## RHEOLOGY BULLETIN

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# THE SOCIETY OF RHEOLOGY EXECUTIVE COMMITTEE – 2001-2003

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### 75<sup>th</sup> ANNUAL MEETING PITTSBURGH, PA OCTOBER 12 – 16, 2003

The 75th Annual Meeting of the Society of Rheology will be held in Pittsburgh, PA, from October 12 to 16, 2003; the associated optional Short Course will be offered on October 11 and 12. Plan to attend to make this 75th a meeting to remember until we reach the 100th! All sessions will be held at the Sheraton Station Square Hotel, a recently renovated, modern full-service hotel located in Station Square, opposite

the confluence of the Ohio, Allegheny and Monongahela rivers and the central "Golden Triangle" of Pittsburgh.

As usual, the Meeting will begin with a reception in the Hotel on Sunday evening, with presentation of the Bingham Award at a dinner later in the week. The Technical Program will include sessions on Biorheology, Entangled polymers and analytical rheology, Suspensions and multiphase fluids, Liquid crystalline polymers, self-assembling fluids, and nanomaterials, Viscoelastic flows and instabilities, and the Rheology of solids and near-solids. Additional details are available in this issue of the Bulletin while registration and housing forms may be found on the web site of the Society at www.rheology.org.

The conference site at Station Square (about 15 miles from the Airport) may be reached by direct limousine service from the airport operating hourly, by limousine service to downtown Pittsburgh operating more frequently, coupled with a short taxi ride to Station Square, or by taxi from the airport. Pittsburgh is served by the Pittsburgh International Airport, which offers direct flights to most major locations in the USA and Canada, as well as direct flights to several locations in Europe.

A block of rooms will be available in the Sheraton Station Square Hotel for the participants of the meeting. Attractions in the Pittsburgh area, many easily reached from the hotel, may be found on the web site at www.Pittsburgh.net.

The meeting organizers are:

Technical Program:

Ronald Larson

(734) 936-0772; Fax: (734) 763-0459

e-mail: rlarson@umich.edu

Local Arrangements:

Guy C. Berry

(412) 268-3131; Fax: (412) 268-6897

e-mail: gcberry@andrew.cmu.edu

Rakesh K. Gupta

(304) 293-2111 ext 2427; Fax: (304) 293-4139

e-mail: rakesh.gupta@mail.wvu.edu

Lynn Walker

(412) 268-3020; Fax: (412) 268-7139

e-mail: lwalker@andrew.cmu.edu

RHEOLOGY BULLETIN
Rakesh K. Gupta, Editor
Department of Chemical Engineering
West Virginia University
P.O. Box 6102
Morgantown, WV 26506
(304) 293-2111 Ext. 2427

Fax: (304) 293-4139 E-mail: Rakesh.Gupta@mail.wvu.edu

Visit The Society of Rheology on the web at http://www.rheology.org/

#### REPORT FROM THE PRESIDENT

#### SoR Dues and JoR Subscription Rates

Last summer John Dealy, a distinguished member and former President of the Society, questioned our policies with regard to dues for members and the subscription rates charged to libraries for the *Journal*. The concern expressed was "with the fact that the Society is making a substantial profit from its library subscriptions and using this profit to subsidize the members' dues". Members have long received the *Journal* with no additional charge beyond the dues. He feels this to be unethical, "in fact, doing the very thing (for which) we condemn the commercial publishers", and noted that surpluses from the *Journal* have increased our reserves such "that no reasonable person would believe that we need to make it larger". He proposed that the Society

- reduce the library subscription rate to bring it closer to the actual cost of publishing the library issues and
- change the dues structure to have a base rate and an optional extra charge for those subscribing to the *Journal*.

Presentation of these issues at the Business Meeting in Minneapolis generated a very lively discussion, leading to a motion instructing the Executive Committee to develop a proposal for changes in the dues structure. That proposal failed, but the narrow margin leads me to conclude that the Executive Committee should review both the financial reserves of the Society and the dues and subscription structure to gauge whether our current practices are appropriate. To begin this process I report here on some aspects of the finances that led us to disagree with John at the meeting. Your comments and imput are welcome.

