

## RHEOLOGY BULLETIN

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**THE SOCIETY OF RHEOLOGY  
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**68th ANNUAL MEETING  
GALVESTON, TX  
FEBRUARY 16 - 20, 1997**

The next annual meeting of the Society of Rheology will be held at the San Luis Hotel in Galveston, Texas. Details of the technical program may be found on the Society's web page at <http://www.umecheme.maine.edu/sor/> or inside this issue of Rheology Bulletin. The meeting organizers are:

*Technical Program Chairmen:*

Donald G. Baird  
Department of Chemical Engineering  
Virginia Tech  
Blacksburg, VA 24061-0211  
(540) 231-5998; Fax: (540) 231-2732  
e-mail: dbaird@vt.edu

Jay D. Schieber  
Department of Chemical Engineering  
Illinois Institute of Technology  
10 W. 33rd Street  
Chicago, IL 60616  
(312) 567-3046; Fax: (312) 567-8874  
e-mail: cheschieber@iit.edu

*Local Arrangements Chairman:*

William E. VanArsdale  
Department of Mechanical Engineering  
University of Houston  
Houston, TX 77204-4792  
(713) 743-4525; Fax: (713) 743-4503  
e-mail: vanarsdale@uh.edu

**COMMITTEES***Membership:*

A.J. Giacomin, chair  
S. Drappel  
T.C. Jordan  
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*Education:*

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*Meetings Policy:*

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G.G. Fuller  
A.J. Giacomin  
A.M. Kraynik  
R.L. Powell

*Bingham Award:*

R.H. Colby, chair  
A. Chow  
D.F. James  
A.B. Metzner  
W.M. Prest, Jr.  
R.K. Prud'homme  
E.S.G. Shaqfeh

**XIIth International Congress on Rheology**

The next International Congress on Rheology will be held in Quebec City, Canada, August 18 - 23, 1996. The detailed program is available on the World Wide Web at: <http://www.gch.ulaval.ca/~rheology/>

**H. HENNING WINTER  
1996 BINGHAM MEDALIST**

The Bingham Medal for 1996 will be awarded to Prof. H. Henning Winter of the University of Massachusetts, Amherst. A detailed writeup appears inside.

**RHEOLOGY SHORT COURSE** A two-day short course on *Flow Visualization* will be taught in Galveston, February 15-16, by Professors D.V. Boger, J.A. Byars, K. Walters and R. Powell. Course description and registration information are enclosed.

**POSTER SESSION** A poster session will be held in Galveston. The deadline for submission of abstracts is January 10, 1997. For details see the enclosed flyer.

**INSTRUMENT EXHIBIT** Several companies will exhibit rheological instrumentation at the annual meeting.

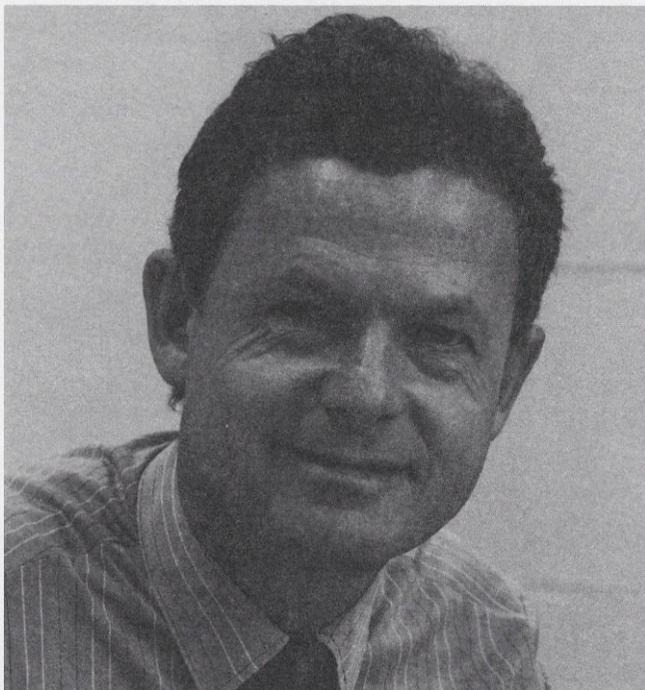
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RHEOLOGY BULLETIN  
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### WINTER WINS 1996 BINGHAM MEDAL

The Bingham medal for 1996 will be awarded to H. Henning Winter, Distinguished University Professor of Chemical Engineering and Adjunct Professor of Polymer Science and Engineering at the University of Massachusetts, Amherst. This award has been given in recognition of outstanding contributions to experimental rheology and rheometry of gels and polymer melts.



Professor H. Henning Winter

Winter obtained his Dipl.-Ing. at the University of Stuttgart, Germany, and a M. Sci. in Chemical Engineering at Stanford University. Subsequently, he earned a Ph.D. (summa cum laude) in Chemical Engineering at the University of Stuttgart and wrote his "Habilitation" for the area of Rheology. He has been a post-doctoral fellow at the Rheology Research Center at the University of Wisconsin, a Visiting Professor at the University of Minnesota and at the Max Planck Institute for Polymers in Mainz. In 1979, he joined the faculty of the University of Massachusetts where, in 1994, the Trustees of the University appointed him to "Distinguished University Profes-

sor". He has been the Editor of *Rheologica Acta* since 1990 and is a member of the editorial boards of the *Journal of Rheology* and the *Journal of Non-Newtonian Fluid Mechanics*.

