

**UNUSUAL PARTIALLY 3-O-METHYLATED GALACTAN FROM THE FRUITING  
BODIES OF EDIBLE MUSHROOMS, *PLEUROTUS ERYNGII* AND  
*PLEUROTUS OSTREATOROSEUS***

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Mushrooms have become attractive as a functional food and a source for the development of new drugs. The popularity of the genus *Pleurotus* is on the increase because they are a good source of molecules such as polysaccharides that can act as biological response modifiers. We now describe the chemical characterization of a linear partially 3-O-methylated  $\alpha$ -galactan from the *Pleurotus eryngii* and *Pleurotus ostreatoroseus*. They were obtained via successive aq. extraction, freeze-thawing, precipitation with Fehling solution, and ultrafiltration. The structures were investigated using  $^{13}\text{C}$  and  $^1\text{H}$ -NMR spectroscopy and methylation analysis.  $^{13}\text{C}$  NMR had signals corresponding to all carbons from the polysaccharide: C-1 at  $\delta$  100.6 corresponding to  $\alpha$ -Galp units, while those at  $\delta$  100.5 are from 3-O-Me- $\alpha$ -Galp residues. The signals at  $\delta$  71.0, 72.2, 72.3, and 69.3 arose from C-2, C-3, C-4, and C-5, respectively, of Galp units, while those at  $\delta$  70.0, 81.6, 68.0, and 71.6 were from similar carbons in 3-O-Me-Galp residues. An HMQC signal at  $\delta$  58.9/3.43 corresponds to  $\text{O}\underline{\text{C}}\text{H}_3$ . The glycosidic linkage of this polymer was suggested by presence of an O-substituted  $-\text{CH}_2$  signal from Galp and 3-OMe-Galp residues at  $\delta$  69.3, this was confirmed from an inverted peak in the DEPT spectrum.

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