

Scientific program

Tuesday, March 10, 2015

08:30 – 09:00 Registration at the Desk (conference place)

09:00 – 09:10 Opening Session

Session 1: Dissolution and regeneration of cellulose

Chairpersons: [Emma Östmark](#) and [Åsa Östlund](#)

09:10 – 10:30 Keynotes

09:10 Novel regenerated cellulose processes
[Herbert Sixta](#), Michael Hummel, Yibo Ma, Anne Michud, Shirin Asaadi, Marjaana Tanttu

09:50 ForTex – sustainable wood-based textile fibres and the market pull
[Åsa Östlund](#), Gustav Sandin Albertsson

10:10 Industry presentation
[Summary of industrial needs](#)

10:30 – 11:00 Coffee break and Poster session

11:00 – 11:25 Poster presentations

Some aspects on the possibility to integrate a dissolving pulp mill and a cellulose based textile fiber plant
[Ulf Germgård](#), Hans Magnusson, Niklas Kvarnlöf, Gunnar Henriksson

Rheology of hydroxypropyl cellulose in dilute solutions
[Maria Bercea](#), Patrick Navard

Enhancing the accessibility of surface polymers to enzymes in raw cotton fabric by plasma pretreatment
Orsolya Erzsébet Szabó, [Emilia Csizsár](#), András Tóth

EcoBuild a university-institute-industry cooperation
[Emma Östmark](#), Åsa Östlund, Hanna de la Motte, Gustav Sandin Albertsson, Mats Westin, Marielle Henriksson

Formulation and *in vitro* release evaluation of brimonidine tartrate in liposomal gel based on hydroxypropyl cellulose
Lacramioara Ochiuz, [Gladiola Tantar](#), Manuela Hortolomei, Iuliana Popovici, Marcel Popa, Anca N. Cadinoiu

11:25 – 11:40 Discussions and concluding remarks on dissolution and regeneration of cellulose
Leader: Åsa Östlund

Session 2: Science and uses of nanocellulose

Chairpersons: [Sami Boufi](#) and [Maria-Cristina Popescu](#)

11:45 – 12:45 Keynote

11:45 Ten years of nanocellulose research at PFI
[Kristin Syverud](#)

12:25	Industry presentation <u>Summary of industrial needs</u>
12:45 – 14:00	Lunch
14:00 – 14:55	Poster presentations
	Agricultural crops residue: a cheap material for high performance nanofibrillar cellulose <u>Sami Boufi</u>
	Stress-transfer and local orientation in cellulose whisker/poyl(vinyl alcohol) nanofibres <u>Nandula Wanasekara</u> , Chas Douch, Stephen J. Eichhorn
	Phosphorylation of nanocellulose and its application potentials Selestina Gorgieva, Mojca Božič, Robert Vogrinčič, <u>Vanja Kokol</u>
	Surface modification of cellulose nanocrystals with glycidyl methacrylate for photo-crosslinking <u>Yifeng Cao</u> , Yuval Nevo, Oded Shoseyov
	Effect of enzymatic and chemical treatment methods on thermal stability properties of nanocellulose <u>Zeki Candan</u> , Ayhan Tozluoglu, Yalcin Copur, Recai Arslan, Bayram Poyraz
	Structural and rheological properties of nanocellulose obtained by various enzymatic and chemical treatment methods <u>Ayhan Tozluoglu</u> , Yalcin Copur, Zeki Candan, Recai Arslan, Bayram Poyraz
	Analysis of nanocrystalline cellulose surface modification by XRD and FT-IR <u>Eduardo Robles</u> , Jalel Labidi, Luis Serrano
	Cationic and anionic nanofibrillated celluloses for papermaking <u>Sedat Ondaral</u> , Güliz Hocoğlu, Meryem Ondaral
	Allyloxidized nanocellulose. Synthesis and perspectives <u>Elena Vismara</u> , Blerina Gjoka, Daniele Nanni
	Energy and production costs of cellulose nanofibres obtained by different pretreatments <u>Manel Alcalà</u> , Marc Delgado-Aguilar, Quim Tarrés, M. Àngels Pèlach, Alejandro Rodríguez, Pere Mutjé
	Lignocellulosic nanofibers from <i>Hesperaloe Funifera</i> for papermaking: preliminary study Eduardo Espinosa, <u>Quim Tarrés</u> , Albert Serra, Marc Delgado-Aguilar, Ana Moral, Alejandro Rodríguez, Pere Mutjé
14:55 – 15:10	Discussions and concluding remarks on science and uses of nanocellulose Leader: Kristin Syverud
15:10 – 15:40	Coffee break and Poster session

Session 3: Cellulose foams and films

Chairpersons: Patrick Navard and Carmen-Mihaela Popescu

15:40– 17:00 Keynotes

15:40 Challenges and opportunities for the elaboration of functional materials from cellulose nanofibers at industrial scale
Tanja Zimmermann, Philippe Tingaut

