

THE BRITISH SOCIETY OF RHEOLOGY OFFICERS & MEMBERS OF COUNCIL - 1997/8

President:	Prof Peter Townsend , Pro-Vice Chancellors Office, The Abbey, Singleton Park, Swansea, West Glam., SA2 8PP	T: 0179 - 229 5343 F: 0179 - 229 5655 E: p.townsend@swansea.ac.uk
Honorary Secretary:	Dr Geoff Brownsey , Institute of Food Research, Norwich Laboratory, Norwich Research Park, Colney, Norwich, NR4 7UA	T: 01603 - 255201 F: 01603 - 507723 E: brownsey@bbsrc.ac.uk
Honorary Treasurer:	Dr Mike F Webster , Dept of Computer Science, University of Wales, Singleton Park, Swansea, West Glam., SA2 8PP	T: 0179 - 229 5656 F: 0179 - 229 5708 E: m.f.webster@swansea.ac.uk
Honorary Membership Secretary:	Prof A Russell Davies , Dept of Mathematics, University of Wales Aberystwyth, Ceredigion, SY23 3BZ	T: 01970 622755 F: 01970 622777 E: ard@aber.ac.uk
Honorary Abstracts Editor:	Dr Nick E Hudson , Dept of Pure & Applied Chemistry, University of Strathclyde, 295 Cathedral Street, Glasgow, G1 1XL	T: 0141 - 548 2162 F: 0141 - 548 4822 E: n.e.hudson@strath.ac.uk
Honorary Bulletin Editor:	Dr Paul Doody , National Starch & Chemical, Galvin Road, Slough, Berks., SL1 4DF	T: 01753 - 501242 F: 01753 - 533494 E: paul.doody@nstarch.com
Ordinary Members of Council:	Prof Phil F G Banfill , Dept of Building Engineering & Surveying, Heriot-Watt University, Riccarton, Edinburgh, EH14 4AS	T: 0131-449 5111 F: 0131-451 3161 E: p.f.g.banfill@hw.ac.uk
	Mr Derek Bell , TA Instruments Ltd, Europe House, The Bilton Centre, Cleeve Road, Leatherhead, Surrey KT22 7UQ	T: 01372-360141 F: 01372-360135 E: 100775,446@compuserve.com
	Mr Tom Dovey , Courtaulds Corporate Technology, PO Box 111, Lockhurst Lane, Foleshill, Coventry, West Mids., CV6 5RS	T: 01203-582192 F: 01203-582996 E: tom.dovey@corp.courtaulds.co.uk
	Mr John W E Gearing , 1 Ashwell Street, Ashwell, Herts., SG7 5QF	T: 01462-742007 F: 01462-742565
	Dr Malcolm R Mackley , Dept of Chemical Engineering, University of Cambridge, Pembroke Street, Cambridge, CB2 3RA	T: 01223-334784 F: 01223-334796 E: mrm1@cheng.cam.ac.uk
	Mr Steve L Robinson , Bohlin Instruments, Unit 6 The Corinium Centre, Cirencester, Glos., GL7 1YJ	T: 01285 - 644407 F: 01285 - 644314 E: sr@bohlin.co.uk

T: Telephone; F: Fax; E: eMail

The British Society of Rheology is registered as a Charity - Number 249967

THE BRITISH SOCIETY OF RHEOLOGY

BULLETIN

1997, Vol 40, No 4

CONTENTS

Officers & Members of Council - 1997/8.....	ii
Editorial.....	123
Conference Reports	125
BSR Announcements	127
New Council Members.....	131
International Congress on Rheology - Rheology 2000	132
AGM Commentary	133
Annual General Meeting 1997 - Reports of Officers.....	135
The Future Rôle Of The British Society of Rheology.....	145
Novel Rheometers	151
BSR on the WWW	151
Obituaries	152
Membership News.....	153
Conference Diary.....	156
Course Diary.....	158
<i>Important Notice</i> (5th European Conference)	160

Hon Editor:
Dr Paul Doody
National Starch & Chemical
Galvin Road
Slough
Berkshire SL1 4DF

ISSN: 0045 3145

EDITORIAL

It is my pleasurable first duty as Editor of the Bulletin to thank Peter Anderson for his efforts over the past few years. This job is not an easy one (as I'm just beginning to find out!) and I am very grateful for the time that Peter spent handing over all the files, archives, and other bits of correspondence. He also spent a lot of time going over the "ins and outs" of the job. Needless to say any errors are due to me, not him...

It is always very daunting to take over any venture, especially one that has been going for many years. The desire to change has to be weighed against the benefits and comfort of experience. Over the next few issues I will be experimenting with new features, layouts, and formats. I would welcome any comments (negative or positive!) together with any features that you would like to see in our Bulletin. In addition, a plea (with which all previous editors will identify) for any articles, reports, letters, or comments that you would like to see included.

The Society faces challenges as the turn of the century approaches and this edition contains a report of the special meeting held during the AGM in which the future rôle of the Society was discussed. Especial thanks go to Carole Moules for her exhaustive efforts in organising this and for her background work. Carole now leaves Council after 11 years. It is a real shame to see someone with such obvious enthusiasm depart but I have no doubt that she will still play a significant part in the Society. We have several new members of Council and in keeping with tradition, I have twisted each of their arms for a short profile, these are included herein. In addition, I have included the reports of the Officers which were read out at the AGM, together with the usual commentary.

The BSR is very proud of its history and the fact that it retains an informal atmosphere however some of the comments raised in the articles in this issue are thought provoking. Please give them some thought and let Council have your comments.

I would just like to finish by hoping that all of you had a very pleasant holiday season, and by wishing you all a Happy and Peaceful New Year.

Paul Doody

[illegible]

COVER PHOTOGRAPH

The cover photograph shows the interfacial break-up of a cylindrical sample of a terpolymer adhesive in extension. Sequential break-up of the interfacial region is a result of inhomogeneities through the cylindrical sample. On extension these inhomogeneities lead to the formation of microfibrils, which are observed displaying a “fractal-like” pattern, photographed from below through a glass prism.

Readers are reminded that any suggestions for colour or black and white illustrations for the covers of both the Bulletin or Rheology Abstracts are most welcome. These should be sent to either our Publications Manager (Dr Nick Hudson) or myself.

Haake

CONFERENCE REPORTS

Deformation, Yield and Fracture of Polymers

held at Churchill College, Cambridge, UK, 7 - 10 April 1997

This triennial conference was again a sell-out with 215 delegates from all over the world attending, to push forward their own theories and to swap notes with old and new friends. It was quite a job rejecting offers of lectures and many of these became posters, totalling 114, whilst those more specifically on composites were sent to the equivalent annual meeting in Manchester.

Sessions were on molecular and micro-modelling; Deformation in semi-crystalline and amorphous polymers (3); Fatigue; Fracture; Deformation in special materials (2); and Toughening Mechanisms (2).

An exhibition of books and various scientific apparatus was popular and busy showing a range of macro- and nano-impactors, a new miniature biaxial tensile tester and software for video recording of fractures, and helped the conference make a small profit! The weather was what June should be like, but this year certainly wasn't.

John Gearing

The 2nd Pacific Rim Conference on Rheology, Kyoto, Japan, 27-31 July 1997

The Pacific Rim Conference on Rheology was the second in the series, with the first being held in Kyoto in 1994. 205 delegates attended the conference from 23 countries. There was a particularly large contingent from Japan. The overall response of the delegates was most positive, with some people stating it was the best conference they ever attended.

The venue was at Southbank on the Yarra River in a five-star Sheraton Hotel - an excellent central location. The technical sessions dealt with polymer composites and solids, concentrated dispersions, polymer processing, elongation of polymer solutions, polymer and surfactant solutions, liquid crystalline polymers, suspension viscoelasticity, fluid mechanics and numerical simulation, suspension rheology fundamentals, food texture and control, elongation of polymer melts, biological systems rheology, rheometry, and liquid food rheology. The plenary speaker was Professor Toshiro

Masuda from Kyoto in Japan. Professor Masuda's presentation was entitled "Long relaxation time of microheterogeneous polymer liquids".