Winter and his research group, in a series of ground breaking papers, have characterized the rheology of polymers during gelation. They discovered that the gel point of polymers is marked by self-similar relaxation at long times. This was a clear breakthrough in an area which until then had been viewed as not accessible to rheology in a quantitative way. The simplicity of the behavior at the gel point is quite striking and the behavior discovered by Winter and his group makes it easy to identify the gel point. This approach has helped many researchers in their study of solidifying materials by both chemical and physical gelation. The experimental findings have also apparently initiated a rather active development of theories for the rheology of gels, mostly in the physics community. However, these results have also had technological impact, supporting the commercial development of gels for adhesives, sealants, toners, and biological applications.

More recently, Winter and his co-workers M. Baumgartel and A. Schausberger discovered that the relaxation of linear, flexible polymers with a uniform chain length follows a scaling relation. The parameters are the plateau modulus, the longest relaxation time, and the scaling exponent. The scaling relation has potential as a starting condition for the exploration of polymers with more complicated molecular architecture including branching, polydispersity, and chain stiffness.

For generating biaxial extension in small samples, Winter invented the technique of lubricated squeezing and studied it jointly with C.W. Macosko. This simple technique was the first one to give step-strain biaxial extension data. Biaxial extension data are important for the development of constitutive equations and for selecting polymers which are suitable for polymer processing operations such as film blowing and blow molding. The method has been used in several laboratories, and it has recently been adopted for commercial rheometry.

H.H. Winter has contributed to the numerical modeling of polymer flows with a focus on technologically important areas. His 1977 paper on viscous dissipation is considered by many as a classic paper in the area. His current research interests include gelation, rheology and material structure, and rheometrical methods. A list of his publications can be found at <http://www.ecs.umass.edu/che/winter.html>.

### 1996 Journal of Rheology Publication Award

The 1996 Journal of Rheology Publication Award has gone to L.B. Chen, B.J. Ackerson, and C.F. Zukoski for their paper entitled, "Rheological consequences of microstructural transitions in colloidal crystals," and published in the *Journal of Rheology*, **38** (2), 193-216 (1994).

### Membership Application Forms and other Information Available on the World Wide Web

Application forms for membership in the Society of Rheology can now be downloaded from the home page of the Society on the World Wide Web. The address is <http://www.umecheme.maine.edu/sor/> Also available on the home page are abstracts of forthcoming papers in the *Journal of Rheology* and a listing of upcoming rheology meetings.

## COMMENTS FROM THE PRESIDENT KURT WISSBRUN

### STATUS OF AND FUTURE DIRECTIONS FOR SoR WHERE ARE WE? WHAT (IF ANYTHING) SHOULD WE (TRY TO) CHANGE?

The first reaction of one who has been entrusted with the responsibility of presiding over an organization is to consider its present state. If that state is sound, as I am delighted to believe is true of SoR, then the second reaction is to worry about future threats to its health. Let me summarize my views of SoR's current situation. The Journal is, by all measures, subjective and objective, highly regarded editorially, and we have successfully managed the transition of the Editorship. The Editor's decisions on publication are based only on quality, not on financial restrictions on number of pages. The Journal has increased substantially in size, while the cost per page to the Libraries has been reduced, the publication page charge to authors eliminated, and the membership dues kept constant since 1988. In addition, we have managed to build the publication reserve fund that is essential for the above-mentioned editorial freedom, acting as a ballast to allow occasional cost overruns in a time-averaged break-even mode of operation.

The Annual Meetings, due to the dedicated efforts of our volunteer Technical Program and Local Arrangements Committees, continue to be successful in attendance, technical content, time for presentation, and opportunity to interact with colleagues, and at a cost that is moderate in comparison with other meetings. The introduction of poster sessions has eased, to some extent, the burden of scheduling multiple parallel sessions. Further, the Short Courses given in conjunction with the Meetings continue to be popular.

The Membership of the Society has increased to a record number, which may be taken as evidence for the estimations of the soundness of the Journal and the Meetings. In addition, great credit must also be given to the energetic and effective activities of the Membership Committee in publicizing these benefits of membership. Broadening the scope of the Bulletin, and establishment of a WWW home page are efforts to increase communication with and among members of the Society.

What, then, are the threats to this happy state of affairs? One, common to all Technical Society publishers, is the apparently inexorable decline of library subscriptions. In the short run, the financial burden caused by this may have to be a modest increase to the members of their share of the publication cost. On a longer time scale, this will be compounded by the unknown effects of the inevitable growth of electronic publishing. Our affiliation with AIP, and its cooperation with other publishers, offers us the best hope for coping with whatever changes might occur. Personally I am optimistic that the refereed archival journal will survive because it can serve as a filter and as a life preserver to keep readers from drowning in a sea of information. Such a role may suggest changes in publication policy, for example, as to encourage more review articles. Another threat is more specific to SoR, as an interdisciplinary society, most of whose members belong to other, perhaps primary, societies. As subfields mature and problems are solved, practitioners may no longer consider SoR membership to be important to them. They may drop out, and form rheology groups within their primary societies. The loss

to them is the lack of interaction with advances in related subfields that may be useful to them; the loss to SoR is the lack of knowledge of new rheological problems that may have arisen from advances in their technology. It is clear from the limited communication from the members that the answer to this problem is not to have additional meetings, workshops, etc. However, perhaps an answer may lie in making use of the dormant provision in our Constitution for the formation of Divisions. Perhaps a Division composed of members with a fairly narrow area of common interest could act as a bridge to the members of the principal technical society (ies) devoted to that interest; it could also co-sponsor symposia at meetings of those societies (meetings and symposia that are now being held anyway, without SoR involvement). The risks, financial and technical, would probably be small; the possible gain would be the broadening of our base without greatly affecting the core Society. Your views on this proposal, and on other topics addressed or ignored in these comments, are most welcome! My e-mail address is [kfw@aip.org](mailto:kfw@aip.org).

