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VOTE OF THANKS

The 57th Annual Meeting in Ann Arbor, Michigan was supported by financial contributions from:

Exxon Research and Engineering Company General Electric Research and Development Center Imass, Incorporated Rheometrics, Incorporated

The members and officers of the Society are grateful for this

SOCIETY OF RHEOLOGY OFFICERS AND BOARD — 1986

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58th ANNUAL MEETING 1986 Society of Rheology Meeting

Radisson-Excelsior Hotel 616 W. 7th Street Tulsa, Oklahoma 74103 (918-587-8000)

October 18 & 19: Short Course October 19-23: Technical Meeting

LOCAL ARRANGEMENTS COMMITTEE

Chairman:

Peter E. Clark Dep't of Chemical Engineering University of Tulsa 600 South College Tulsa, OK 74101 (918-592-2978)

PROGRAM COMMITTEE

Chairman:

Frank E. Filisko Materials & Met. Eng. The Univ. of Michigan Ann Arbor, MI 48109 (313) 763-2240

Co-Chairman:

Greg McKenna Polymers Division National Bureau of Standards Gaithersburg, Maryland 20899 SESSION CHAIRMEN

Rheology and Macromolecular Phenomena in Crude Oils

Norman F. Carnahan, P.O. Box 42281, Houston, Texas 77242 (co-chairmen) John Fair, Chevron; Tom Sifferman, Mobil

Numerical Methods and Constitutive Equations

Alan S. Wineman, Mechanical Engineering and Applied Mechanics, Auto Lab, The University of Michigan, Ann Arbor, Michigan, 48109

Dynamics of Reactive Extrusion Processing

Joe C. Golba, General Electric Company, Corporate Research & Development, P.O. Box 8, Bldg. K-1, Rm 4A10, Schenectady,

Morphology and Structure Development in Two Phase Flow A. J. McHugh, Dept. of Chemical Engineering, Univ. of Illinois-Urbana, Urbana, IL 61801

Rheology and Processing of Thermoplastic and

Thermosetting Composites

Don Hunston, National Bureau of Standards, Polymer Division, Gaithersburg, Maryland 20899

Nonlinear Viscoelastic Behavior of Polymer Solids
J. M. Caruthers, School of Chemical Engineering, Purdue University, West Lafayette, Indiana 47904

Rheology of Polymeric Melts and Solutions

Tim Lodge, Dept. of Chemistry, Kolthoff & Smith Halls, 207 Pleasant Street SE, The University of Minnesota, Minneapolis, MN 55455

Thixotropic Materials

W. E. VanArsdale, Dept. of Mechanical Engineering, The University of Houston, Central Campus, Houston, Texas 77004

General Papers

Greg McKenna, Polymers Division, National Bureau of Standards, Gaithersburg, Maryland 20899

CALL FOR PAPERS FOR THIS MEETING

An abstract form is enclosed which should be used when submitting abstracts. These are to be sent to the session chairman with a copy to the program chairman by May 1, 1986. In order to facilitate organizing the meeting, please send the intended title of your paper to the session chairman by March 1, 1986.

No paper to be presented should have been presented elsewhere, nor should it be in press or published. Authors are encouraged, but not required, to submit their manuscripts to Journal of Rheology for publication.

SHORT COURSE PRECEEDING THE MEETING

A two day course on the subject "Engineering and Processing Rheology: Characterization and Flow of Rheologically-Complex Liquids" will be offered on October 18 and 19, the instructors will be M. M. Denn, University of California at Berkeley, and D. V. Boger, University of Melbourne, Melbourne, Australia. The participants will receive a set of lecture notes which represent a draft of a textbook on the subject. Further details will be available in the July bulletin.

RHEOLOGY BULLETIN

Arthur B. Metzner, *Editor*Center for Composite Materials
University of Delaware
Newark, DE 19716
302-451-2328

1986 BINGHAM MEDAL NOMINATIONS

Nominations for this year's medalist should be in the hands of the committee chairman before February 15, 1986. He is: L. Gary Leal, Dept. of Chemical Engineering, California, Institute of Technology, Pasadena, CA 91125 (Telephone 818-356-4138). The other committee members are: L. L. Blyler; J. M. Dealy; L. A. Goettler; S. J. Kurtz; G. B. McKenna; L. R. Schmidt.

