



Vabilo na Preglov kolokvij / Invitation to the Pregl colloquium

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NA DALJAVO / ONLINE WEBEX

Povezava/link:

<https://ki-ljubljana.webex.com/ki-ljubljana/j.php?MTID=mda8e0faac99d5924d961c4fd05437832>

Meeting number: 121 359 9186

Password: KI2021

A bio-based circular economy: refining lignocellulose and the role of catalysis

In a circular economy, chemicals and products are re-used and recycled as much as possible. However, a 100% recuperation is impossible, and therefore chemicals production remains a necessity. In order to reduce the CO₂ footprint, utilization of renewable feedstock to fill such feedstock deficiency may be gradual way towards sustainable chemicals and products, provided that bio-refining is sustainable and cost-effective. Biorefineries are key in such an idealized circular (bio) economy.

The goal of a 'bio-refinery', in analogy to the petro-refinery, is to fractionate a raw renewable carbon resource into specific and purified product mixtures, creating valuable streams which can be processed further by the chemical industry. The most abundant and probably most promising sustainable resource is lignocellulose, which is the structural material of plant biomass. Many biorefinery schemes focus on (hemi)cellulose valorisation, while the complex lignin fraction is regarded as a waste product that can be implemented in low-value applications, but is mostly burned for energy recuperation. In pursuing more added value, the production of platform chemicals or fuels from lignin clearly remains one of the foremost challenges in current biomass conversion.



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Vljudno vabljeni / Kindly invited