## TECHNICAL PROGRAM FOR GALVESTON

Authors wishing to present a paper in Galveston should submit a camera-ready abstract on the enclosed form to the Technical Program Co-chairman, Donald G. Baird, by September 13, 1996. A copy of the abstract should also be sent to the appropriate symposium organizer. The planned symposia and their organizers follow:

### 1. DRILLING FLUIDS:

J. George Savins  
Baroid Drillings Fluids  
1828 Shady Glen Lane  
Dallas, TX 75232  
(214) 337-5929  
Fax: (214) 337-5929 [follow instructions]

Henry V. Nickens  
Amoco Exploration Technology  
3000 North Sam Houston Pkwy, East  
P.O. Box 1675  
Houston, TX 77251  
(713) 987-5900; Fax: (214) 337-5929

### 2. COMPRESSION RHEOLOGY, AND POROUS MEDIA FLOW:

Chip Zukowski  
Department of Chemical Engineering  
University of Illinois  
1209 W. California Street  
Urbana, IL 61801  
(217) 333-7379  
Fax: (217) 244-8068

David V. Boger  
D.V. Boger and Associates  
71-73 Baker Rd.  
Harkaway, Victoria 3806, AUSTRALIA  
61 3 344-7440  
Fax: 61 3 344-4153 e-mail:  
[david\\_boger.chem\\_eng@muwaye.unimelb.edu.au](mailto:david_boger.chem_eng@muwaye.unimelb.edu.au)

### 3. RHEOLOGY OF SOLIDS:

Gregory B. McKenna  
National Institute of Standards and Technology  
A-2089 Bldg 224  
Gaithersburg, MD 20899  
(301) 975-6752; Fax: (301) 977-2018  
e-mail: greg@micf.nist.gov

### 4. NONISOTHERMAL FLOWS, AND THERMO-DYNAMICS OF FLOWING SYSTEMS:

Juan dePablo  
Department of Chemical Engineering  
University of Wisconsin  
1415 Johnson Drive  
Madison, WI 53706  
(608) 262-7727; Fax: (608) 262-5434  
e-mail: depablo@coefac.engr.wisc.edu

Jan V. Sengers  
Department of Chemical Engineering  
University of Maryland  
College Park, MD 20742-2111  
(301) 405-2983; Fax: (301) 405-0523  
e-mail: js45@umail.umd.edu

### 5. POLYOLEFINS AND INDUSTRIAL RHEOLOGY:

William Hartt  
3M, Building 208-1-01  
St. Paul, MN 55144-1000  
(612) 736-0238; Fax: (612) 733-3304  
e-mail: whartt@mmm.com

Skip Rochefort  
Oregon State University  
Chemical Engineering Department  
Gleeson Hall 103  
Corvallis, OR 97331-2702  
(503) 737-2408; Fax: (503) 737-4600  
e-mail: rochefsk@engr.orst.edu

### 6. GRANULAR MATERIALS:

Norman J. Wagner  
Department of Chemical Engineering  
University of Delaware  
Colburn Laboratory  
Newark, DE 19716  
(302) 831-8079; Fax: (302) 831-1048  
e-mail: wagner@che.udel.edu

Rafaella Ocone  
Department of Chemical Engineering  
University of Nottingham  
Nottingham, England, U.K.  
44 115 951-4181

### 7. CHARGED POLYMERS AND COLLOIDS:

Ralph H. Colby  
Dept. of Materials Science & Engineering  
The Pennsylvania State University  
University Park, PA 16802-5007  
(814) 863-3457; Fax: (814) 865-2917  
e-mail: RHC@plmsc.psu.edu

### 8. EXPERIMENTAL METHODS IN RHEOLOGY:

Anthony J. McHugh  
Department of Chemical Engineering  
University of Illinois  
Urbana, IL 61801  
(217) 333-1178; Fax: (217) 333-5052  
e-mail: a-mchugh@uiuc.edu

Ali Berker  
3M Center, 3M Building  
St. Paul, MN 55144-1000  
(612) 737-7728; Fax: (612) 736-6377  
e-mail: aberker@mmm.com

### 9. NUMERICAL SIMULATION:

Michael Graham  
Department of Chemical Engineering  
University of Wisconsin  
Madison, WI 53706  
(608) 265-3780; Fax: (608) 262-5434  
e-mail: graham@engr.wisc.edu

Bamin Khomami  
Department of Chemical Engineering  
Washington University  
Campus Box 1087  
St. Louis, MO 63130  
(314) 935-6065; Fax: (314) 935-4434  
e-mail: bam@wuchel.wustl.edu

