

THE BRITISH SOCIETY OF RHEOLOGY

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**& Newsletter of the
European Society
of Rheology**

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THE BRITISH SOCIETY OF RHEOLOGY

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THE BRITISH SOCIETY OF RHEOLOGY



8th Newsletter of the European Society of Rheology
2001, Vol. 44, No. 1
(Spring/Summer 2001)

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ANNOUNCEMENTS OF THE EUROPEAN SOCIETY OF RHEOLOGY (ESR)

NOMINATIONS FOR THE WEISSENBERG AWARD IN 2002

The 3rd Weissenberg Award of the ESR will be bestowed at the 5th European Rheology Congress, Erlangen, September 01-06, 2002.

Submissions of nominations from Rheology Groups and individual rheologists to the Chairman of the Award Committee,

Prof. JEAN-MICHEL PIAU
Laboratoire de Rhéologie
BP 53 Domaine Universitaire
F-38041 Grenoble Cedex 9
France
Phone +33 476825170
Fax +33 476825164
E-mail jmpiau@ujf-grenoble.fr

are encouraged immediately, but not later than **November 30, 2001**.

The following guidelines apply:

The award will be given for outstanding, long-term achievements. Eligible are rheologists whose centre of scientific activities lies in Europe. Nominations shall include:

- A brief scientific biography;
- A review of the nominee's accomplishments advancing the science of rheology upon which the nomination is based;
- A curriculum vitae with publication list;
- Supporting letters from other rheologists addressing the nominee's achievements.

Manfred Wagner

8TH NEWSLETTER OF THE EUROPEAN SOCIETY OF RHEOLOGY

Dear Colleagues,

Romano Lapasin, International Delegate of the Italian Soc. Rheol. (ISR), has informed me that the President and the Council Officers of the Italian Society of Rheology have been elected by secret voting at the annual meeting of the Assembly of Members held at Trieste. Hereafter are reported the results:

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8TH NEWSLETTER OF THE EUROPEAN SOCIETY OF RHEOLOGY

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Manfred Wagner

8TH NEWSLETTER OF THE EUROPEAN SOCIETY OF RHEOLOGY

**THE 3RD INTERNATIONAL CONFERENCE OF THE
HELLENIC SOCIETY OF RHEOLOGY (HSR)
PATRAS, GREECE, JUNE 10-14, 2001**

The meeting is open to all scientists and engineers conducting research or being interested in the fields of RHEOLOGY and FLUID MECHANICS.

Topics include:

- polymer melts and solutions
- structure and dynamics of polymers
- colloids and suspensions
- molecular modeling and numerical simulations
- experimental, theoretical and computational fluid dynamics

The program will consist of plenary lectures, invited lectures, and oral contributions. Also, a special session will be dedicated to Professor Andreas Acrivos on the occasion of his retirement from the Levich Institute.

A number of prominent rheologists and fluid mechanics from around the world have also accepted to participate in the Meeting, as “surprise” invited lectures, honoring Prof. Acrivos.

For more information, please visit the web page of the Hellenic Society of Rheology and of the Meeting:

<http://esperia.iesl.forth.gr/~hsr/HSR.html>

With our very best regards,

Vlasis Mavrantzas
(Chairman of the Organizing Committee)

John Tsamopoulos
(Chairman of the Scientific Committee)

7TH EUROPEAN SCHOOL OF RHEOLOGY

SEPTEMBER 10-14, 2001

**organised by the
European Society of Rheology and
the Belgian Group of Rheology**

A short course on

RHEOLOGICAL MEASUREMENTS

APPLICATION TO POLYMERS, SUSPENSIONS AND PROCESSING

hosted for the 4th time by the K.U. Leuven, Department of Chemical Engineering

AIM

The aim of the course is to give practicing engineers and chemists, as well as young PhD students an understanding of

- the fundamentals of rheology
- principles of rheological measurements
- applications to problem solving

FACULTY

Prof. G.G. Fuller, Stanford University

Prof. R. Keunings, University Catholique de Louvain

Prof. C.W. Macosko, University of Minnesota

Prof. G. Marrucci, University of Naples,

Prof. H.E.H. Meijer, T.U. Eindhoven,

Prof. J. Mewis, K.U. Leuven,

Prof. P. Moldenaers, K.U. Leuven,

Prof. J. Vermant, K.U. Leuven

For more information on the course or to request a detailed program brochure, check the web page at:

<http://www.cit.kuleuven.ac.be/cit/ltrk/course.html>

or contact Peter Van Puyvelde

peter.vanpuyvelde@cit.kuleuven.ac.be

**SUMMER SCHOOL ON
"ANALYTICAL AND NUMERICAL METHODS IN NON-
NEWTONIAN FLUID MECHANICS"
25-29TH JUNE, 2001
UNIVERSITY OF MINHO, GUIMARAES, PORTUGAL**

OBJECTIVES

The University of Minho and the University of Wales Institute of Non-Newtonian Fluid Mechanics are organising a Summer School with the aim to interest young researchers into the field of Rheology and Non-Newtonian Fluid Mechanics by helping to bridge the gap between the available theoretical tools and the existing problems of a mathematical nature in industry and academia.

LECTURERS AND LECTURE FORMAT

K. Walters, University of Wales
A. R. Davies, University of Wales
M. H. Wagner, Technical University of Berlin
G. Marrucci, University of Naples
R. Keunings, Catholic University of Louvain
F. P. T. Baaijens, University of Eindhoven

The School will take place in the Azurem Campus of the University of Minho and will consist in morning and afternoon lectures, with some time allotted for the discussion of subjects of particular interest to the audience.

INFORMATION

For more information on the course, please check the web page at:

<http://www.ecum.uminho.pt/SummerSchool>

or contact the Secretariat at

s.school@ecum.uminho.pt



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The 3rd International Meeting of the HSR is going to be held in Patras, Greece, June 10-14, 2001.

This meeting is dedicated to Professor Andreas Acrivos on the occasion of his retirement from the Levich Institute and CUNY.

For information please contact:

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993255.

Email: tsamo@chemeng.upatras.gr



**GROUPE FRANÇAIS DE
RHEOLOGIE (GFR)**

**36th annual GFR Conference:
«Rhéologie : génie civil et
environnement»**

This next GFR annual conference will be held in Marne-la-Vallée 10-12 October 2001. It will be organised in association with the Canadian Group of Rheology. Any further information can be obtained from: e-mail: philippe.coussot@lpc.fr
Web: <http://www.enpc.fr/GFR2001>

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jacques.bouton@thermorheo.com

Website :

<http://www.univ-lemans.fr/sciences/wgfr>

OTHER RHEOLOGICAL ANNOUNCEMENTS

CONFERENCE NEWS

International Conference on

CALCIUM ALUMINATE CEMENTS (CAC)

16 - 19 July 2001

Heriot-Watt University, Edinburgh, Scotland

Principal Supporter: Lafarge Aluminates

Co-supporter: Heidelberger Calcium Aluminates/Castle Cement

With fifty significant papers from around the world, this important four day conference will be of interest to those who work in the production and usage of Calcium Aluminate Cements.

Session Titles:

- CAC clinker
- Blended Systems
- Special Applications
- CAC in refractory
- Admixtures production and uses
- Microstructure and Hydration
- Durability
- Rheology of CAC mixes
- History of CAC

Keynote presentations will be made on the state of the art in various fields. Both oral and poster papers will be presented and a small table top exhibition will run concurrently.

Delegates will be given a CD Rom and refereed proceedings volume on arrival at the conference.

The modern purpose built conference centre and onsite accommodation will provide delegates with the best possible networking opportunities. On the social side, historic Edinburgh is a short distance away. In addition, a memorable Scottish themed conference dinner is being planned at one of Edinburgh's newest venues.

To see the draft programme look at: www.materials.org.uk

To register your interest please contact Eleanor Tipton, Organiser - Conferences and Events (C106) at Fax +44 (0)20 7839 2289

Organised by IOM Communications Ltd.

Co-ordinated by the Ceramics Division of The Institute of Materials and Society of Chemical Industry - The Construction Materials Group

1 Carlton House Terrace, London, SW1Y 5DB.

Website: www.materials.org.uk Charity No: 1059475

**Conference on “COMPLEX FLUIDS IN EXTERNAL FIELDS”
29 - 31 August 2001
Ashburne Hall, Manchester, UK**

The University of Manchester is currently celebrating its 150th year. This meeting, held also by the Statistical Mechanics and Thermodynamics Group (SMTG) of the Royal Society of Chemistry, the Institute of Physics (IOP) and the British Society of Rheology (BSR), is part of a program of events to celebrate this occasion.

