



*International Association of Colloid
and Interface Scientists*

NEWSLETTER NO. 22

MAY 1994

COMPILED BY J. LYKLEMA

**INTERNATIONAL ASSOCIATION OF COLLOID
AND INTERFACE SCIENTISTS**

NEWSLETTER NO. 22

May 1994

**1 ABOUT THE NEWSLETTER/FROM YOUR NEWS-
LETTER EDITOR**

The main purpose of the Newsletter is the same as that of IACIS, namely to promote international cooperation in colloid and interface science. It is hoped that through these letters colloid and interface scientists become better informed about forthcoming events, developments, and personal news from various countries.

So far, I have edited 22 Newsletters. The task is not too heavy and I receive much help from my secretary, Mrs. Wil Kleijne. Many people around the world show from time to time their appreciation for the NL (which is appreciated in turn) by supplying items for the next NL. Please continue to keep me informed about relevant meetings, books and developments.

Perhaps this time I may include a personal note. As you can infer from the pertaining entry in the conference agenda, I will retire from my professorship by the end of November, 1995. The President agreed that, after that, I would continue to act as the Newsletter Secretary, working conditions and health permitting. Personally, I am most happy to continue, although it might be wise to consider the appointment of a successor to take over when I am no longer in a position to continue this function.

The conference agenda (item 6 of this NL) is not only meant to fill the travel agenda of IACIS members, but also assists planners to look ahead. Hence, please keep me posted, even if the plans are only provisional. As a further service to our members we shall also give Telephone, Fax, E-mail and other numbers of contact persons as far as they are known to us.

With best wishes from your Newsletter Editor,

Hans Lyklema

2 STATUS OF THE NEWSLETTER, LIABILITY

The first two Newsletters (henceforth abbreviated as NL 1 and NL 2), dated September 1978 and July 1979 respectively, were written under the auspices of the IUPAC Commission on Surface and Colloid Science (Commission I.6) before IACIS was formally established. Starting with NL-3 in June 1980 the Newsletters appear under IACIS auspices.

Parts of this NL may be copied provided the source is acknowledged. Although everything is verified to the best of our knowledge, errors may occur; IACIS can not accept any responsibility for them.

Formal Correspondence address: Prof.dr. Hans Lyklema, Newsletter Editor, Department of Physical and Colloid Chemistry, Wageningen Agricultural University, P.O. Box 8038, NL-6700 EK Wageningen, The Netherlands, Phone 31 (Netherlands) - 8370 (area code) - 82279 (extension), Fax 31-8370-83777, E-mail fysko@rcl.wau.nl.

3 IACIS NEWS

3.1 International Conferences

After the successful 8th International Conference, for which all of us are indebted to John Ralson and his team, we are now looking ahead.

At the Council and General Meeting in Adelaide it was decided that the 9th International Conference on Colloid and Interface Science be held in Sofia, Bulgaria, probably in the first or second week of July 1997. Further information in the minutes of the General Assembly (item 3.3) and the conference agenda (item 6.102).

The President invites offers to organize the 10th International Conference on Colloid and Interface Science. So far an invitation has been received from the Wuhan University of Technology, China (P.R.).

3.2 A word from the President

The 8th International Conference on Surface and Colloid Science which was held from 13-18th of February in Adelaide, South Australia, was generally acknowledged to have been a resounding success, both scientifically and socially. About 500 delegates from some 30 countries participated over the five day meeting in five concurrent sessions. The organisation of the meeting, in terms of ensuring a sound scientific content and efficient presentation left little to be desired, but it was in the arrangement of the interesting and varied social program that the organisers really excelled. The opening mixer on the Sunday evening provided an opportunity for old friends to meet and new faces to identify those they had previously known only by name. On Monday evening the poster session was accompanied by an excellent combination of

finger food and refreshments; on Tuesday evening we had a barbecue dinner at one of the most successful of the local wineries. On Wednesday evening there was another poster session, again accompanied by some excellent food and drinks. My only problem was that we had scheduled the IACIS AGM for that evening so we had to miss out on most of the fun. But then there was the Conference Dinner on the Thursday evening. That was held in the Convention Centre which once again showed its versatility. Apart from a quite pleasant meal accompanied by some of the local wines, we were treated to some excellent entertainment, both from a professional group and from some of the gifted amateurs among the international colloid fraternity.

My warmest congratulations go to the organising committee and especially to the Chairman of the meeting, Professor John Ralston from the University of South Australia. He and his associates, especially Professor Roger Horn and the staff of Techsearch under Karen English did a magnificent job. It will be a hard act to follow.