### 10. VISUALIZATION AND OPTICAL METHODS:

Jan van Egmond  
Department of Chemical Engineering  
University of Massachusetts  
Amherst, MA 01003-3310  
(413) 545-0593; Fax: (413) 545-1647  
e-mail: vanegmon@ecs.umass.edu

### 11. CONSTITUTIVE EQUATIONS, NON-NEWTONIAN FLUID MECHANICS:

#### *Experimental:*

Henning H. Winter  
Department of Chemical Engineering  
University of Massachusetts  
Amherst, MA 01003-3310  
(413) 545-0922; Fax: (413) 545-1647  
e-mail: winter@oitvms.oit.umass.edu

**MEETING INFORMATION**  
**The Society of Rheology 68th Annual Meeting**  
**February 17-20, 1997, The San Luis Hotel, Galveston, Texas**

**Location:** Technical sessions will be held at The San Luis Hotel, 5222 Seawall Boulevard, Galveston, TX 77551-4098, (409)744-1500, (800)392-5937. Galveston Island is located about 50 miles southeast of Houston along the Texas Gulf Coast. The island has a romantic history, Victorian architecture, 32 miles of beaches and a variety of attractions. The climate is temperate with a mean temperature of 56°F (13°C) in February. All rooms at The San Luis Hotel have a private balcony facing the Gulf of Mexico.

**Transportation:** Houston is served by both Intercontinental Airport and Hobby Airport, but Hobby is much closer to Galveston. Transportation from both airports is provided by Galveston Limousine Service at (800) 640-4826. A shuttle departs Hobby every 1.5 hours from 8 AM until 11 PM. The one hour trip to Galveston costs \$21. A shuttle departs Intercontinental every 1.5 hours from 7 AM to 10 PM. The two hour trip to Galveston costs \$26. Cab service is \$111 from Intercontinental and \$71 from Hobby. Cars can be rented at both airports. Ask the rental company for directions to I-45 south. Follow this interstate south to Galveston where it becomes Broadway. Turn right on 61st Street and continue until Seawall Boulevard. Turn left on Seawall and continue to The San Luis Hotel near the intersection with 53rd Street. Approximate driving time is 45 minutes from Hobby and 90 minutes from Intercontinental. Parking is free at the hotel.

**Registration:** The registration fee includes program abstracts and admission to social events, exhibits, technical sessions, plenary lectures and the Bingham Award Address. Social events include the Society Luncheon and all receptions. The Bingham Award Banquet, held Tuesday evening, costs an additional \$35 per person. Please purchase tickets for this event before the meeting. Registration forms are available from Joanne Vanterpool, University of Houston, Dept. Mechanical Engineering, Houston, TX 77204-4792, (713)743-4502, joanne\_vanterpool@mail.me.uh.edu.

**Welcoming Reception:** T. A. Instruments, Inc. will host a reception at The San Luis Hotel on Sunday, February 16th from 7-10 PM. This reception will be outside near the pool, which will be filled with a viscoplastic material for the conference. Entertainment will be provided by past Bingham Award winners, who will attempt to swim across the pool.

**Society Luncheon:** Haake, Inc. will help sponsor the Society Luncheon at noon on Monday, February 17th in the Argosy Ballroom of The San Luis Hotel. This luncheon will include the official conference opening and a report on the Society's activities.

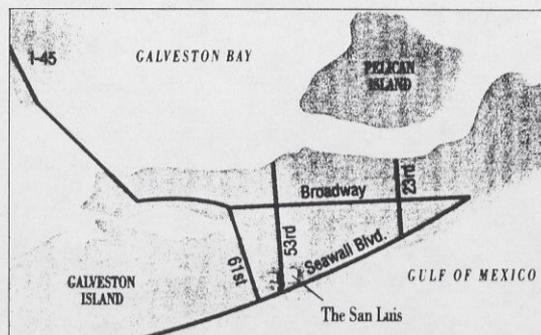
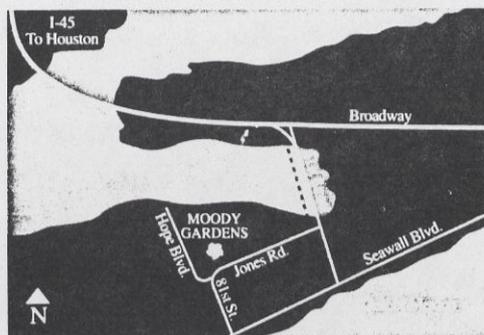
**Society Reception:** Rheometrics, Inc. will host a reception at Moody Gardens from 6:30-10 PM on Monday, February 17th. Bus service will be provided from The San Luis Hotel starting at 5:30 PM. Early attendees can tour gardens in the 10-story glass pyramid.

**General Business Meeting:** All members are encouraged to attend the annual business meeting of The Society of Rheology on Tuesday, February 18th. This meeting will start at 5:30 PM in the Elissa conference room.

**Bingham Award Banquet:** Bohlin Instruments will host a reception beginning at 7 PM on Tuesday, February 18th prior to the Bingham Award Banquet. The reception and banquet will be held in the Argosy Ballroom of The San Luis Hotel. Dinner will be served at 8 PM for those attending the banquet.

