

RHEOLOGY BULLETIN

Publication of The Society of Rheology, Inc.

Vol. 57, No. 1



January, 1988

VOTE OF THANKS

The 59th Annual Meeting in Atlanta, Georgia, was supported by generous unrestricted contributions from:

Georgia-Pacific Corporation
Kimberly-Clark Corporation
PPG Industries Inc.

The following exhibitors of instrumentation provided support both technologically and financially:

Automatik Machinery Corporation
Bohlin Reologi
Brookfield Engineering Laboratories, Inc.
Haake Buchler Instruments, Inc.
J. and L. Instrument Corporation
Kayeness Test Instruments
MITECH Corporation
Rheometrics, Inc.
Tekmar Company, Inc.

The cocktail hour mixer and the evening beer session discussion period were underwritten by Rheometrics, Inc. and Bohlin Reologi.

All members of the Society, and its officers, are grateful for the participation of these supporters.

SOCIETY OF RHEOLOGY OFFICERS AND BOARD - 1988-9

President	John M. Dealy
Vice President	Robert A. Mendelson
Secretary	Donald G. Baird
Treasurer	Edward A. Collins
Editor	Arthur B. Metzner
Past President	Robert F. Landel
Members-at-large	Joseph D. Goddard Gregory B. McKenna

COMMITTEES (Most recent available listing)

Membership:	Education:
S. J. Armour, chairman	E. A. Collins, chairman
R. H. Colby	M. M. Denn
H. L. Davis	D. Hunston
Hamed Faridi	G. B. McKenna
A. M. Kraynik	J. L. Throne
C. L. Sieglaff	

Nominating:	Site Selection:
L. J. Zapas, chairman	E. A. Collins, chairman
	D. Hunston
	M. E. Ryan

Bingham Award:
S. J. Kurtz, chairman

1988 BINGHAM MEDAL NOMINATIONS

As announced in the July bulletin, nominations are due in the hands of the chairman of the awards committee before February 15, 1988. His name and mailing address are:

Dr. S. J. Kurtz
Polyolefins Division, Union Carbide Corporation
Weston Canal Center
CN 540 Somerset, NJ 08873

Guidelines for the nomination package were given in the January and July 1987 Bulletins. Copies are available from the Editor's secretary, Debbie Cook, by calling 302/451-2328.

60th ANNUAL MEETING (1988) Annual Meeting

Gainesville, Florida
February 12-15, 1989

PROGRAM COMMITTEE

Program Chairman:

James M. O'Reilly
Chemistry Division
Research Laboratories
Eastman Kodak Company
Rochester, NY 14650
Telephone: 716/477-4334

Co-Chairman:

Leszek A. Utracki
Institut de Genie des Materiaux
C.N.R.C.
75, Boulevard de Mortagne
Boucherville, Quebec J4B 6Y4
Telephone: 514/641-2280

Local Arrangements Chairman:

Professor Charles L. Beatty
Department of Materials Science and Engineering
University of Florida
Gainesville, FL 32611
U.S.A.
Telephone: 904/392-1574

Several symposia are being planned, as well as general sessions. **Suggestions for symposia, and volunteers for specific sessions,** are requested to contact Dr. O'Reilly as soon as possible. A call for papers will be issued in the summer bulletin and the deadline for submitting abstracts will probably be September 15.

MINUTES OF THE SOCIETY OF RHEOLOGY EXECUTIVE COMMITTEE

October 18, 1987

The executive meeting was called to order at 2:00 PM in Atlanta on October 18, 1987. Officers present included: B. Landel, J. Dealy, E. Collins, D. Baird, R. Armstrong. Officers elect, R. Mendelson and G. McKenna, were also present. Absent were A. Metzner and W. Russel.

The minutes from the executive meeting of March 15, 1987 were read and approved. Ed Collins reported that the approximate balance as of October 1, 1987 was \$68,766.15. Volumes 30 (1986) and 31 still have to be paid for before the end of the year and these are expected to cost \$13,000 and \$15,000, respectively. Dues, however, will be received by the end of the year and the balance as of December 31, 1987 was estimated to be at \$75,000. The treasurer's report was accepted as read.