As part of the conference a dinner was hosted by the conference chairman, Professor D V Boger, at which the delegates from all Pacific Rim countries met to discuss areas of mutual interest and future Pacific Rim conferences on Rheology. At that dinner, it was agreed that a third conference would be held in the year 2001. Delegates were asked to make expressions of interest for holding of the conference; two have been received - one from the Canadians, for the conference to be held on the west coast and from the Chinese for it to be held in Beijing.

All in all it was a great opportunity for Pacific Rim residents to meet and discuss areas of mutual interest.

Conference Proceedings are available at a cost of AU\$30 plus postage. Please contact Christine Collis: email: c.collis@chemeng.unimelb.edu.au, fax: 61 3 9344 8824.

David Boger

Bohlin - 1/2 page advert

THE BRITISH SOCIETY OF RHEOLOGY

Advertisement for Rheologica + spot colour



THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

CALL FOR PAPERS

SYMPOSIUM ON “RHEOLOGY AND FLUID MECHANICS OF NONLINEAR MATERIALS”

ASME International Mechanical Engineering Congress & Exposition
Anaheim, California
November 15-20, 1998

The Fluid Mechanics Technical Committee of the Applied Mechanics Division, the Fluid Mechanics Technical Committee of the Fluids Engineering Division, the Polymers Committee of the Materials Division and the Materials Processing Committee of the Materials Division of the ASME are sponsoring a Symposium on the “Rheology and Fluid Mechanics of Nonlinear Materials” for the 1998 ASME International Mechanical Engineering Congress & Exposition.

The purpose of this Symposium is to provide a platform for the reporting of the latest results concerning issues related to various aspects of the rheological and flow properties of nonlinear materials, and in particular advanced materials for the 21st century. Fundamental issues such as flow instabilities, inverse problems in Rheology and constitutive formulations appropriate for electrorheological fluids, thin films, suspensions, slurries, emulsions, oil field fluids, paper making fluids such as black liquor, laminar and turbulent flows of polymeric and other non-Newtonian liquids, are included as well as various transport processes such as bubble motions, sprays, extrusion phenomena, fibre spinning, film blowing, industrial coatings. Areas of interest are not limited to these issues. Theoretical, numerical and experimental contributions are solicited.

Papers will be peer reviewed. Prospective authors are requested to submit a one page abstract to the organisers by the deadline of February 1, 1998. Accepted papers will be published in a bound volume available at the meeting.

Professor Dennis A Siginer
Dept of Mechanical Engineering
Auburn University
Auburn AL 36489
T: +1 334 844-3331
F: +1 334 844-3307
E: dsiginer@eng.auburn.edu

Professor Daniel DeKee
Dept of Chemical Engineering
Tulane University
New Orleans LA 70118
T: +1 504 865-5772
F: +1 504 865-6744
E: ddekee@mailhost.tcs.tulane.edu

Advertisement for Brookfield

NEW COUNCIL MEMBERS

Tom Dovey - A native of Coventry, Tom Dovey graduated in 1979 from Wolverhampton Polytechnic with an honours degree in Applied Chemistry. To date his entire working career has been spent at the Courtaulds central research laboratories based in his home town. The wide range of research activities carried out at this location has permitted several significant changes in career direction, and with the current rate of industrial development and change, even more challenges probably lie ahead!

From his initial post in the analytical laboratory, analysing various samples by Gas Liquid Chromatograph, his career has moved on to include synthesis of protective and barrier coatings and latterly, process development work associated with synthetic fibre spinning processes. Projects in this latter area have ranged from studying the effect of raw material changes on productivity, through to design of equipment such as the spinnerets used for fibre spinning. These activities obviously rapidly led to Tom's introduction to the world of rheology. Rheological characterisation of polymer spinning solutions in terms of both shear and extensional behaviour, remains a prime aspect of Tom's work.

"It was an honour to be asked to stand for election to the BSR Council, and an even bigger one to be elected. I hope to bring to Council my views as an industrial user of rheology and to reflect the needs of industry as I see them. As to the recent debate on the future role of the BSR, my philosophy remains that the BSR should aim to provide 'something for everyone'".

John Gearing - Degree in Engineering Science from Oxford (where N Gerry McCrum was my tutor). Two years as a graduate trainee at BICC (during their metrication of cable sizes) followed by five years selling phase-sensitive detectors to universities in the North, including one to Geoff Davies who built his own dynamic analyser with one. Joined Du Pont Instruments and was selling the HPLC autosampler and GPC systems until I discovered that all of my customers were buying consumables from a young Polymer Laboratories. I joined PL in Dec 1981 as Sales Manager and was introduced to the DTMA (used primarily as a solids thermal analyser with a thousand times the sensitivity of DSC for polymers).

During the next twelve years I travelled the world promoting PL and helped them win two Queen's Awards (for Technology and Export Achievement) and then helped develop the Torsion DMTA for melts. In 1989, PL bought Stanton Redcroft and later Carter Baker Enterprises (1992) with their high speed capillary rheometer which became the ACER. In 1994 when the thermal science division was being sold, I decided it was time to move and spent a year learning about twin dies and barrels before setting up as a consultant and agent in May 1995.

Dr Malcolm Mackley - has had an interest in rheology since 1970 when he started his PhD in the Physics Department at Bristol University. Working under the supervision of Andrew Keller and Sir Charles Frank he pioneered flow birefringence techniques for polymer solutions in extensional flows. Extensional flow experiments were carried out using a double jet device, a G I Taylor inspired "four roll mill" and subsequent variants using two and six roll mills. After a short period of time between 1976 and 1979 as a lecturer in Material Science at Sussex University, Malcolm has settled down at Cambridge working in the Department of Chemical Engineering. He heads a Polymer Fluids Group with interests covering a broad range of materials processing and rheology. Malcolm has rejoined the BSR Council with the specific aim of attempting to strengthen the organisation and ensuring that in particular, it is the vehicle for both top class academic and technological rheological meetings in the UK and hopefully Europe.

Derek Bell - is the Director of Rheology at TA Instruments Ltd. He has been involved in the Rheology part of the company over a 15 year period.

Mr. Bell worked initially in rheology as a research worker for EMI Research in the late 60's, working on the rheology of magnetic tape coatings. Then he moved into rheology instrumentation sales and service for a leading rheometer maker of the time. Since then he has worked in rheological instrumentation over a 25 year period , but also dealing with other techniques including thermal analysis. This background and experience then formed the basis of Carrimed, which has now become part of TA Instruments.

Born in 1947, Derek Bell received an Honours Degree in Physics from the University of Essex. He has a very broad experience in all aspects of rheology especially the practical application of rheology techniques and instrumentation, and the development of innovative instruments using modern electronics, computers and transducers.

INTERNATIONAL CONGRESS ON RHEOLOGY

Rheology 2000

This message is to draw your attention to preliminary ICR Congress Web pages which are now available at the following URL

<http://abbey4.swan.ac.uk/rheology2000/>

I should be particularly grateful if you would complete and submit the 'expression of interest form' contained within the Web pages.

With best wishes,

Peter Townsend

**COMMENTARY ON 290th COUNCIL MEETING,
AGM, AND DISCUSSION MEETING
SWANSEA, 23 OCTOBER 1997**

The 23rd of October, 1997, was an important day for the BSR. It was a crisp autumn day of blue sky, bright sunshine, and fresh sea air. Four events were to take place at the University of Wales, Swansea, overlooking the magnificent vista of Swansea Bay at its shining best. As I climbed the stairs to attend the 290th Council Meeting, I looked out on the craggy peaks of Mumbles Head glistening in the west, the far Devon coastline hiding in the haze straight ahead, and all seemed so well with the world that it was easy to ignore the (only faintly discernible) conglomeration of heavy industry polluting the distant eastern shoreline.

After the Council Meeting I was to chair (with help from Carole Moules) a discussion meeting on the future role of the BSR, which was to fill a full 90 minutes. Then the 1997 AGM, which was to end on a note of sadness. And finally a reception and Public Lecture, jointly funded by the BSR and the University of Wales Institute of Non-Newtonian Fluid Mechanics. The lecturer, a leading European industrial scientist, was Dr Hans Martin Laun, from BASF Ludwigshaven, Germany. He was to address us on the Industrial Role of Rheology.