The real success of the meeting was, however, ensured by the fact that so many of our colleagues from around the world were prepared to make the effort to get to Australia. It is a long way from North America and Europe and, as an Australian, I know how wearing that long flight can be. But we in Australia thank you one and all for having the confidence in us to undertake the trip. We certainly hope you enjoyed being with us as much as we enjoyed having you as our visitors.

Bob Hunter
President

3.3 Minutes of the Joint General Assembly and Council Meeting of IACIS, held in Adelaide, Australia, on February 16, 1994.

1. Welcome by President Dr. R. J. Hunter
Dr. Hunter welcomed some 30 IACIS members and referred to the minutes of the preceding Council Meeting, held in Compiègne on July 8, 1991. After some of the major decisions had been recapitulated, those minutes, as published in Newsletter 19, were accepted.
2. Financial Issues
After the Honorary Secretary and Treasurer had provided some additional information on the Financial Report of September 1992 - September 1993 and the overview of meetings that had been sponsored during this period (see Annexes 1 and 2) this report was accepted.
Since the balance has constantly decreased over the past few years, the costs for administration keep going up and the amount of sponsoring preferably should be kept at the present level, it was decided that as of September 1994 the annual fee should be increased to Dfl. 45.00 for ordinary members and to Dfl. 15.00 for students. As usual, early September all members will be informed about their financial duties, which this year calls for special attention for those who have paid in advance for a couple of years. It was suggested that members paying for 5 years or more get a slight discount, but no decision was taken in this regard.
It was agreed that members who are lagging behind for more than two years in paying their fee, and that (despite frequent invitations to do so) fail to catch up, will be stricken from the membership list.
3. Site of the 9th Conference
The President mentioned that, on behalf of the Department of Colloid and Interface Science at the University of Sofia and the Institute of Physical Chemistry (as well as

two smaller groups) at the Bulgarian Academy of Sciences, professors Platikanov and Exerowa (who were both attending) had offered to organize the 9th International Conference on Surface and Colloid Science in Sofia, Bulgaria, in July 1997. Subsequently, professor Platikanov provided information on the congress and hotel facilities in Sofia and mentioned that financial support from external sources for the organization of this meeting will be absolutely necessary. Various suggestions along those lines (companies, societies, IUPAC, and, particularly, possible co-sponsoring by the European Colloid and Interface Society) were put forward. Also the various expenses that have to be incurred (e.g. in relation to advertising, waiving fees and accommodation for invited and keynote speakers, travelling, etc.) were discussed at some length. Although at this moment no guarantee can be obtained that enough money will be raised, the meeting expressed confidence in the Bulgarian proposal, which was gratefully accepted. The exact dates have yet to be considered, in order to prevent overlap with the Gordon Conference on Polymer Colloids and the ACS Colloid Symposium. Probably the second week in July 1997 will suit best.

Professor Gong from Wuhan University of Technology proposed to organize the 10th International Conference in China and provided some information on the facilities in Wuhan. Professor Ralston pointed out that for a meeting of this scope one needs a solid scientific basis, access to good facilities, sufficient and high quality hotel accommodation and substantial support in coping with the various expenses, as well that it is crucial to draft a budget with a break-even number of participants. After hearing these points it was agreed that professor Gong would submit a proposal which can be considered in relation to any other proposals that might be received.

4. Succession Honorary Secretary and Treasurer
It was agreed that starting September 1, 1994, Prof. Bert Bijsterbosch, who is not seeking re-election, will be succeeded by Prof. Gerard Fleer, also from Wageningen Agricultural University in the Netherlands.

Prof. Hans Lyklema referred to his retirement, late 1995, and the implications this might have for him acting as Newsletter Secretary (a task he would be glad to continue). The situation calls at least for an assistant editor.

5. Elections for President-elect and Council
Recently, a call for nominations has been mailed to all members. The secretary asks for an active attitude of all those present in this regard.

6. Relation to the European Colloid and Interface Society
In the past, co-operation between IACIS and ECIS has been sub-optimal, to say the least. President-elect Professor Cazabat and ECIS President Professor Stenius (a former IACIS President) will explore the possibilities to arrive at a better attuning of the mutual activities. In this relation, President Hunter will invite ECIS to co-sponsor the 9th International Conference in Sofia in 1997 (see also point 3).