In the absence of A. Metzner, the editor's report was read by J. Dealy. 75 manuscripts were received between September 1986 and September 1987. 38 were accepted, 15 rejected, 13 revised and 9 are still in review. The question was raised as to whether future meetings should be listed in the bulletin and whether notices should be solicited. It was suggested that notices not be solicited, but those notices brought to the attention of the editor should be included in the bulletin as long as they appear in print before the meeting date. The policy of advertising in the bulletin was also discussed. The motion to allow advertising was seconded and approved with the rate yet undetermined. The matter of the rate to charge sustaining members was raised again, but no action was taken. Action on

RHEOLOGY BULLETING

Arthur B. Metzner
Chemical Engineering Department
University of Delaware
Newark, Delaware 19716
302-451-2328

changing the billing rate to sustaining members must be completed by June or July in order to be included in the fall billing. The editors report was approved as read.

Under new business the results from the recent election were reported by D. Baird. The new officers are President, J. Dealy; Vice President, R. Mendelson; Secretary, D. Baird; Treasurer, E. Collins; and Editor, A. Metzner. The new members-at-large are G. McKenna and J. Goddard.

The next matter discussed under new business was that of having an assistant treasurer. This is important as Ed Collins will eventually want to step down. It was moved that we appoint an assistant treasurer for three years as a trial program to provide continuity when the treasurer vacates office. The motion was seconded and approved. G. McKenna volunteered to be considered as an assistant treasurer. If the assistant treasurer position is deemed useful after the three year trial period, then we'll have to amend the society's constitution which will require the vote of the membership.

Greg McKenna gave a report on the program for the 59th Annual Meeting. The program included 118 papers, two plenary lecturers, the Bingham Lecture, and a beer session concerned with molecular dynamics. There were ten sessions with three of those sessions concerned with a symposium celebrating 25 years of the BKZ-K theory. A motion was seconded and approved to thank the program chairman. Jim O'Reilly will serve as the next program chairman for the 60th Annual Meeting to be held in February 1989 in Florida. Suggestions for the program are being requested by J. O'Reilly.

Ed Collins reported matters concerned with future meetings. The 61st Annual Meeting is to be held in Montreal, Canada, October 22-26. The local arrangements and the technical program are to be handled by P. Carreau and L. Utracki, respectively. The organizers have presented an ambitious program which they would like to call The First Inter-American Conference on Rheology. The executive committee was concerned with the size of the program especially when this was originally designed to be our annual meeting. The executive committee has recommended that a letter be sent to the organizers by R. Landel stressing the following points:

1. Reduce the size of the meeting;
2. Remove poster presentations;
3. Make sure that non-traditional areas of rheology get proper attendance by not running too many sessions at one time;
4. Keep the meeting theme as it was originally intended;
5. An agreement to share losses or profits between SOR and Canadian Rheology Group must be negotiated;
6. Stress that it is not necessary to raise large sums of money for the meeting;
7. Emphasize that the meeting is the 61st Annual Meeting of the Society of Rheology in conjunction with the Canadian Rheology Group.

A representative of the organizers should be invited to attend the executive meeting in March, 1988.

The matter of holding joint meetings with other groups was also brought up. For example, the possibility of a joint meeting with the British Society of Rheology was presented. A request for a joint meeting with the Society for Engineering Sciences was received from S. Passman. The executive committee agreed that joint sessions would be acceptable but not a joint meeting. In particular since the annual meeting in 1990 is to be held in Albuquerque, it was recommended that A. Kraynik (local arrangements) and S. Passman discuss this possibility. Finally, there is the possibility that the Winter Meeting in February 1989 will be held in conjunction with the Properties and Structure Division of the Society of Plastics Engineers.

Discussion of the site selection for future meetings was next. There has been interest in having Winter meetings on the West Coast. It was moved, seconded, and approved that the annual meeting for 1992, which will be held in February 1993, will be on the West Coast in Southern California and that future Winter meetings will be held on the West Coast. Future meetings will be held as follows:

1991 - Princeton;
1992 - Pasadena;
1993 - Boston.

The last matter was a report by the membership committee on updating the brochure. No dated material should be included in the pamphlet except in the form of an insert. A new brochure was approved and the editor, secretary and president were authorized to develop it and get it printed.

The meeting was adjourned at 6:59 PM.

BUSINESS MEETING MINUTES

October 20, 1987

The annual business meeting was called to order at 5:30 PM on October 20, 1987 in conjunction with the 59th annual meeting of the Society of Rheology in Atlanta, Georgia. The minutes of the previous meeting were approved as read by the secretary. It was reported by the treasurer that the balance at the end of 1986 was \$72,704.16. The balance as of October 1, 1987 was \$68,766.75. The estimated budget by the end of 1988 was projected to be \$72,750, thus justifying the increase in dues. The treasurer's report was accepted as read.

