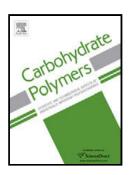
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ACCEPTED MANUSCRIPT

Structural characterization and rheological behavior of a heteroxylan extracted from *Plantago notata* Lagasca (Plantaginaceae) seeds

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Highlights

- Plantago notata is a spontaneous plant from Septentrional Algerian Sahara.
- A water-soluble polysaccharide was extracted from its seeds.
- The polysaccharide is a heteroxylan with a backbone of θ -(1,3) and θ -(1,4)-D-Xylp.
- The heteroxylan has a molecular weight of 2.3 x 10⁶ g/mol.
- The heteroxylan has a pseudoplastic behavior and a C* of 5 g/L.

Abstract:

Plantago notata (Plantaginaceae) is a spontaneous plant from Septentrional Algerian Sahara currently used by traditional healers to treat stomach disorders, inflammations or wound healing. A water-soluble polysaccharide, called PSPN (PolySaccharide fraction from *Plantago Notata*), was extracted and purified from the seeds of this semi-arid plant. The structural features of this mucilage were evaluated by colorimetric assays, Fourier transformed infrared spectroscopy (FT-IR), gas chromatography coupled to mass spectrometry (GC/MS) and ¹H/¹³C Nuclear Magnetic Resonance (NMR) spectroscopy. PSPN is a heteroxylan with a backbone

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