7. The President thanked all attendees for their contributions in the discussions and closed the meeting.

Bert Bijsterbosch
Honorary Secretary and Treasurer

Annex 1: Financial Report September 1992 - September 1993

Balance per September 1, 1992 Dfl. 13,281

Receipts

Membership fee (in Dfl.)	Dfl. 16,744
Membership fee (in US\$)	- 785
Membership fee (cash, US\$, £)	- 78
Interest	- 1,194
Miscellaneous (as an intermediary)	- 2,400
	- 21,201
	Dfl. 34,482

Payments

Newsletter	Dfl. 1,484
Sponsoring (The Netherlands, United Kingdom 2x, Belgium, Spain, Australia)	- 13,576
Application forms	- 116
Mailing, paper	- 91
Costs (cheques, creditcards a.o.)	- 1,610
Salary secretary	- 3,400
Computers	- 2,000
Miscellaneous (as an intermediary)	- 2,471
	- 24,748
	- 9,734
Balance per September 1, 1993	Dfl. 34,482

Hungarian Funds M Forint 96,776 = Dfl. 1,355
(M Forint 100 = Dfl. 1.40)

Amounts are rounded.

Number of members September 1, 1992 486
September 1, 1993 439.

For conversion the rate US\$1.00 = Dfl. 1.60 is used.

Annex 2: Sponsoring 1992/1993

Date	Amount in Dfl. in US\$	Description
14-9-1992	1,600 1,000	Wetting Conference, The Netherlands
06-11-1992	1,790 1,000	Polymers at Interfaces, U.K., (US\$1,000 = £641.24)
19-11-1992	1,795 1,000	Colloids in the Aquatic Environment, U.K.
15-12-1992	900 500	Bioadhesion II, Belgium
17-02-1993	1,866 1,000	Electrokinetic Phenomena '93, Spain
11-06-1993	5,625 3,000	8th Int. Conference on Surface and Colloid Science, Australia

Sponsored in 1992/1993: Dfl. 13,576.

4 IACIS-SPONSORED MEETINGS

4.1 International Conferences on Surface and Colloid Science (previously IUPAC-sponsored, now under auspices of IACIS)

History: 1st Conference, Budapest, Hungary, 1973
2nd Conference, Puerto Rico, 1976
3rd Conference, Stockholm, Sweden, 1979
4th Conference, Jerusalem, Israel, 1981
5th Conference, Potsdam NY, U.S.A., 1985
6th Conference, Hakone, Japan, 1988

7th Conference, Compiègne, France, 1991
8th Conference, Adelaide, Australia, 1994
Future: 9th Conference, Sofia, Bulgaria, 1997
10th Conference, 1997, under discussion.

4.2 Other conferences sponsored or co-sponsored by IACIS

In addition to the large international conferences, IACIS has supported and will support smaller meetings, all of this in the framework of its credo. Here follows a list of such smaller conferences:

- 1) September 1983 Paris (France) Physical Chemistry of Colloids and Interfaces: Biotechnology and Drug Research.
- 2) June 1984 Lund (Sweden) 8th Scandinavian Symposium on Surface Chemistry with international participation.
- 3) June 1984 Pittsburgh (U.S.A.) 58th Colloid and Surface Science Symposium ACS.
- 4) May 1986 Zakopane (Poland) IX European Chemistry at Interfaces Conference.
- 5) June - July 1986 Crveni Otok (Yugoslavia) 7th International Summer Conference on the Chemistry of Solid-Liquid Interfaces.
- 6) September 1987 Eindhoven (Netherlands) Polymers in Colloidal Systems: Adsorption, Stability and Flow.
- 7) May 1988 San Benedetto (Italy) X European Chemistry at Interfaces Conference.
- 8) June 1989 Åbo/Turku (Finland) EUCHEM Workshop on Adsorption of Surfactants and Macromolecules from Solution, and 10th Scandinavian Symposium on Surface Chemistry.
- 9) June 1990, Toronto (Canada) International Symposium on Contact Angles and Wetting Phenomena.
- 10) November 1990, Moscow (Russia) International Conference on Surface Forces.
- 11) June 1991, Bergen (Norway) 11th Scandinavian Symposium on Surface Chemistry, with international participation.
- 12) June-July 1992, Lund (Sweden) XII European Chemistry at Interfaces Conference.

- 13) August 1992, Moscow (Russia) 10th International Conference on Surface Forces.
- 14) September 1992, London (U.K.), Colloids in the Aquatic Environment.
- 15) May 1993, Louvain-la-Neuve, (Belgium) Bioadhesion II, International Conference on the Fundamental Aspects of Bioadhesion and Flocculation and their Implications in Technological, Ecological and Medical Fields.
- 16) September 1993, Bristol (U.K.) Polymers at Interfaces.
- 17) September 1993, Granada (Spain) Electrokinetic Phenomena '93.
- 18) January 1994, Kona (Hawaii, U.S.A.) Surface Characterization of Adsorption and Interfacial Reactions.
- 19) June 1994, Espoo (Finland) 12th Scandinavian Symposium on Surface Chemistry.

