

RHEOLOGY BULLETIN

Publication of The Society of Rheology, Inc.



Vol. 49, No. 2

July, 1980

52nd ANNUAL MEETING

Williamsburg, Virginia
February 22-26, 1981

Program Committee

Costel D. Denson, Dept. of Chemical Engineering, University of Delaware, Newark, DE 19711 (chairman); S. S. Sternstein, J. R. Collier, A. S. Szczesniak, J. M. Maerker, and L. W. Kleiner.

Local Arrangements Committee

Greg McKenna, A-209 Bldg. 224, National Bureau of Standards, Washington, DC 20234 (chairman).

CALL FOR PAPERS

Deadline for Abstracts: November 1, 1980

An abstract of 250 words or less is required PRIOR to November 1, 1980. Abstracts should be sent directly to the appropriate symposium chairman:

Symposium on Rheology of Solids (including composites)

Sanford S. Sternstein
Dept. of Chem & Environmental Engineering
Rensselaer Polytechnic Institute
Troy, NY 12181

Symposium on the Rheology of Food Products

Alina S. Szczesniak
Central Laboratories
General Foods Corporation
White Plains, NY 16025

Symposium on Flow Through Porous Media

John M. Maerker
Exxon Production Research Company
P. O. Box 2189
Houston, TX 77001

Symposium on Polymer Processing

Costel D. Denson
Dept. of Chemical Engineering
University of Delaware
Newark, DE 19711

Symposium on Polymer Melts and Solutions

Costel D. Denson
University of Delaware

General Papers

John R. Collier
Dept. of Chemical Engineering
Ohio University
Athens, OH 45701

Several invited lectures will be given on topics of broad general interest to The Society.

1980 BINGHAM AWARD

Howard Brenner has been selected as the winner of the 1980 Bingham Award.

VIIIth INTERNATIONAL CONGRESS ON RHEOLOGY

September 1-6, 1980

Location: University of Naples
Naples, Italy

Personnel Involved:

Chairman of Organizing Committee
Gianni Astarita
Secretary of Organizing Committee
L. Nicolais
Montedison DIRS
Via Nuova delle Brece
150, Barra, Naples, Italy

Society of Rheology members can contact Joseph M. Starita, Rheometrics, Inc., 2438 U.S. Highway 22, Union, NJ 07083.

1981 ANNUAL MEETING

October or November 1981

The 53rd Annual Meeting of The Society of Rheology will be held at the Galt House in Louisville, Kentucky. Program committee chairman is L. R. Schmidt of General Electric Company, Schenectady, New York. Local Arrangements Committee Chairman is C. Eugene Miller, University of Louisville, Louisville, Kentucky.

OBITUARY

ARNOLD A. BONDI, consulting research engineer with the Shell Development Company, died on November 26, 1979. Bondi's keen interest in the field of petroleum chemistry spanned almost 40 years, and was reflected in the textbooks, 12 patents, and more than 80 articles he published. His work was chiefly concerned with the physical properties of molecular crystals and liquid hydrocarbons. For many years Bondi monitored the American Petroleum Institute's (API) Research Project 42 (Higher Molecular Weight Hydrocarbons). He was also very active in the development of the API Technical Data Book. He was a member of the American Chemical Society, a fellow of the American Institute of Chemical Engineers, a member of the NAS/NRC Evaluation Panel for OSRD, as well as a delegate of the World Federation of Engineering Organizations to the CODATA Committee on Industrial Data Needs.

WALTER H. BAUER, Professor Emeritus of Physical Chemistry and Dean Emeritus of the School of Science, Rensselaer Polytechnic Institute, Troy, New York, died March 30, 1980. His obituary will appear in a forthcoming issue of the Journal of Rheology.

AIP FIFTIETH ANNIVERSARY CELEBRATION

Member Societies are asked to hold a special session in honor of AIP during one of their national meetings in 1981. Such a program could feature the development of one area of physics in The Society's purview, in an historical vein, 1931-1981.

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

**1981-82 DIRECTORY OF PHYSICS & ASTRONOMY
 STAFF MEMBERS**

Much of the work in rheology is done outside of academic physics departments, in academic related-field departments, government laboratories, not-for-profit laboratories, and industrial laboratories. Send the name and address of your department or organization to Dion W. J. Shea, American Institute of Physics, 335 East 45th St., New York, NY 10017.

PHYSICS NEWS IN 1980

Brief descriptions of important research developments are requested by AIP. Suggestions for the preparation of articles (due September 15, 1980):

1. Articles should be 250-500 words long.
2. Information should be in context: what is the new result, and why is it important?
3. Period covered in Sept. 1979 - Sept. 1980.
4. Journalists, teachers, congressional staff, and students constitute the majority of readers.
5. List references.
6. Articles will be edited.

Contact Phillip F. Schewe, Editor, American Institute of Physics, 335 East 45th St., New York, NY 10017.

"I feel this very attractive yearly publication, *Physics News*, would be an excellent medium to communicate information about the field of rheology to the public. This is thus a call for a volunteer to prepare a brief description of the most important research developments in rheology for inclusion in *Physics News*. Since some of you who might wish to contribute may find the time limit short, remember that this is a yearly publication and a call for contributions for next year (1981) will come in due course. Please communicate with me on this matter since the request for contribution came to The Society of Rheology."