This meeting will focus on the dynamical properties of complex fluids and will bring together experimentalists, theoreticians and computer simulators. Sessions will include:

- Dynamics of colloidal suspensions
- Flow induced phase transitions
- Liquid crystalline flows
- Flow through porous media

The meeting will directly be followed a workshop on **Colloid Rheology** led by Professor John Brady (Caltech, USA). This is another in the series of **RSC SMTG** free workshops and will take place from 1400-1700 on Friday, August 31.

A number of distinguished scientists from this country and from abroad have agreed to speak. Among these are:

Professor John Brady (Caltech, USA)
Dr Christopher Lowe (Delft, The Netherlands)
Professor Jan Dhont (Jülich, Germany)
Dr Jorrit Mellema (Twente, The Netherlands)
Dr F Lequeux (ESPCI, France)
Professor Chris Care (Sheffield Hallam, UK)
Dr Julia Yeomans (Oxford)
Dr Patrick Warren (Unilever, Port Sunlight)
Dr Peter Olmsted (Leeds)

There is space for a limited number of further oral contributions.

Abstracts (under 500 words) are to be received by 15 July, 2001.

The AGMs of the British Society of Rheology and the RSC Statistical Mechanics and Thermodynamics Group will also be held during the meeting.

For further information contact the **local organiser**:

Dr Andrew Masters Department of Chemistry University of Manchester Manchester M13 9PL UK	Tel (0)161 275 4679 Fax (0)161 275 4734 Email Andrew.Masters@man.ac.uk Conference web page: http://mch3w.ch.man.ac.uk/Man2001
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Rheology of Dispersions
A meeting organised by
the SCI Colloid and Surface Chemistry Group
7 November 2001
SCI London, UK

- 09:30** Registration and Coffee
- 10:00** **Prof. Jan Mewis, Leuven, Belgium** Introduction: The rheological features of colloidal dispersions
- 10:45** **Dr Richard Buscall, ICI, UK** Polymer solutions and Colloidal suspensions compared
- 11:30** **Prof David Heyes, Surrey University, UK** Simulating the effects of colloidal interactions and ageing on dispersion rheology
- 12:15** Lunch
- 13:30** **Dr Bill Frith, Unilever, UK** Visualising flows in a suspension of soft particles using MRI
- 14:15** **Dr Rob English, NEWI, UK** Controlling rheology with associating polymers
- 15:00** Tea
- 15:30** **Prof Tharwat Tadros, Consultant, UK** Polymer-colloid mixtures
- 16:15** **Prof Brian Briscoe, Imperial College, UK**
Highly-concentrated dispersions and pastes
- 17:00** Close of Proceedings

Colloidal dispersions are important to a wide range of industries. The rheological properties of dispersions affect manufacturability and end-use. The rheology of a formulation also gives an indication of the colloidal state and interactions.

This meeting will be of interest to colloid scientists who want to learn more about rheology and also formulators and industrialists who wish to learn more about product-process interactions.

REGISTRATION FORM **Rheology of Dispersions**

Non-members	£130	SCI/RSC/BSR/BCC members	£80
Non-member students	£40	SCI/RSC/BSR/BCC students	£30
		Retired members	£40

Please send SCI membership details

FEE: Includes refreshments as stated in the programme.

Signature:.....Date

Please register me for the above conference

SURNAME TITLE

FIRST NAME INTIALS

POSITION

ORGANISATION.....

ADDRESS

.....

..... POSTCODE.....

TEL: FAX:

EMAIL:

Special requirements: dietary / access / other

.....

3RD PACIFIC RIM CONFERENCE ON RHEOLOGY **VANCOUVER, BC, CANADA, JULY 8-13, 2001**

After two successful events in Kyoto, Japan, and Melbourne, Australia, the Pacific Rim Conference on Rheology is moving to Vancouver for its 3rd meeting. This will take place at the Westin Bayshore Hotel (downtown Vancouver) in July 8-13, 2001. The Conference is sponsored by the Canadian Rheology Group and it is aimed in continuing the tradition of the international conferences on rheology.

