Nordic Rheology Conference 2011

Helsinki, Finland
June 8 – 10, 2011

The Nordic Society of Rheology organised the 20th Nordic Rheology Conference (NRC2011) at the Department of Chemistry, University of Helsinki in June 2011 under a major theme of "Polymer solutions, suspensions and melts". The conference was preceded with a short course in rheology as is traditional for this annual Nordic event. Delightfully the conference had a broad participation – over 100 delegates from 17 countries for the conference and 40 participants for the course.

The plenary lectures at the conference were given by three distinguished scientists: Professor Gerald G. Fuller, Stanford University, gave a talk about "Rinsing flows: Ablation of non-Newtonian liquids from solid surfaces". In his talk he first discussed polymeric liquids and their application in cleansing of surfaces and in a second part, the investigation of tear films and the effect of moving contact line of lipids in the eye, for better understanding of ocular protection and curing of dry eye syndrome. Professor Peter van Puyvelde, KU Leuven, talked about "Approaching processing conditions with classical rheometrical flows". He discussed the idea to use classical rheological flows to compare with flows under processing conditions of polymeric systems, especially to induce crystallization. He firstly presented the rationale behind the idea of flow-induced crystallization as a result of continuous competition between material time scale (relaxation times) and processing time scales (flow rate and cooling rate) and then described these phenomena in three case studies. Professor Tatiana Budtova, CEMEF (Centre for Material Forming), MINES ParisTech, discussed "Taste perception and droplet behaviour under shear: starch suspension vs hydrocolloid solution". She has employed rheo-optical methods to study the droplet break-up as a parameter to understand the differences between different materials. In her talk she stressed that effects originating from droplets' internal circulation, capillary forces, liquid bridges and number of granules should be taken into account. Regarding taste perception, she concluded that a granular droplet is easier to break up than a solution droplet which may explain the difference in taste perception. The plenary speakers also gave a talk during the short course on their chosen topic. All in all the conference program consisted of 40 oral presentations and almost 30 posters covering various areas in rheology, for detailed information on the conference program see www.nordicrheologysociety.org/conference.

During the conference two awards of the NRS were handed out. Prof. Niall Young (Danisco A/S, Denmark) received the Carl Klason award and Diana Gomez Martinez (SIK, Sweden) was awarded with the Young rheologist award.

The whole of the conference was spent under a summery weather in Finland, temperature exceeding 25°C with blue skies. This allowed also the delegates to experience the coastal Helsinki at its best during the conference dinner which was held on an island "Uunisaari" just in front of Helsinki. For those who wished there was also a possibility to experience Finnish Sauna and swim in the Baltic sea. On the same occasion the next Nordic conference was announced, NRC2012, which will take place in Oslo, Norway June 13-15, 2012 under special focus for "Rheology for industrial processes" and with a main theme of "Rheology of food and emulsions". Information about upcoming NRC2012 is available from the Nordic Society's webpage (www.nordicrheologysociety.org/conference).

Sami Hietala
NRC2011 chairman

Figure 1 (left): Discussion, coffee, and poster (Photo: Sami-Pekka Hirvonen).

Figure 2: NRS award winners Diana Gomez Martinez and Prof. Niall Young (Photo: Mats Stading).

This is an extract of the complete reprint-pdf, available at the Applied Rheology website
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