

Master Thesis

Structural Profiling of Lignins and Black Liquors using preparative Size-Exclusion Chromatography

Lignin contained in black liquor is a major by-product from wood pulping for paper production.

Black liquor composition and lignin structure are notoriously difficult to analyze, but chromatographic separations are a promising route to solve this problem.



Over the course of this thesis, you will fractionate black liquors and related lignins using preparative HPLC to analyze their composition and chemical structure.

What you will do and what you will learn:

- Operate a preparative HPLC system with automatized fraction collection
- Evaluate the fractions with modern lignin analytics (NMR, SEC, GC-MS, IR, etc.)
- Test the coupling of HPLC with IR detection

Intended start: as of now
Timeframe: 5-6 months
Workplace: UFT Tulln,
Konrad-Lorenz-Straße 24

If you are interested or have further questions, feel free to contact us! In case of application please include a short *Curriculum Vitae*.



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