

Association and research institutes



Agencies



Gefördert durch:



aufgrund eines Beschlusses des Deutschen Bundestages



Place

Rhein-Main-Hallen, Office 1+2
Rheinstraße 20, 65185 Wiesbaden,
GERMANY
<http://www.rhein-main-hallen.de>

Date

June 27, 2012, 9:00 am – 11:40 am

Admission free!

Contact



Jean-Yves Escabasse
European R&D manager
Tel +49-89-12146-228
J.Escabasse@ptspaper.de



Tobias Brenner
Project manager
Tel +49-3529-551-642
Tobias.Brenner@ptspaper.de

<http://www.cornet-sonopulp.eu>

www.ptspaper.de

PTS · Hess-Strasse 134 · DE-80797 Munich
Tel +49 (0)89-12146-0 · Fax +49 (0)89-12146-36



FIBRES

RESOURCES

SURFACES

ECOLOGICAL RELEVANCE

Sonication of natural fibres and agro-waste for production of papermaking pulp - Cornet SONOPULP

SONOPULP

Sonication of natural fibres and agro-waste

Workshop Cornet SONOPULP

A new alternative process for agro waste pulping – Technical and economical aspects

Start: 9:00 am, **End:** 9:50 am

Authors:

Levente Csoka (UWH, Hungary),
Caroline Locre (CELABOR, Belgium),

Content:

A detailed overview of the cavitation assisted delignification process has been presented based on the earlier literature illustrations and important operational guidelines have been presented for overall low-cost and amenable energy utilization in the processes. The effectiveness of the methods has been evaluated according to yield and properties of the isolated fibers in comparison to the conventional treatment.

It has been observed that the use of hydrodynamic cavitation does not degrade the fibrillar structure of cellulose but causes partial removal of lignin, and that the morphology of the fibres is barely affected by hydrodynamic cavitation.



Use of agro waste pulp and ultrasonication to improve the performance of packaging paper

Start: 10:00 am, **End:** 10:40 am

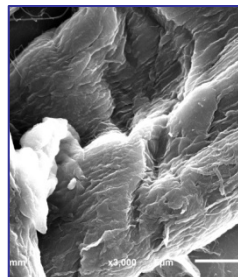
Authors:

Brenner, Tobias
(PTS / TU Dresden, Germany)

Content:

The use of agro waste fibres such as wheat, corn, flax or rice in packaging papers opens new perspectives to ensure the supply of the paper industry with fibre material. The present work shows the improvement of packaging paper properties by adding wheat or corn to the recovered paper pulp.

Beside the use of agro waste, the treatment of recovered paper by ultrasonication improves the paper properties. The negative development of pulp properties in the conventional refining process can be avoided by using high-power ultrasound in the fibre suspension.



Agro-waste from annual plants as a raw material source for cavitation pulping applications: logistics, environmental impact and anaerobic digestion

Start: 10:50 am, **End:** 11:40 am

Authors:

Boulougouris, Georgios (ITENE, Spain),
Tauber, Michael (JOANNEUM, Austria),

Content:

Within the project, crop availability/logistics and potential environmental impacts of agro-waste pulping applications were assessed. A crop availability assessment was done in order to identify which kind of agro-waste from annual crops can be potentially used for pulping.

In that sense, the utilization of generated process water, which is generated by sonication and cavitation treatment of feedstock, was investigated for the production of biogas via anaerobic digestion.

