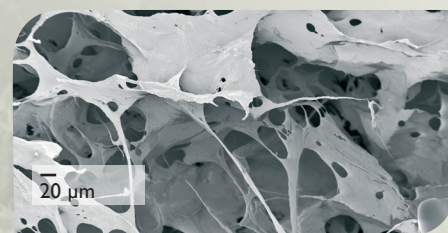
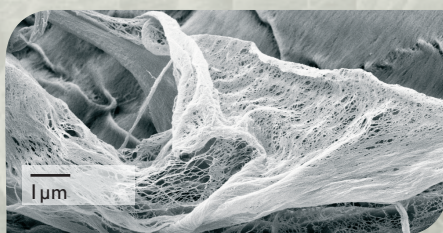
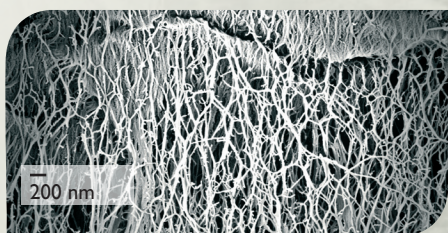


Recent advances in cellulose nanotechnology research

-Production, characterisation and applications



Photos: Gary Chinga Carrasco (PFI)

Invitation to seminar

PFI has the pleasure to organize the 3rd research seminar about cellulose nanofibrils. This will be a follow-up of the successful seminars in Trondheim in 2006 and 2008. The seminar will take place at PFI, Høgskoleringen 6B, Trondheim, Norway, on November 16-17, 2010.

The current seminar will focus on ongoing research concerning the manufacture, characterization and utilisation of cellulose nanofibrils. This research area is increasing as the utilisation of fibrils is expected to have a significant commercial potential.

Toxicity of nanoparticles is an area which is gaining attention. Possible negative consequences of cellulose nanofibrils must be explored in order to ensure safe production and application. With this in mind, this subject is included in the program this year.

We hope to attract a wide audience by bringing together representatives from industry that may see a commercial potential for nanofibrils as well as scientists working with wood fibres and materials technology. This will allow a fruitful exchange of knowledge and ideas.

Registration before Oct. 22: NOK 3500

Registration after Oct.22: NOK 4500

(includes lunch both days and dinner Nov. 16)

Please registrate to Elin Bremseth (PFI)

phone: +47 73 60 50 65 • fax: +47 73 55 09 99

e-mail: firmapost@pfi.no

We have reserved rooms at Britannia hotel. Please contact Elin Bremseth before Oct.22 for reservation.



Programme

November 16

- 10.00:** Registration
- 10.25:** Welcome to the research seminar (Philip Reme, PFI)
- 10.30:** Benefits and challenges of TEMPO-oxidized cellulose nanofibers. (Akira Isogai, University of Tokyo)
- 11.00:** Structural characteristics of Eucalyptus and Pinus Radiata pulp fibres and their corresponding nanofibrillated materials (Gary Chinga Carrasco, PFI)
- 11.30:** Lunch
- 12.30:** Nanofibrillated cellulose dispersions viscosity and its technological implications (Marco Iotti, PFI)
- 13.00:** Surface modification of nanofibrillated cellulose – some aspects on the nanofibril surface accessibility (Tekla Tammelin, VTT)
- 13.30:** Coffee break
- 13.45:** Behaviour and characterisation of ultrafine particles in air and their filtration (Franco Belosi, CNR Bologna)
- 14.15:** Nanopathologies: the side effects of nanotechnologies (Antonietta Gatti, UNIMORE)
- 14.45:** Coffee break
- 15.00:** Various applications of nanocellulose. (Mikael Ankerfors /Tom Lindström, Innventia)
- 15.30:** Membranes with Composite Nanofibers (Orlando Rojas, North Carolina State University)
- 19.00:** Dinner

November 17

- 09.00:** Cellulose nanocrystals and paper industry: mechanical and barrier properties (Julien Bras, Grenoble INP – Pagora)
- 09.30:** Cellulose nanofibrils and barrier properties (Marianne Lenes, PFI)
- 10.00:** Innovative paper grades – The use of cellulose nanofibrils in papermaking (Øyvind Eriksen PFI)
- 10.30:** Coffee break
- 10.45:** The potential of cellulose nanofibrils for stabilizing commercial paints (Kristin Syverud, PFI)
- 11.15:** Structure of nanofibrillated cellulose monolayers at the oil/water interface (Klodian Khanari, NTNU)
- 11.30:** A perspective on cellulose nanofibrils (Per Stenius, NTNU)
- 12.00:** Lunch