

Tentative Program
Food Colloids 2006 Montreux, Switzerland

Version 24-11-2005

SUNDAY April 23

18:00-20:00 Registration
19:00-22:00 Welcome buffet

MONDAY April 24

- 9:00-9:15 Opening
- 9:15- 10:00 **Invited Lecture**
New surfactant structures: the key for applied nanotechnology and new processes
M. Antonietti (Max Planck Institute, Potsdam, Germany)
- 10:00-10:30 **Keynote lecture**
Self-assembly in food – A new way to make nutritious products
M. Michel, M. Leser, L. Sagalowicz, E. Hughes, E. Kolodziejczyk & H.J. Watzke (Nestlé Research Center Lausanne, Switzerland)
- 10:30-11:00 Coffee
- 11:00-11:20 *Theory and simulations on colloidal gels and glasses, from statistical mechanics to the everyday table*
G. Foffi (EPFL Lausanne, Switzerland)
- 11:20-11:40 *Interactions in protein-stabilized food colloids. Does the chemistry really matter?*
D.S. Horne (Scotland, UK)
- 11:40-12:00 *Tribology as a tool to study emulsion behaviour in the mouth*
D.M Dresselhuis, E.H. de Hoog, M.A. Cohen Stuart & G.A. van Aken (WCFS, WUR & NIZO food research, The Netherlands)
- 12:00-12:20 *The role of charge in saliva-induced emulsion flocculation*
E. Silletti, M.H. Vingerhoeds, W. Norde & G.A. van Aken (WCFS, Wageningen University & NIZO food research, The Netherlands)
- 12:20- 12:40 *Coalescence of expanding bubbles - effects of protein type and included oil droplets*
B.S. Murray, A. Cox, E. Dickinson, P.V. Nelson & Y. Wang (University of Leeds, UK)
- 12:40-14:30 Lunch
- Invited lecture**
- 14:30-15:15 *Probing and understanding structure formation and interactions in food colloidal systems*
P. Schurtenberger (University of Fribourg, Switzerland)
- 15:15-15:35 *Surface topographic and frictional properties of heat-set whey protein gels: effects of added polysaccharide or emulsion droplets*
J. Chen, E. Dickinson, T. Moschakis & K. Nayebzadeh (University of Leeds, UK)

- 15:35-15:55 **Instant emulsions**
T.J.Foster, A.Russell, D.Farrer, M.Golding, R.Finlayson, A.Thomas,
D.Jarvis & E.G.Pelan (*Unilever R&D Vlaardingen, NL & Unilever
Colworth, UK*)
- 15:55-16:15 **Hydrophobically modified starch in emulsions**
L. Nilsson, M. Leeman, K.-G. Wahlund & B. Bergenståhl (*Lund
University, Sweden*)
- 16:15-16:45 **Keynote Lecture**
***Mechanisms determining crispness and crispness retention in foods
with a dry crust***
T. van Vliet, H. Luyten & W. Lichtendonk (*WCFS, WUR & TNO, The
Netherlands*)
- 16:45-17:15 Coffee
- 17:15-17:45 **Keynote Lecture**
Particle tracking as a probe of microrheology in food colloids
E. Dickinson, B.S. Murray & T. Moschakis (*University of Leeds, UK*)
- 17:45-18:05 **Characterization and visualisation of protein foam films by a
multiscale approach**
E. Terriac, M. Axelos, S. Pezennec, A. Renault, F. Boué & J. Etrillard
(*Université de Rennes, INRA Nantes and CEA, Saclay, France*)
- 18:05-18:25 **Shape and interfacial viscoelastic responses of emulsion drops in
shear flow studied by emulsion rheology, single drop dynamics and
rheo-small angle light scattering**
P. Erni, V. Herle, E.J. Windhab & P. Fischer (*ETH Zürich,
Switzerland*)
- 18:25-18:45 **Crystallization in monodisperse emulsions with particle sizes between
20-nm and 200-nm**
M.J.W. Povey, R. Huo & Y. Ding (*University of Leeds, UK*)
- 19:00-21:30 Poster session 1 with Buffet

TUESDAY April 25

- 8:45-9:30 **Invited Lecture**
Self Assembly of Food Systems
T. Nicolai (*Université du Maine, France*)
- 9:30-9:50 **Electrostatic interactions between bovine lactoferrin and β -
lactoglobulin in oil-in-water emulsions**
A. Ye & H. Singh (*Massey University, New Zealand*)
- 9:50-10:10 **Kinetics of formation, physicochemical characterisation and foaming
properties of β -lactoglobulin-based aggregates obtained by heat
treatment in presence of charged cosolutes**
G. Unterhaslberger, C. Schmitt, S. Shojaei-Rami & C. Sanchez (*Theo
Müller, Freising, Germany; Nestlé Research Center Lausanne,
Switzerland; INPL-ENSAIA, Vandoeuvre-lès-Nancy, France*)
- 10:10-10:30 **Manipulation of surface properties by protein polysaccharide
electrostatic interactions**

R.A. Ganzevles, T. van Vliet, M.A. Cohen Stuart & H.H.J. de Jongh
(*WCFS & Wageningen University, The Netherlands*)

10:30-11:00 Coffee

11:00-11:30 **Keynote Lecture**

Similarities in self-assembly of proteins and surfactants: an attempt to bridge the gap

E. van der Linden and P. Venema

(*Wageningen University, The Netherlands*)

11:30-11:50 ***Liquid crystalline nanoparticles at interfaces***

P. Vandoolaeghe, F. Tiberg & T. Nylander (*Lund University; Camurus AB, Lund, Sweden*)

11:50-12:10 ***Nanostructured liquid particles: how to modulate their internal structure***

