

RHEOLOGY BULLETIN

Publication of The Society of Rheology, Inc.

Vol. 46, No. 1



May, 1977

48th ANNUAL MEETING

October 23 - 27, 1977

University of Wisconsin
Madison, Wisconsin

CALL FOR PAPERS

An abstract of 250 words or less is required prior to July 15, 1977, from members and non-members of the Society. Abstracts for general papers may be sent to:

L. V. Cancio
Chemplex Company
3100 Golf Road
Rolling Meadows, Illinois 60008 or

W. W. Graessley
Department of Chemical Engineering
Northwestern University
Evanston, Illinois 60201

The following symposia are planned:

Biorheology of Solids:

J. D. Ferry
Department of Chemistry
University of Wisconsin
Madison, Wisconsin 53706

Biorheology of Fluids:

H. Wayland
California Institute of Technology 104-44
Pasadena, California 91125

Oil Recovery:

J. G. Savins
Mobil Research & Development Corporation
Post Office Box 900
Dallas, Texas 75221

Food Rheology:

N. N. Mohsenin
Department of Agricultural Engineering
Pennsylvania State University
University Park, Pennsylvania 16802

Rheology of Solids:

S. S. Sternstein
Department of Materials Engineering
Rensselaer Polytechnic Institute
Troy, New York 12181

Contributions in these areas should be submitted *directly* to the appropriate symposium chairman.

The Program Committee (L. V. Cancio, W. W. Graessley, R. R. Huilgol, D. Hunston and J. L. Schrag) will review submitted abstracts.

Invited lectures will be given on topics of broad general interest. These lecturers will be announced in the next Bulletin.

A Monday evening program on Oil Recovery Rheology is also being planned. A beer session will follow the presentation.

SHORT COURSE ON RHEOLOGY

*POLYMER RHEOLOGY:
AN INTRODUCTORY SURVEY*

H. Markovitz

A survey of the mechanical properties of polymeric materials in their many forms: melt, rubber, glass, crystalline, solution, mixtures and composites. Models of rheological behavior: viscosity, elasticity and viscoelasticity. Failure. The role of rheological properties in characterization, testing, fabrication and use of polymeric materials. Emphasis: phenomenological and physical, not mathematical.

FUTURE SOCIETY OF RHEOLOGY MEETINGS

49th ANNUAL MEETING
October, 1978, Houston, Texas

50th ANNIVERSARY MEETING
(1979 Annual Meeting)

Week of October 23, 1979
Sheraton Park Hotel, Washington, DC

ANNOUNCEMENTS

The British Society of Rheology announces a session on General Rheology and Stretching Flows at its annual conference in Edinburgh, Scotland 7-9 September, 1977. Write to J. Ferguson, Department of Fibre Science, University of Strathclyde, George Street, Glasgow G1 1XW Scotland.

The Society for Experimental Stress Analysis announces its 1977 Spring Meeting May 15-20, 1977 at the Sheraton-Dallas Hotel, Dallas, Texas. The theme for this meeting is Designing with Experimental Mechanics. Contact Jane Austin, SESA, 21 Bridge Square, P.O. Box 277, Saugatuck Station, Westport, Connecticut 06880; (213) 227-0829.

An international conference on Physical Chemistry and Hydrodynamics will be held in Somerville College, Oxford, England on July 11-13, 1977, in celebration of the 60th birthday of Professor Benjamin Levich. Write to the Levich Conference Organizer: D. Brian Spauling, Imperial College of Science & Technology, Mechanical Engineering Department, Exhibition Road, London SW7 2AZ England.

"Future Trends in Computerized Structural Analysis and Synthesis", Marriott Hotel at Twin Bridges, Washington, DC, Oct. 30-Nov. 1, 1978. Write to: Ahmed K. Noor, MS-246, NASA Langley Research Center, Hampton, VA 23665.

The U.S. Army Missile Command will host the 48th Shock and Vibration Symposium, 18-20 October, 1977 at Huntsville, Alabama. Write to: The Shock and Vibration Information Center, Code 8404, Naval Research Laboratory, Washington, D.C. 20375.

SOCIETY MEMBER RECEIVES PLASTICS AWARD

Roger S. Porter, Professor in the University of Massachusetts' Polymer Science and Engineering Program and co-director of the University's Materials Research Laboratory, has been chosen 1977 recipient of the "Contributions in Polyolefins Award" of the Society of Plastics Engineers.