#### Cost of JoR

The actual cost of the *Journal* is roughly \$250,000/1550 pages = \$160/page, whereas the incremental or marginal cost of supplying the *Journal* is \$27. The latter includes the member fulfillment charge and *pro rata* amounts for printing, binding, postage, storage and fees, normalized to 1600 pages to facilitate comparisons with other years. For members and libraries to bear equally the cost would mean fees of \$250,000/(1700 member subscriptions+387 library subscriptions) = \$119/subscriber, assuming retention of all current members.

For 2001 the Treasurer closed the books for the *JoR* with a shortfall of about \$4000, based on the current library subscription rate of \$550. This number varies from year to year according to unpredictable items such as advertising volume and the number of pages printed. The trend, however, suggests that the members will need to carry more of the load in the future. Our reserves have been increasing slightly in recent years, but still are the smallest per capita of the small AIP societies. The Treasurer always takes the prudent course of aiming for a balance of current income and costs, rather than spending down the reserves.

Early last Fall I gathered data from the web in order to compare our costs to libraries with a variety of other journals published by or associated with professional societies. These data are given below.

journal	pages year	print + web subscription	subscription cost/page	member subscription	<u>lib subs.</u> member subs.
Rheologica Acta	600	\$1,239	\$2.07	\$1,037	1.2
AIChE Journal (no web)	2866	\$950	\$0.33	\$105	9.0
Langmuir	8454	\$4,294	\$0.51	\$201	21.4
Macromolecules	9208	\$3,851	\$0.42	\$194	19.9
I&EC Research	6250	\$2,514	\$0.40	\$135	18.6
JoR	1500	\$550	\$0.37	\$40	13.8

By any measure we are not presently more expensive per page than other journals offering similar value. Admittedly my comparison in the last column of cost to SoR members relative to the cost to libraries attributes all of our dues to *JoR*, which is specious. On the other hand, if one took a difference instead of a ratio, the SoR would be well ahead even with zero cost for member subscriptions.

We could reduce the cost to libraries a bit by charging the members the marginal cost of \$27. However, delivering 75% of the subscriptions at the marginal cost rate is illogical and the potential loss in members even with that modest change would run counter to the primary objective of the Society to advance the understanding and appreciation of rheology. Instead, we could set the library subscription rate/member subscription rate = 20 in accord with *Langmuir*, Macromolecules, and I&EC Research. My estimate of the charges to break is 250,000/(20x387+1700) = 26 to members and \$400 to libraries. Alternatively, the Executive Committee has discussed the possibility of including electronic access in the dues and charging extra for paper copies. Whatever the approach, we need to take into account the value added by members who write and review papers, perhaps by imposing a substantial overhead charge against the Journal budget for services provided by the Society. We should also recognize the library subscriptions are probably quite insensitive to the rate, i.e. inelastic, while the member subscriptions could be very sensitive.

Your thoughts on any or all of these issues are welcome as guidance to our future discussions.

William B. Russel

#### 2002 JOURNAL OF RHEOLOGY PUBLICATION AWARD

The winners of the 2002 Journal of Rheology Publication Award are Thomas Thiele, Jean-Francois Berret, Stefan Muller, and Claudia Schmidt. A committee consisting of Mort Denn, Lisa Mondy, Bob Powell, Tom McLeish, and John Dealy selected their paper, "Rheology and nuclear magnetic resonance measurements under shear of sodium dodecyl sulfonate/decanol/water nematics," for the award. The paper appeared in the Journal of Rheology in volume 45, 29-48 (2001).

