

Title: **Fast pyrolysis of black liquor**

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Nowadays, the planet lives in an era of climate change which alarms the scientific community. Carbon dioxide emissions increase along with the temperature all around the planet creating changes in different climates and changing our environments. The climate global warming is introducing with more importance the capacity of converting biomass into biofuel. Pyrolysis processes in black liquor lend the capacity of converting the lignin in wood into materials with higher energetic capacity, yielding a new renewable source.

This project has been focused on analysing kraft black liquor samples from Spruce pulping by applying different combined methods of analytical Pyrolytic-Gas Chromatograph/Mass spectrometer (Py-GC/MS) in samples between 140-300 μg in quartz capillaries locked with glass wool. Analysis of varying Spruce samples with different cooking times and pre-treatments was carried out in the laboratory and results of relative composition of pyrolysis products was calculated.