O. Glatter, A. Yagmur, L. de Campo, S. Guillot, S. Salentinig, L. Sagalowicz, M.E. Leser & H.J. Watzke (*University of Graz, Austria; Nestlé Research Center Lausanne, Switzerland*)

12:10-12:30 ***Self-assembly of starch spherulites as induced by inclusion complexation with small ligands***

B. Conde-Petit, S. Handschin, C. Heinemann & F. Escher (*ETH Zürich, Switzerland*)

12:30-14:00 Lunch

Invited lecture

14:00-14:45 ***Food colloids and nutrition***

B. German (*Nestlé Research Center Lausanne, Switzerland*)

14:45-15:05 ***Wax-based encapsulation of water-soluble compounds for application in foods***

M. Mellema, W.A.J. van Benthum, B. Boer, J. von Harras & A. Visser (*Unilever R&D Vlaardingen, The Netherlands*)

15:05-15:25 ***The influence of self-assembly structure on the cellular uptake of vitamin E***

B. Folmer, D. Barron, E. Hughes, M. Bélen Sanchez, L. Miguet, O. Heudi, G. Williamson & M. Michel (*Nestlé Research Center Lausanne, Switzerland*)

15:25-15:45 ***Novel cubic nanostructures and 'micellosomes' for enhanced encapsulation and delivery of food bioactives***

R. Efrat, A. Aserin & N. Garti (*The Hebrew University of Jerusalem, Israel*)

15:45-16:05 ***Flavour binding by solid and liquid emulsion droplets***

S. Ghosh, D. G. Peterson & J. N. Coupland (*The Pennsylvania State University, USA*)

16:30-22:30 Conference dinner

WEDNESDAY April 26

- 8:45-9:30 **Invited Lecture**
Modulation of the stability of charged macromolecules with simple salt and polyelectrolytes
B. Jönsson (Lund University, Sweden)
- 9:30-9:50 **Role of protein stabilised interfaces on the microstructure and rheology of oil in water emulsions**
P. J. Wilde, A. R. Mackie, M. J. Ridout, F. A. Husband, G. K. Moates, & M. M. Robins (Norwich Research Park, UK)
- 9:50- 10:10 **The role of electrostatic interactions on molecular self-assembly of protein and phospholipid mixed films at the air-water interface**
A. Lucero Caro, A.R. Mackie, A.P. Gunning, P.J. Wilde, V.J. Morris, M^a.R. Rodríguez Niño & J.M. Rodríguez Patino (University of Sevilla, Spain; Norwich Research Park, UK)
- 10:10-10:30 **Adsorption experiments from aqueous mixed protein-surfactant solutions**
V.S. Alahverdijeva, D.O. Grigoriev, J.K. Ferri, V.B. Fainerman, E.V. Aksenenko, M.E. Leser, M. Michel & R. Miller (MPI KGF Golm, Germany; Medical University Donetsk, Ukraine; Ukrainian Academy of Sciences Kiev, Ukraine; Nestlé Research Center Lausanne, Switzerland)
- 10:30-11:00 Coffee
- Invited lecture**
- 11:00-11:45 **Microfluidic devices for creating single bubbles and drops**
D. Weitz (Harvard University, USA)
- 11:45-12:05 **DWS based optical microrheology of gelling biopolymer solutions**
F. Scheffold, P. Schurtenberger, S. Kumar Bhat, F. Cardinaux, B. Conde-Petit, C. Heinemann, P. Fischer & N. Willenbacher (University of Fribourg, Switzerland; LSInstruments GmbH, Fribourg, Switzerland; Swiss Federal Institute of Technology (ETH) Zurich, Switzerland; University of Karlsruhe, Germany)
- 12:05-12:25 **A theoretical study of phase transition and phase separation behaviour in mixed protein + surfactant interfacial layers**
R. Ettelaie, E. Dickinson, C. Lei & L. Pugnali (University of Leeds, UK; La Plata, Argentina)
- 12:25-12:45 **Assembly dynamics and elastic moduli of asymmetric biocompatible freestanding nanocomposites**
J.K. Ferri, J.T. McRuiz, R. Miller & H. Möhwald (Lafayette College Easton, PA, USA; MPI KGF Golm, Germany)
- 12:45-15:15 Poster session 2 with Buffet
- 15:15-16:00 **Invited Lecture**
Colloidal particles at fluid interfaces
B.P. Binks (University of Hull, UK)
- 16:00-16:20 **Enhancement of stability of air bubbles to disproportionation via hydrophilic silica particles + low molecular weight surfactants or proteins**
T. Kostakis, R. Ettelaie & B.S. Murray (University of Leeds, UK)

- 16:20-16:50 **Keynote Lecture**
Different interactions during the acidification of native and heated milks studied by Diffusing Wave Spectroscopy
D.G. Dalgleish & M. Alexander (*University of Guelph, Canada*)
- 16:50-17:10 *Xanthan gum in skim milk: designing structure into acid milk gels*
P.-A. Aichinger, M.-L. Dillmann, M. Rouvet, S. Rami-Shojaei, A. Paterson, M. Michel & D.S. Horne (*Nestlé Research Center Lausanne, Switzerland; University of Strathclyde, Glasgow, Scotland; Charis Food Research, Ayr, Scotland, UK*)
- 17:10-17:30 *Computer simulation of preheating, gelation and rheology of acid skim milk samples*
J.H.J. van Opheusden (*Biometris, Wageningen University, The Netherlands*)
- 17:30-17:40 Closing