**ISOLATION AND CHARACTERIZATION OF POLYSACCHARIDES EXTRACTED FROM BAOBAB**

V. Offiaha,b, K. Albaa, K. Faladeb, and V. Kontogiorgosa

*aDepartment of Biological Sciences, University of Huddersfield, Queensgate, Huddersfield HD1 3DH, UK*

*bDepartment of Food Technology, University of Ibadan, Ibadan. Nigeria*

Polysaccharides were isolated by aqueous extraction at pH 6.0 or 2.0 from baobab (*Adansonia digitata*) leaves and fruits. Baobab polysaccharides have not been described before in the literature and this is the first effort to systematically describe their structure. An isolation protocol was designed to extract polysaccharides and study the influence of the extraction pH on their composition and physicochemical properties. The extracted pectins were assessed using sugar compositional analysis, FT-IR and NMR spectroscopy, size exclusion chromatography (SEC) and dilute solution rheology. The extraction protocols resulted in the isolation of polysaccharides of high purity as evidenced by their low protein content. Samples contained variable amounts of galacturonic acid, neutral sugars and exhibited wide molecular weight distribution. In addition, molecular parameters of the isolated pectins such as intrinsic viscosity, critical concentration and coil overlap parameter were assessed for all samples. Overall, the physicochemical characteristics of the extracted polysaccharides were significantly influenced by the extraction conditions something that may be used to tailor the functionality of this material.

**ORAL PRESENTATION**