

50TH GOLDEN JUBILEE MEETING OF THE GERMAN SOCIETY OF RHEOLOGY

**BERLIN, GERMANY
MAY 14TH - 16TH, 2001**

**Golden
Jubilee
meeting
of the
German
Society of
Rheology**

The 50th Golden Jubilee Meeting of the German Society of Rheology (Jahrestagung 2001 der Deutschen Rheologischen Gesellschaft – DRG) took place in Berlin/Germany during May 14-16, 2001. Whenever the society meets in Berlin the Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und -prüfung, BAM) serves as the host (Fig. 1). Within



this well known surrounding the meeting took place in the newly renovated Ludwig-Erhard Lecture Hall. An exhibition of rheological instrumentation was also included in the meeting (Fig. 2). Two parallel sessions gave enough time to 60 speakers to present their recent work to an audience of about 130 participants.



The meeting was opened by H. Czichos, president of the Federal Institute for Materials Research and Testing, and M. Wagner, president of the German Society of Rheology on Monday. The plenary lecture of the morning session was given by H. Rehage on "The way from dimensional model networks to microcapsules" summarizing one main working area of H. Rehage and his group during the last 10 years at Universität-Gesamthochschule Essen/Germany. After

a coffee break the audience was asked for a decision: Either to listen to five talks on extensional rheology of polymer melts or to five presentations on emulsion rheology, surfactants in flow and rheology of foods. Obviously, the author joined the last one but was told that the first session was interesting and lively discussed.

After lunch, the second plenary talk introduced the intriguing area of "Rheology of semi-solidified metals" to the audience. M. Modigell from RWTH Aachen/Germany presented background information and detailed recent results from an area that normally is not considered when thinking on rheology in the first place. Suspensions, casing, form blowing, all well known subjects in rheology but now discussed for metal melts and temperatures far beyond the normal rheologist's imagination. The afternoon session continued again as parallel session. A continuation of the morning session on polymer melts took place with two contributions on modeling and determination of molecular weight distribution in mixed systems. Still focussing on extensional rheology now the surfactant group took over and three papers on single drop deformation, rheo-optics of aqueous polymer solutions and suspension were presented. On the other side, five papers on such different subjects as emulsions, polyelectrolytes, glass melts, and complex new measuring methods gave an overview on rheological research areas.

Figure 1 (left above): BAM

Figure 2 (left below):
Exhibition

Figure 3 (right): M. Laun



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Figure 4 (left): M. Wagner and J. Meissner

Figure 5 (right): M. Schmidt

Figure 6 (above): Prof. Dr. Max Pfender (right) together with Prof. Dr. K. Kirschke

Figure 7 (below): The president as local artist and a "Berliner Göre"

The poster session took place on Monday and Tuesday after the oral lectures in front of the Ludwig-Erhard Lecturing Hall. At 17:15 the official ceremony of the 50th birthday of the Deutsche Rheologische Gesellschaft started with the lecture on "50 Years Deutsche Rheologische Gesellschaft" given by Prof. Dr. G. W. Becker, former president of the DRG and BAM. The lecture can be found on page 210-219 of this journal. After



reflecting the history of the society, Dr. H. Laun (Fig. 3) went to introduce the honor membership award of the society to Prof. Dr. Joachim Meissner from ETH Zurich (Fig. 4). His reflection of Prof. Meissner's activities in industry and at ETH Zurich can be found in detail in the laudatio printed in the March/April issue of Applied Rheology (Page 102-104, and is also available online at <http://www.ar.ethz.ch/>). Following the laudatio, the nominee of the 2001 "Rheologie-Preis" (Rheology Prize) was presented to the audience by M. Wagner. M. Schmidt received the prize, dotated with 3000.- Deutsche Mark for his work on "Rheological properties of suspensions with spherical particles in shear and elongational flows". A detailed summary of his work can be found on page 220-227 of this journal. Before the audience headed for snacks and champagne to celebrate and discuss history, science, personalities, etc., H. Münstedt presented the nominees of the student travel grants. During the reception Prof. Dr. Max Pfender, former president of the DRG and BAM, chats with Prof. Dr. K. Kirschke, former secretary general of DRG (Fig. 6).

Tuesday started with a plenary lecture by H. Münstedt on "Molecular design and rheological properties of polyolefine melts". The authors, H. Münstedt and C. Gabriel (Universität Erlangen-Nuremberg), took the chance to summarize the research work of their laboratory as well as others to present in detail the past, present and future of the research in this area. The following session focussed on experimental techniques as piezo-electrical vibration rheometer, dynamic-mechanical analysis of thin films or NMR techniques to determine the power law exponent. In the parallel session two contributions on porous media flow and turbulent channel flow as well a contribution on the evolution of fluctuations gave reason for a lively discussion. After a short coffee break, the nominee of the "Rheologie Preis", M. Schmidt (Universität Erlangen-Nuremberg) presented the results of his Ph.D. thesis (Fig. 5; see Ph.D. Summary on page 220-227). Before lunch both parallel sessions continued on either flow in complex geometries or new experimental techniques including new freatures in commercial rheometers.



The afternoon session was kicked off by a plenary lecture of E. Windhab (ETH Zurich) on structure – rheology relationships in food systems. The complex interaction of food and biotechnological important materials were discussed also from the processing point. Again the audience had to decide after this talk to either listen to four contribution on co-polymers, polymer blends, and rheology-morphology interactions or on rheology of suspension and rheological modelling of complex materials.

After a short relaxation period the conference dinner (Fig. 7, 8, and 9) took place at the Prinzessinnensaal (princess hall) of the Opernpalais located "Unter den Linden" close to the Brandenburger Tor and the famous Museumsinsel (Museum's Island). The quite relaxed atmosphere lasted long but was finally brought to an end by the "letzte U-Bahn nach Pankow" and the call of tomorrow's duties.

The final day of the meeting started with the plenary lecture of N. Willenbacher (BASF) on "Paper coatings – high tech with some tricky rheology" followed by eight presentations on various rheological topics. Before the coffee break experimental aspects on high frequency rheology, stress normalized shear rate and wall slip in capillar rheometers were discussed. The final contributions focussed on material maturing measured by rheology, high pressure rheology of aqueous solutions and food materials, LDA measurements of ceramics, rheology of ferrofluids in reduced gravity, and the flow of electrorheological materials.

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Figure 8 and 9:
During the conference
dinner