With so much to fill the day ahead, Council business was tackled briskly. We readily sympathised with the publications manager who was experiencing difficulties in printing the specially designed cover for the European edition of the Bulletin. We welcomed his bold decision to publish full colour advertisements for those who were willing to pay for them. We approved the (final?) recommendation from the Scott-Blair Working Party, poignantly conveyed in its dying moments. (Scott-Blair's collection of personally annotated research papers are to be bound and displayed). With regret we could not approve the cataloguing of Dr. Tattersall's collection of research papers at Sheffield University Library. The cost was deemed too great.

We learned that our forthcoming international congress, Rheology 2000, to be held in Cambridge, now had a fully appointed organising committee who had already met. Bookings were already being made, particularly for the social events. (Recall the venue for George Friedrich Handel's Water Music, and you will not be far out in guessing what the main social event will be.)

The European Society (ESR) requested nominations for its Weissenberg medal, the very first award to be made in Slovenia in 1998. Some debate ensued as to whether the BSR should nominate a brilliant youngster or an eminent oldie. (No takers from the middle-aged. Sorry!) My recollection is that we favoured the young and active. But nominating a candidate for this prestigious award was deferred until the next meeting to allow in depth contemplation and soul-searching. (Not to mention the expectation of written guidelines from the ESR! More anon.)

Three members of Council resigned. Gerry Meeten, who had been a most diligent and efficient Abstracts Editor, felt he had to go due to pressure of work. Peter Anderson, who had served us well as Bulletin Editor, and introduced a more buoyant style to recent issues, felt that, in retirement, he was no longer *au fait* with developing trends in rheology. Tom McLeish regretted his departure but his very busy schedule prevented him from being as active as he would wish in BSR affairs. As a most welcome gesture, however, his parting shot was an offer to organise a BSR conference in December 1998, entitled "Partners in Rheology".

Four nominations for Council membership were received. This meant that a ballot was needed at the AGM. Sadly, Carole Moules was not re-elected at this ballot. She had been extremely active in BSR affairs in recent years, so it came as a blow to those of us who worked closely with her to find

her dispatched. Carole holds strong views concerning the future role of the BSR. Her lively contributions will be keenly missed.

Between 40 and 50 members turned up for the discussion meeting on the future rôle of the Society. I had also received useful comments from others who could not attend. I started proceedings by summarising the Working Party's suggestions published in the April 1997 Bulletin. Carole Moules then summarised the results of a survey she had conducted about opinions from people outside the BSR. This barrage of negative opinion certainly got the discussion going. The wrinkly brigade (Ralph Oliver's term for the group of eminent elderly statesman present) let off steam. What were we worried about? The Society was in receipt of a record income. There were almost 700 members world-wide. That's all we had to do was spend the money wisely: not to scratch where no-one was itching. Don't turn us into a glossy professional society. Don't raise fees: the membership wouldn't like it. Could we model ourselves on the Non-Newtonian Club?

But there were also some serious lessons to be learnt. The Working Party had got it wrong on the conference front. We must continue to organise regular conferences: it kept the Society going and served industry and the academic community. There was much strong feeling on this. There was also much objection to hiring a marketing company to promote our image. But the concept of spending money on BSR studentships, public lectures, schools liaison, a professional World Wide Web page, was largely welcomed.

The difficulties associated with offering Company Membership to industry were aired. Ignorance of rheology was not uncommon in industry even today. Ideally, industry should approach us for help, not the other way round. Given that rheology is a cross-disciplinary subject, carefully planned collaboration was needed if the importance of the subject was to be conveyed to other scientists. Problem oriented workshops directed at industrial problems were a good idea. But the issues involved in serving industry generally were complex, and a paced, cautious, evaluation of its needs was advisable over the coming years.

Russell Davies

PRESIDENT'S REPORT

Annual General Meeting 1997

This last year has been one of quiet reflection for the Society. Changing circumstances have led the Officers to consider carefully the future role that the Society should play. I will return to this later in this report, but first I should review the activities of the past twelve months.

We have continued our traditional activities, and in particular, the publication of the Bulletin and Rheology Abstracts, both of which have been given a face lift. They are both now published by the Society itself, which provides a useful income stream to support other activities. The additional workload taken on by Nick Hudson, has led us to award him the title of Publications Manager, in addition to his role as Membership Secretary. We are most grateful for his efforts.

On the conference scene, a most successful Young Rheologists' Day was held again this time last year. This event is now firmly established in the portfolio of Society activities. This year we embark on a new venture with the introduction of the BSR lecture, to be held on alternate years with the Young Rheologists' Day. We are fortunate to have an excellent speaker in Dr. Hans Martin Laun, to start off the lecture series. Although the Society has not organised a major meeting this year, one has been offered for the coming year. In addition, there has been much activity associated with the planning of the International Congress, Rheology 2000, which the Society will host in Cambridge in the year 2000. The meeting will be based at Robinson College, with lectures held in the Lady Mitchell Hall Complex on the Sidgwick Site. A social programme and a programme for accompanying persons has already been planned. The details will be available shortly on WWW pages.

This year we lose three members of Council, namely, Tom McLeish, Gerry Meeten and Peter Anderson. We thank them all for their contribution, but I think a special word of thanks must go to Peter, who is currently the longest serving member of Council, having been elected in 1982. Over the past fifteen years he has served as Membership Secretary, Treasurer and more recently, Bulletin Editor. The Society will miss his contribution.

Thanks must also go to the Scott Blair Working Party, namely John Benbow, Mervyn Jones, Tony Evans and Russell Davies. Their work is now complete, and the collection at Aberystwyth is in good shape.

One initiative which must be mentioned is the establishment this year of the European Society of Rheology. The BSR has taken a leading role in this venture. Our Bulletin has become the vehicle for a newsletter for the new ESR, and one of our past presidents, Ken Walters is the first ESR President and another, Jim Ferguson is our delegate on the ESR Council. We look forward to a long collaboration with the new Society, which will undoubtedly lead to significant mutual benefit.

Finally, I return to the question of the future role of the British Society of Rheology. My predecessor, Howard Barnes, set up a working party to look at this issue. Their task has been to address such questions as - should the Society retain its 'club-like' image or move towards a more professional organisation? Should the Society continue to organise annual conferences in view of the proliferation of events? Should the Society become involved in formal training qualifications? Undoubtedly, there will be almost as many views as there are members, but whatever the outcome of these deliberations, it is clearly the case that the Society must represent the majority view of the membership.

I end with sincere thanks to my Council colleagues for considerable effort they put into making this a successful Society, and look forward to another interesting year as your President.

Peter Townsend

TREASURER'S REPORT

Annual General Meeting 1997

Four accounts with Lloyds Bank hold the Societies cash balance. These include two Treasurer's current accounts (one for membership dues) and two premier interest earning investment accounts (one for Scott Blair Legacy fund). The two main accounts that carry the activity of the Society are the current accounts.

The accounts for 1996/97 reflect the consolidated position of the Society over a two year period. The excess income of the financial year ending June 1996 has been moderated in the present year ending June 1997. This was due to the lack of expenditure on publication production costs that were received during the current year.

The subsuming of publication and production of the two main Society publications, Rheology Abstracts and Bulletin, has resulted in a growth of income to the Society that has been offset by the increased Working Group and conference activity taken on. The Society has also taken on a leading role in the founding and organisation of the European Society of Rheology, its wider European counterpart. Accounting and auditing procedures are in line with current Charity Commission Rules and Regulations, being scrutinised by independent examiner. The substance of this report has been communicated to the Society Council and Membership at the AGM held on 23 October 1997, Swansea.