**Poster Session:** PAAR Physica USA, Inc. will sponsor a reception in conjunction with the poster session on Wednesday, February 19th at The San Luis Hotel. This event will start at the conclusion of the technical session. Posters will be on display in Leeward and in the corridor outside the conference rooms.

**Exhibits:** Instrument vendors will demonstrate their products in East & West Tops'l. This room will open half an hour before a coffee break and close about half an hour after the break. This room will also be open during the poster session Wednesday evening.













# The Society of Rheology

Presents

A Two-Day Short Course on

## *Flow Visualization*

by

David Boger

and

J. A. Byars

The University of Melbourne

K. Walters, FRS

University of Wales, Aberystwyth

Robert Powell

University of California, Davis

To be held Saturday and Sunday February 15 and 16, 1997 in conjunction with the 68th Annual Meeting of the Society of Rheology February 17- 20, 1997.

San Luis Hotel,

5222 Seawall Boulevard

Galveston, TX

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### Course Description

Rheology has made significant advances in the recent past on a number of fronts and it is now possible to contemplate (if not accomplish) quantitative, or at least semi-quantitative, simulation of the behavior of rheologically complex fluids in flows of practical importance. Such a process has at least four strands:

1. Rheometry (Behavior in simple flows)
2. Construction of constitutive models
3. Numerical simulation within a non-Newtonian setting for complex flows of industrial relevance
4. Experimental validation for the flows studied in (3)

It will be necessary to consider briefly all four topics, but the main thrust of the short course will involve area (4). Here, it will clearly be necessary to touch on numerous techniques of flow

characterization, e.g. determination of "pressure drops" and other means of stimulating "resistance to flow"; but the main thrust of the course will involve a detailed look at the various techniques and results available for flow visualization in both transparent and opaque systems.

Techniques will include:

1. Streak photography
2. Speckle photography
3. Laser Doppler anemometry
4. N.M.R visualization, etc.
5. The course will rely heavily upon photographic observations made in non-Newtonian fluid mechanics, detailed in part in "Rheological Phenomena in Focus" (Boger and Walters, Elsevier Science Publishers, 1993).

A special presentation on nuclear magnetic resonance imaging (NMRI) will be made by Bob Powell. Nuclear magnetic resonance imaging can be used to study flow in liquids and suspensions. The advantages of this technique are that it is non-invasive and that it can be applied to opaque systems, offering the opportunity to measure velocity in real materials. Examples will be given of velocity measurements in a variety of model and industrially important liquids and slurries. Rheological measurements made using NMRI will be discussed.

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### Registration

The fee for the two-day course is \$375 prior to November 30, 1996. For registration after November 30, the fee will be \$425. Student rates are half of the base rate. The book, "Rheological Phenomena in Focus" (Boger and Walters, Elsevier Science Publishers, 1993) will serve as notes for the course. The SOR will make this book available for \$75.00 (one-half of the list price) for course participants.

**Checks should be made payable to The Society of Rheology** and sent together with the registration form to

Professor Peter E. Clark  
Department of Chemical Engineering  
The University of Alabama  
Box 870203  
Tuscaloosa, AL 35487

Telephone (205) 348-1682  
Fax (205) 348-9455

Reservations for lodging at the San Luis Hotel should be made by the participant (Fax (409) 744-8452. A block of rooms has been reserved so mention the Society of Rheology when making reservations.

**Registration will be limited and the book order must be submitted in November so reserve your place early.**

**Starting time will be 8:30 Saturday morning. The room name or number will be announced.**

# REGISTRATION FORM

## RHEOLOGY SHORT COURSE

**San Luis Hotel**  
**5222 Seawall Boulevard**  
**Galveston, TX 77551-4098**

Telephone (800) 392-5937

Fax (409) 744-8452

Date \_\_\_\_\_

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Business Telephone \_\_\_\_\_

FAX \_\_\_\_\_

Date of Arrival \_\_\_\_\_

Please make checks payable to The Society of Rheology

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Return this registration form together with payment to:

Professor Peter E. Clark  
Department of Chemical Engineering  
The University of Alabama  
Box 870203  
Tuscaloosa, AL 35487  
Telephone (205) 348-1682, Fax (205) 348-6579

---

NOTE: The course will begin at 8:30.

Do you need confirmation? _____
Will you need a receipt? _____

Amount Enclosed	
Registration (\$375)	\$ _____
Book (\$75)	\$ _____
<b>Total</b>	<b>\$ _____</b>

Date Received _____
Payment _____

Joe Goddard  
Department of AMES  
University of California -- San Diego  
La Jolla, CA 92093-0310  
(619) 534-4508; Fax: (619) 534-4543

Hugh O'Donnell  
Procter and Gamble Company  
6110 Center Hill  
Cincinnati, OH 45224  
(513) 634-6920; Fax: (513) 634-5712

*Mathematical:*

Joe Goddard (see above) or

Michael Renardy  
Department of Mathematics  
Virginia Tech  
Blacksburg, VA 24061  
(540) 231-6549; Fax: (540) 231-5960  
e-mail: renardym@math.vt.edu

**12. COMPOSITES, LCPs, AND BLOCK COPOLYMERS:**

Patrick T. Mather  
Phillips Laboratory  
OLAC PL/RKFE  
10 E. Saturn Blvd.  
Edwards AFB, CA 93524-7680  
(805) 275-5416; Fax: (805) 275-5471  
e-mail: Matherp@lablink.ple.af.mil

