CHEMICAL AND HISTOCHEMICAL ANALYSIS OF SULFATED POLYSACCHARIDES FROM *Eichhornia crassipes*

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Sulfated polysaccharides are mainly found in animal kingdom and in marine seaweeds. In this work we have extracted polysaccharides by proteolytic digestion and methanol precipitation from root (F1), rhizome (F2), petiole (F3) and leaf (F4) of *Eichhornia crassipes*. Electrophoresis in agarose gel shows the presence of sulfated polysaccharides in all the plant fractions. In addition, FT-IR analyses show signals at 1264-1259, 1068-1167 and 820-850cm^{-1} which correspond the signals of sulfate group linked to polysaccharides. Chemical analysis reveals that F1 and F3 have high amount of sulfate (3.28% and 4.66%, respectively) in comparer to other fractions. In addition, glucose, arabinose and high amount of galactose are found in F1, F2 and F3. Furthermore, F4 shows an equal molar ratio of these sugars. Histochemical analysis shows the SP are concentrated in the tissues that are in direct contact with the environment. This result was confirmed with energy dispersive X-ray analysis (EDXA) and chemical mapping.

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