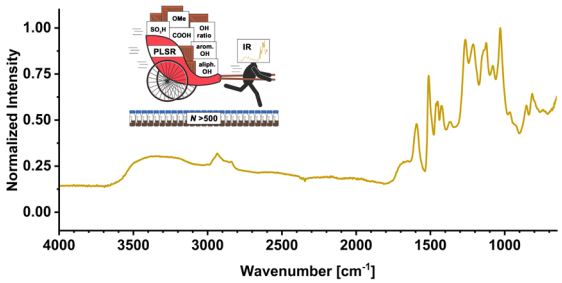
Master Thesis

Method Development for Rapid Characterization of Lignins by IR-Spectroscopy

Biorefinery operations need fast and cheap analytical tools for process and quality control.

IR-Spectroscopy provides a lot of information on the chemical structure of lignins but relies on a home-built reference database.



Check out our new publication on this topic!
DOI: 10.1002/cssc.202301840

Over the course of this thesis, you will test and develop a suitable method for the rapid characterization of lignin based on IR-spectroscopy.

What you will do and what you will learn:

- Testing modern IR sensors for ultra low sample amounts
- Optimizing sample application, spectra quality, sensor reuseability, etc.
- Applying chemometric modeling to get structural information on lignins from IR spectra

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*.

AG NaWaRos
DI DR. Oliver Musl
oliver.musl@boku.ac.at
UFT Research Center Tulln
Institute of Chemistry for Renewable Resources