5 IUPAC NEWS

Names and Addresses of Officers of IUPAC Bodies (1994-1995):

Bureau. President: Prof. K.I. Zamaraev, Boreskov Institute of Catalysis, Novosibirsk, Russia.
 Secretary General: Prof. G. den Boef, Laboratorium voor Analytische Scheikunde, Universiteit van Amsterdam, The Nieuwe Achtergracht 166, 1018 WV Amsterdam, The Netherlands, Phone (20) 525-6515 (office) or (20) 619-6105 (home), Fax (20) 525-6638, Telex 16460 FACWN NL, ANAL. CHEM.

Division I: Physical Chemistry. President: Prof. K. Kuchitsu, Department of Chemistry, Josai University, Japan.

Secretary: Prof. M.A. El-Sayed, Department of Chemistry and Biochemistry, University of California, 405 Hilgard Avenue, Los Angeles, CA 90024-1569, U.S.A., Phone (310) 825-1352, Fax (310) 206 6628, E-mail JPHYSCHEM@CLACH.CHEM.UCLAEDU.

Division IV: Macromolecular. President: Prof. J. Economy, Department of Materials Science and Engineering, University of Illinois, U.S.A.

Secretary: Prof. J.E. Guillet, Department of Chemistry, University of Toronto, Toronto, Ontario M5S 1A1, Canada, Phone (416) 978-3591, Fax (416) 978-8775, E-mail: jguillet@alchemy.chem.utoronto.ca, Telex 06218915 UTENGTOR.CA.

Commission I.1: Physicochemical Symbols, Terminology, and Units. Chairman: Prof. H.L. Strauss, Department of Chemistry, University of California, U.S.A. Secretary: Prof. M. Quack, Laboratorium für Physikalische Chemie, Eidgenössische Technische Hochschule - Zentrum, CH-8092 Zürich, Switzerland, Phone (1) 256-4421, Fax (1) 252-3402, Telex 817379 EHHG CH.

Commission I.3: Electrochemistry. Chairman: Prof. G.S. Wilson, Department of Chemistry, University of Kansas, U.S.A.

Secretary: Prof. W. Pliehl, Institute für Physikalische Chemie und Elektrochemie, Technische Universität Dresden, Bergstrasse 66b, D-01062, Dresden, F.R.G.

Commission I.6: Surface and Colloid Chemistry Including Catalysis. Chairman: Prof. J. Ralston, School of Chemical Technology, University of South Australia. Secretary: Prof. A.M. Cazabat, Laboratoire de Physique de la Matière Condensée, Collège de France, 11 place Marcelin-Berthelot, F-75231 Paris Cédex 05, France, Phone (1) 4427-1081, Fax (1) 4427-1082.

This commission has now three documents in course of publication:

- The document on "Thin films including layers" produced by the former Sub-Committee on Thin Films (who included, among others, Brian Vincent, John Ralston, Makoto Misono and Dimo Platikanov) and prepared for publication by Lisbeth Ter Minassian-Saraga. It has

successfully passed through the full reviewing procedure and will be published shortly.

- The "Manual of methods and procedures for catalyst characterization" produced by the former Sub-Committee on Catalysis (who included, among others, J.H. Block, P.C. Gravelle, J. Haber, J.A. Pajares, K.S.W. Sing and K. Tamura). It was prepared for publication by Bernard Delmon and is now in the reviewing procedure.

- Finally, the "Recommendations for the characterization of porous solids" produced by a Sub-Committee who included, among others, C. Fairbridge, D.H. Everett, K.S.W. Sing, K.K. Unger and R. Rouquerol, is in a state intermediate between the first and the second.

The next meeting of Commission I.6 will take place at the occasion of the IUPAC General Assembly in Guildford, United Kingdom, August 1995.

Commission IV.1: Macromolecular Nomenclature. Chairman: Prof. R.F.T. Stepto, Polymer Science and Technology Group, University of Manchester and UMIST, U.K.

Secretary: Dr. W.J. Work, Research Division, Rohm and Haas Co., P.O. Box 219, Bristol, PA 19007, U.S.A., Phone (215) 785-8549, Fax (215) 781-0624, E-mail Bitnet RBPWJW@ROHVM1, Telex 650-419-0136.

6 CONFERENCES IN THE FIELD OF SURFACE AND COLLOID SCIENCE

NOTE 1. If information is already given in a previous Newsletter, it will be repeated here, though under a different number.

NOTE 2. I have refrained from including commercial courses, realizing that the distinction between them and non-subsidized (either/or not advanced) courses is not always unambiguous.

NOTE 3. We cannot accept any responsibility for omissions or errors, although of course the information is checked to the best of our knowledge.

