behaviour of aqueous solutions of glucose, poly(ethylene glycol)s (PEGs) 200 and 600, and poly(vinyl pyrrolidone) (PVP) has been examined at different concentrations in the frequency range of 10^6 – 10^{-3} Hz by dielectric spectroscopy and by using differential scanning calorimetry from room temperature down to 77 K.

Additive effects in the modeling of oligosaccharides with MM3 at high dielectric constants: an approach to the ‘multiple minimum problem’

pp 663–671

Carlos A. Stortz



NOTES

Thrombin inhibition by antithrombin in the presence of oversulfated dermatan sulfates

pp 672–676

Raoui M. Maaroufi,* Marcel Jozefowicz, Jacqueline Tapon-Breaudière and Anne-Marie Fischer

The formation of a polysaccharide–antithrombin complex (PSAT) was involved in the catalysis mechanism of the thrombin (T) inactivation by antithrombin (AT) in the presence of oversulfated dermatan sulfates DSS₁ and DSS₂:



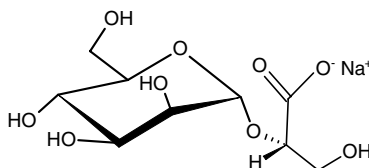
where K_{PSAT} is the dissociation constant of PSAT and k the second-order rate constant of thrombin inhibition by PSAT. Oversulfation confers affinity for AT to dermatan sulfate.

The higher the sulfur content the higher the affinity for AT and the higher PSAT reactivity towards thrombin.

Complete ¹H and ¹³C NMR assignment of digeneaside, a low-molecular-mass carbohydrate produced by red seaweeds

pp 677–682

Sérgio D. Ascêncio, Alexandre Orsato, Robson A. França, M. Eugênia R. Duarte and Miguel D. Nosedá*



Digeneaside (α -D-Manp-(1→2)-D-glycerate) was extracted from the red algae, *Bostrychia binderii*. HPLC and ESI-MS techniques were used to characterize the glycoside. NMR experiments (1D ¹H, ¹³C, DEPT and 2D HMQC, COSY and TOCSY) were used to fully assign the ¹H and ¹³C spectra.

pp 683–687



i⁺ Supplementary data available via ScienceDirect

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).

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