16:20 Use of natural fibres of *Sambucus nigrain* construction materials
Isabel Rodríguez-Díaz

16:40 Industry presentation
Summary of industrial needs

19:00 Dinner

Wednesday, March 11, 2015

Session 3: Cellulose foams and films

Chairpersons: Patrick Navard and Carmen Mihaela Popescu

09:00 – 10:25 Poster presentations

Bionanocomposite films from resilin-CBD bound to cellulose nanocrystals
Amit Rivkin, Tiffany Abitbol, Yuval Nevo, Ronen Verker, Shaul Lapidot, Anton Komarov, Stephen C. Veldhuis, Galit Zilberman, Meital Reches, Emily D. Cranston, Oded Shoseyov

Cellulose nanofibers (CNF)/multi-walled carbon nanotubes (MWCNT) conductive nanopaper
Makara Lay, Albert Serra, Israel González, Fabiola Vilaseca, B. Kim Ngun, Pere Mutjé

Nano bio optically tunable composite nanocrystalline cellulose films
Yuval Nevo, Nir Peer, Shira Yochelis, Mahmud Igarbia, Sigal Meirovitch, Oded Shoseyov, Yossi Paltiel

Effect of crystallinity on the barrier properties of PLA based nanocellulose/nanoclay nanocomposites
Jon Trifol, Caglar Mericer, Cecile Sillard, David Plackett, Mateo Minelli, Julien Bras, Ole Hassager, Anders Egede Daugaard, Marco Giacinti, Peter Szabo

Composite hydrogels with cellulose nanofibrils
Ellinor B. Heggset, Olav Aarstad, Ina S. Pedersen, Berit L. Strand, Kristin Syverud

Using cellulose nanofibres to reinforce binderless fibreboard made from rice straw biomass
Dyna Theng, Gerard Arbat, Marc Delgado-Aguilar, Fabiola Vilaseca, Bunthan Ngo, Pere Mutjé

Citric acid cross-linked composite films of hydroxyethyl cellulose, carboxymethyl cellulose and *O*-acetyl-galactoglucomannan
Victor Kisonen, Petri Ihalainen, Parvez Alam

	Modification of cellulose films for controlled release system with potential use in agriculture <u>Alena Šišková</u> , Tibor Dubaj, Angela Kleinová, Anita Eckstein Andicsová
	Cellulose fiber reinforced PHBV composite with improved performance at high temperature Estefanía Sánchez-Safont, Jennifer González-Ausejo, José Gámez-Pérez, José María Lagarón, <u>Luis Cabedo</u>
	Analysis of softwood nanopapers for printed electronics <u>Marc Delgado-Aguilar</u> , Quim Tarrés, Israel González, M. Àngels Pèlach, Eloi Ramon, Pere Mutjé
	PVA-nanocellulose composite films – morphological and structural assessment <u>Bianca Dogaru</u> , Carmen-Mihaela Popescu, Gladiola Tantarú, Mirela Goanta, Maria-Cristina Popescu
	Bio-inspired elastic composite nanostructure foams of cellulose nanocrystals – resilin – resilin – cellulose binding domain <u>Tal Ben Shalom</u> , Amit Rivkin, Tiffany Abitbol, Shaul Lapidot, Oded Shoseyov
	The effect of ionising radiation on the films formed in the starch-PVA-nanocellulose system <u>Krystyna Cieśla</u> , Anna Abramowska, Aji Mathew, Marek Buczkowski, Jacek Boguski, Wojciech Głuszewski, Stanisław Bielecki
	Films made of wood residues nanoparticles: mechanical processing and physical properties <u>Linda Vecbiskena</u> , Laura Vikele, Linda Rozenberga
	Low cost LCNF from wheat straws: high performance on the strengthening of paper Eduardo Espinosa, Quim Tarrés, Marc Delgado-Aguilar, <u>M. Àngels Pèlach</u> , Alejandro Rodríguez, Pere Mutjé
	Effect of gamma irradiation on cellulose-based materials <u>Anamaria Irimia</u> , Traian Zaharescu, Florica Doroftei, Adina Coroaba, Cornelia Vasile
	Films from nanocellulose and their properties <u>Kay Hettrich</u> , Melanie Barthel, Bert Volkert, Johannes Ganster
	Synthesis and properties of cellulose-based hydrogel <u>Diana Ciolacu</u> , Cyrielle Rudaz, Tatiana Budtova
10:25 – 10:40	Discussions on cellulose foams and films Leader: Ellinor B. Heggset
10:40 – 12:10	Coffee break and Poster session
12:10 – 12:40	WG groups meetings (to discuss gaps in research and future needs to hand over to industry)
12:40 – 14:00	Lunch
14:00 – 15:00	WG groups meetings (to discuss gaps in research and future needs to hand over to industry) (cont.)
15:00 – 17:00	MC meeting 4