GUIDELINES FOR THE BINGHAM AWARD COMMITTEE

The present form is the one adopted by the Executive Committee in 1984.

- A call for nominations shall be published in the regular Bulletin of The Society of Rheology prior to normal Fall date of the annual meeting stating a February 15 deadline nomination.
- Nominations shall include the following information about the nominee.
 - a. A brief scientific biography.
 - A review of those accomplishments upon which the nomination is based.
- A concise evaluation of the importance of the nominee's contribution in advancing the science of rheology.
- The following item, if submitted, must be appended to the nomination.
 - a. A list of publications.
 - b. Reprints (no more than 3).
 - Supporting letters from other rheologists which address the nominee's contributions.
- 4. The Bingham Award Committee should meet at least once, in person or by teleconference, prior to its final decision.
- 5. Except in special circumstances, the contributions for which the award is granted shall have been made during the ten years preceding the award.
- 6. Decision of the Bingham Award Committee must be by majority agreement of its members (including its chairman).
- The chairman of the Bingham Award Committee should communicate the recorded results to the committee members.
- 8. The decision of the Bingham Award Committee shall be submitted to the president and the secretary at least by April 1 of the year preceding the normal Fall annual meeting time. It shall be accompanied by a summary of the information specified in guideline 2 above.
- If the Bingham Award Committee is unable to arrive at a majority decision, its chairman shall submit to the Executive Committee for its decision the dossiers of those nominees receiving the most support.
- 10. If the Executive Committee fails to ratify a decision of the Bingham Award Committee, or fails to choose from the dossiers forwarded, then no award shall be given for that year.
- 11. After its final decision The Bingham Award Committee shall classify the rejected nominations into three categories.
 - a. Those to be reconsidered for the next Bingham Award.
 - b. Those to be returned to the nominators for revision and updating.
 - c. Those to be retired from consideration.

The chairman shall notify each nominator of the classification given his, or her, nomination.

RULES TO GOVERN THE BINGHAM MEDAL AWARD

The E. C. Bingham Medal shall be awarded, usually anually but in any event not oftener, at the Annual Meeting of The Society of Rheology. The medal may be awarded to any individual who has made outstanding contributions to the science of rheology, provided that he, or she, has not previously received the award and is a resident of one of the countries of North America. It is not necessary that the recipient be a citizen of his or her country of residence or a member of The Society of Rheology. There is no restriction as to the age of the recipient.

The Bingham Medalist shall be chosen in the following manner. A Bingham Award Committee shall be appointed by the president in conformity with the Rules of The Society. The committee will consist of seven members, each serving a three-year term and they will be appointed in a 2,2,3-person-per-year cycle. The Bingham Award Committee shall consider, in any manner consistent with procedures established by the Executive Committee, all nominations submitted by any member of The Society. At a designated time, usually by April 1 prior to the Spring Executive Committee Meeting, the chairman of The Bingham Award Committee shall convey its decision to the president and the secretary of The Society. The president in turn shall transmit the decision to the Executive Committee for action. The official announcement of the award shall be made by the secretary in advance of actual presentation, preferably in the summer Bulletin.

MINUTES OF THE SOCIETY OF RHEOLOGY BUSINESS MEETING

October 15, 1985

The meeting was called to order in Ann Arbor, Michigan, by President William R. Schowalter at 5:15 pm. Minutes of the previous meeting, as printed in the bulletin, and the secretary's report were accepted, including the election results. R. F. Landel was elected President; J. Dealy, Vice President; D. Baird, Secretary; E. A. Collins, Treasurer; A. Metzner, Editor; and R. Armstrong and W. B. Russel as Members-at-Large. The thanks of the soceity were extended to S. Sternstein and R. Hoffman who also were nominated candidates for offices. During the President's report it was mentioned that Art Metzner became active editor in July, and actions of the executive committee (as reported in those minutes) were presented regarding the increase in sustaining member dues, consideration of increasing member dues, and videotaping of lectures. In the future, information should be provided for all candidates for office and not just for the editor's position. The new secretary was charged with soliciting that information. Richard Horsley reported on and invited all to attend the 1988 International Rheology meeting in Sydney, Australia, during the third week of August in 1988. E. A. Collins, as Treasurer, reported on the status of the Society and mentioned that the revenue sources are from dues, page charges, interest, meeting proceeds, and contributions to meetings from industrial sponsors. The treasurer's report was accepted. A. B. Metzner gave the Editor's report and stated that if anyone had back issues missing to contact him; he also asked for comments regarding the proper balance of research, review, and abstracts in the journal. He commented on the relationships with our publisher, Wiley, and the upcoming discussion regarding the unacceptable backlog of papers at Wiley. The editor's report was accepted.