CONFERENCE COMMITTEE

Prof John M Dealy (McGill University): Prof Jeffrey Giacomini (University of Wisconsin): Prof Savvas G Hatzikiriakos (The University of British Columbia): Prof David James (The University of Toronto): Prof Daniel Klingenberg (University Of Wisconsin): Prof Gareth McKinley (MIT): Prof Evan Mitsoulis (National technical University of Athens): Prof Anoush Poursartip (The University of British Columbia): Prof Alexandro Rey (McGill University): Prof Eric Shaqfeh (Stanford University): Prof U.T. Sundararaj (The University of Alberta): Prof Kostas Tzoganakis (The University of Waterloo): Prof John Vlachopoulos (McMaster University): Prof Paula Wood-Adams (McGill University)

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TOPICS

Applied Polymer Rheology with Applications to Polymer Processing: Rheology and Thermodynamics of Polymer Blends and Composites: Extensional Polymer Melt and Solution Rheology: Rheology of Metallocene Polyolefins: Flow Instabilities – Melt Fracture-Wall Slip and Related Phenomena: New Experimental Rheological Techniques: Modeling of Polymer Flows and Numerical Simulations: Rheology of Complex Fluids: Rheology of Suspensions, Emulsions and Colloids: Biorheology

INVITED SPEAKERS

Tanner R - History of Rheology: Vlassopoulos D - Rheology and Thermodynamics of Polymer Blends: Munsteadt H - Extensional Melt Rheology: Denn MM - Melt Fracture and Wall Slip Instabilities: Goldsmith – Biorheology: Watanabe H - Rheology of Complex Fluids: Boger D – Suspensions: Lee SJ - Polymer Processing: Hasegawa T - Polymer Solutions

ORGANIZED BY

The Canadian Rheology Group
and The University of British Columbia

FOR MORE INFO PLEASE VISIT: www.prcr3.com

INDUSTRY NEWS

The new Bohlin C-VOR digital rheometer with strain, stress and shear rate control



Bohlin Instruments have introduced the **C-VOR**, a new advanced *digital* rheometer & dynamic spectrometer system capable of running all rheological test modes including *step strain testing*. The **C-VOR** is suitable for a very wide range of applications including coatings, foods, pharmaceuticals, polymers and petrochemicals.

The **C-VOR** is a high resolution, modular system with *triple-mode* operation which allows strain, stress and shear rate controlled measurements to be performed using a single test station. The *new triple mode motor control* enables the **C-VOR** drive motor to be engaged and controlled as a conventional servo system allowing *true strain* controlled measurements such as stress relaxation and stress growth. Alternatively, the motor can be controlled at pre-set speeds to generate shear rate controlled data. Conversely, by running the motor in open-loop mode, stress controlled tests such as creep and creep recovery can be performed.

The strain-controlled tests are torque re-balanced which ensures that the actual strain perfectly tracks the command strain producing *compliance free*, true controlled strain data. In combination with this, the system provides excellent *transient control* and step changes in strain can be effected in as little as 20 milli-seconds.

Incorporation of a high-resolution *normal force sensor* directly into the C-VOR mechanics gives both extreme sensitivity and a broad range. This enables precise and accurate normal stress measurement on low viscosity solutions through to high modulus polymer melts. In addition normal force can be used for active gap control and a range of sample loading protocols.

For maximum flexibility, the **C-VOR** can be quickly and easily configured with a wide range of temperature controls to suit all testing requirements. Available temperature control units include a range of fluid circulators, a peltier device, electrically heated plates and a forced

gas oven with a liquid nitrogen cooling option. Practically, this means that the **C-VOR** test station can quickly be adapted as testing requirements change.

Flexibility in both measuring sensors and temperature controls means that the

C-VOR is equally as capable of measuring solid polymers in torsion as it is in generating viscosity data on low viscosity fluids.

The rheometer is driven by a 32-bit MS-Windows based operating software compatible for use on all modern operating systems including windows 95, 98, ME, NT4, and 2000.

For further information on the above and all Bohlin products, contact Lynda Watson at [**lw@bohlin.co.uk**](mailto:lw@bohlin.co.uk) or visit [**www.bohlin.co.uk**](http://www.bohlin.co.uk)

Rheometric Scientific Reports For 2000 its First Profitable Year Since 1994

PISCATAWAY, N.J.--(BUSINESS WIRE)--March 28, 2001--Rheometric Scientific, Inc. (OTCBB: RHEM), announced improved operating results for the fiscal fourth quarter which represented its third consecutive quarterly net profit. Furthermore, the Company posted a full year net profit for the year ended December 31, 2000 which is the Company's first full year net profit since 1994. Robert Castello, the Company's Chairman, stated "the financial gains achieved in fiscal 2000 are a direct result of the operating improvements launched earlier in the year. The Company continues to implement its strategic plan to grow sales, improve margins and focus on new business sectors in the world wide scientific instrument marketplace."

