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Structural Studies with Polysaccharides from *Sterculia urens* and *Sterculia lychnophora*

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Monosaccharide analysis of the deacetylated polysaccharide from *Sterculia urens* was performed by thin-layer chromatography and by High-pH-Anion Exchange (Dionex) chromatography. The polysaccharide was found to contain rhamnose, galactose, glucuronic acid and galacturonic acid, in agreement with the literature¹. Monosaccharide analysis of the polysaccharide from *Sterculia lychnophora* reveals rhamnose, xylose, arabinose, galactose and galacturonic acid as the main constituents. Carboxyl reduction of the *Sterculia lychnophora* polysaccharide yields a new polysaccharide with an increased content of galactose. Carboxyl reduction of the deacetylated *Sterculia urens* polysaccharide surprisingly gave a new polysaccharide which contained glucose as an additional neutral sugar but did not contain an increased proportion of galactose relative to rhamnose. Both the polysaccharides from *Sterculia urens* and *Sterculia lychnophora* are irregular polysaccharides [1, 2], i. e. they are not composed of identical repeat units. Presently, approaches are being developed to derive complete structural assignments for these polysaccharides.

- [1] Aspinall GO, Nasir-ud-din. Plant Gums of the Genus *Sterculia*. Part I. The Main Structural Features of *Sterculia urens* Gum. J Chem Soc. 1965; 2710–2720. doi:10.1039/jr9650002710
- [2] Aspinall GO, Sanderson GR. Plant Gums of the Genus *Sterculia*. Part V. Degradation of Carboxy-reduced *Sterculia urens* Gum. J Chem Soc C. 1970; 2259–2264. doi:10.1039/j39700002259