RHEOLOGY BULLETIN
Raymond R. Myers, Editor
Department of Chemistry
Kent State University
Kent, Ohio 44242

COMMITTEES

Executive Committee

J. R. Knox (President)
I. M. Krieger (Vice-President)
E. A. Collins (Treasurer)
R. A. Mendelson (Secretary)
R. R. Myers (Editor)
R. S. Rivlin (Past-President)
S. S. Sternstein
C. L. Sieglafl

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K. F. Wissbrun

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E. B. Christiansen - 1979
S. G. Mason - 1979

Program Committee - (1977 Annual Meeting)

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J. R. Knox

Representative on National Committee on Theoretical and Applied Mechanics

H. Markovitz

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E. A. Collins
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J. R. Knox (Chairman)
I. M. Krieger
L. J. Zapas
R. S. Rivlin

Publicity and Public Relations

J. R. Knox (Chairman)
R. S. Porter

MINUTES OF THE EXECUTIVE COMMITTEE MEETING

NOVEMBER 4, 1976
CLEVELAND, OHIO

Executive Committee members present were: E. A. Collins, J. R. Knox, I. M. Krieger, R. R. Myers, R. S. Rivlin, C. L. Sieglafl, and S. S. Sternstein. In the absence of the Secretary, the minutes were taken by Sternstein. The meeting was called to order by President Knox at 9:30 a.m.

1. The minutes of the April 4, 1976, Executive Committee Meeting were approved as published in the August 1976 Rheology Bulletin.
2. The Editor's Report was given and approved. The title and scope of the journal of the Society were discussed, including suggestions that the scope be expanded to more engineering oriented and applications-type papers. Consideration was also given to changing the title to Journal of Rheology. A motion to present a referendum on the title and scope of the journal at the next meeting of the Society was made, seconded, and passed unanimously. The subject of page charges was also discussed, with no action taken.
3. The Treasurer's Report was accepted subject to receipt of clarification of line item charges from the AIP.
4. It was moved, seconded and passed to approve an amendment to Article XI of the AIP Constitution, as proposed by the AIP Governing Board, relative to Member Society dues.
5. The President's recommendations for a Nominating Committee were approved after discussion. The Committee shall consist of J. C. Miller, R. S. Porter and K. F. Wissbrun.
6. It was moved, seconded and passed unanimously to accept the Bingham Award Committee's recommendation of L. E. Nielsen as the 1976 Bingham Medalist.
7. A series of proposed amendments to the Constitution and to the Rules was discussed and approved for submission to the Members attending the Business Meeting of The Society for their vote on whether to submit them by letter ballot to the Membership (as required by the Constitution and the Rules).
8. It was agreed in principle that retired members be charged either reduced dues or no dues, and that a proposed wording of such an amendment to the Rules be circulated by the President to the Executive Committee for comment or approval.
9. A joint meeting with the British Society of Rheology in Plymouth, England, was endorsed contingent upon the date being changed to June (1978) and upon satisfactory financial agreements which would limit The Society of Rheology's liabilities in the event of poor attendance.
10. It was moved, seconded and passed unanimously that any candidate for the office of Editor must submit a statement of qualifications to be circulated with the ballots.

The meeting was adjourned at 2:10 p.m.

Respectfully submitted with thanks
to S. S. Sternstein
R. A. Mendelson, Secretary

EDITOR'S REPORT TO THE EXECUTIVE COMMITTEE

FEBRUARY 20, 1977

PUBLICATION STATUS

Volume 20 appeared on its regular quarterly schedule. It contained 654 pages, comprising 34 papers, three

notes and a report from the Nomenclature Committee. This volume honored Past President Eirich in Issue 1 and Bingham Medalist Gent in Issue 2.

The announced plan to begin publishing review papers by invitation did not materialize in 1976. The first of these definitive papers is scheduled for 1977.

A total of 51 manuscripts was submitted during Calendar Year 1976.

Drs. Onogi and Silberberg accepted editorships in order to facilitate our handling of manuscripts from the Far East and Europe/Middle East, respectively. It is hoped that authors will take advantage of our provision that manuscripts may be sent directly to one of the assistant editors.