David Mead  
Department of Mechanical Engineering  
University of Michigan  
2350 Hayward Street  
Ann Arbor, MI 48109-2125  
(313) 936-0431; Fax: (313) 764-4256  
e-mail: dmead@engin.umich.edu

**13. EXTENSIONAL RHEOMETRY:**

Gareth McKinley  
Division of Applied Sciences  
Harvard University  
Pierce Hall 316  
Cambridge, MA 02138  
(617) 496-5167; Fax: (617) 495-9837  
e-mail: gareth@stokes.harvard.edu

David C. Venerus  
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10 W. 33rd Street  
Chicago, IL 60616  
(312) 567-5177; Fax: (312) 567-8874  
e-mail: chevenerus@iit.edu

**14. PROCESSING RHEOLOGY:**

A. Jeffrey Giacomin  
Department of Mechanical Engineering  
University of Wisconsin  
1513 University Avenue  
Madison, WI 53706-1572  
(608) 262-7473; Fax: (608) 265-2316  
e-mail: giacomin@ie.engr.wisc.edu

**15. INTERFACIAL RHEOLOGY AND TRIBOLOGY:**

Matthew Tirrell  
Dept. of Chemical Engrg. & Material Science  
University of Minnesota  
Minneapolis, MN 55455  
(612) 625-5823; Fax: (612) 624-6564  
e-mail: tirrell@maroon.tc.umn.edu

**16. FOOD PROCESSING RHEOLOGY:**

Jozef L. Kokini  
Food Science Department  
Rutgers University  
New Brunswick, NJ 08903  
(908) 932-9669; Fax: (908) 932-6776

**17. SUSPENSIONS**

Daniel J. Klingenberg  
Department of Chemical Engineering  
University of Wisconsin  
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e-mail: klingen@neep.engr.wisc.edu

Stacy G. Bike  
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Ann Arbor, MI 48109-2136  
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e-mail: sbike@engin.umich.edu

**DECIDING THE TECHNICAL CONTENT OF ANNUAL MEETINGS**

Members may or may not be aware of the process by which the technical program of an annual meeting is formulated. Decisions in this regard are made by the Chair of the Technical Program Committee in consultation with the Executive Committee of the Society. The Society is always open to suggestions from the membership regarding specific symposia topics. The person proposing a particular topic should support the case by identifying, among other things, the target audience, potential speakers and session chairs. The proposal can be forwarded to a technical program chair well in advance of the target meeting. A proposal can also be submitted to the Vice President of the Society who chairs the Meetings Policy Committee. Names of technical program chairs, when available, can be found (i) in the minutes of previous Executive Committee Meetings (ii) on the SoR home page at <http://www.umecheme.maine.edu/sor/> (iii) by contacting a member of the Executive Committee. This is one way that members can shape the future direction of the Society. In this regard see also the accompanying Comments of Society President Kurt Wissbrun.

**MINUTES OF THE EXECUTIVE  
COMMITTEE MEETING  
March 24, 1996**

The meeting was called to order at 9:00 a.m. at the Newark Airport Marriott in New Jersey. Executive Committee Members in attendance included: Kurt Wissbrun, Ron Larson, Ed Collins, Morton Denn, Bob Armstrong, Gerry Fuller, Jeff Giacomini, and Andy Kraynik. Invited guests included: Rakesh Gupta, Bill VanArsdale, Jack Zakin, Greg McKenna, Janis Bennett, Mark Brodsky, and Terry Scott.

The minutes of the October 8, 1995 Executive Committee Meeting, which appeared in the January 1996 Rheology Bulletin, were approved as read.

Ron Larson led discussion on future meetings of the Society. The International Congress on Rheology will convene in Quebec City, Canada, August 18-23, 1996. Bill VanArsdale reported on local arrangements for the annual meeting in Galveston, Texas, February 16-20, 1997; Don Baird and Jay Schieber will coordinate the technical program. Jack Zakin reported on local arrangements for the regular annual meeting in Columbus, Ohio, October 19-23, 1997. Gerry Fuller discussed plans for an annual meeting in Monterey, California, October 4-8, 1998. The committee voted to accept a proposal presented by Jeff Giacomini to host an annual meeting in Madison, Wisconsin, October 17-21, 1999.

In his report on AIP (American Institute of Physics) issues, Greg McKenna indicated that an article on industrial rheology would be appropriate for the magazine, *Industrial Physicist*, and sought examples of physics success stories that relate to rheology. Greg encouraged the Society to pursue closer ties with AIP in efforts to maintain national support for science and technology. Mark Brodsky of AIP discussed electronic publishing.

Rakesh Gupta, Editor of Rheology Bulletin, indicated interest in publishing short articles and discussed the possibility of advertising in the Rheology Bulletin.

In the Editor's report, Morton Denn presented data on manuscript flow and noted that abstracts from the Journal of Rheology could be found on the Society of Rheology Home Page on the WWW.

Ed Collins, Treasurer, discussed the financial position of the Society; details can be found in the Rheology Bulletin. A report on finances for the Journal of Rheology, by Monty Shaw, Associate Editor for Finance, was presented. The committee voted to maintain nonmember subscription rates at \$ 425/year.

