

TECHNICAL PROGRAM

DAY 1: Tuesday, October 27, 2009

08:15 **Welcome Address** – Chul B. Park

Session 1: Biodegradable Foams

08:20 **KEYNOTE SPEECH:** Trends in bioplastics and biofoams, **J. Lampinen**, VTT, Finland

09:00 Biobased foams made from Mirel™ poly hydroxyl butyric acid copolymers (PHA), T. J. Pitzl, Metabolix, Inc. (Telles), USA

09:30 Expanded polylactic acid – An eco-friendly alternative to polystyrene foam, K. Parker, S. Shah, J. P. Garancher and A. Fernyhough, Biopolymer Network/Scion, New Zealand

COFFEE BREAK

10:30 Relationship of crystallinity with cell morphology for semicrystalline polylactide foamed with supercritical CO₂, W.L. Zhu, C.B. Park, R. Pop-Iliev and J. Randall, Univ of Toronto, Univ of Ontario Inst of Tech, Canada, NatureWorks, USA

11:00 BioFoam®: PLA particle foam expanding in Europe, J. Noordegraaf, P. Matthijssen, J. de Jong, B. Elwick, Synbra Tech, The Netherlands

11:30 Lightweight, no matter what the costs?, J. Steger, S. Leinen GmbH, Germany

INTERACTIVE SESSION

P1 Development of food container and package using rice bran, B. Jeon and S. W. Cha, Yonsei University, Republic of Korea

P2 Polyurethane foams from vegetable oil polyols, U.Cabulis, U.Stirma, V.Jakušins, Latvian State Institute of Wood Chemistry, Latvia

P3 Microcellular extrusion of poly(lactide)/poly(butylene adipate-co-terephthalate) blends, S. Pilla, S. G. Kim, G. K. Auer, S. Gong, C. Park, University of Wisconsin – USA; University of Toronto, Canada

P4 Fabrication of solid and porous melt blended polylactide-chitin composite, Reza Rizvi, Brendan Cochrane, Hani Naguib, University of Toronto – Canada

P5 Effective recycling of PLA foam waste on a plast agglomerator system, A. E. Ramirez, Pallmann Industries, Inc., USA

P6 Magnetomechanical characteristics of magnetic particle filled polymeric foams, L. Sorrentino, M. Aurilia, D. Davino, C. Visone, S. Iannace, Institute for Composite and Biomedical Materials University of Sannio, Italy

P7 Preparation, properties and applications of novel cellulose and cellulose acetate aerogels, R. Gavillon, C. Hildenbrandt, F. Fischer, R. Sescousse, A. Rigacci, S. Berthon-Fabry, T. Budtova, Ecole des Mines de Paris, France

P8 Biodegradable PVOH-based foams for packaging applications, M. Avella, M.C. Cocca, M. E. Errico, G. Gentile, Istituto di Chimica e Tecnologia dei Polimeri, Italy

P9 Development of poly (lactic acid) cellular materials - physical and morphological characterisations, J.M. Julien, A. Bergeret, M-F. Lacrampe, J-C. Quantin, J-C. Benezet, E. Lafranche; Ecole des Mines d'Alès, and Ecole des Mines de Douai, France

P10 Pharmaceutical application of open porous biopolymers, S.N. Leung, R. Chu, C.B. Park, University of Toronto, Canada

LUNCH AND EXHIBITION OPENING

Session 2: Biomedical Foams

02:20 **KEYNOTE SPEECH:** Injectable hydroxyapatite foams for bone regeneration applications: comparison of synthetic and natural foaming agents, E.B. Montufar, T. Traykova, E. Schacht, L. Ambrosio, M. Santin, J.A. Planell, **M.P. Ginebra**, Technical University of Catalonia, Spain; Ghent University, Belgium; Institute of Composite and Biomedical Materials, Italy; University of Brighton, UK.