Ed Collins reported for the Site Selection Committee that the following sites have been chosen; October 1986 — Tulsa, Oklahoma; Winter 1987 — Southern California; October 1987 — Atlanta, Georgia; February 1989 (1988 annual meeting) either Gainesville, Florida, Williamsburg, Virginia, or Princeton, New Jersey; October 1989 — in either Montreal, Quebec, or Boston, Massachusetts. For the Education committee he reported that 23 people attended the short course on Rheology of Liquid Crystals preceding this annual meeting and thanked Roger Porter and Kurt Wissbrun for their excellent presentations. At the Tulsa meeting the short course will be on Engineering Rheology. Both of these reports were accepted.

A vote of appreciation was extended to those retiring from office. The meeting was adjourned at 6:15 pm.

John R. Collier Secretary

AMERICAN INSTITUTE OF PHYSICS, INC. FOR THE SOCIETY OF RHEOLOGY: STATEMENT OF RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING ON **DECEMBER 31, 1984**

Balance in Account December 31, 1983* Receipts (January 1 - December 31, 1984)		\$64,609.95
Dues Collection 1984 & 1985	\$24,821.60	
Sale of Mailing List	46.00	
Interest Savings Certificate	3,779.06	
Page Charges J. of Rheology	3,990.00	
Short Course (Blacksburg)	150.00	
Net Receipts Annual Mtg. Knoxville	156.72	
Blacksburg Mtg. Contribution	500.00	33,443.38
Net Receipts		\$98,053.33
Disbursements (January 1 - December 31, 1984)		
Charge for Dues Billing & Collection (\$1.75/item)	\$ 2,378.18	
Charge for Preparation & Maintenance of Member File @\$2.15/r		
Financial Handling Charge 5/8 of 1%	212.67	
Member Society Dues \$1/member	1,150.00	
Editorial Expenses	2,700.00	
Journal of Rheology Expenses (Vol. 28; 1-5)	1,050.55	
Administrative Services	2,100.00	
Postage/Letterhead, etc.	1,529.05	
President/Treasurer Discretionary Fund	745.45	
Renewal Billing	748.99	
Membership Directory	1,236.93	
Bulletin/Abstracts	806.66	
Miscellaneous	367.97	
Council of Scientific Soc. Presidents Dues	75.00	610 450 26
Final Variance (4-19-85)	537.39	\$18,459.26
Balance in Account December 31, 1984		\$79,594.07

*Adjusted to include 1983 final receipts and disbursement variance.

Respectively submitted

Dr. Edward A. Collins, Treasurer

October 11, 1985

1986 TREASURER'S ESTIMATE

Estimate Balance in Account January 1, 1986		\$75,000.00
Receipts Dues 1985, 1986, 1987	\$24,000.00	
Interest	3,000.00	
Income Short Course	4,000.00	
Page Charges Journal of Rheology	3,500.00	
Annual Meeting	1,500.00	36,000.00
		\$111,000.00
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Disbursements		
Charges for Billing & Collection @ \$1.75	\$ 1,750.00	
Charges for Preparation & Maintenance File @ \$2.15	2,150.00	
Financial Handling AIP	400.00	
Member Society Dues Year 1986 - \$2/member	2,000.00	
Membership Directory	1,500.00	
Journal of Rheology	10,000.00	
Editorial Expenses	8,000.00	
Subscription Expenses	1,500.00	
Bulletins & Abstracts	4,500.00	
Administrative AIP	2,100.00	
President's Discretionary Fund	500.00	
Treasurer's Discretionary Fund	500.00	
Society of Presidents Dues	100.00	
Miscellaneous Postage/UPS/Award	3,500.00	
Expenses Short Course	3,000.00	
Secretarial Services	1,000.00	42,500.00
Estimated Balance December 31, 1986		\$68,500.00
	Edward A Collins Treasurer	

