

[J. Chromatogr., 435, 374 (1988)]

**Gas-Liquid Chromatography of Acid Hydrolysates of Hydroxyethylstarch and Hydroxyethylcellulose.**

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Hydroxyethylstarch (HES) has been used medically as plasma volume expander. Hydroxyethylcellulose (HEC) has been widely used in industry as a coating agent, thickener or adhesive. The paper describes a gas-liquid chromatography (GLC) method using alditol acetates formed from hydrolysates of HES and HEC, resulting in one peak instead of multiple peaks for each compound. This method simplifies the GLC analysis of HES and HEC, and the 1,2-*o*-ethyleneglucose derivatives are separated satisfactorily.

[Carbohydr. Res., 173, 332 (1988)]

**A (1→3)- $\alpha$ -D-Mannan from a Water Extract of *Dictyophora indusiata* Fisch.**

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A Water-insoluble polysaccharide (T-3-M),  $[\alpha]_{\text{D}} + 119.2^{\circ}$  in 2M NaOH, was isolated from the hot water extract of the fruit bodies of *Dictyophora indusiata*. The molecular weight was estimated to be  $\sim 1.9 \times 10^5$ . From structural studies, the  $\alpha$ -(1→3)-linked D-mannan (T-3-M') isolated by alkali treatment of fraction T-3-GM can be regarded as the deacetylated form of T-3-M. The *o*-acetyl groups in T-3-M were located partly at *o*-6 of the  $\alpha$ -(1→3)-linked D-mannopyranosyl residues. The proportion (1.8%) of *o*-acetyl groups in T-3-M is less than that (11.4%) in T-2-HN isolated from 70% aqueous ethanol extract of this fungus, and the molecular weight of T-3-M is smaller than that of T-2-HN.

[Carbohydr. Res., 181, 207 (1988)]

**Minor, Protein-Containing Galactomannans from the Insect-Body Portion of the Fungal Preparation of Chán huā (*Cordyceps cicadae*).**

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Two minor, water-soluble, protein-containing galactomannans, CI-P ( $[\alpha]_{\text{D}} + 15.3^{\circ}$ ) and CI-A ( $[\alpha]_{\text{D}} + 10.6^{\circ}$ ), isolated from the insect-body portion of the fungal preparation Chán huā have a molecular weight of  $\sim 25000$ , but the affinity of CI-A for Con A was stronger than that of CI-P. The polysaccharides are highly branched, with structures composed of (1→6)-linked  $\alpha$ -D-mannopyranosyl main chains, having most residues substituted at *o*-2 with single  $\alpha$ - or  $\beta$ -D-galactofuranosyl groups, short chains of (1→2)-linked  $\beta$ -D-galactofuranosyl residues, or chains of (1→2)-linked  $\alpha$ -D-mannopyranosyl residues.