



Effect of the Pre-Treatment Severity on the Antioxidant Properties of Ethanol Organosolv Miscanthus x giganteus Lignin

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ABSTRACT

The effect of the severity of an organosolv treatment of *Miscanthus x giganteus* on antioxidant capacity of the obtained lignin was studied. Four organosolv lignins extracted with different severity conditions were chosen and tested. Results obtained using the methyl linoleate method have shown a correlation between oxygen uptake index and the combined severity. It was found that lignin extracted at higher severity pre-treatment and with a higher phenolic hydroxyl content, lower aliphatic hydroxyl content, molecular weight and polydispersity has the highest antioxidant capacity.

KEYWORDS

Miscanthus x giganteus; Organosolv Lignin; Antioxidant; Combined Severity; Molecular Weight; Phenolic and Aliphatic Hydroxyl

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