### MINUTES OF THE EXECUTIVE COMMITTEE MEETING October 13, 2002

Bill Russel called the meeting to order at 8:30 a.m. in the President's Room of the Radisson Hotel Metrodome on the campus of the University of Minnesota in Minneapolis. Committee members in attendance were Susan Muller, Lisa

Mondy, Monty Shaw, Jeffrey Giacomin, Gerry Fuller, Mort Denn, Don Baird, Bill Russel, and Bob Powell. Invited guests were Andy Kraynik, Chris Macosko, Timothy Lodge, Janis Bennett, Gareth McKinley, Barbara Douglas, Albert Co, Pat Mather, Norm Wagner, Lynn Walker, Guy Berry, Jules Magda and Faith Morrison. The minutes of the previous meeting were read and approved.

Faith Morrison, Chair of the Membership Committee, reports that as of September 30, 2002, we had 1622 members (1328 regular, 216 student, 38 retired, 12 of record and 28 Society of Physics Students (Undergraduates)). With members joining at the Minneapolis meeting registration, we still might exceed our end of 2001 total of 1703. Morrison led a discussion on efforts to augment membership, including student membership.

Mort Denn, Editor, reported that the *Journal of Rheology* is healthy. A study of its impact factor reveals it to be the most cited journal amongst its peer journals. Regarding our library subscription rate, our institutional subscribers pay only \$0.37 per page. Articles over the period October 1, 2001 – September 30, 2002 number 133 submitted, 27 accepted, 45 rejected, and 60 pending. Mean time for review was 80 days; mean time for publication was 276 days.

Monty Shaw then presented the Statement of Revenues and Expenses for The Society of Rheology and for its *Journal of Rheology*. The financial position of the Society is sound. The Executive Committee passed a motion to accept these reports. Giacomin, Editor for Business, reported that as of August 31, 2002, library subscriptions are up to 385 (2002 year to date) from 379 (year end 2001) and from 401 (year end 2000). This is our first increase in institutional subscriptions in over a decade, with still over two more months to work on new sales and subscription recovery.

Albert Co, SOR Webmaster (www.rheology.org), reports that the website is healthy. Electronic mail messages to the general membership now go through Albert, and no longer through Jeffrey Giacomin. Albert also reported on improvements to the online voting system for our next Society election and trends in paper submissions for our annual meetings, most of which are now submitted on the deadline. Co reported that for the Minneapolis meeting, very few presenters opted for slide projectors or for video tape. A motion then passed that abstract submission of future meetings will no longer include "Slide Projector" and "VHS" as options for visual aids, and will only include "Overhead" and "LCD" projectors.

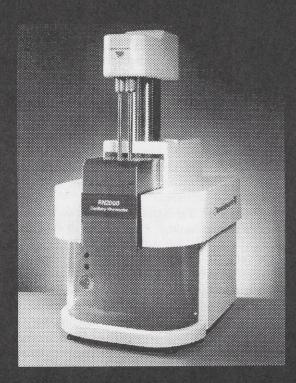
A motion was passed to welcome advertising for rheology jobs into our *Rheology Bulletin*, even from those who do not advertise products in the *Journal of Rheology*.

Janis Bennett led a discussion on the Society's liaison with AIP. AIP archivists are seeking a donation of 3 very special volumes (Volumes 4, 5 and 6) of the *Journal of Rheology* published in the years 1933-1935. Just after the great depression, these appeared in a journal then simply named *Physics* (now called the *Journal of Applied Physics*). We want to add these volumes to our *Journal of Rheology* On-Line, an

## **Rotational rheometers**

- Triple mode operation: strain, stress and rate
- . DSP servo motor control
- . Torque rebalance transducer
- . Digital sampling technology
- . Entry Level & Research Grade instruments
- . Stress relaxation
- . Solids and fluids testing





## **Capillary rheometers**

- . Rosand dual bore technology
- . Shear & extensional viscosity
- . PVT measurement
- . Slot die option
- . Die swell measurement
- . Melt strength
- . Floor and benchtop models



imaging process that will destroy the donated volumes. AIP calls this project "Jurassic JOR". These very special volumes, edited by Bingham himself, are not to be confused with the *Transactions of The Society of Rheology* which began in 1957.

Bob Powell, Member-At-Large, reported on a successful student travel grants program for the Minneapolis meeting; 12 were awarded to students coming from Denmark, USA, Canada, England, and Japan.