Jeff Giacomini discussed activities of the Membership Committee, which he chairs.

Kurt Wissbrun led discussion on society governance issues, which included gender neutrality and other possible amendments to the constitution, the status of corporate membership, committee structure, and formation of divisions within the Society. We also decided not to consider raising dues at this time.

The meeting was adjourned at 4:40 p.m.

**David Boger Receives 1995 Walter Ahlstrom Prize**

The Finnish Academies of Technology have awarded the 1995 Walter Ahlstrom Environmental Prize to Professor David Boger of the University of Melbourne, Australia for his research on non-Newtonian fluids which has resulted in the reduction of residues during aluminum production.

**RHEOLOGY BULLETIN  
AUTHOR GUIDELINES FORMULATED**

The Rheology Bulletin will now publish papers on the applied aspects of Rheology which are intended for the non-specialist. (Archival research papers should be sent to the Journal of Rheology which is also published by the Society of Rheology.) Appropriate topics include the application of rheological principles to a specific system, instrumentation for rheological measurements, description of interesting rheological phenomena, and the use of well-established rheological techniques to characterize products, processes or phenomena. Papers that describe the historical aspects of the practice of rheology and how these may have influenced current trends are welcome. Also welcome are papers that address the present and changing status of rheological education including papers that describe recent or current innovation in the classroom or laboratory. Consultation with the Editor prior to manuscript submission is encouraged.

Papers should ordinarily not exceed about 4000 words in length. SI units should be used, but any standard style of writing may be employed. The article must have a clear message, and the significance of the work must be explicitly stated. Submit two copies of the manuscript at least three months prior to the issue in which publication is desired. The initial decision about suitability of publication will be made by the Editor. Both solicited and contributed papers may be sent to two or more reviewers. If the paper has been published previously in essentially the same form, permission for reprinting must have been obtained from the copyright holder.

***Computers in Physics*  
Offered to Society Members at Reduced Rate**

The Society has negotiated a special introductory rate for members who would like to subscribe to the American Institute of Physics magazine *Computers in Physics*. The special introductory rate of \$39.95 for one year represents a 20% savings off AIP's regular member rate of \$49.95.

Since many in the Society may not be familiar with *Computers in Physics*, we have arranged to have AIP send a sample copy to every member.

Watch for the sample copy to arrive in August. If you decide to subscribe to *Computers in Physics* at the special introductory rate, just mark the special check-off box that will appear on your 1997 membership dues notice. Or contact AIP at:

American Institute of Physics  
Subscription Services  
500 Sunnyside Boulevard  
Woodbury, NY 11797-2999  
(800) 344-6902; Fax: (516) 576-2374  
e-mail: mktg@aip.org

**CHANGE OF ADDRESS**

If you are moving, please inform: Janis Bennett, (516) 576-2403, Fax: 576-2223, or Carolyn Gehlbach, (516) 576-2404 at

**THE SOCIETY OF RHEOLOGY  
c/o American Institute of Physics  
500 Sunnyside Boulevard  
Woodbury, NY 11797**

**THE SOCIETY OF RHEOLOGY**  
**STATEMENTS OF REVENUE AND EXPENSE**  
**AS OF DECEMBER 1995**

	<u>1994</u> <u>Budget</u>	<u>1994</u> <u>Actual</u>	<u>1995</u> <u>Budget</u>	<u>1995</u> <u>Actual</u>	<u>1996</u> <u>Budget</u>
<b>REVENUES</b>					
Dues	\$ 47,000	\$ 51,675	\$ 50,000	\$ 53,575	\$ 56,000
Interest	14,000	16,305	16,000	27,017	16,500
Journal of Rheology	208,266	218,477	201,690	213,286	220,250
Mailing list Sales	200	565	400	46	400
Annual Meetings	4,000	2,902	4,000	3,728	-
Short Courses	4,500	12,863	5,250	4,520	-
<b>TOTAL REVENUE</b>	<u><b>277,966</b></u>	<u><b>302,787</b></u>	<u><b>277,340</b></u>	<u><b>302,172</b></u>	<u><b>293,150</b></u>
<b>EXPENSES</b>					
AIP Administrative Service	7,000	7,000	7,000	7,000	7,000
AIP Member Society Dues	4,800	5,076	5,000	5,332	5,600
AIP Financial Handling	4,000	3,600	4,500	4,200	4,000
AIP Physics Olympiad	1,000	1,000	1,000	1,000	1,000
Renewal Billing	1,500	920	1,500	971	1,500
Journal of Rheology	207,274	249,998	201,625	192,317	222,135
Bulletins & Abstracts	6,500	11,344	7,000	9,026	3,000
Short Courses	4,500	4,592	5,000	5,109	-
Bingham Award	3,000	2,500	3,500	2,500	-
Executive Cmt. Meeting	6,500	4,780	6,500	4,665	6,500
Pres. Discretionary Fund	1,500	-	1,500	-	1,500
Trea. Discretionary Fund	1,500	802	1,500	685	1,500
Program Chm. Discre. Fund	2,000	-	2,000	-	-
Secretarial Services	1,000	-	1,000	-	1,000
Mailing	5,000	198	5,000	1,247	2,000
Office Expenses	1,500	1,408	1,500	1,077	1,500
Banking Services	25	26	100	30	120
Liability Insurance	182	169	200	169	169
Membership Directory	4,500	6,255	3,500	1,292	6,500
Membership Brochure	1,000	1,200	1,000	-	1,000
Accountant	1,500	1,100	1,500	1,214	1,500
Student Member Travel Grant	5,000	6,157	5,000	6,437	5,000
Advance Deposit For Future Mtg.	1,000	-	1,500	3,000	2,500
Miscellaneous	500	4,900	5,500	4,511	1,500
<b>TOTAL EXPENSE</b>	<u><b>272,281</b></u>	<u><b>313,025</b></u>	<u><b>273,425</b></u>	<u><b>251,782</b></u>	<u><b>276,524</b></u>
<b>NET INCOME</b>	<u><u><b>\$ 5,685</b></u></u>	<u><u><b>(10,238)</b></u></u>	<u><u><b>\$ 3,915</b></u></u>	<u><u><b>50,390</b></u></u>	<u><u><b>16,626</b></u></u>
<b>NET ASSETS AT YEAR END</b>		<u><u><b>\$ 355,921</b></u></u>		<u><u><b>\$ 406,311</b></u></u>	