6.1 High Performance Liquid Chromatography HPLC '94, 8-13 May 1994, Minneapolis MN, U.S.A. Contact: J. Cunningham, c/o Barr Enterprises, P.O. Box 279, Walkersville, MD 21793, U.S.A., Phone (301) 898-3772, Fax (301) 898-5596.

6.2 1st International Conference on Polysaccharide Engineering, 6-8 June 1994, Trondheim, Norway. Contact: SEVU, Congress Department, The Norwegian Institute of Technology, N-7034 Trondheim, Norway, Phone (7)359-5246, Fax (7) 359-5150.

6.3 Synthetic, Structural and Industrial Aspects of Stereospecific Polymerization: STEPOL '94, 6-10 June 1994, Milan, Italy. Contact: I. Tritto, ICM-CNR, Via E. Bassini 15, 20133 Milano, Italy, Phone (2) 7063-6333, Fax (2) 236-2946.

6.4 3rd German-Japanese Symposium on Bubble Columns, 13-15 June 1994, Schwerte, Germany. Contact: J. Fründt, University of Dortmund, CT/TV, 44221 Dortmund, Germany, Phone (231) 755-2670/2323, Fax (231) 755-3035.

6.5 4th International Symposium on Field-Flow Fractionation, 13-15 June 1994, Örenäs near Lund, Sweden. Contact: The Swedish Chemical Society, Analytical Section, Wallingatan 24, 3 tr, S-111 24 Stockholm, Sweden, Phone (8) 411-5260, Fax (8) 106-678.

6.6 12th Scandinavian Symposium on Surface Chemistry, 15-17 June 1994, Espoo, Finland. **IACIS sponsored**. IACIS members will be allowed a discount on the conference fee. Contact: P. Stenius or L. Sarvaranta, Helsinki University of Technology, Laboratory of Forest Products Chemistry, Vuorimiehentie 1, 02150 Espoo, Finland, Phone (0) 451-4233 or (0) 456-6937, Fax (0) 451-4259 or (0) 456-7004.

6.7 14th Nordic Symposium on Thermal Analysis and Calorimetry, 15-17 June 1994, Oslo, Norway. Contact: S. Stølen, Department of Chemistry, University of Oslo, P.O. Box 1033, Blindern, N-0315 Oslo, Norway. Fax (2) 285-5565/5441.

6.8 68th Colloid and Surface Science Symposium ACS, 19-22 June 1994, Stanford, California, U.S.A. Contact: A.P. Gast, Stanford University, Department of Chemical Engineering, Stanford, CA 94305-5025, U.S.A., Phone (415) 725-3145, Fax (415) 725-7294, E-mail gast@leland.stanford.edu. Includes symposia on

- *Polymers at Interfaces*. Contact: C.W. Frank, Stanford University, Chemical Engineering Department, Stanford, CA 94305-5025, U.S.A., Phone (415) 723-4573, E-mail cwf@rio.stanford.edu, or R. Sharma, Eastman Kodak Company, Polymer Research Laboratory, Materials Science, Engineering Division, Rochester, NY 14650-2104, U.S.A., Phone (716) 477-8261, E-mail ravi.sharma@kodak.com.

- *Rheology*. Contact: A.W. Chow, Lockheed Missiles and Space Company, 3251 Hanover Street, Palo Alto, CA 94304-1191, U.S.A., Phone (415) 424-2015, or E.S.G.

Shaqfeh, Stanford University, Department of Chemical Engineering, Stanford, CA 94305-5025, U.S.A., Phone (415) 723-3764, E-mail eric@chemeng.stanford.edu.

- *Dynamics, Aggregation and Flocculation*. Contact: R. Pecora, Stanford University, Department of Chemistry, Stanford, CA 94305-5080, U.S.A., Phone (415) 723-0681, E-mail bob@bogart.stanford.edu, or Ch.F. Zukoski, University of Illinois, Department of Chemical Engineering, 1209 W. California Street, Urbana, IL 61801, U.S.A., Phone (217) 333-7379.

- *Physics of Proteins at Interfaces*. Contact: R. Tilton, Carnegie-Mellon University, Department of Chemical Engineering, Pittsburgh, PA 15213, U.S.A., Phone (412) 268-2230, E-mail tilton@andrew.cmu.edu or A. Lenhoff, University of Delaware, Department of Chemical Engineering, Newark, DE 19716, U.S.A., Phone (302) 831-8989, E-mail lenhoff@che.udel.edu.

- *Interfacial Fluid Dynamics*. Contact: G.M. Homsy, Stanford University, Department of Chemical Engineering, Stanford, CA 94305-5025, U.S.A., Phone (415) 723-2419, E-mail bud@chemeng.stanford.edu, or S.J. Troian, Princeton University, Department of Chemical Engineering, U.S.A., Phone (609) 258-4574, E-mail stroian@phoenix.princeton.edu.