Norm Wagner, Education Committee Chair, reported that the Minneapolis short course "Microfluidics and Microrheometry" attracted 39 students from USA, Australia, Canada, Netherlands, Korea, United Kingdom, and Norway. Short courses on Food Rheology, Biorheology, Interfacial Rheology, Rheology of Granular Materials, Molecular Simulation of Rheology, Microrheology, and other subjects are being considered for upcoming meetings. Prospective participants should contact Norm Wagner with suggestions. Norm Wagner then reported on his role as our representative on the AIP Liaison Committee Meeting on Physics Education.

Andy Kraynik, Chair of the Ad-Hoc Committee on the ICR 2008, reported on plans for the 2008 International Congress on Rheology. By the new ICR rules, this meeting must take place in North America. Kraynik presented a list of the main criteria for ICR site selection. Bob Powell, Jeffrey Giacomin and Gareth McKinley proposed to host the 2008 ICR in Monterey, Madison, and Boston, respectively.

Chris Macosko, Chair of Local Arrangements, reported on the Minneapolis meeting, held in the Radisson Hotel Metrodome (surrounded by the University of Minnesota Campus). He reports 316 pre-registrants with 9 exhibitors. A surplus is anticipated.

Guy Berry, Chair of Local Arrangements, reported on the Pittsburgh meeting, to be held in the Sheraton Station Square Hotel (October 12-16, 2003). Everything is going swimmingly.

On behalf of Local Arrangements Chair, Savvas Hatzikiriakos, Monty Shaw led a discussion about the October 16-20, 2005, meeting of The Society of Rheology in Vancouver, Canada.

Ron Larson proposed to host the October 2006 meeting in Ann Arbor, Michigan. Albert Co proposed to host this meeting in Portland, Maine. Jules Magda proposed to host this meeting in Salt Lake City, Utah.

Susan Muller proposed guidelines and policy for preparing proposals to host Annual Meetings of the Society. Historical data on meeting attendance and budgets will be made available at www.rheology.org.

The meeting was adjourned at 4:20 p.m. In the subsequent Executive Session, A motion then passed unanimously for Albert Co to host the 78<sup>th</sup> Annual meeting of The Society of Rheology in Portland, Maine on October 8-12, 2006. The Executive Session was adjourned at 5:45 p.m.

#### MINUTES OF THE BUSINESS MEETING October 15, 2002

Bill Russel called the business meeting to order at 5:30 p.m. in Ballroom A of the Radisson Hotel Metrodome in Minneapolis. Read by the Secretary, a motion was passed to accept the minutes of the previous business meeting in Bethesda. Each officer report and each committee report presented at the Executive Committee meeting (see above) was presented and accepted at the business meeting. Bill Russel announced that, as of the start of this business meeting, our Minneapolis meeting had already attracted 350 registrants.

New NSF Program Director, Professor Michael Plesniak, introduced himself to the Society.

Former President, John Dealy, addressed the business meeting about the library subscriptions revenues and membership dues. Dealy moved that the members here assembled request the Executive Committee to consider revising the structure of the dues and library subscription fees so that members no longer profit individually from the library subscriptions. Seconded by Greg McKenna, the motion stimulated vigorous discussion. The motion failed narrowly, by a vote of 21-22-6 (For-Against-Abstentions). The meeting was adjourned at 6:30 p.m.

#### **FUTURE MEETINGS OF THE SOCIETY**

75<sup>th</sup> Annual Meeting Pittsburgh, Pennsylvania October 12-16, 2003

76<sup>th</sup> Annual Meeting Lubbock, Texas February 13-17, 2005

77<sup>th</sup> Annual Meeting Vancouver, BC, Canada October 16-20, 2005

78<sup>th</sup> Annual Meeting Portland, Maine October 8-12, 2006

#### **CHANGE OF ADDRESS**

If you are moving, please inform Janis Bennett by phone at (516) 576-2403 or by fax at (516) 576-2223. You may also write to her at:

THE SOCIETY OF RHEOLOGY c/o American Institute of Physics Suite 1NO1, 2 Huntington Quadrangle Melville, NY 11747

## The Society of Rheology

Presents
A Two-Day Short Course on

## Rheology and Micro-rheological Measurements of Associating Complex Fluids

By

**Instructors:** Prof. Robert Prud'homme (RKP, prudhomm@Princeton.edu)

Prof. William Russel (WBR, wbrussel@Princeton.edu)

Prof. James Harden (JH, harden@jhu.edu)

**Dates:** Saturday & Sunday, October 11 &12, 2003. The short course is held in conjunction with the 75<sup>th</sup> Annual Meeting of the Society of Rheology, October 12-16, 2003 in Pittsburgh PA. The course will begin at 8:30am, Saturday, October 11, 2003.

**Location:** Sheraton Station Square Hotel in Pittsburgh, PA. This is also the site of the Annual Society of Rheology Meeting.

#### **Course Description**

Saturday: Self Assembly

I. Introduction and overview (RKP)

II. Forces (0.75 hr, WBR)

LDV, hydrophobic, h-bonds, Coulombic, ionic, depletion

III. Surfactants (1.5 hrs, RKP)

Micelle shapes, tuning structures, Rheology of spheres, rods, sheets

IV. Hydrophobically modified polymers (2 hrs, WBR)

V. Biological systems (1.5 hrs, JH)

Gels, sheets, vesicles, tubules

VI. Colloidal fluids and glasses and gels (1.5 hr. WBR)

V. Discussion and Questions

Sunday: Rheological and Structural Measurments

- I. Classical Rheological Measurements (2.5 hrs, RKP)
  - A. Definitions of material functions and flow fields
  - B. Measurments and instruments: constant strain and constant stress, Elongational measurements

#### C. Material behavior:

Solutions, Gels and gelation Relaxation times Steady, unsteady and dynamic measurements (Cox-Mertz rules)

- II. Microscale Rheological Measurements (2.5 hrs, JH)
  - A. Diffusion Wave Spectroscopy
  - B. Particle Tracking Measurements
  - C. Magnetic and Optical Tweezers
- III. Structural Measurements (briefly!)
  - A. Scattering (JH): Light, x-ray, and neutron (2 hr, JH)
  - B. Fluorescence (0.75 hr, RKP)
- IV. Discussion and Questions

#### NOTES:

- 1) A questionnaire would be sent to participants when they enroll. They would be asked to respond by email to: <a href="mailto:czanreck@princeton.edu">czanreck@princeton.edu</a> (Ginny Czarnecki, secretary to RKP and WBR). The survey would attempt to let us emphasize aspects of the course that are of most interest to the students. The following questions would be asked:
  - a) What is your current position and experience in the areas covered by the course?
  - b) What are your expectations for the course?
  - c) What particular problem(s) in the areas of complex fluids, rheological measurements, and micro-rheological measurements would you like help on?
  - d) Are there any research papers that you would like us to try to address or explain?

While there is no guarantee that we will be able to address each question that you have, if you give us this advanced notice we have a better chance of being able to make a contribution during the lectures or the discussion session at the end of each day. Our goal is not to lecture, but to help you learn. We look forward to your participation, and we will see you in Pittsburgh!

Registration forms and complete registration information will be available at the Society of Rheology website, at:

http://www.rheology.org/sor

Questions can be directed to Professor Norman Wagner, University of Delaware, current chair of the SOR education committee, at Wagner@che.udel.edu.