Mike Webster

THE BRITISH SOCIETY OF RHEOLOGY
REVENUE ACCOUNT FOR THE YEAR ENDED 30TH JUNE 1997

		<u>1997</u>	<u>1996</u>
INCOME	£	£	£
Annual Subscriptions and Entrance Fees		5,741	6,350
Publisher - Rheology Abstracts		23,887	28,894
Advertising		5,851	4,708
Bulletin Subscriptions		669	240
Book Royalties		-	34
Sale of Ties/Miscellany		20	-
Bank Interest		2,652	1,946
		<u>£ 38,820</u>	<u>£ 42,172</u>
EXPENDITURE			
Council Expenses		5,620	5,015
Bulletin Production Costs		2,136	2,750
Rheology Abstracts Production Costs		10,581	849
Expenditure by Officers: <i>Bulletin Editor</i>	48		118
<i>Publications Manager</i>	110		-
<i>Treasurer</i>	28		82
<i>Membership Secretary & Circulation</i>	5,282		4,573
		5,468	4,773
Professional Fees		-	388
Insurance		164	164
Awards		75	100
Miscellaneous		2,287	120
European Rheological Society Donation		1,000	-
Conferences (see below)		6,337	942
Student Grants		1,608	480
Working Groups		1,672	-
CardNet Charges		200	200
Bank Charges		8	2
Membership Subscriptions Refunded		40	211
Tax Paid on Interest (reclaimable)		-	1
Depreciation <i>Printer 5/1/95</i>		96	96
<i>Printer 17/7/96</i>		78	39
		<u>£ 37,370</u>	<u>£ 16,130</u>
EXCESS OF INCOME OVER EXPENDITURE	Income	38,820	42,172
	Expend	(37,370)	(16,130)
		<u>£ 1,450</u>	<u>£ 26,042</u>
CONFERENCES ACCOUNT			
Lancaster		-	2,058
Cambridge NATO Advanced Studies Institute		-	(3,000)
Young Rheologists Day Conference Coventry		(1,337)	-
Rheology 2000 Cambridge - Advance		(5,000)	-
		<u>(£ 6,337)</u>	<u>(£ 942)</u>

THE BRITISH SOCIETY OF RHEOLOGY
BALANCE SHEET AS AT 30TH JUNE 1997

	<u>1997</u>	<u>1996</u>
	£	£
FIXED ASSETS		
Printer at cost 5/1/95	640	640
Depreciation to date	(288)	(192)
	352	448
Printer at cost 17/7/96	513	520
Depreciation to date	(117)	(39)
	396	481
CURRENT ASSETS		
Cash at bank:		
Premier Interest Account	66,513	35,941
Current Accounts	7,753	31,249
	74,266	67,190
Sundry Debtors and prepaid expenses	445	397
	<u>£ 75,459</u>	<u>£ 68,516</u>
CURRENT LIABILITIES		
Sundry Creditors	6,506	1,013
	<u>£ 68,953</u>	<u>£ 67,503</u>
SCOTT BLAIR LEGACY FUND ASSETS		
Premier Interest Account	10,295	11,034
Owed to General Account	(295)	(397)
	10,000	10,637
	<u>£ 78,953</u>	<u>£ 78,140</u>
GENERAL FUND		
At 1st July 1996	67,503	41,461
Excess of income over expenditure in the year	1,450	(397)
	<u>£ 68,953</u>	<u>£ 67,503</u>
SCOTT-BLAIR LEGACY FUND		
Balance at 1st July 1996	10,637	10,545
Bank Interest	358	489
Transfer to General Fund	(1,700)	-
Transfer from Membership Fund	1,000	-
	10,295	11,034
Expenses for 1996/7 taken under Working Groups	(295)	(397)
	10,000	10,637
	<u>£ 78,953</u>	<u>£ 78,140</u>

Mike Webster - Hon. Treasurer

I have examined the books of account of the British Society of Rheology and report that to the best of my knowledge the above Revenue Account and Balance Sheet is in agreement therewith.

S B Warrington - Chartered Accountant

HONORARY SECRETARY'S REPORT

Annual General Meeting 1997

The Council's year started with formal recognition that its bid that the UK host the next International Congress in Rheology - Rheo 2000 was accepted. The dates were fixed as 19th to 26th August, 2000 in Cambridge. Activity was also seen on another front with the establishment of the European Society of Rheology, our Bulletin be used as a launching platform. The BSR awarded the ESR an enabling grant and agreed to have regular ESR pages in the Bulletin. In fact, we went further and agreed to expand the Bulletin into a European Issue/Newsletter for two issues each year. The ESR established a Weissenberg medal as well as asking that all member societies put in place a reciprocity agreement, to which the BSR has agreed.

The Society's publications are seen as a flagship and we endeavour to maintain their circulation to all of our members and we were pleased to have secured an arrangement for the distribution of the Bulletin to the eastern bloc. On the question of publications, Council were asked to consider the issue of electronic publication and as a first step are to consider the publication of a CD that will contain all of the back issues of Rheology Abstracts.

To those members who avidly read the Bulletin, you will be aware of a discussion paper on the 'Future Rôle of the Society' of which today's exercise forms an important part. While one working party was formed whose remit was the 'Future Rôle', another was wound up, this being the Scott Blair Working Party.

It had successfully overseen the completion of the electronic cataloguing of the collection at Aberystwyth but the Society had decided not to undertake the same exercise at Sheffield University where there is a small collection of works of a specific rheological interest.

There have been deliberations during the year around the matter of use to which the Societies funds should be put. One such proposal was for the establishment of an Industrial/BSR studentships(s). Council are still considering this, however there is already identified a fund of some two to three thousand pounds, allocated each year, specifically for the support of student and travel grants.

In the past few years this funding source has not been used as widely as was expected. Of more concern has been the lack of candidates for the Biorheology Awards. There are two, the Scott Blair Memorial and the Scott Blair Biorheology Scholarship, both to the value of £500 per year for two years.

I thank all my fellow members of Council for their endeavours during the year and look forward to what could be a memorable year.

Geoff Brownsey

Advertisement for TA Instruments

Advertisement for Bohlin

RHEOLOGY ABSTRACTS: HONORARY EDITOR'S REPORT

Annual General Meeting 1997

From January 1996, Rheology Abstracts (RA) has been published by the BSR, instead of Elsevier. We have consequently expanded our page and abstract number output, and as reported at this time last year, further expansion has taken place during 1997. This improvement would have been impossible without creating the post of RA Publications Manager, held this year (and with great industry) by the current Membership Secretary, Nick Hudson.

I am pleased to report a modest increment in the number of Abstractors, who abstract from journals not previously covered.

In Bulletin articles I have described the work of the Editor and the Abstractors, and requested from the membership their views and comments on Rheology Abstracts. The survey's modest response revealed neither great satisfaction nor dissatisfaction among BSR members: it would have been useful to obtain a clearer view of the RA from the BSR membership. It would be useful to undertake a similar exercise with those (non-members) who purchase the RA. Additionally, more abstractors may be required owing to the expansion of both rheology as a subject, and the number of publications containing rheological material. These issues, and no doubt several others, I must leave in the hands of the new Hon. Editor.

Gerry Meeten

BULLETIN: HONORARY EDITOR'S REPORT

Annual General Meeting 1997

This past year has seen a number of changes to the Bulletin. It started with a renumbering of the issues, so that Volume 40 number 1 appeared at the start of the year, instead of being the second issue of the calendar year. Volume 40 has also been appearing with the new style glossy coloured covers to match the Abstracts. I hope you like the change. The latest issue to appear (No 3) was the long awaited Bulletin of the British Society of Rheology combined with the first of the twice yearly Newsletters of the European Society of Rheology. My thanks go to Prof. Dr Manfred Wagner who co-ordinated collecting the articles from the various European groups.

The Bulletin has continued to cover the costs of its production and distribution from the advertising that it carries. My thanks to our advertisers for their continuing support.

This issue will be my last as your Editor as I am standing down from the BSR Council at this AGM. With the rapidly increasing use of electronic means of communication, it has become obvious that it is less than efficient to work from home relying only on the old traditional telephone and post (snail mail). Having not been active in Rheology since I retired from BP five years ago and after having served for fifteen years continuously on Council, it is time to hand over to 'younger blood'. I wish my successor good luck with the task.