CHANGE IN NAME

"Transactions of The Society of Rheology" will give way over a two-year span to "Journal of Rheology". We had hoped to start Volume 21 off with a revised cover signaling this change, but in view of the necessity for the Executive Committee to have input we have scheduled the change to take place with Issue 2 of

Volume 21. The Executive Committee will have an opportunity to preview the new cover at the February meeting.

BULLETINS

Bulletins were issued in the months of April, August and December 1976.

PAGE CHARGES

At our last meeting there was considerable concern that articles for which page charges had been paid would have been labeled as advertisements. This situation has now been cleared up, and the postal regulations are interpreted so that voluntary page charges, as with the Society's journal, will not incur the advertisement sobriquet nor will the second class mailing privileges be jeopardized.

Interestingly, the National Academy of Sciences has agreed to label its articles as advertisements because page charges are mandatory for PNAS.

Raymond R. Myers
Editor

TREASURER'S REPORT

Statement of Receipts and Disbursements — Year Ended December 31, 1976

Balance in Account - January 1, 1976*			\$13,050.04
RECEIPTS (January 1 - December 31, 1976)			
Dues Collections:			
1975 Dues	\$	60.00	
1976 Dues		2,629.00	
1977 Dues		10,010.00	
Interest Savings Certificates & Savings Account		1,053.62	
Income Short Course (St. Louis)		345.53	
1975 Annual Mtg., St. Louis		792.85	
Transactions Page Charges (Vol. 20-1, 2 & 3)		2,040.00	
Short Course (New York Mtg.)		1,150.00	
Net Receipts			<u>18,081.00</u>
			\$31,131.04
DISBURSEMENTS (January 1 - December 31, 1976)			
Charge for Dues Billing & Collection (\$1.10 per Item Billed)**	\$	1,009.00	
Charge for Preparation and Maintenance of Member Record			1,345.00
File (\$1.50 per Member Record)**			
Financial Handling Charge - Year 1976			200.00
(5/8 of 1% of Business Handled)			
Member Society Dues - Year 1976 (\$1 per Member per year)			900.00
Editorial Expenses: Salaries, Telephone & Postage			1,200.00
Transactions of The Society of Rheology Publication Expense			5,670.18
(Vol. 20, Nos. 1-4)			
Subscription Expense (Vol. 20, Nos. 1-4)			1,697.36
April 1976 Bulletin (Printing & Mailing)			402.00
August 1976 Bulletin (Printing & Mailing)			386.00
December 1976 Bulletin and Program/Abstracts Combined			
Printing and Mailing			1,288.00
Short Course Mailing			193.00
Addressing Lists			41.00
Other:			
Administrative Services	\$	1,200.00	
Printing SOR Letterheads		11.00	
Offsetting, Stuffing & Mailing		28.00	
Mailing Charges re SOR Transactions		230.00	
Medallion and Case		31.00	
Postage		99.00	
Printing Questionnaires		14.00	
Expenses SOR Meeting, April 1976		88.58	
		<u>\$1,701.58</u>	
	\$	1,701.58	<u>\$16,033.12</u>
BALANCE IN ACCOUNT — December 31, 1976			\$15,097.92

*Adjusted to Include 1974 and 1975 Quoted Prices Variances

**Annual Charge

BALANCE SHEET SAVINGS ACCOUNT 1976 AND CARDINAL SAVINGS

Balance December 31, 1975		\$ 5,364.46
INCOME:		
Interest Elyria Savings Account 9-19920	\$ 303.38	
Interest Cardinal Savings	750.24	
Sale 1975 Short Course Notes	25.00	
1975 Short Course (T. Alfrey Return)	320.53	
Annual 1975 Mtg., St. Louis	792.85	
Page Charges Trans. Vol. 20 (1, 2 & 3)	2,040.00	
Short Course (New York, 1977)	<u>1,150.00</u>	5,382.00
Total Receipts		\$10,746.46
EXPENSES:		
SOR Executive Mtg. Room, April, 1976	88.58	
Balance, December 31, 1976		<u>\$10,657.96</u>

Respectfully Submitted
Dr. Edward A. Collins
Treasurer

**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 *Transactions of The Society of Rheology* is for my personal use, and not for library use.

.....
Signature Date

Enclose remittance of \$15 for Regular Annual Dues or \$100 for Sustaining Annual Dues and mail to:

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