### TECHNICAL PROGRAM FOR PITTSBURGH

Authors should submit an abstract after March 15, 2003, but before May 9, 2003, through the World Wide Web using the SoR abstract submission page at www.rheology.org. However, the deadline for receipt of abstracts for the poster session is August 8, 2003. Note that plenary lectures will be given by Art Metzner, Bob Bird, and the 2003 Bingham Medalist. The planned symposia and the corresponding chairs are given below:

#### 1. BIORHEOLOGY

Robert Armstrong
Department of Chemical Engineering, Room 66-350
Massachusetts Institute of Technology
Cambridge, MA 02139-4307
(617) 253-4581; Fax: (617) 253-8992
rca@mit.edu

Patrick Doyle
Department of Chemical Engineering, Room 66-456
Massachusetts Institute of Technology
Cambridge, MA 02139-4307
(617) 253-4534; Fax: (617) 258-5042
pdoyle@mit.edu

## 2. ENTANGLED POLYMERS AND ANALYTICAL RHEOLOGY

Monty Shaw
Department of Chemical Engineering
University of Connecticut
97 N Eagleville Rd
Storrs, CT 06269-3136
(860) 486-3980; Fax: (860) 486-4745
shawmt@uconnvm.uconn.edu

James P. Oberhauser Department of Chemical Engineering University of Virginia P.O. Box 400741 Charlottesville, VA 22904-4741 (434) 924-7974; Fax: (434) 982-2658 oberhauser@virginia

#### 3. SUSPENSIONS AND MULTIPHASE FLUIDS

Andy Kraynik Dept. 9112, MS0834 Sandia National Laboratories Albuquerque, NM 87185-0834 (505) 844-9696; Fax: (505) 844-8251 amkrayn@engsci.sandia.gov Michael Solomon Dept of Chemical Engineering University of Michigan Ann Arbor, MI 48109-2136 (734) 764-3119; Fax: (734) 763-0459 mjsolo@mich.edu

#### 4. LIQUID CRYSTALLINE POLYMERS, SELF-ASSEMBLING FLUIDS & NANOMATERIALS

Karen Winey
Department of Materials Science and Engineering
University of Pennsylvania
Philadelphia, PA 19104-6272
(215) 898-0593; Fax: (215) 573-2128
winey@lrsm.upenn.edu

Peter Olmsted
Department of Physics & Astronomy
Room 9.305, University of Leeds
Leeds LS2 9JT, UK
44 113 343 3830; Fax: 44 113 343 3846
p.d.olmsted@leeds.ac.uk

#### 5. VISCOELASTIC FLOWS AND INSTABILITIES

Jonathan Rothstein Engineering Labs Building, Rm. 219 160 Governors Drive Amherst, MA 01003 (413) 577-0110; Fax: (413) 545-1027 rothstein@ecs.umass.edu

Bamin Khomami Department of Chemical Engineering Washington University St. Louis, Missouri 63130 (314) 935-6065; Fax: (314) 935-7211 bam@poly1.che.wustl.edu

#### 6. RHEOLOGY OF SOLIDS AND NEAR-SOLIDS

Greg McKenna Department of Chemical Engineering Texas Tech University Lubbock, TX 79409-3121 (806) 742-3553; Fax: (806) 742-3552 greg.mckenna@coe.ttu.edu

Tony McHugh Department of Chemical Engineering Lehigh University Bethlehem, PA 18015 (610) 758-4470; Fax: (610) 758-6245 ajm8@Lehigh.edu

#### 7. MICRORHEOLOGY, MICROFLUIDICS & MEMS

Gerry Fuller Department of Chemical Engineering Stanford University Stanford, CA 94305-5025 (650) 723-9243; Fax: (650) 725-7294

Kalman Migler
Polymers Division
National Institute of Standards and Technology
Building 224, Room A207
Gaithersburg, MD 20899-8544
(301) 975-4876; Fax: (301) 975-4924
kalman.migler@nist.gov

#### 8. POSTER SESSION

Surita Bhatia
Department of Chemical Engineering
University of Massachusetts
Amherst, MA 01003
(413) 545-0096; Fax: (413) 545-1647
sbhatia@ecs.umass.edu

#### IN MEMORIUM JOHN DOUGLASS FERRY

John Douglass Ferry, *Emeritus* Professor of Chemistry at the University of Wisconsin-Madison, died October 18, 2002, in Madison, at the age of 90. He was born on May 4, 1912, in Dawson, Yukon Territory, Canada and was undoubtedly the most widely recognized research pioneer in the study of motional dynamics in macromolecular systems via viscoelastic techniques, and thus played a definitive role in polymer rheology. From the very beginning, he realized that the unique physical properties of polymeric materials are intimately linked to the motions and configurations available to these large, flexible macromolecules, and he made an extensive and concentrated effort to determine experimentally the relation between the chemical structure of well characterized samples and their viscoelastic properties.