Peter Anderson

MEMBERSHIP SECRETARY'S REPORT

Annual General Meeting 1997

I have now completed my third year in the position, and hope that I have maintained the standards set by my predecessor. With your support, I now relinquish this post and take up position as Abstracts Editor. I hand my successor the ceremonial crowbar for prising the subscriptions from our members, and wish him every success in his endeavours. A new membership list was published

during the Summer (1997). From the statistics given below, you will see, our membership has risen slightly over the year. Most of the departures have been of people for whom we no longer have a current address, and who have not paid their subscription for at least a year. However, we still brought in less new members than last year. Please keep recruiting!! We still give some of the best value for money in a Scientific Society. As you know, the Rheology Abstracts are now printed at the University of Strathclyde, in addition to the Bulletin. I have also the responsibility of Publications Manager, which involves overseeing the work of an administrative assistant who invoices customers, sends out reminders, handles the correspondence, deals with the printers, and posts out the two journals.

Membership Information		
Total membership	UK	Overseas
622 (605)	412 (407)	210 (198)
Members Joining During the Year 1996-1997		
Total	UK	Overseas
39 (74)	21 (30)	18 (44)
Resignations/Departures During the Year 1996-1997		
Total 22 (70)		
() indicates the 1995-1996 figures.		

Nick Hudson

CALL FOR PAPERS

MECHANICS OF NONLINEAR MATERIALS

Banff, Alberta, Canada

May 13-16, 1998

Invited speakers:

H Brenner (MIT), MM Denn (University of California, Berkeley), M Grmela (Ecole Polytechnique, Montreal), FM Leslie (Strathclyde University), N Shrive (University of Calgary), K Walters (University College of Wales)

Some areas of interest:

Biomaterials, Diffusion, Extended thermodynamics, Experimental methods, Multiphase flow, Relaxation processes, Structure and dynamics of polymers, Stochastic processes, Suspensions.

Authors submitting abstracts must indicate their intention of presenting a full length paper, to be published in the Journal of Non-Newtonian Fluid Mechanics. The submissions will be subjected to the normal refereeing procedure of the Journal. Final Deadline for these submissions is April 15, 1998.

Please send submissions to either co-chairperson:

D DeKee
Dept of Chemical
Engineering,
Tulane University,
New Orleans,
LA 70118,
USA

DA Siginer
Dept of Mechanical
Engineering,
Auburn University,
201 Ross Hall,
Auburn,
AL 36849-5341,
USA

J Stastna
Bituminous Materials,
University of Calgary,
ENF 262, Calgary
Alberta,
Canada T2N 1N4

PLEASE POST

THE FUTURE RÔLE OF THE BRITISH SOCIETY OF RHEOLOGY

As you are all probably aware by now, there has been a great deal of discussion recently regarding the future rôle and function of the British Society of Rheology. The Working Party that was set up to report to the Council consisted of Carole Moules, Paul Doody, and Russell Davies. Their report was published (*BSR Bulletin* 40(2)43-45) and it was agreed that there would be an open forum discussion before the 1997 AGM.

What follows are three reports regarding this issue. The first consists of comments that were gathered during an informal session held during Camtel's School of Industrial Rheology in October 1997. These were submitted by Carole Moules. The second report consists of audience comments recorded during the discussion on the future rôle of the BSR just before the AGM (thanks go to Geoff Brownsey for taking these down). The third and final report consists of the views expressed during the 291st Council Meeting as a response to the debate so far. It goes without saying that further views are most welcome.

Market research - Carole Moules

These notes are extracted from a series of discussion meetings held during the School of Industrial Rheology 1997 organised by Camtel Limited. The delegates were split into five groups, each containing four or five people. The groups consisted of a mixture of BSR members and non-members as follows:

Group 1 no BSR members

Group 2 two BSR members

Group 3 two BSR members

Group 4 all BSR members

Group 5 European delegates - no BSR members

A background to the BSR was given first by Geoff Brownsey (Hon Secretary) and then the delegates split off into their groups to discuss their impressions of the Society, together with any recommendations that they would wish the BSR to consider.

Group 1 (no BSR members) thought that the BSR was academic and insular and more akin to a club than a society. It was not thought to be known to non-specialists and had too narrow a remit. It also presented a "high science" image of rheology.

Group 2 (two BSR members) likened the BSR to a darkened, dingy room full of dusty old rheology books. They thought it sounded academically orientated but didn't really know anything about it other than it being a source of help if required, information, and skiing trips...

Group 3 (two BSR members) also thought of the BSR as a club (or secret society). Focusing on rheological problems, they thought that there was too much maths, nobody to ask for help, a lack of knowledge, "...it's an 'ology'", and too much dependence on "suck-it-and-see" methods of problem solving.

Group 4 consisted entirely of BSR members. They too considered the BSR as more of an "Old Boy's Club with secret handshakes" than a society. They felt that it was manipulated by a few and that its image was stuck in a by-gone age. It was thought that the BSR was of little use to those wanting to get on in the world and that it appeared to be static and boring with little attempt to maintain enthusiasm in rheology. The BSR, it was felt, consisted of pompous academics and it

belittled industrial members, at the same time as running around getting nowhere. It was also criticised for failing to have a central contact point. The Bulletin was considered as good “toilet-reading” material.

Following the discussions of the BSR’s image, the groups were asked to make recommendations as to what the BSR should do.

Group 1 suggested that the BSR should connect to a larger Society (*e.g.* RSC), it should act to involve rheologists at all levels with “recognised” training courses and qualifications. It should relaunch itself as a new (more modern and more passionate) society and produce professional literature about its aims and objectives. Subscriptions should be increased.

Group 2 focused on why people should want to join the BSR and how to get more people involved. On joining the BSR, benefits should include: offers of consultancy; “on-the-ball” members; more frequent bulletins; notes on the applications of rheology and solving of particular problems; an “Idiot’s Guide to Rheology” book; and recognised qualifications. In order to get more people involved, the group recommended: conferences on specific areas; rheometer suppliers’ catalogues and mail-shots to carry information about the BSR; an “up-to-date” site on the WWW; advertisements and features in chemical industry journals; and informing more students about the BSR/rheology whilst still at college.

Group 3 thought that the BSR should present itself more and looked at what it called “marketing issues”. These included: advertising itself (colleges, exhibitions, publications, sponsorship, guest speaker at other conferences) and its services (Rheology Abstracts, Bulletin, conferences); meetings (site visits to industry and colleges, user groups); and other aspects expected of a professional society (rheology help line and consultancy, WWW presence, new name and logo, amalgamation with another society, corporate membership).

Group 4 thought that the BSR should “spend some money”. It suggested that there should be: a change of rôle and image; a central location/office with a person on the end of the telephone; a review of the Bulletin in terms of timing and content; separate subject groups (industrial, basic research, instruments); a co-ordination of courses (BSR acts as a training/course accreditation body); affiliation to another society; visits to schools; advertising on the Internet.

Group 5 (European delegates) thought that the BSR should: be a source of information (general, open-minded); give feedback on rheological problems and official standards (ASTM, DIN *etc.*); network more (contact person for European societies, marketing, business cards); have a sense of strategy (goals, structure).

Comments recorded during the Open Meeting on 23 October 1997 at the University of Wales in Swansea - Geoff Brownsey

The meeting started at 14:10 with 34 people in attendance. The President of the BSR (Peter Townsend) welcomed everyone and briefly introduced the five areas/questions of: How can we best serve Industry?; How can we best serve Academia?; Meetings and Conferences; Publications; and Marketing. There was a pregnant silence...

The meeting was handed over to Carol Moules and Russell Davies who were to chair the meeting. Realising that it may be difficult to get the discussion underway, Carole introduced herself and highlighted the recent opportunity that she had with a training course. With the co-operation of a marketing consultant, the trainees had been invited to pass comment on their view of the BSR. She put up some of the artwork that had been generated that evening [see above - Ed]. She said that there had been a lot of negative feedback by her preliminary exercise.