CONFERENCES

You are also advised to visit the BSR home pages where an extensive list of conferences is maintained by Chris Petrie: <http://www.bsr.org.uk/>

2001	
10-14 Jun Patras GR	3RD INTERNATIONAL MEETING OF THE HELLENIC SOCIETY OF RHEOLOGY Dedicated to the retirement of Prof Andreas Acrivos Info: esperia.iesl.forth.gr/~hsr/hsr.html
8-13 Jul Vancouver, BC CA	3RD PACIFIC RIM CONFERENCE ON RHEOLOGY Organised by The Canadian Rheology Group and The University of British Columbia Info: www.prcr3.com
9-13 Jul Nice FR	EIGHTH INTERNATIONAL CONFERENCE ON ELECTORRHEOLOGICAL FLUID AND MAGNETORHEOLOGICAL SUSPENSIONS Organised by The University of Nice-Sophia-Antipolis. Contact: G Bossis E: Bossis@unice.fr Info: http://www.unice.fr/ERMR2001/
16-19 Jul Edinburgh GB	CALCIUM ALUMINATE CEMENTS (CAC) Organised by IOM Communications Ltd on behalf of The Institute of Materials. Technical Enquiries: Raman Mangabhai E: raman.j.mangabhai@learnfree.co.uk
29-31 Aug Manchester GB	COMPLEX FLUIDS IN EXTERNAL FIELDS Organised by The University of Manchester on behalf of The RSC, IOP and BSR. Technical Enquiries: Dr Andrew Masters E: Andrew.Masters@man.ac.uk
23-27 Sep Melbourne AU	6th WORLD CONGRESS OF CHEMICAL ENGINEERING Meeting Planners, 108 Church Street, Hawthorn, Victoria 3122, Australia T: +61 (0)3 9819 3700 F: +61 (0)3 9819 5978 E: chemeng@meetingplanners.co.au Info: http://www.meetingplanners.com.au/chemeng
8-10 Oct Marne-la-vallee FR	36TH COLLOQUIUM OF THE GROUPE FRANÇAIS DE RHEOLOGIE – «RHEOLOGIE – GENIE CIVIL ET ENVIRONNEMENT» Contact Dr P Coussot, Laboratoire des Materiaux et des Structures du Genie Civil (LCPC/CNRS), Cite Descartes, 2 alle Kepler, 77420 Champs-sur-Marne, France T: +33 (0)1 40 43 50 00 F: +33 (0)1 40 43 54 50 E: phillippe.coussot@lcpc.fr

21-25 Oct Bethesda, MD US	73RD ANNUAL MEETING OF THE SOCIETY OF RHEOLOGY Contact: Carl R. Schultheisz, NIST Polymers Division, 100 Bureau Drive, Gaithersburg, MD 20899, USA T: (301) 975-6847 F: (301) 975-4977 E-mail: carl.schultheisz@nist.gov . Info: http://www.rheology.org/sor/annual_meeting/2001Oct/default.htm
7 Nov London GB	RHEOLOGY OF DISPERSIONS A meeting organised by the SCI Colloid and Surface Chemistry Group SCI Conference Secretariat, SCI, 14/15 Belgrave Square, London SW1X 8PS T: +44 (0)20 7598 1564 F: +44 (0)20 7235 7743 E: alex.jennings@soci.org Info: www.soci.org
11-16 Nov New York, NY US	SYMPOSIUM: "RHEOLOGY & FLUID MECHANICS OF NONLINEAR MATERIALS" ASME Int'l Mechanical Engineering Congress & Exposition. Contact: D A Siginer, Wichita State U, 1845 Fairmount, Wichita, KS 67260, USA T: +1 316 978 3400 F: +1 316 978 3853 E: siginer@engr.twsu.edu
2002	
24-26 Apr Malaga SP	JOINT MEETING OF SPANISH, PORTUGUESE, ITALIAN & BRITISH SOCIETIES OF RHEOLOGY Details in next Bulletin
14-18 Jul Montreal, QU CA	SYMPOSIUM: "FLOWS IN MANUFACTURING PROCESSES" ASME 2002 Fluid Engineering Division Summer Meeting. Contact: D A Siginer, Wichita State U, 1845 Fairmount, Wichita, KS 67260, USA T: +1 316 978 3400 F: +1 316 978 3853 E: siginer@engr.twsu.edu
1-6 Sep Erlangen DE	EUROPEAN CONGRESS ON RHEOLOGY Details will be added when available.
9-11 Sep Edinburgh GB	FARADAY DISCUSSION – COMPUTATIONAL RHEOLOGY Details will be added when available.