In the absence of A. Metzner, J. Dealy read the editor's report. In 1987 there were 8 issues of the Journal of Rheology. Between the period of September 9, 1986 and September 9, 1987, 75 manuscripts were received: 38 were accepted, 15 were rejected, 13 were under revision, and 9 were in review. The report was accepted as read.

The increased dues was approved by the membership. The new dues are \$40 for regular members and \$25 for retired and student members. Furthermore the results of the recent election of new officers was reported. The new officers are:

President - John Dealy,
Vice-President - Bob Mendelson,
Secretary - Don Baird,
Treasurer - Ed Collins, and
Editor - Art Metzner.

Two new members-at-large were elected: Greg McKenna and Joe Goddard.

Ed Collins gave the site committee report. The future meetings will be held as follows:

1988	International Meeting	Aug. 14-20	Sydney
1989	60th Annual Meeting	Feb. 12-15	Florida
1989	61st Annual Meeting	Oct. 22-26	Montreal
1990	62nd Annual Meeting	Oct	Albuquerque
1991	63rd Annual Meeting	Oct.	Princeton
1992	International Meeting		
1993	64th Annual Meeting	Feb.	Pasadena
1993	65th Annual Meeting	Oct.	Boston

Ed Collins reported that there were 19 attendees at the recent shortcourse taught by G. Nicolais, S. Sternstein, and J. Sefaris. No shortcourse is planned for the 1989 meeting in Florida.

One announcement was read pertaining to the fact that Professor Leonov would be coming to the U.S. at the end of 1987 and would be looking for a job.

Nominations for the Bingham Award should be sent to S. J. Kurtz at Union Carbide.

Finally, Bob Landel summarized the main accomplishments during his two years as president before handing over the responsibilities to John Dealy. These were:

1. The new editor cleaned up the backlog of manuscripts
2. The dues change
3. Some contact was made with other societies in order to promote further interaction

Since there was no other new business, the meeting was adjourned at 6:15 P.M.

AMERICAN INSTITUTE OF PHYSICS INCORPORATED
FOR
THE SOCIETY OF RHEOLOGY

Statement of Receipts and Disbursements
Year Ended December 31, 1986

Balance in Account - December 31, 1985*	\$72,482.77
Receipts (January 1 - December 31, 1986)	
Dues Collections-1985	\$ 20.00
-1986	8,303.02
-1987	12,000.00
	\$20,323.02
Sales of Mailing Lists:	
Receipts	\$ 165.29
Less: Postage and Data Processing Costs	-16.98
Interest	3,967.42
Journal Page Charges	9,207.69
Short Course (Tulsa)	5,305.00
Refund Kent Post Office	125.88
Membership And Meeting Registration	412.00
Tulsa Meeting Contributions	1,500.00
Ann Arbor Meeting	711.68
	<u>\$41,701.00</u>
TOTAL	\$114,183.77
Disbursements (January 1 - December 31, 1986)	
Charges for Dues Billing and Collection (\$2.25 per Item Billed-Annual Charge)	\$ 2,668.50
Charge for Preparation and Maintenance of Member Record File (\$2.75 per Member Record-Annual Charge)	3,267.00
Financial Handling Charge-Year 1986 (5/8 of 1% of Business Handled)	350.00
Member Society Dues - Year 1986 (\$2 per Member per Year)	2,500.00
Renewal Billing - Materials and Postage	1,229.36
Short Course Announcement Mailing	588.96
Short Course Expense (Tulsa)	2,738.31
The Journal of Rheology:	
Subscription Expense-Vol. 29 #1-6	\$14,009.26
Printing Mailing Labels	46.00
Editorial Charges	14,055.26
	3,646.99
	<u>\$31,044.38</u>
Other:	
Administrative Services	\$ 2,100.00
Membership Directory (Printing and Mailing)	3,460.33
Postage	317.90
Printing New Letterhead and Membership Materials	459.73
United Parcel Service	10.68
Data Processing	30.00
Xerox Charges	39.35
Membership Labels for Bulletin Mailings	30.76
Commercial Press Bulletin & Abstracts	2,490.46
Liability Insurance	117.00
Council of Presidents Society Dues	75.00
Postage Kent State (Editor)	533.87
President & Treasurer Discretionary	613.73
Miscellaneous	80.61
	<u>\$41,403.80</u>
Balance in Account December 31, 1986**	\$72,779.97
1986 Final Variance	- 75.79
Final Balance, Dec. 31, 1986	<u>\$72,704.18</u>

*Adjusted to include 1985 Final Receipts & Disbursements Variance
(**Not Adjusted For Final 1986 4th Qtr. Variance)