Discussion from the floor then started:

- [We] should be more professional
- [We] should pay Officers
- There are a very small number of rheologists but the number of people with rheological problems is large. So we must get amongst the wider range of people who have rheological problems, hence collaborate
- It's a cross-disciplinary activity
- [Be aware that] our charitable status could be compromised if we become professional
- IoP in America - Why don't we go down a similar road?
- [We] need to get backing of other groups
- Do not increase the [Subscription] fee, we'd lose most of our members!
- Idea of Corporate Membership [in order to] get payment realistic
- [The fact that] BSR are not able to run successful conferences is their only deficiency
- Number of members, is this problem real or apparent?
- When we joined Europe, they looked to us
- We have Bulletin and [Rheology] Abstracts
- GET MEETINGS GOING AGAIN
- We should review our successes
- Goal posts have been moved - we must be moving/adapt
- The Non-Newtonian Club is by invitation only and it is very successful. Why cannot the BSR do this?
- WE NEED MEETINGS
- What are industry's needs?
- What about a jamboree meeting once a year
- Origins of Non-Newtonian Club from ICI Dyestuffs
- We're cash rich, not time rich [as a society]
- Council's efforts diverted away from administration would be preferred
- [We] need a framework of meetings
- [We] should exploit out relationship with other societies
- [We should] get administration backup
- [It is] THE RÔLE OF THE SOCIETY IS TO BRING PEOPLE TOGETHER
- [We should have a] full-time Conference Secretary
- [What are] the number of papers from industry?
- KEEP MEETINGS PLEASE

- What about Workshops with perceived experts?
- We have to scratch where other people are itching
- All you've got to do is do it right
- Rewarding of excellence please - studentships
- [We should be seen to be] spreading bursaries [around]
- What do our members see? Bulletin, Rheology Abstracts
- What are you going to do with £80 000. Do you know?
- All contributions [to the debate] have been from the "Wrinklies"
- [We should] have free membership for the first year of joining
- Identify the importance of the WWW. We need a professional approach.

The meeting closed at 15:10.

Discussions held during the 291st Council Meeting on 11 December 1997 at the Novartis Foundation, London - Paul Doody

The Open Meeting was discussed in some detail and it became apparent that there were some very strong feelings about the future rôle of the BSR on Council itself.

There was broad agreement with the discussion items proposed by the Working Party however there were one or two items which required clarification or amendment.

- One of the strongest views that came from the Open Meeting was the absolute requirement for the BSR to continue to support and organise meetings and conferences. However it was also recognised that other formats would be useful, such as short Industrial Workshops around specific themes, and it is Council's intention to start organising more of these. The initial steps have been taken and are announced elsewhere in this Bulletin.
- The Young Rheologists' Day should continue however its format should be variable.
- It was also agreed that the BSR should publicise itself more and in a more professional manner. Council will look into this further and will take appropriate action.
- Council reaffirmed its commitment to support students and visiting scholars but would like to widen the scope of lectures to include school visits and public lectures.
- It is clear that the BSR has a strong rôle to play in uniting the rheological community and to a certain extent this is successful. However it is recognised that we must extend the range of involvement in the community - we have to strengthen our core activities but we must also spread out to the fringes better than we have done in the past.
- The Bulletin will be reviewed in order to ensure that it serves the requirements of our members. Over the coming year there are plans for new sections and articles on all aspects of the Society and its work.
- The need for the Society to become more professional (*e.g.* paid Officers and/or full-time staff) together with ideas such as an Information Service were also discussed. It was felt that Council and the Society need to discuss this further. The decision was therefore taken to further review this at a future meeting.
- On the issue of Corporate Membership of the BSR it was felt that the time was not yet ripe for this due to the limited number of rheologists that any particular company was likely to have. However this should be reviewed when the BSR decides on the other services it believes it can offer. Ideas such as personalised electronic databases of abstracts and specialist consultancy services were discussed and will be raised at future Council meetings.
- It was also felt by a majority of Council that the BSR does not need a full-blown marketing style exercise at this stage but it was recognised that the BSR needs to be much more relevant in identifying its core strengths and communicating them in a relevant manner.

It was felt that the whole exercise was extremely useful in identifying the key areas in which the BSR can adapt and strengthen itself so that it can be more relevant for the challenges it faces in the next century. It is quite clear to Council that to do nothing is the wrong approach - it is clear from both our industrial and academic members that the Society should change and would be supported when it does. The message here is that we should continue to do the things at which we are good

and to embrace the new technologies and opportunities that the strong community of rheologists recognises in itself.

Council is most keen to listen to the members and would welcome further comments.

Paul Doody

WORLD POLYMER CONFERENCE

12-17 July 1998

Please see

<http://www.uq.edu.au/~cmawhitt/macro98.html>

for more details.

All the best,

Michael Mackay

Director, Materials Characterisation and Processing Centre, Department of Chemical Engineering, The University of Queensland St. Lucia, Brisbane, QLD 4072, Australia. T: +61-7-3365-4171 (or 3708) F: +61-7-3365-4199 (or 4795).

E: m.mackay@cheque.uq.oz.au

NOVEL RHEOMETERS

In the early days of the Society a number of “one-off” viscometers and rheological apparatus were made which have not been collectively reported and as a result they may soon be forgotten. Researchers of the period will now be nearing retirement or have already retired so that much of the knowledge will soon be difficult to obtain. Over the years, many books have described instruments of the well-known standard types but the ones I refer to are those that were only published in individual paper. The time I am thinking about is when most investigations needed a specific apparatus to be designed and built. Sometimes measurements were required under severe conditions to simulate those occurring in a particular part of industry.

For the above reasons, I am hoping to write an article for the Bulletin in which these methods will be surveyed. This may turn out to be impracticable, *e.g.* the number I locate may be too small.

However, I think it is worth exploring further. To help me to do this I would welcome suggestions and details of suitable equipment from members, preferably with references. The more unconventional the better!

John Benbow

Fairways,
3 Dunvegan Close,
Kenilworth,
Warks., CV8 2PH

BSR ON THE WWW

Thanks to the sterling efforts of Dr Chris Petrie (Chris.Petrie@newcastle.ac.uk) the BSR is now present on the World Wide Web (WWW).

The URL (address) of our page is:

<http://www.ncl.ac.uk/~nengm/bsr/>

Chris would welcome any views on the pages and hopes to improve them even further in the future.

The URLs of other sites of rheological interest will be identified in future editions of the Bulletin. Contributions to the Editor please.

OBITUARIES

The following obituaries have been received:

Mr H J (Jim) Ward, an Honorary Member of the Society who joined in 1957, passed away 9th November 1997, aged 80 years.

Professor Donald Chapman Bogue, age 65, of Knoxville, passed away recently. Born January 9, 1932, the son of the late Lincoln Chapman and Bernice Clark Bogue. Donald Chapman Bogue was Professor Emeritus, retiring in the spring of 1997 from the Chemical Engineering Department after 37 years of service. He received his BS degree in chemical engineering from the Georgia Institute of Technology and his PhD in Chemical Engineering from the University of Delaware. He joined the Chemical Engineering Department after work Esso Standard Oil, the US Army and graduate studies at the University of Delaware. Professor Bogue was an effective and well-respected educator; he was highly regarded by his students for his knowledge as well as his genuine concern and interest in them. He received several teaching awards at the university. He won the Allen P. Colburn Award of the American Institute of Chemical Engineers in 1967. He was elected a Fellow of the American Institute of Chemical Engineers in 1987. He continued to teach chemical engineering courses after his retirement. During his career at the University of Tennessee, Professor Bogue, also a Professor in Material Science and Engineering for a number of years, directed the research of more than 30 graduate students, primarily in the areas of rheology and non-Newtonian fluid mechanics. He authored numerous scientific and engineering publications. He maintained close ties with industry and had consulted with several major industries and laboratories. In the 1970's Professor Bogue developed a strong interest in Japanese culture and language. He studied the language intensively and spent three years in Japan as a visiting professor at Kyoto University. He travelled extensively in Japan and gave seminars at many universities and companies there, some of them presented in Japanese. He championed the idea of American engineering students studying in Japan; through his efforts, several American graduate students have conducted research at Japanese Universities. Professor Bogue leaves behind to mourn his passing: brother, Roy Busnell Bogue of Carrollton, Ga.; two special and beloved first cousins, Howard A Hollister of Largo, Fla., Phillips R. Hollister of Charlotte, NC; along with several other cousins and family members and close friends.

Contributions may be made to the Donald C. Bogue Engineering Endowment Fund, c/o the University of Tennessee, Knoxville, Tennessee.

