

# Defence of a Doctoral Thesis in Chemical Engineering

## Beyond averages – some aspects of how to describe a heterogeneous material, mechanical pulp, on particle level

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#### Abstract

For a more profound understanding of how a process works, it is essential to have a relevant description of the material being processed. With this description, it will be easier to evaluate and control processes to produce more uniform products with the right properties. The focus of this thesis is on how to describe mechanical pulps in ways that reflect its character.

Mechanical pulps are made from wood, a highly heterogeneous material consisting of different types of particles. Common practice within the pulping industry and academy is to describe mechanical pulps and its particles in terms of averages. The energy efficiency of the mechanical pulping process is usually calculated without taking into account the characteristics of the wood fed to the process. The main objective of the thesis is to explore ways to make more detailed descriptions of mechanical pulps. A second objective is to propose useful ways to visualise these descriptions.

Read the whole abstract on [www.miun.se](http://www.miun.se)



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