Dr. Edward A. Collins
Treasurer
October 1, 1987

SOCIETY OF RHEOLOGY FINANCIAL STATEMENT

Balance in AIP Account June 30, 1987	\$ 7,433.01
Balance in (EST) Checking Account September 1, 1987	14,324.28
Certificate of Deposit (Cardinal)	24,846.87
Money Market Liquid Account (Cardinal) September 1, 1987	8,384.37
High Interest Account (EST) October 1, 1987	<u>13,778.22</u>
Approximate Balance October 1, 1987	<u>\$68,766.75</u>

Dr. Edward A. Collins
Treasurer
October 1, 1987

1988 TREASURER'S ESTIMATE

Estimate Balance In Account January 1, 1988 \$ 80,000

RECEIPTS

Dues 1986, 1987, 1988	\$34,000	
Interest	2,500	
Page Charges J of Rheology	<u>3,500</u>	40,000
		<u>\$120,000</u>

DISBURSEMENTS

Charges for Billing & Collection @ \$2.25	2,800	
Charges for Preparation & Maintenance @ \$2.75	3,360	
Financial Handling AIP	800	
Member Society Dues 1987 @ \$2.00	2,800	
J of Rheology	12,000	
Editorial Expenses	9,000	
Subscription Expenses	2,000	
Bulletins & Abstracts	2,000	
Administrative AIP	2,100	
President's Discretionary Fund	1,000	
Treasurer's Discretionary Fund	1,000	
Society of Presidents Dues	140	
Miscellaneous Postage/UPS	6,000	
Secretarial Services	1,500	
Liability Insurance	150	
Executive Meeting April	<u>600</u>	47,250

Estimated Balance December 31, 1988 \$ 72,750

Dr. Edward A. Collins
Treasurer
October 1, 1987

OBITUARY

On September 30, GEORGE WILLIAM SCOTT BLAIR passed away at the age of 85 years. Our great colleague, who was to become an exemplary servant of his profession for more than half a century, began his career at the Rothamstead Experimental Station in 1926 upon graduating from Oxford University. He moved to the National Institute for Research in Dairying, as head of its Chemistry Department, in 1937, where he remained until retiring 30 years later. He set the tone for an important aspect of our profession by being an active organizer of the first two International Congresses on Rheology, in 1948 and 1953.

Dr. Scott Blair was president of the British Society of Rheology for many years. He was a founding co-editor of Journal of Bio-rheology and was on the editorial board of Journal of Texture Studies from its founding in 1969 until his death. His honors, for his work in food rheology and texture, in theoretical rheology and in biorheology, included the Gold Medal of the British Society of Rheology, the Poiseuille Medal of the International Society of Bio-rheology and the Herbert Freundlich Medal of the German Society of Rheology.

We mourn the loss of a gifted, creative and dedicated scholar and of one of our founding fathers.

ANNOUNCEMENTS

The **Xth INTERNATIONAL CONGRESS ON RHEOLOGY** will be held at the University of Sydney, Australia, August 14-20, 1988. Registration information should have been received by members of The Society of Rheology. If someone has not received this as yet, and wishes to, please contact the meeting chairman: Professor R. I. Tanner, Department of Mechanical Engineering, University of Sydney, Sydney, N.S.W. 2006, Australia. Telephone: (02) 692-2222 Telex: AA 26169.

Arrangements through International Tours have been made with United Airlines for special rates from the United States to Sydney, Australia. Departure is from San Francisco. A round trip fare of \$995.00 plus \$13.00 tax allows three intermediate stops which can include Hawaii. A non stop fare of \$895.00 plus \$13.00 tax is also available. Add on round trip tourist fares to San Francisco are as follows:

Portland, Seattle, Los Angeles	\$ 50.00
Denver	100.00
All points East of Denver	200.00

Anyone interested in taking advantage of these fares can obtain additional information and make their own specific arrangements as to departure date, stops and accommodations if desired through:

Mrs. Frida Wolverton
International Tours of Northern Ohio
Midway Mall
Elyria, Ohio 44035
Phone in Ohio: 1-800-826-5653
Outside Ohio: 1-800-345-7336

International Tours is a fully **Bonded** Travel Agency and has no affiliation with the Society of Rheology. To capitalize on these fares arrangements should be made prior to **June 1, 1988**.