MEMBERSHIP NEWS

The following new members were agreed at the British Society of Rheology Council Meeting on 23rd October 1997

Dr B E Brockway,

The Body Shop International plc,
Watersmead, Littlehampton, West
Sussex
(pet FGHJLMO)

Dr R Ocone,

Department of Chemical Engineering,
University of Nottingham, University
Park, Nottingham, NG7 2RD
(ftsa H)

Professor Y S Kim,

Dept of Chemical Engineering,
Samchuk National University, 253
Kyodong, Samchuk City, 245-080
Kangwondo, South Korea
(pea FG)

Dr R Kelly,

Nestle R&D Centre Bjuv AB, Box 520,
S 267 25 Bjuv, Sweden
(fesa K)

Dr T N Phillips,

Department of Mathematics,
University of Wales, Aberystwyth,
SY23 3BZ
(fts GJLN)

Mr A Siddiqui,

Rheometrics Scientific Ltd, Surrey
Business Park, 2 Weston Road,
Epsom, Surrey
(fetsa BCDFGHIJKLMN)

Mr N J Inkson

IRC in Polymer Science &
Technology, The University of Leeds,
Leeds, LS2 9JT
(ftsa DN)

Professor A Papo,

Dipartimento di Scienze e Tecnologie
Chimiche, Universita di Udine, via
Cotonificio 108, 33100 Udine, Italy
(fetsa GIKO)

Dr M N Charalambides,

Dept of Mechanical Engineering,
Imperial College of Science,
Technology, & Medicine, Exhibition
Road, London, SW7 2BX
(feta BCL)

Mr M C Edwards,

RAPRA Technology Ltd, Shawbury, Nr
Shrewsbury, Shropshire, SY4 4NR
(feta BCDI)

Mr S J Nolan,

Lubrizol Ltd, PO Box 88, Belper,
Derby, DE56 1QN
(pea DFGJK)

Mr A Wells,

TA Instruments, Europe House, Bilton
Centre, Cleeve Road, Leatherhead,
Surrey
(feta BCDFGHJKLMN)

The following resignations have been received:

Dr D Ding (1990), Mr M Hawe (1992), Mr W H Needham (1995), Dr R Rowe (1984)

The following cease to be members under rule 4(d):

Dr H Al-Khalid, Ms D Andrei, Mr J Arthur, Mr A Baloch, Dr T Bates, Mr G Bishko, Miss M Chirinos, Dr R Chohan, Mr J Cornelisse, Mr A Davey, Dr E El-Rafey, Dr M Jastrzebski, Dr Y Kramarz, Dr S Lee, Dr J Pitt, Mrs S Powell, Dr S Priel, Mr A Shacklock

Classification of abbreviations for Members' rheological interests are as follows:

- f Member's main interest is rheology (*i.e.* full-time)

- p rheology is secondary interest (*i.e.* part-time)
- e approach is experimental
- t approach is theoretical
- s area of work is pure science
- a area of work is technology

A	metals	I	glasses, ceramics
B	composites	J	oils, greases
C	solid polymers	K	building & road materials
D	molten or dissolved polymers	L	foodstuffs
E	natural fibres	M	biological materials
F	liquid-liquid systems	N	theoretical models
G	liquid-solid systems	O	other systems
H	particulate systems		

Membership is open to anyone concerned with rheology. You should apply by contacting the Membership Secretary for an application form. There is an entrance fee of £1 and the present annual subscription is £15 *per annum*. Subsequent annual fees are reduced to £10 if paid by Banker's standing order or by credit card (Visa or Mastercard only). The subscription is due, in advance, on 1st October each year. *Bona fide* students pay no entrance fee. Benefits of membership include the *BSR Bulletin* with its list of conferences, courses, rheological articles, *etc.* and *Rheology Abstracts* which collates thousands of abstracts each year from hundreds of journals. Both of these are published quarterly.

Advertisement for Stable Microsystems and spot colour

CONFERENCE DIARY

Readers are reminded that inclusion of an event in the Diary section is free of charge. Submissions should be sent to the Editor, either by post or electronically.

1998

- 25 Feb**
London
UK
Industrial Advisory Group on Measurement Methods relating to the Processing of Plastics - Quarterly Meeting
Dr C Brown, Dr M Rides, National Physical Laboratory, Teddington, London, UK
T: +44 (0)181-977 3222 F: +44 (0)181-977 6458
- 1-4 March**
Pasadena
CA USA
2nd International Conference on Mechanics of Time Dependent Materials
The Society for Experimental Mechanics and The Society of Plastics Engineers
Prof W G Knauss, California Institute of Technology, Pasadena, CA 91125, USA
T: +1 818 395-4524 F: +1 818 304-0175 E: WGK@atlantis.caltech.edu
<http://www.solids.caltech.edu/MTDM.html>
Mateja Bourke, Secretary, SEM - European office, Cesta na Brdo 49, SI-1125 Ljubljana, Slovenia
T: +386 (0)61 123 2247 F: +386 (0)61 123 2471 E: mateja.bourke@ki.si
<http://www.fs.uni-lj.si/cem/MTDM.html>
- 6-8 April**
Cirencester
UK
The 1998 Materials Congress - "Frontiers in Materials Science & Technology"
Melanie Peacock, Conference Department, IoM, 1 Carlton House Terrace, London, SW1Y 5DB, UK
T: +44 (0)171-839 4071 F: +44(0)171-839 6591
- 13-16 May**
Banff
Alberta
Canada
Mechanics of Nonlinear Materials - CALL FOR PAPERS
D DeKee, Dept of Chemical Engineering, Tulane University, New Orleans, LA 70118, USA
D A Siginer, Dept of Mechanical Engineering, Auburn University, 201 Ross Hall, Auburn, AL 36849-5341, USA
J Stastna, Bituminous Materials, University of Calgary, ENF 62, Calgary, Alberta, Canada T2N 1N4
- 12-17 July**
World Polymer Conference
M Mackay, Materials Characterisation and Processing Centre, Department of Chemical Engineering, The University of Queensland St. Lucia, Brisbane, QLD 4072, Australia.
<http://www.uq.edu.au/~cmawhitt/macro98.html>
T: +61-7-3365-4171/3708 F: +61-7-3365-4199/4795
E: m.mackay@cheque.uq.oz.au
- 23-25 June**
Golden
CO USA
Semi-Solid Processing of Alloys & Composites
Office of Special Programs & Continuing Education, Colorado School of Mines, Golden, CO, USA 80401
T: +1 303 273-3321 F: +1 303 273-3314

- 7-9 July**
Brighton
UK
World Congress on Particle Technology 3
Jennie Black, Conference Section, IChemE, 165-189 Railway Terrace,
Rugby, CV21 3HQ, UK
T: +44 (0)1788 578214 F: +44 (0)1788 577182 E: jblack@icheme.org.uk
- 22-24 July**
Lisbon
Portugal
EUROMAT 98
FEMS Secretariat, Les Fontenelles, 1 rue de Craïova, F-92024 Nanterre,
France
F: +33 1 41 02 03 88
- 6-11 Sept**
Portoroz
Slovenia
5th European Rheology Conference
Scientific Information: **Prof Igor Emri**, Centre for Experimental Mechanics,
University of Ljubljana, Cesta na Brdo 49, SI-1125 Ljubljana, Slovenia
T: +386 (0)61 123 2247 F: +386 (0)61 123 2471 E: Rheo.98@ki.si
<http://www.fs.uni-lj.si/cem/RHEO.html>
General Information: **Teja Alic**, Cankarjev dom Presernova 10, SI-1000
Ljubljana, Slovenia
T: +386 (0)61 210956 F: +386 (0)61 217 431 E: cankarjev.dom@k2.net
- 21 Sept**
Cambridge
UK
**The British Society of Rheology's "Young Rheologists'
Workshop" -PRELIMINARY NOTICE**
Dr Malcolm Mackley, Dept of Chemical Engineering, University of
Cambridge, Pembroke Street, Cambridge, CB2 3RA, UK
T: +44 (0)1223 334784 F: +44 (0)1223 334796 E:
mrm1@cheng.cam.ac.uk
- 22 Sept**
Cambridge
UK
**The British Society of Rheology's " Rheology & Processing I:
Printing Inks" - PRELIMINARY NOTICE**
Dr Malcolm Mackley, Dept of Chemical Engineering, University of
Cambridge, Pembroke Street, Cambridge, CB2 3RA, UK
T: +44 (0)1223 334784 F: +44 (0)1223 334796 E:
mrm1@cheng.cam.ac.uk
- 4-8 Oct**
Monterey
CA USA
70th Annual Meeting of the Society of Rheology
Local Arrangements Chair: **Prof Gerald G Fuller**, Dept of Chemical
Engineering, Stanford University, Stanford, CA 94305, USA
T: +1 415 723-9243 F: +1 415 725-7294 E: ggf@chemeng.stanford.edu
Technical Programme Chair: **Dr Patrick Mather**, WL/MLBP, Bldg. 654, 2491
P St., Ste 1, Wright Patterson AFB, OH 45433, USA
F: +1 937 255-9157 E: matherpt@ml.wpafb.af.mil
- 15-20 Nov**
Anaheim
CA USA
**Symposium on "Rheology and Fluid Mechanics of Nonlinear
Materials" - CALL FOR PAPERS**
ASME International Mechanical Engineering Congress & Exposition
Prof Dennis A Siginer, Dept of Mechanical Engineering, Auburn University,
201 Ross Hall, Auburn, AL 36849, USA
T: +1 334 844-3331 F: +1 334 844-3307 E: dsiginer@eng.auburn.edu
Prof Daniel DeKee, Dept of Chemical Engineering, Tulane University, New
Orleans, LA 70118, USA
T: +1 504-865 5772 F: +1 504 865-6744 E:
ddekee@mailhost.tcs.tulane.edu