- *Nucleation Symposium*. Contact: J.L. Katz, The Johns Hopkins University, Department of Chemical Engineering, Baltimore, MD 21218, U.S.A., Phone (410) 516-8484, E-mail jlk@jhuvms.hcf.jhu.edu.

- *Thin Films and Self-Assembly*. Contact: C.J. Radke, University of California, Department of Chemical Engineering, Berkeley, CA 94720, U.S.A., Phone (510) 642-5204, E-mail radke@cchem.berkeley.edu, or D. Devore, Henkel Corporation, 300 Brookside Avenue, Ambler, PA 19002, U.S.A., Phone (215) 628-1586.

- *Catalysis - Symposium honoring Michel Boudart on his 70th Birthday*. Contact: R.J. Madix, Stanford University, Department of Chemical Engineering, Stanford, CA 94305-5025, U.S.A., Phone (415) 723-2402, E-mail rjm@rio.stanford.edu, or D.J. Sajkowski, Amoco Oil Company, Whiting Refinery, P.O. Box 710, Mail Code 230, Whiting, IN 46394-0710, U.S.A., Phone (219) 473-3384.

- *Electron Microscopy*. Contact: I. Talmon, The Technion, Department of Chemical Engineering, Technion City, Haifa 3200, Israel, Phone (4) 292-007, E-mail ceritit@technion.bitnet, or J. Minter, Eastman Kodak Company, Room 2122, Building 49, Kodak Park, Rochester, NY 14652-3712, U.S.A., Phone (716) 722-3407, E-mail minter@kodak.com.

- *Micro-emulsions and Complex Fluids*. Contact: J.S. Huang, Exxon Research and Engineering Company, Clinton Township, Route 22 East, Annandale, NJ 08801, U.S.A., Phone (908) 730-2865, E-mail jshuang@erenj.bitnet, or E.W. Kaler, University of Delaware, Department of Chemical Engineering, Newark, DE 19716, U.S.A., Phone (302) 831-3553, E-mail kaler@che.udel.edu.

- *General papers*. Contact: A. Morfesis, PPG Industries Inc., P.O. Box 2844, Pittsburgh, PA 15230, U.S.A., Phone (412) 967-2122, or D. Prieve, Carnegie Mellon University, Department of Chemical Engineering, Pittsburgh, PA 15213, U.S.A., Phone (412) 268-2247, E-mail dp4h+@andrew.cmu.edu.

6.9 6th International Conference on Polymer Supported Reactions in Organic Chemistry, POC 1994, 19-23 June 1994, Venice, Italy. Contact: POC 1994 Secretariat, Facoltà di Scienze MM FF NN, Università di Venezia - Ca'Foscari, Dorsoduro 2137, 30123 Venezia, Italy, Fax (41) 529-8642, E-mail tundop@unive.it.

6.10 **16th International Conference on Advances in the Stabilization and Controlled Degradation of Polymers**, 20-22 June 1994, Lucerne, Switzerland. Contact: A.V. Patsis, Institute for Materials Science, State University of New York, New Platz, NY 12561, U.S.A., Phone (914) 257-3800, Fax (914) 255-0978.

6.11 **5th International Conference on Composite Interfaces ICCI-V**, 20-23 June, 1994, Göteborg, Sweden. Contact: F.H.J. Maurer, Department of Polymer Technology, Chalmers University of Technology, S-412 96 Göteborg, Sweden, Phone (31) 772-3408/3420, Fax (31) 772-3418.

6.12 **10th International Symposium on Surfactants in Solution**, 26-30 June 1994, Caracas, Venezuela. Contact: K.L. Mittal, Skill Dynamics IBM, 500 Columbus Avenue, Thornwood, NY 10594, U.S.A. Phone (914) 742-5747 or (914) 226-1393, Fax (914) 742-5594.

6.13 **2nd International Symposium Progress on Membrane Technology and Science**, 27 June - 1 July 1994, Enschede, The Netherlands. Contact: J.A. Spierenburg, Convention Bureau "Basics", P.O. 217, NL-7500 AE Enschede, The Netherlands, Phone (53) 332-035, Fax (53) 356-770.

6.14 **21st International Symposium on Controlled Release of Bioactive Materials**, 27 June - 1 July 1994, Nice, France. Contact: Controlled Release Society, Administrative Office, 1020 Milwaukee Avenue, Suite 235, Deerfield, IL 60015, U.S.A.

6.15 **8th CIMTEC International Conference on Modern Materials and Technologies**, 29 June - 4 July 1994, Florence, Italy. Contact: 8th CIMTEC, P.O. Box 174, 48018 Faenza, Italy.