E. B. Bagley, President
 The Society of Rheology
 c/o Northern Regional Research Center
 Agricultural Research Service, USDA
 1815 North University Street
 Peoria, IL 61604

COURSES AND MEETINGS

"Polymer Extrusion and Melt Rheology" course to be offered July 14-18, 1980 at Rensselaer Polytechnic Institute. Contact R. T. Eustace, Director of Continuing Studies, RPI, Troy, NY 12181.

The 15th Annual Colloquium of the Groupe Francais de Rheologie will be held in early December 1980 on "Rheology and Structure of Materials." Contact E. Absi; Secretariat general du G.F.R.; C.E.B.T.P.; 12 rue Brancion; 75735 Paris Cedex 15, France.

The 4th International Conference on Surface and Colloid Science will be held at Hebrew University, Jerusalem, Israel from July 5-10, 1981 (sponsored by IUPAC). Contact N. Garti; Casali Institute of Applied Chemistry; The Hebrew University of Jerusalem; Israel.

Joint Meeting of Belgian Group of Rheology and the British Society of Rheology will be held at University of Liege from April 7-9, 1981. Title and abstract for papers should arrive by August 31, 1980. (Areas: Rheology of mixing, Processing of rubber compounds, Dynamic properties of cured materials, Process modelling and design). Contact D. E. Marshall, Institute of Polymer Technology; Loughborough University of Technology; Loughborough, Leics; LE11 3TU United Kingdom.

1981 Annual Meeting of British Society of Rheology will be held at the University of Newcastle upon Tyne from September 8-11, 1981 with main theme of Stretching Flows. Contact C. J. S. Petrie; Dept. of Engineering Mathematics; University of Newcastle upon Tyne; Newcastle upon Tyne, NE1 7RU, England.

"Fluid Mechanics Measurements" course to be offered by University of Minnesota in cooperation with TSI Incorporated September 15-19, 1980. Contact John S. Vollum, Program Director, 222 Nolte Center, 315 Pillsbury Drive S.E., Minneapolis, MN 55455.

SOCIETY OF RHEOLOGY EDUCATION COMMITTEE QUESTIONNAIRE

The Society of Rheology Committee on Education is building a bibliography of educational materials which we plan to make available as a source of information to the rheology community. Each member of the Society may recommend sources for inclusion in this bibliography. Include such educational material as films, short courses, etc.

Below is a list with the subject titles in which we are interested. Please return your comments to Greg McKenna, Polymer Science and Standards Division, National Bureau of Standards, Washington, DC 20234.

- A. Educational Films _____

- B. Rheology Short Courses _____

- C. University programs with an emphasis on Rheology _____

- D. Laboratories which perform rheological testing _____

- E. Consultants and consulting firms _____

- F. Other groups, societies, etc. with interests which overlap those of the Rheology Society _____

- G. Additional comments _____

AMERICAN INSTITUTE OF PHYSICS INCORPORATED
FOR THE SOCIETY OF RHEOLOGY

Statement of Receipts and Disbursements - Year Ended December 31, 1979

Balance in Account - December 31, 1978* \$26,606.15

Receipts (January 1 - December 31, 1979)

Dues	\$15,788.00	
Sales of Mailing Lists	92.00	
Interest on Savings account and certificates	1,994.77	
Page charges Journal of Rheology	6,190.00	
Short course - Houston 1978	100.00	
Net receipts Annual Mtg. - Houston	1,007.12	
Net receipts Spring Mtg. - Hawaii	447.00	
Short course - Boston 1979	2,990.00	
Sustaining membership	100.00	
	28,708.89	
TOTAL RECEIPTS		\$55,315.04

Disbursements (January 1 - December 31, 1979)

Charge for Dues billing and collection	\$856.00	
Charge for prep. and maintenance of member record file	1,622.00	
Financial handling charge - 1979	250.00	
Member Society Dues - 1979	900.00	
Editorial Expenses	2,400.00	
Journal of Rheology	8,363.00	
Bulletin, Program and Abstracts mailing	318.00	
Membership Drive printing and mailing	565.00	
Golden Jubilee circular mailing	645.00	
Golden Jubilee July announcement printing and mailing	645.00	
AIP Press letter and releases	293.00	
Golden Jubilee abstracts composition, printing and mailing	2,716.00	
Enclosures printing and mailing	341.00	
	3,057.00	
<i>Less: Reimbursement from SOR</i>	(2,563.00)	494.00
Election Ballot mailing	242.00	
Officer Nomination mailing	190.00	
Sieglaff letter mailing	185.00	
International Congress mailing	205.00	
Renewal Billings	523.00	
New Society letterhead and brochure	396.00	
Administrative Services	1,200.00	
Printing and Postage	290.00	
Bingham Medal	46.00	
Office communication service	154.00	
Executive Meeting - March 1979	243.49	
Telephone and Xerox charges - CWRU	96.76	
ICR Brochure shipping	31.00	
History of SOR Preparation	249.41	
Bingham Medal	47.71	
Short Course - Boston, expenses	2,516.15	
	23,966.52	
TOTAL DISBURSEMENTS		23,966.52
Balance in Account December 31, 1979		31,348.52

*Adjusted to include 1978 Price Variance

Edward A. Collins
Treasurer
April 11, 1980

**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 \$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