Edward A. Collins, Treasurer October 11, 1985

MINUTES OF THE EXECUTIVE COMMITTEE MEETING

October 13, 1985

Attending the meeting were W. Schowalter, President; R. Landel, Vice-President; R. Myers, Editor; A. Metzner, Acting Editor; E. Collins, Treasurer; J. Collier, Secretary; A. Gent, Past President; M. Shaw, Committee Member; F. Filisco; A. Wineman; S. Kurtz; and P. Clark. The meeting was called to order in Ann Arbor, Michigan, by President W. Schowalter at 3 pm. The minutes of the previous meeting were corrected to show the Winter meeting in Southern California to be in 1987 rather than the 1976 reported in the Bulletin. Subsequently the minutes were approved as corrected. The committee chose to not fund brochure development by the National Executive Committee for Guidance as requested by that organization. The results of the election were announced. During the president's report it was noted that Roger Porter is the Bingham medalist and Ray Myers is the first recipient of the distinguished service award. An orderly transition of the editorship from Ray Myers to Art Metzner occurred. While discussing AIP activities, Bob Landel reported that Bob Mendelson will represent SOR to the AIP public policy committee, and Kurt Wissbrun will remain on the AIP governing board.

In the treasurer's report Dr. Collins pointed out that although the society still has a financial cushion corresponding to two years of operation, some factors indicate the operating budget may require an increase from our current annual dues of \$20. As discussed in the editor's report one of the critical factors is the pressure from Wiley for additional charges to the society for publishing the journal. The original contract with Wiley was negotiated in 1967 and renegotiated with the same charges in 1972. After considerable discussion it was decided by passage of motions to raise the allowable ceiling for meeting registrations to \$50. for members and \$65. for non-members and to raise the dues for sustaining members from the current \$150 to \$200 per year. Sustaining members are generally corporate members, and they derive more benefits from the society than just library copies of the journal which can be purchased by subscription from Wiley for \$174 per year. The general consensus of the executive committee was to inform the members that a dues increase is contemplated but to wait until we have a better estimate of the additional costs before we make a specific recommendation to the membership.

Additional discussion during the editor's report dealt with an accumulating backlog of papers at Wiley for the Journal and proper action needed to correct the immediate problem and prevent its reoccurrence. By passage of a motion the editor was instructed to negotiate with Wiley about publication of another issue this year and was given guidance concerning renegotiation on the publishing agreement and on seeking another publisher. The power of negotiation was given to a special committee consisting of the new president, treasurer, and editor, R. Landel, E. Collins, and A. Metzner, respectively. The newly elected and acting editor complimented the former editor, Ray Myers, on the order of the editorial records and ease of transfer, and thanked him for his assistance during and after the transfer.

Dr. Collins reported for the educaton committee that a possibility of combining the non-annual second meeting of a year with other smaller societies was being considered. He also reported for the site selection committee on the location of future meetings as listed in the business meeting minutes. The new secretary of the society, Donald Baird, was charged with the responsibility of composing a letter to be sent to each member requesting that colleagues be asked to join the society. A membership application should be included with the letter. The local arrangements committee, Alan Wineman and Frank Filisko, reported that Imass, Rheometrics, Exxon, and General Electric sponsored the meeting and a motion expressing thanks was passed. The technical program chairman, S. J. Kurtz, reported that in cooperation with the local arrangements committee and with the approval of the president, Roger Porter's Bingham Medal address would be videotaped. The executive committee agreed this would be a useful experiment and elected to study the disposition of such tapes in the future, and in this instance decided to give the tape to Roger Porter as part of the experiment.

The meeting was adjourned at 7 pm.

John R. Collier Secretary

EDITOR'S REPORT

The year 1985 has been one of transition, both at John Wiley and Sons and in the Society's editorial office.