6.16 **Materials and Processes for Surface and Interface Engineering** (NATO Advanced Study Institute), July 1994, Bonas, France. Contact: Y. Pauleau, CEREM-

DEM-SGSA-LTS, CENG Nuclear Research Center, F-38041, Grenoble, France.

6.17 **4th International Conference on Properties and Applications of Dielectric Materials**, 3-6 July 1994, Queensland, Australia. Contact: Secretary ICPADM-94, Department of Electrical and Computer Engineering, The University of Queensland, Australia 4072, Phone (7) 365-3984, Fax (7) 365-4999.

6.18 **Structure Development During Polymer Processing**, 4-7 July 1994, Eindhoven, The Netherlands. Organised by the European Physical Society. Contact: P.J. Lemstra, Technical University Eindhoven, P.O. Box 513, NL-5600 MB Eindhoven, The Netherlands, Phone (40) 473-650, Fax (40) 463-966.

6.19 **International Conference on Carbon**, 4-8 July 1994, Granada, Spain. Contact: S.A. Eurocongres, Avda. Constitución, 18-Blq., 4 bajo, Granada 18012, Spain, Phone (58) 208-650/209-361, Fax (58) 209-400.

6.20 **20th Annual International Conference in Organic Coatings Science and Technology**, 4-8 July 1994, Athens, Greece. Contact: A.V. Patsis, Institute of Materials Science, State University of New York, New Platz, NY 12561, U.S.A., Phone (914) 255-0757, Fax (914) 255-0978.

6.21 **Electrically Conducting and Magnetic Colloids**, 5 July 1994, London, U.K. Contact: B. Vincent, University of Bristol, School of Chemistry, Cantock's Close, Bristol BS8 1TS, U.K., Phone (272) 288-160, Fax (272) 250-612, E-mail vincentb@uk.ac.Bristol.siva.

6.22 **2nd International Symposium on Supported Reagents and Catalysts in Chemistry** and one-day Teach-in/Course, 5-8 July 1994, Swansea, Wales, U.K. Contact: J.F. Gibson, The Royal Society of Chemistry, Burlington House, London WV1 0BN, U.K., Phone (71) 437-8656, Fax (71) 734-1227.

6.23 **Silicon-containing Polymers**, 6-8 July 1994, Canterbury, U.K. Contact: R.G. Jones, Centre for Materials Research, Chemical Laboratory, The University, Canterbury, Kent CT2 7NH, U.K., Phone (227) 764-000, Fax (227) 475-475.

6.24 **3rd International Conference of Inorganic Membranes**, 10-14 July 1994, Worcester, Massachusetts, U.S.A. Contact: Y.H. Ma, Department of Chemical Engineering, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609-2280, U.S.A., Phone (508) 831-5373, Fax (508) 831-5867.

6.25 **35th IUPAC International Symposium on Macromolecules, MacroAKRON '94**, 11-15 July 1994, Akron, Ohio, U.S.A. Contact: C. Manus-Gray, The University of Akron, Institute of Polymer Science, Akron, OH 44325-3909, U.S.A., Phone (216) 972-5334, Fax (216) 972-5463, E-mail Manusgray@UAKron.edu.

6.26 **10th International Zeolite Conference**, 17-22 July 1994, Garmisch-Partenkirchen, Germany. Contact: J. Weitkamp, Institute of Chemical Technology 1, University of Stuttgart, Pfaffenwaldring 55, D-W-7000 Stuttgart 80, Germany, Fax (711) 685-4065.

6.27 **17th International Carbohydrate Symposium**, 17-22 July 1994, Ottawa, Canada. Contact: H. Jennings, Institute of Biological Sciences, National Research Council of Canada, 100 Sussex Drive, Ottawa K1A 0R6, Canada.

6.28 **11th European Symposium on Polymer Spectroscopy**, 20-22 July 1994, Prague, Czech Republic. Contact: B. Valter, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Heyrovského Nám. 2, 162 06 Prague, 6-Petriny, Czech Republic.

6.29 **Interfaces**, 24-29 July 1994, Meriden, New Hampshire, U.S.A. Contact: E.W. Kaler, University of Delaware, Department of Chemical Engineering, Newark,

DE 19716, USA., Phone (302) 831-3553, Fax (302) 831-4466, E-mail, kaler@che.udel.edu.

6.30 **35th Microsymposium on Polymer Networks**, 25-28 July 1994, Prague, The Czech Republic. Contact: P. Cefelin, Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Heyrovského nám. 18882/2, 162 06 Prague 6-Petriny, Czech Republic, Phone (2) 360-317, Fax (2) 367-981, Telex 122 019 IMCP C.