03:00 New fabrication method of bioactive and biodegradable scaffolds for bone tissue engineering, Y. Jung, S. H. Kim, S-H Kim, S. H. Kim, Korea Institute of Science and Technology, Republic of Korea

03:30 Design of novel tree-phase biodegradable scaffolds for bone regeneration, A. Salerno, E. Di Maio, S. Zeppetelli, S. Iannace, P. A. Netti, Italian Institute of Technology (IIT), University of Naples; Institute of Composite and Biomedical Materials, National Research Council (IMCB-CNR), Italy.

COFFEE BREAK AND EXHIBITION

04:30 A macroporous biodegradable composite biofoam for bone tissue engineering, D. W. Grant, L. Guan, and J. E. Davies, University of Toronto, Canada

05:00 Analysis of tantalum implants used for a vascular necrosis of the femoral head: a review of five retrieved specimens, M. Fernández-Fairen, A. Murcia, R. Iglesias, P. Sevilla, J.M. Manero, and F. J. Gil, Instituto de Cirugía Ortopédica y Traumatología de Barcelona, Universidad Politécnica de Cataluña. Barcelona. Spain

05:30 Fabrication and characterization of electrospun poly(D,L-lactide-co-glycolide) acid bioscaffolds for bone repair applications, L. Leung, S. Hariri, W. Ma, H. Naguib, University of Toronto, Canada

RECEPTION AND EXHIBITION

BANQUET

DAY 2: Wednesday, October 28, 2009

Session 3: Biofood Foams

08:20 **KEYNOTE SPEECH:** Aging processes in high void fraction biofoams, **M.G. Scanlon**, D. Daugelaite, J.E. Spencer, V. Leroy and J.H. Page, University of Manitoba, Canada

09:00 Numerical simulation of bread dough fermentation and cooking, J. Bikard, T. Coupez, G. Della Valle, and B. Vergnes CEMEF - Ecole des Mines de Paris, France

09:30 Novel air based ingredients for the food industry, F. L. Tchuenbou-Magaia, I.T. Norton and P.W. Cox, University of Birmingham, UK

COFFEE BREAK

10:30 Enzyme tools for interfacial engineering to create better liquid and solid food foams, Forssell, Partanen, Myllymäki, Lille, Boer, Paananen, Flander, Varjonen, Linder, Lantto, Suurnäkki and Buchert, VTT Technical Research Centre of Finland, Finland

11:00 Melt rheology affect zein foam properties, T. Gillgren, T. Alvé, M. Stading, SIK – The Swedish Institute for Food and Biotechnology, Sweden

11:30 The effect of whey protein isolate on the properties of barley snack products made by extrusion, S. Kirjoranta, L. Hyvönen, H. Helén, M. Tenkanen and K. Jouppila, University of Helsinki, Finland

LUNCH

Session 4: Foaming Technology

01:20 **KEYNOTE SPEECH:** Microcellular injection molding of highly porous & interconnected biodegradable polylactide/hydroxyapatite nanocomposite foams, A. Kramschusterand **L.S. Turng**, University of Wisconsin, USA

02:00 Preparation of well-controlled macroporous polymeric foam from UV curable monomer/dioxane solution via unidirectionally freezing with UV irradiation, R. Okaji, J. Kim, K. Taki, S. Nagamine, M. Ohshima, Kyoto University, Japan

02:30 Sustainable foams: extrusion of microcellular PLA foams, D. Miller and V. Kumar, University of Washington, USA

COFFEE BREAK

Session 5: Biobased PU Foams

03:30 Rigid and flexible polyurethane foams prepared from soy oil based polyol, M. Zhu, S. Ghosh Roy, M. Khazabi, S. Bandyopadhyayghosh, M. Sain, University of Toronto, Canada

04:00 New horizons for the use of bio-polyols in automotive foams, R. Stanciu, H. Khalil, J. Dai, R. Degenova, Woodbridge Foam Corp., Cargill Inc, Canada

04:30 Rigid polyurethane foams modified with rapeseed oil-based polyol and flax fibers, A. Prociak, S. Michalowski and D. Bogdal Cracow University of Technology, Poland

CLOSING REMARKS



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