THE 4th ANNUAL MEETING OF THE INTERNATIONAL POLYMER PROCESSING SOCIETY will be held May 8-11, 1988, in Orlando, Florida. The organization chairman is:

Professor Charles L. Beatty
Department of Materials Science and Engineering
University of Florida
Gainesville, FL 32611 U.S.A.
Telephone: 904-392-1574
Telex: 810-007-1089
Telefax: 904-392-9673

The British Society of Rheology is organizing a meeting on FLOW PROCESSES IN COMPOSITE MATERIALS, May 16-18, 1988, at Brunel University, West London. Contact F. N. Cogswell, ICI Materials Centre, P.O. Box 90, Wilton Centre, Cleveland TS6 8JE, U.K. A meeting on Short Fibre Reinforced Plastics will follow May 18-19.

The tentative schedule for meetings of the SOCIETY OF RHEOLOGY OF JAPAN is as follows:

15th Annual Meeting: Tokyo, May, 1988
36th Rheology Symposium: October
8th Rheology Course: December

Details are available from:

Professor Toshiro Masuda
Secretary, SRJ
Research Center for Medical Polymers and Biomaterials
Kyoto University
Sakyo-ku, Kyoto 606, Japan

A EUROPEAN SCIENTIFIC COLLOQUIUM on the RHEOLOGY OF WOOD will be held in Bordeaux, France, June 8-9, 1988. Information is available from:

Professor Pierre Morlier
European Scientific Colloquium on the Rheology of Wood
Universite de Bordeaux I
351, Cours de la Liberation
33405 TALENCE CEDEX, FRANCE
Telephone: 56 80 77 79

The FIRST NATIONAL FLUID DYNAMICS CONGRESS in the U.S. will take place in Cincinnati, Ohio, July 24-28, 1988. Contact: T. Morel, Integral Technologies, 645 Blackhawk Drive, Westmont, IL 60559.

The IUPAC 32nd INTERNATIONAL SYMPOSIUM ON MACROMOLECULES will take place in Kyoto, Japan, August 1-6, 1988. Contact The Society of Polymer Science, Japan, at 5-12-8 Ginza, Chuo-ku, Tokyo 104.

The 17th INTERNATIONAL CONGRESS OF THEORETICAL AND APPLIED MECHANICS will be held in Grenoble, France, Aug. 21-27, 1988. Information may be obtained from Dr. R. M. Christensen, Lawrence Livermore Laboratory, P.O. Box 808 L-338, Livermore, CA 94550 for U.S. authors. Others contact Prof. D. Caillerie, Institut de Mecanique de Grenoble, Domain Universitaire-B. P. 68, 38402 Saint Martin D'Herès Cedex, France.

CONUNDRRA RHEOLOGICA is the subject of the British Society of Rheology meeting in Egham, Surrey, September 7-9, 1988. Contact: P.C. Anderson, BP Research Centre, Sunbury-on-Thames TW16 7LN, U.K.

The 23rd Annual Colloquium of the Groupe Francais de Rheologie will take place October 19-21, 1988, in Bordeaux, on the subject RHEOLOGIE ET ENDOMMAGEMENT DES SOLIDES. Contact M. le Professeur Jean-Luc Lataillade, Laboratoire de Mecanique Physique, Universite de Bordeaux I, 351, cours de la Liberation, 33405 TALENCE Cedex, Tel. 16 56 80 15 29.

The 7th INTERNATIONAL CONGRESS ON BIORHEOLOGY will take place in Nancy, France, August 1989. Contact Professor J. F. Stoltz, Centre de Transfusion Sanguine, Brabois, 54500 Vandoeuvre les Nancy, France.

Application for Membership in the
SOCIETY OF RHEOLOGY

I hereby desire to apply for membership in THE SOCIETY OF RHEOLOGY dating from
January 19 _____

Name _____
Please print)

Mail Address _____

Professional Affiliation _____

Position _____

Please indicate in the boxes
provided below the code letter
from the list to the right, which
best describes your areas of
interest in order of decreasing
importance.

- PRIMARY
- SECONDARY
- TERTIARY

INTEREST AREA	CODE
Biological Materials	A
Foods and Natural Products	B
Inorganic Materials	C
Oils and Lubricants	D
Soils	E
Synthetic Polymers	F
Fluids (Including Solutions)	G
Solids	H
Suspension and Particulate Systems	J
Engineering	K
Experimental Techniques	L
Mechanics	M
Phenomenology	N
All of the above	Y
None of the above	Z

I understand that my regular member's subscription to the **Journal of Rheology** is for my
personal use, and not for library use.

Signature

Date

Enclose remittance of \$40 for Regular Annual Dues, \$25 for Student and Retired Members or
\$200 for Sustaining Annual Dues (1988) and mail to:

THE SOCIETY OF RHEOLOGY
c/o American Institute of Physics
335 East 45th Street
New York, New York 10017