John attended Stanford University, receiving the A.B. degree in 1932 at age 19. Following graduate study at the University of London, together with research at the National Institute for Medical Research, he returned to Stanford and completed the Ph.D. degree in 1935. He subsequently conducted research at the Hopkins Marine Station of Stanford University and then served as instructor and tutor in biochemical sciences at Harvard University.

During the second world war, he held a joint appointment at Woods Hole Oceanographic Institute and the Harvard Medical School. In 1946, John joined the faculty of the Department of Chemistry of the University of Wisconsin as an Assistant Professor; by 1947 he had been promoted to full Professor. He served as Department Chairman from 1959 to 1967 and was appointed Farrington Daniels Research Professor in 1973. He was a founding member of the Rheology Research Center at Wisconsin, serving on its Executive Committee until 1984.



**Professor John Ferry** 

John's fundamental studies of rubbers, polymer melts, and polymer solutions provided the foundation in mechanical properties for polymer scientists. His 1961 book *Viscoelastic Properties of Polymers* rapidly became a standard reference for researchers in the polymer field. His research group's most notable contributions to rheology include the principle of reduced variables, giving the mathematical form and physical basis for time-temperature superposition, and the development of the WLF equation and detailed examinations of the relation between the temperature dependence of viscoelastic properties and free volume.

John was a member of the National Academy of Sciences and the National Academy of Engineering. He served as President of the Society of Rheology and was a recipient of the Bingham Medal of the Society. We join John's family and friends, the Department of Chemistry at Wisconsin, and the polymer science community, to which John was friend, mentor, colleague and exemplar, in mourning his passing.

John L. Schrag University of Wisconsin, Madison.

#### Bohlin introduces Gemini<sup>TM</sup> Rheometer

Bohlin Instruments has introduced Gemini<sup>TM</sup>, a rheometer system incorporating a new Rotonetic<sup>TM</sup> drive. The use of adaptive control technology allows for both strain controlled and stress controlled operation. The torque range is broad and goes up to 200 mNm. The instrument is also capable of creep, stress relaxation and oscillatory testing.

#### To the Membership:

The tables below summarize the financial standing of the Journal of Rheology and the Society of Rheology at the time of the 74th Annual Meeting in October, 2002. The budget for 2003 is as approved by the Membership at that meeting.

For the Journal of Rheology, we are experiencing what appears to be a welcome increase of subscription income, which corresponds to an increase in the number of institutional subscriptions. While real, this is likely to be temporary because the increase is attributable to the result of two legal settlements with consolidators.

The balance sheet is as of August 2002, as we were unable to obtain more recent information on the deferred income for the Journal of Rheology and from Membership dues by press time. The important item on the balance sheet is the Unrestricted Net Assets, which represents the unencumbered financial position of The Society.

Respectfully submitted, Montgomery T. Shaw, Treasurer

#### Journal of Rheology

Summary					
(All amounts: USD)	2003	2002	2002	2001	2001
	Budget	Projection	Budget	Actual	Budget
RECEIPTS					
Subscriptions	209,000	224,026	195,250	211,351	211,750
Reprint Sales	6,500	6,687	7,000	6,514	7,400
Ad Sales	35,000	29,185	25,000	32,537	21,000
JORO revenue	4,300	4,879	4,300	2,922	200
Miscellaneous	500	1,002	1,500	615	2,350
TOTAL RECEIPTS	255,300	266,385	233,050	253,938	242,700
DISBURSEMENTS					
Ads	9,000	10,491	9,000	8,459	10,400
Reprints, Single Copy	6,532	5,446	9,000	6,656	12,700
Paper, Printing	39,484	40,961	36,000	37,288	39,000
SOR Editorial	47,000	49,395	45,000	49,395	45,000
Production	78,400	78,400	78,400	74,088	78,400
Fulfillment	8,300	9,026	6,700	7,507	7,950
Distribution	21,031	20,932	27,000	19,759	21,800
Electronic publishing	44,000	40,667	42,500	40,943	39,100
Miscellaneous	4,200	3,934	2,900	4,944	0
TOTAL DISBURSEMENTS	257,947	259,251	256,500	249,039	254,350
Net	-2,615	7,133	-23,450	4,900	-11,650