17-22 Nov
New Orleans,
LA
US

SYMPOSIUM: "RHEOLOGY & FLUID MECHANICS OF NONLINEAR MATERIALS"

ASME Int'l Mechanical Engineering Congress & Exposition. Contact: D A Siginer, Wichita State U, 1845 Fairmount, Wichita, KS 67260, USA

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SYMPOSIUM: "ADVANCES IN MATERIALS PROCESSING SCIENCE"

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COURSES

2001

29 May – 1 Jun
Loch Lomond
GB

THEORETICAL, EXPERIMENTAL AND INDUSTRIAL ASPECTS OF RHEOLOGY

Dr Nick Hudson, Dept of Pure & Applied Chemistry, University of Strathclyde, 295 Cathedral St, Glasgow G1 1XL, UK

T: +44 141 548 2162 F: +44 141 548 4822

E: n.e.hudson@strath.ac.uk

4-8 Jun
Minneapolis
MN
USA

26TH ANNUAL SHORT COURSE ON RHEOLOGICAL MEASUREMENTS: APPLICATION TO POLYMERS, SUSPENSIONS, AND PROCESSING

Directed by Chris Macosko. Contact David Giles, University of Minnesota, Department of Chemical Engineering and Materials Science, 421 Washington Avenue SE, Minneapolis, MN 55455, USA

T: +612 625 0880 F: +612 626 1686

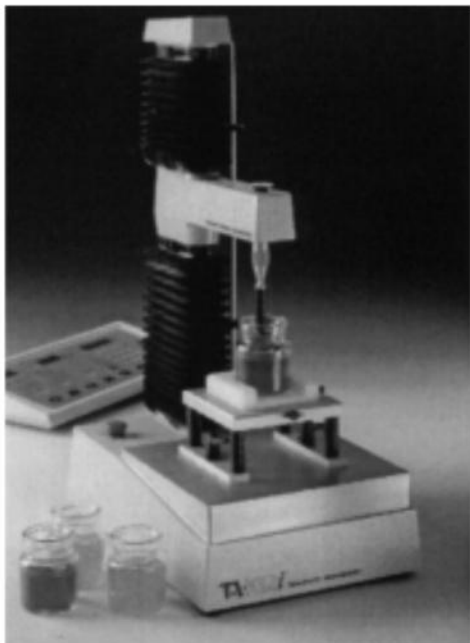
E: giles002@tc.umn.edu

25-29 Jun Minho PT	SUMMER SCHOOL ON "ANALYTICAL AND NUMERICAL METHODS IN NON-NEWTONIAN FLUID MECHANICS" Organised by The University of Minho and the University of Wales Institute of Non-Newtonian Fluid Mechanics. Contact the Secretariat. E: s.school@ecum.uminho.pt Info: http://www.ecum.uminho.pt/SummerSchool
10-14 Sep Leuven BE	7TH EUROPEAN SCHOOL OF RHEOLOGY Organised by the European Society of Rheology and the Belgian Group of Rheology. Contact Peter Van Puyvelde E: peter.vanpuyvelde@cit.kuleuven.ac.be Info: http://www.cit.kuleuven.ac.be/cit/ltrk/course.html
23-24 Oct Malmö SE	GRUNDKURS I REOLOGI (BASIC RHEOLOGY, PART 1 – held in Swedish) Presented by Annika Sahlström, MSc Calmia AB, Box 2161, SE-220 02 Lund, Sweden T/F: +46 (0)46 211 00 20 E: calmia@calmia.se Info: www.calmia.se
6-7 Nov Malmö SE	APPLIED RHEOLOGY FOR THE PROCESS INDUSTRIES Presented by Prof Howard Barnes Calmia AB, Box 2161, SE-220 02 Lund, Sweden T/F: +46 (0)46 211 00 20 E: calmia@calmia.se Info: www.calmia.se
12-16 Nov Glasgow GB	PROCESS RHEOLOGY Dr Nick Hudson, Dept of Pure & Applied Chemistry, University of Strathclyde, 295 Cathedral St, Glasgow G1 1XL, UK T: +44 141 548 2162 F: +44 141 548 4822 E: n.e.hudson@strath.ac.uk
12-13 Nov Malmö SE	WETTING, SPREADING & ADHESION Presented by Prof Tharwat Tadros Calmia AB, Box 2161, SE-220 02 Lund, Sweden T/F: +46 (0)46 211 00 20 E: calmia@calmia.se Info: www.calmia.se
19-20 Nov Malmö SE	EMULSION SCIENCE & TECHNOLOGY Presented by Prof Tharwat Tadros Calmia AB, Box 2161, SE-220 02 Lund, Sweden T/F: +46 (0)46 211 00 20 E: calmia@calmia.se Info: www.calmia.se