- March**
Leipzig
Germany
17-21 Oct
Madison
WI USA
2000
- Rheolgentagung 1999**
German Society of Rheology (DRG) and the Polymer Physics Group of the German Society of Physics (DPG)
71st Annual Meeting of the Society of Rheology
- 21-26 Aug**
Cambridge
UK
- Rheology 2000 - XIIIth International Congress on Rheology**
To be organised by the BSR with the assistance of the European Society of Rheology.
Chairman of the Executive Committee: **Prof K Walters FRS**, University of Wales, Dept of Mathematics, Penglais, Aberystwyth, Ceredigion, SY23 3BZ, Wales, UK
T: +44 (0)1970 622750 F: +44 (0)1970 622777

Travel grants are available to help students attend any of these meetings. Applications should be addressed to the BSR Secretary supported by a letter from your supervisor.

COURSE DIARY

- 1998**
- 26-29 May**
Ross Priory
Loch
Lomond
Scotland
- Theoretical, Experimental and Industrial Aspects of Rheology**
Contact: **Dr N E Hudson**, Dept of Pure & Applied Chemistry, University of Strathclyde, 295 Cathedral St, Glasgow G1 1XL, UK
T: +44(0)141 548 2162 F: +44(0)141 548 4822 E : n.e.hudson@strath.ac.uk

AIMS OF THE SOCIETY

THE BRITISH SOCIETY OF RHEOLOGY

Founded 1940

Reg. Charity No 249967

The way liquids flow and solids deform affects all aspects of life.

Extraction and processing of crude oil, moulding of plastics, use of toothpaste, spreading of margarine, painting and the lubrication of joints in the human body are all examples of processes depending upon rheological behaviour. Rheology is defined as the science of the deformation and flow of matter.

If your work is concerned with rheology in any way, then you have much to gain by joining the British Society of Rheology - publications, conferences and access to fellow members who, while working in a different discipline or industry, may be facing similar problems to yours.

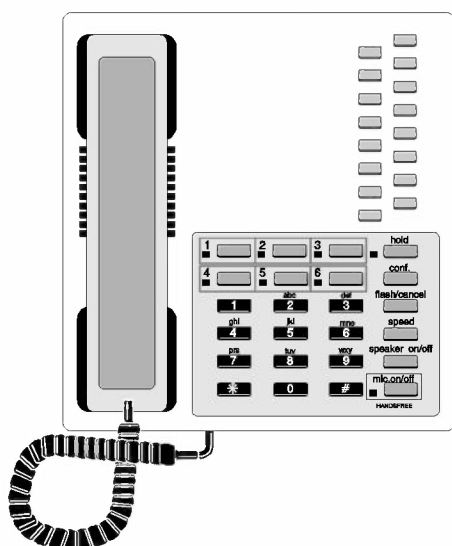
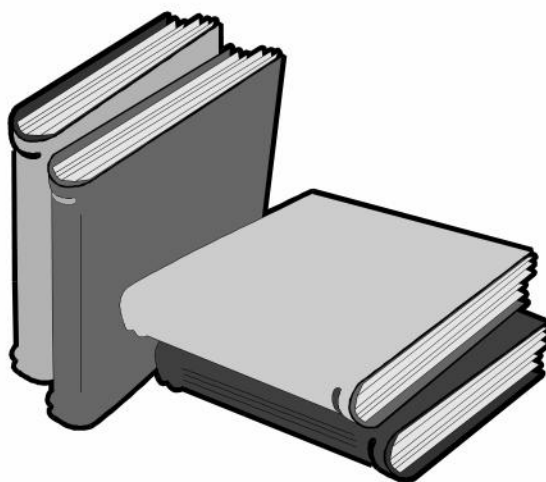
The Society is non-profit making and is registered as a charity.



Your Abstracts Editor needs you!!

Rheology Abstracts survives through the work of the Abstractors - members of the BSR just like you. If you wish to join this select band, then let me know - it can take as little as a few minutes each week.

If you do not wish to be an Abstractor, but find an interesting article which contains some rheology, please pass it on to me, so that it can be included in Rheology Abstracts.



Honorary Abstracts Editor:

Dr Nick E Hudson, Dept of Pure & Applied Chemistry, University of Strathclyde, 295 Cathedral Street, Glasgow, G1 1XL

Tel: 0141 - 548 2162

Fax: 0141 - 548 4822

E-Mail: n.e.hudson@strath.ac.uk

5th European Rheology Conference (6-11 Sept, Portoroz, Slovenia)

It has come to the attention of the BSR Council that few, if any, of our members in the UK have received a copy of the Second Circular for this conference. We have requested copies, and will send a copy on to those who require one. Please contact the Publications Manager (Nick Hudson). Meanwhile, the main points contained in the Circular are repeated here. ***Though the dead line for abstract submission was set at January 15, we are requesting that late submissions be accepted.*** Please send abstracts as soon as possible to the address below (preferably by e-mail).

ABSTRACT SUBMISSION

Papers will be selected on the basis of a one page (<500 words) abstract, which should contain the following information:

Title of the paper

Author(s) name(s)

Affiliation, with mailing address, telephone and Fax numbers, and e-mail address

<500 word abstract (Please use 11pt Times New Roman or similar script.)

You can use E-MAIL for submission if you can send ordinary "txt" file or Word for Windows file format.

Abstracts should be sent to, and further information may be obtained from Professor Igor Emri, at the address given on page 157.

CONFERENCE PROGRAMME

The Plenary Lectures will include the Weissenberg Award Lecture, and a mini Symposium will honour Prof. Nicholas W. Tschoegl on the occasion of his 80th birthday.

There will be 4 groups of presentations:

Plenary lectures: 50 + 10 min,

Keynote lectures: 25 + 5 min,

Oral presentations: 15 + 5 min and

Poster presentations.

REGISTRATION

Date for the low-rate registration is July 15, 1998. The reduced registration fee is ECU 420.

This will include a volume of 'Progress and Trends in Rheology V', printed by Springer Verlag, banquets, coffee breaks, conference excursion.

Registration Fee for students is ECU 90 and will include banquets, coffee breaks and conference excursion.

Registration fee for accompanying persons is ECU 140 and will include banquets, coffee breaks, conference excursion, and two special half-day excursions.

KEY DATES

15th January 1998	'Deadline 'for submission of abstracts
15th March 1998	Notification of acceptance
15th April 1998	Deadline for submission of paper
15th July 1998	Deadline for reduced-rate registration

Inside Back Cover

Advertisement for Rheometrics & spot colour

Back Cover

Advertisement for Bohlin