The Society of Rheology Receipts and Disbursements

	Budget 2003	Projection 2002	Budget 2002	Actual 2001	Budget 2001
RECEIPTS					
Dues	60,000	52,000	68,000	58,163	68,000
Interest	14,000	11,000	32,000	34,438	41,000
Journal of Rheology	256,300	267,385	233,050	270,072	242,700
Mailing List Sales	500	1,000	500	1,101	300
Donations	0	0	0	0	
Bulletin Advertising	2,000	1,200	2,500	2,448	2,800
Annual Meeting (net)	0	8,283	0	460	0
Short Course (net)	0	0	0	-900	4,000
TOTAL RECEIPTS	332,800	340,868	336,050	365,782	358,800
DISBURSEMENTS					
AIP Dues Bill & Collect.	6,000	8,400	8,500	5,660	9,800
AIP Adm. Services	9,500		9,500	9,144	9,000
AIP Mem. Soc. Dues	7,500		7,500	7,431	8,200
AIP Phys. Olympiad			1,500	1,500	1,500
Misc. Contributions & Prizes			1,000	1,512	1,000
Contributions and Prizes	3,000	1,955			
Renewal Billing	0		4,500	0	5,200
Journal of Rheology	259,847		256,500	256,386	258,000
Bulletins and Abstracts	7,000		7,000	18,880	12,000
Bingham Award	7,500		5,500	2,540	11,000
Executive Cmt. Meetings	7,500		7,500	2,979	7,900
Pres. Discretionary Fund	1,500		1,500	0	1,500
Treas. Discr. Fund	1,500		1,500	176	1,500
Progr. Chm. Discr. Fund	2,000		2,000	1,000	4,000
Secretarial Services			500		500
Mailing			1,000		4,000
Office Expense, misc			200		1,500
Office Expense	2,000	1,364		560	
Banking Services	100	99	200	88	250
Liability Insurance	4,000	3,656	3,500	3,656	3,500
Membership Directory	0	0	0		0
Membership Broch. & Appl.	200	0	200	0	0
Accountant	2,200	2,000	1,900	1,900	1,900
Student member travel	5,000	5,000	4,000	8,404	9,000
Annual meetings, future	3,000	3,000	3,000	2,665	3,000
Website	1,000	500		126	
Miscellaneous	1,500	500	1,500	700	1,500
TOTAL DISBURSEMENTS	331,847	326,833	330,000	325,307	355,750
Net	953	14,034	6,050	40,474	3,050

# The Society of Rheology, Inc. Balance Sheet

(all amounts, USD)

	Jul-02	2001	2000	1999
Assets				
Cash in checking account	7,050	9,374	9,400	10,735
CD's	0	0	15,000	0
Balance in AIP account	841,289	843,151	827,040	766,911
Total Assets	848,339	852,525	851,440	777,646
Liabilities and Net Assets				
Liabilities				
Deferred subscription revenue	144,785	96,465	138,500	141,827
Deferred member dues	0	41,003	43,300	41,376
Total Liabilities	144,785	137,468	181,800	183,203
Net Assets				
Publication reserve	450,000	450,000	450,000	450,000
Student travel grant reserve	10,000	10,000	10,000	10,000
Annual Meeting reserve	70,000	70,000	35,000	35,000
Operating reserve	70,000	70,000	70,000	70,000
Unrestricted	103,553	115,057	104,640	29,443
Total Net Assets	703,553	715,057	669,640	594,443
Total liabilities and net assets	848,339	852,525	851,440	777,646