As a result of the transitions at Wiley two major problems developed: there was a large backlog of unpublished manuscripts (some dating back as much as nine months) and the requests for page charges, which enable the Society to minimize the expenses incurred in publishing the Journal, were not always sent to the authors with their galley proofs. The first of these problems appears to be in hand: John Wiley has volunteered to publish an additional December issue which is intended to take up the entire backlog. The second problem is being addressed but it has not as yet (December, 1985) been resolved.

This year has been an especially busy one for the Journal because of a large influx of papers early in the year from the Mexican Congress. This unusual productivity now appears to be coming to an end. However, the 1985 Journal will contain an estimated 960 pages as compared to 804 in 1984, 664 in 1983, 620 in 1982 and 688 in 1981. In order to minimize the repitition of a backlog we have established an informal understanding with Wiley to the effect that they will publish up to 1,000 pages for us in 1986.

John Wiley has also requested a renegotiation of our contract with them. Their charges to us had not been changed since 1967 and hence their request for some change is not surprising. However, the new rates mean that the costs to us will increase by about 50% over those of the previous formula, assuming we go to a full 1,000 pages. Since the journal size would be increased by more than 25% this change may be quite reasonable although, in fact, the additional charges ultimately fall on each of our shoulders.

What problems have arisen as a result of the change in editors? Prof. Myers left me with everything in **excellent** condition and he and his secretary compiled careful records of "just what needs to be done when." Consequently, any problems developing are of my own doing. These past months have frankly been frantic ones for me in view of all the activities noted above, but I look for greater efficiency in 1986 — confident that the membership will call both opportunities and inadequacies to my attention.

Very importantly, your staff of assistant editors has been a source of continuity and stability during these transitions — and of advice to the new editor, who is most grateful for this assistance.

Respectfully, Arthur B. Metzner December, 1985

ANNOUNCEMENTS Xth INTERNATIONAL CONGRESS ON RHEOLOGY

14-20 AUGUST, 1988, SYDNEY, AUSTRALIA

The Xth International Congress on Rheology will be held on the campus of The University of Sydney, 14-20 August, 1988. Hotel and student dormitory accommodation will both be available; pre-and post-congress tours are being planned. 1988 is Australia's Bicentennial year, so the organizing committee will welcome an early response to requests for intentions to attend and/or present a paper. Information about the Congress can be had from the chairman: Professor Roger I. Tanner, Department of Mechanical Engineering, University of Sydney, Sydney, N.S.W. 2006, Australia.

Editorial addendum: This past August the Metzners were privileged to sample Australian hospitality as well as the quality of the major hotel to be used for the 1988 Congress. Both were SUPERB, and we can recommend with enthusiasm that Society members plan to participate in what is likely to be a most worthwhile cultural as well as scientific opportunity.

The second conference of European Rheologists will be held in Prague, Czechoslovakia June 17-20, 1986. (The first meeting was in Graz, Austria in 1982).

These meetings fall midway between the International Congresses on Rheology and, judging from the first, promise to be a major forum for presentation of research results.

Information is available from:
P. Riha, Secretary General
Institute of Hydrodynamics
Czechoslovak Academy of Sciences
Podbabska 13
166 12 Praha, Czechoslovakia

SOCIETY OF RHEOLOGY

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The Polymer Processing Society will hold its second annual meeting in Montreal, April 1-4, 1986. The meeting is cosponsored by the Canadian Rheology Group. Registration must be completed by February 14, 1986 if one wishes to avail oneself of a reduced rate for early registrants. A distinguished list of invited speakers has been assembled. Further information is available from the meeting chairman or from the program chairman and the treasurer. They are:

Meeting Chairman:

Prof. M. R. Kamal Chemical Engineering Dep't McGill University 3480 University Street Montreal H3A 2A7 Canada

Program Chairman: Dr. L. A. Utracki

Treasurer:

Dr. Bo Fisa Both at: NRC, Industrial Materials Research Institute 75 de Mortagne Blvd. Boucherville, Quebec Canada J4B 6Y4

The Division of Polymer Chemistry of the American Chemical Society is holding a workshop on "Flow-Deformation and Molecular Reorganization in Polymers with Crystalline and Liquid Crystalline Order" in Montreal, April 6-8. A distinguished panel of speakers has been assembled; for further information contact:

A. E. Zachariades IBM Research Laboratory 5600 Cottle Rd., K91/282 San Jose, California 95193 1-408-256-3197

The 33rd Rheology Symposium of The Society of Rheology, Japan, took place October 10-12 and the 34th will tak eplace October 30 - November 1, 1986, in Matsue. The 13th annual meeting of SRJ will be held in Tokyo May 8 and 9, 1986. Further information is available from the Society's secretary:

Dr. Toshiro Masuda Department of Polymer Chemistry Kyoto University Kyoto 606 Japan

The Institute of Macromolecular Chemistry of the Czechoslovak Academy of Sciences is holding a conference on Crosslinked Eposies, in Prague, July 14-17, 1986. Further information from: *Chairman:*

K. Dusek
P.M.M. Secretariat
c/o Institute of Macromolecular Chemistry
Czechoslovak Academy of Sciences
162 06 Prague 616
Czechoslovakia

The Paper, Rubber, Plastics and Polymerization Industries Organization will hold a conference on automation in these industries in Akron October 27-29, 1986. Further information from:

Professor A. Kaya The University of Akron Mechanical Engineering Department Akron, OH 44325 USA The Adhesion Society is organizing an International meeting for February 22-27, 1987, in Williamsburg, Virginia. Inquiries may be addressed to the following:

General Chairman:

Professor Lawrence T. Drzal
Department of Chemical Engineering
Michigan State University
East Lansing, MI 48824-1226
USA

The 31st 1UPAC Macromolecular Symposium will be held June 30-July 4, 1987 in Merseburg. The scientific chairman is Professor Dr. Burkart Philipp whose mailing address is:

Dr. Burkart Philipp
Technische Hochschule
"Carl Schorlemmer"
Leuna-Merseburg
Macro 87
Otto-Nuschke-Strasse
DDR - 4200 Merseburg
German Democratic Republic

The Polymer Division of the American Chemical Society calls attention to their interest in receiving nominations for the Creative Chemistry Award. Nominations are to be send to:

Dr. George B. Butler Department of Chemistry University of Florida Gainesville, Florida 32611

from whom further information may be obtained. Nominations will be due April 1, 1986.

The first Chinese Congress on Rheology was held November 11-14, 1985 in Chang Sha, Hunan Province. Over 180 people attended and 127 papers were presented. The congress was organized jointly by the Chinese Chemical Society and the Chinese Mechanics Society. Professor Chan Man Fong of Beijing University was the Chairman, Professor Yuan, Longwei of Xiangfan University (Hunan Province), Vice Chairman and Dr. Xu, Yangze of the Academia Sincia Beijing, Secretary. A second National Congress is expected in 1987. Anyone interested in receiving the proceedings of the first Congress or in future meetings should write to Dr. Xu, Yangze.

The Colloid & Interface Science Group of the Faraday Division of the Royal Society of Chemistry and the Colloid and Surface Science Committee of the Society of Chemical Industry are organising a joint one-day meeting on:

INTERFACIAL RHEOLOGY

at Imperial College on 19th Decmeber 1986. The topic of which will be the rheology of the fluid/fluid interface.

Full details and registration forms are available from:

Dr. B. J. Briscoe
Dept. of Chemical Engineering and Chemical Technology
Imperial College
Prince Consort Road
LONDON SW7 2AY

The British Society of Rheology, in association with the Polymer Physics Group of the Institute of Physics will hold a conference on Deformation in Solid Polymers at Leeds University September 9-11, 1986. Information is available from:

Mr. S. T. E. Aldhouse BP Chemicals Ltd. Research and Development Department Bo'ness Road Grangemouth Stirlingshire FK3 9XH

Application for Membership in the SOCIETY OF RHEOLOGY

Name	
	(Please print)
Mail Address	and the second production of the second seco
Professional Affiliation	acces)
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 Biological Materials Foods and Natural Products Inorganic Materials Oils and Lubricants Soils Synthetic Polymers Fluids (Including Solutions) Solids Suspension and Particulate Systems Engineering Experimental Techniques Mechanics Phenomenology All of the above None of the above Theorem Agents Suspension to the Journal of Rheology is for member's subscription to the Journal of Rheology is for member to the Journal of
personal use, and not for library	use.
Signature	Date

Enclose remittance of \$20 for Regular Annual Dues or \$200 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