**JOURNAL OF RHEOLOGY**  
**STATEMENTS OF REVENUE AND EXPENSE**  
**AS OF DECEMBER 1995**

	<u>1994</u> <u>Budget</u>	<u>1994</u> <u>Actual</u>	<u>1995</u> <u>Budget</u>	<u>1995</u> <u>Actual</u>	<u>1996</u> <u>Budget</u>
<b>REVENUES</b>					
Subscription, Advertising and Sales	\$ 200,191	\$ 199,468	\$ 199,375	\$ 204,620	\$ 213,850
Page Charges	-	995	-	-	-
Publication Award	-	1,300	1,000	1,000	1,000
Miscellaneous	8,075	16,714	1,315	7,666	5,400
	<u>208,266</u>	<u>218,477</u>	<u>201,690</u>	<u>213,286</u>	<u>220,250</u>
<b>TOTAL REVENUE</b>					
<b>EXPENSES</b>					
Advertising and Marketing	12,050	14,068	12,760	8,098	12,870
Single Copy and Reprints	8,825	10,830	3,240	6,142	9,850
AIP Editorial	35,280	47,815	36,770	34,267	33,750
SOR Editorial	33,000	30,052	37,000	29,361	40,000
Production Costs	57,309	79,443	56,830	52,054	56,250
Printing and Mailing	49,503	54,929	42,240	49,073	56,100
Subscription Fulfillment	11,307	11,861	11,785	12,322	12,315
Publication Award	-	1,000	1,000	1,000	1,000
	<u>207,274</u>	<u>249,998</u>	<u>201,625</u>	<u>192,317</u>	<u>222,135</u>
<b>TOTAL EXPENSE</b>					
<b>NET INCOME</b>	<u>\$ 992</u>	<u>\$ (31,521)</u>	<u>\$ 65</u>	<u>\$ 20,969</u>	<u>\$ (1,885)</u>

**Meeting Announcements**

August 4-9, 1996: 36th IUPAC International Symposium on Macromolecules, Seoul, Korea. Contact: Dr. K.U. Kim, Division of Polymers, Korea Inst. of Science & Tech., P.O. Box 131, Cheongryang, Seoul 130-650, Korea. Tel: 82 2-957-6104; Fax: 82 2-957-6105.

September 9-11, 1996: Fourth International Conference on Flow Processes in Composite Materials, Aberystwyth, UK. Contact: Dr. R.S. Jones, Dept. of Math., U of Wales, Penglais, Aberystwyth, Dyfed SY23 3BZ, UK. Tel. 44 1970 622762; Fax: 44 1970 622777.

September 29-October 4, 1996: 18 Symposium on Rheology, Karacharovo, Russia. Contact: Dr. L.I. Ivanova, Institute of Petrochemical Synthesis, RAS, 29, Leninsky Pr., Moscow 117912, Russia. Fax: 7 095 230-22-24.

November 17-22, 1996: ASME Symposium on Rheology and Fluid Mechanics of Nonlinear Materials, Atlanta, GA.

Contact: Prof. D. A. Siginer, Dept. of Mechanical Engrg., Auburn University, Auburn, AL 36849. Tel. (334) 844-3331; Fax: (334) 844-3307.

January 7-10, 1997: International Symposium on Lubricated Transport of Viscous Materials, Tobago, West Indies. Contact: Dr. H. Ramkissoon, Dept. of Mathematics, Univ. of West Indies, St. Augustine, Trinidad, W.I. Fax: (809) 645-7132. E-mail: hramki@centre.uwi.tt.

January 8-10, 1997: International Conference on Polymer Characterization, University of North Texas, Denton, TX. Contact: polychar@marta.phys.unt.edu.

July 27-31, 1997: 2nd Pacific Rim Conference on Rheology, Melbourne, Australia. Contact: Dr. Y.L. Yeow, Dept. of Chemical Engrg., U. of Melbourne, Parkville, Vic. 3052, Australia. Fax: 61 3 9344 4153.

September 29-October 2, 1997: 8th International Conference on Mechanics and Technology of Composite Materials, Sofia, Bulgaria. Contact: Bulgarian Society of Rheology. Fax: 3592 703 433. E-mail: mezi@bgearn.acad.bg