## 2<sup>ND</sup> INTERNATIONAL SYMPOSIUM ON FOOD RHEOLOGY AND STRUCTURE

## Conference Report II

## ETH ZÜRICH, SWITZERLAND MARCH 12<sup>™</sup>-16<sup>™</sup>, 2000

ETH main building.

The 2<sup>nd</sup> International Symposium on Food Rheology and Structure continued the first symposium on this subject held in the same place three years ago. Since the field had developed significantly during this period of time a wide variety of subjects could be presented at the symposium. The symposium



sium. The symposium has shown that the concept of bringing together food scientists and rheologists was well accepted. This resonance was not only documented by the large number of participants; equally important were the vivid discussions that arose not only after the individual presentations but also after the scientific sessions, in front of the posters, and during the instrument exhibitions. For this Second International Symposium on Food Rheology and Structure, the interrelation between structure and rheological behavior of foods was again the main topic with its consequences and applications to engineering problems such as in food processing. New developments in theory as well as in experimental techniques, e.g. in rheometry or microscopy, were reported during the Symposium.

In total 14 keynote lectures kicked off each morning and afternoon session introducing the subject of the following talks. On Monday E. Dickinson (University of Leeds, U.K.) gave the opening lecture entitled "Rheology and structure of aggregated particle networks and emulsions". The following four keynote lectures by E. Windhab (ETH Zürich) "Fluid immobilization – A structure-related key mechanism for the viscous flow behavior of concentrated suspension systems", C. Clasen (Universität Hamburg, Germany) "Rheo-optical and rheo-mechanical characterization of the viscoelastic properties and shear-induced

orientation of hydrocolloids", T. van Vliet (Wageningen University, The Netherlands) "Structure and rheology of particle gels, a dynamic interplay", P. Schurtenberger (Université Fribourg, Switzerland) "New developments in light scattering: from particle sizing to optical rheology". The afternoon sessions focused on subjects as biopolymers and rheometry. The opening reception on Monday evening took place in the main hall of ETH erected by the famous German architect Schinkel. During the reception the participants had time to pay some attention to the poster session and to visit the exhibition of scientific instrumentation.

The morning session on Tuesday was kicked off by two keynote lectures given by H.-C. Öttinger (ETH Zürich) entitled "Does your model violate the second law of thermodynamics?" and by A.-M. Hermansson (SIK, Sweden) on "Structure Engineering". The following two parallel session focused on Interfaces and gels. The latter session was also continued in the afternoon together with a session on emulsions. However, before these sessions C. Gallegos (Universidad de Huel-





Get together during the poster session and the banquet.

This is an extract of the complete reprint-pdf, available at the Applied Rheology website http://www.appliedrheology.org



Applied Rheology nplete reprint-pdf, available at the Applied Rheology website March/April 2000 http://www.appliedrheology.org va, Spain) reported in a keynote on "Non-linear viscoelasticity and microstructure of concentrated o/w emulsions" and L. Choplin (GEMICO-ENSIO Nancy, France)Insiturheological follow-up of food processes: Application to emulsification and ice cream fabrication processes. Imbedded into the afternoon the



poster session including presentations on biopolymers, gels, emulsions, solid and semi-solids, dough, dairy, multiphase systems and on miscellaneous subjects draw lots of attention. Later on in the evening the participants head out for a selection of choir music performed at Fraunmuenster church and a get together after the concert in "Zeughauskeller".

On Wednesday again two keynote lectures given by K. Feigl (Michigan Technological University, U.S.A.) on the "Use of numerical simulations in food processing" and by A. G. Marangoni (University of Guelph, Canada) on "The influence of microstructure on the macroscopic rheological properties of particulate aggregated systems". The first talk gave an introduction into the following session on computational fluid dynamics applied to food systems. The second keynote also introduced the session on Microscopy that was wrapped up in the evening by a round table discussion on "Staining techniques for starch and other polysaccharides. Participants not so much interested in microscopes were able to join a session on solid and semi/solid food systems. sium's special guest E. Dewald to the audience. Mrs. Dewald initiated four years ago to start an international conference on the topics of the interacting role of rheology and structure in foods.

Before the banquet on

Wednesday evening

Haake invited the par-

ticipants to a Happy

Hour. Due to a dense

program the slogan "We have one hour to

kill 200 cans of beer"

was issued and was

ledged. During the

banquet E. Windhab

introduced the sympo-

acknow-

grandly

The last day, Thursday, was framed by three keynote lectures given by P. T. Callaghan (Massey University, New Zealand) on "Rheo-NMR and the molecular origins offood rheology", P.J.Lillford (Unilever Research Colworth, U.K.) on "Food, the quality is in the structure" and by H. Watzke (Nestlé Research Centre Lausanne, Switzerland) on "Microstructure and rheology of emulsifier cubic phases: Influence of guest-host interactions". The four sessions focused on product related subjects as dough, confectionery, dairy products and multiphase systems. E. Windhab then wrapped up the symposium in a short final note including the important information that the next symposium will be held in early 2003 again in Zürich/Switzerland.

For more information on ISFRS 2000 including a collection of photographs taken during the symposium and the upcoming symposium in 2003 please contact www.isfrs.ethz.ch.

pf at editors@ar.ethz.ch



<sup>&</sup>quot;We have one hour to kill 200 cans of beer" (left).

*E. Windhab congratulates E. Dewald (right).* 

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Exhibition of scientific instrumentation in the main hall.