

# Licentiate Seminar

# On Shaping Mechanical Properties of Lignocellulosic Materials by Benign Chemical Processing

**Ran Duan**

Department of Chemical Engineering  
Mid Sweden University

## Abstract

In this licentiate thesis some different benign chemical approaches to change and shape mechanical properties of lignocellulosic materials were studied. Selective removal of lignin from lignocellulosic pulp by a switchable ionic liquid was investigated in order to determine the role of lignin for the strength properties of hand sheets and fibres in the first paper. In the second paper, lightweight polysaccharide-based foams were synthesized, characterised and tested for their water absorption capacity. Lastly, the effect of green-solvent plasticisation on lignocellulosic mechanical material properties was studied.

Read the whole Abstract on the website [www.miun.se/fscn](http://www.miun.se/fscn).

**Opponent:** Docent Daniel Söderberg

**When:** June 3<sup>rd</sup> 2016, 10:15

**Where:** Campus Sundsvall, lecture hall O102

Welcome!