21-22 Nov Malmö SE	NANOEMULSIONS & MICROEMULSIONS Presented by Prof Tharwat Tadros Calmia AB, Box 2161, SE-220 02 Lund, Sweden T/F: +46 (0)46 211 00 20 E: calmia@calmia.se Info: www.calmia.se
26-27 Nov Malmö SE	INTRODUCTION TO ADVANCED RHEOLOGY Presented by Annika Sahlström, MSc Calmia AB, Box 2161, SE-220 02 Lund, Sweden T/F: +46 (0)46 211 00 20 E: calmia@calmia.se Info: www.calmia.se
3-4 Dec Malmö SE	PARTICLE CHARACTERIZATION Presented by Dr Terence Allen Calmia AB, Box 2161, SE-220 02 Lund, Sweden T/F: +46 (0)46 211 00 20 E: calmia@calmia.se Info: www.calmia.se
2002	
21-24 Apr Malaga SP	8TH EUROPEAN SCHOOL OF RHEOLOGY Details in next Bulletin
3-6 Jun Loch Lomond UK	THEORETICAL, EXPERIMENTAL AND INDUSTRIAL ASPECTS OF RHEOLOGY Dr Nick Hudson, Dept of Pure & Applied Chemistry, University of Strathclyde, 295 Cathedral St, Glasgow G1 1XL, UK T: +44 141 548 2162 F: +44 141 548 4822 E: n.e.hudson@strath.ac.uk
11-15 Nov Glasgow UK	PROCESS RHEOLOGY Dr Nick Hudson, Dept of Pure & Applied Chemistry, University of Strathclyde, 295 Cathedral St, Glasgow G1 1XL, UK T: +44 141 548 2162 F: +44 141 548 4822 E: n.e.hudson@strath.ac.uk
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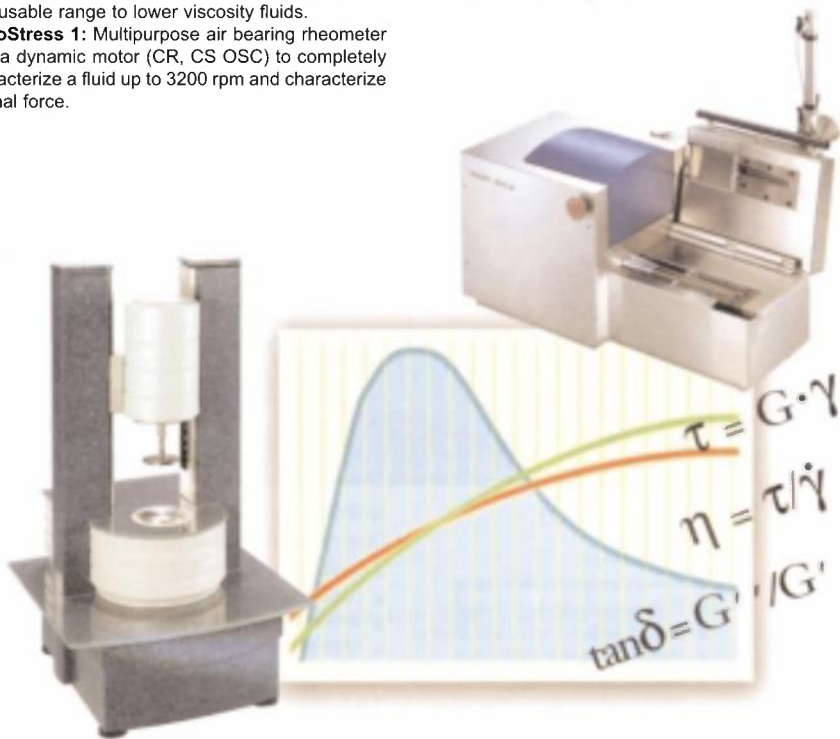
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