6.31 **Gordon Research Conference on Separation and Purification**, 31 July - 5 August 1994, New London, New Hampshire, U.S.A. Contact: F.G. Helfferich, Department of Chemical Engineering, Pennsylvania State University, 158 Fenske Laboratory, University Park, PA 16802-4400, U.S.A., Tel. (814) 863-4675, Fax (814) 865-7846.

6.32 **4th International Symposium on Adsorption and Chromatography of Macromolecules**, 2-5 August 1994, Omsk, Russia. Contact: N.A. Eltekova, Institute of Physical Chemistry, Leninskii Prospekt 31, Moscow 117915, Russia, Phone (095) 955-4611, Fax (095) 952-7514, Telex 411029 PESUM SU.

6.33 **31st Annual Meeting of The Clay Minerals Society**, 13-18 August 1994, Saskatoon, Saskatchewan, Canada. Contact: P.J. Eberl, The Clay Minerals Society, P.O. Box 4416, Boulder, CO 80306, U.S.A., Phone (303) 444-6405, Fax (303) 444-2260.

6.34 **Annual Meeting American Institute of Chemical Engineers**, 14-17 August 1994, Denver, Colorado, U.S.A. Symposia include:

- *Separation Processes for Nuclear and Mixed Waste.* Contact: J.T. Bell, Oak Ridge National Laboratory, P.O. Box 200, Oak Ridge, TN 37831-7298, U.S.A., Phone (615) 574-4034, Fax (615) 574-6870.
- *Adsorption for Hazardous Organics Separation.* Contact: B. Peters, Argonne National Laboratory, 9700 S. Cass

Avenue, Argonne, IL 60439, U.S.A., Phone (708) 972-7773, Fax (708) 972-4211.

- 6.35 **208th ACS National Meeting**, 21-26 August 1994, Washington D.C., U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A., Phone (206) 543-2250. The symposia include:

Division of Colloid and Surface Chemistry:

- Surfactants and Associated Colloids: Eastman Kodak Symposium on Surfactant Adsorption and Surface Solubilization.
- Colloidal Particles: Crystal Growth from Solution, in Honor of George Nancollas.
- Electrochemical Surface Science: Surface Electrochemistry.
- Chemical Physics of Coll Phenomena: Double Layer Effects in Colloidal Science.
- Ordered Fluids and Liq Crystals: Ferroelectric and Antiferroelectric Liquids.
- Infrared Studies of Surface and Adsorbed Species in Honor of Dr. Robert Ishens.
- Materials Research at the Interface of Physical and Inorganic Chemistry.
- Colloid Science and Related Topics: General Papers/Poster Session.

Division of Polymer Chemistry:

- Polymer Recycling and Disposal.
- General Papers.

- 6.36 **6th International Symposium on Solubility Phenomena**, 22-26 August 1994, Buenos Aires, Argentina. Contact: A.F. Danil de Namor, Department of Chemistry, University of Surrey, Guildford, Surrey, U.K., Phone (483) 300-800, ext. 2588, Fax (483) 300-803.

- 6.37 **7th International Symposium on Synthetic Membranes in Science and Industry**, 29 August - 2 Sep-

tember 1994, Tübingen, Germany. Contact: DECHEMA e.V., Exhibitions and Congresses, P.O. Box 150 104, D-60486 Frankfurt am Main 15, Germany, Phone (69) 756-4241, Fax (69) 756-4201, Telex 412 490 dcha d.

- 6.38 **4th European Rheology Conference**, 4-9 September 1994, Seville, Spain. Contact: C. Gallegos, Departamento de Ingeniería Química, Universidad de Sevilla, 41071 Sevilla, Spain, Phone (54) 624-406, Fax (54) 624-952.

- 6.39 **6th International Symposium on Scientific Bases for the Preparation of Heterogeneous Catalysts**, 5-9 September 1994, Louvain-la-Neuve, Belgium. Contact: G. Poncelet, Unité de Catalyse et Chimie des Matériaux Divisés, Place Croix du Sud, 2 boîte 17, 1348 Louvain-la-Neuve, Belgium, Phone (10) 473-596, Fax (10) 472-005.

- 6.40 **IUPAC International Conference on Liquid Crystal Polymers**, 6-9 September 1994, Beijing, China. Contact: Xibal Glu, Chinese Chemical Society, P.O. Box 2709, Beijing 100080, China, Phone (1) 256-8157/4020, Fax (1) 256-8157.

- 6.41 **The Organic and Physical Chemistry of Macromolecules**, 7-9 September 1994, Glasgow, U.K. Autumn Meeting of the Royal Society of Chemistry. Contact: Y.A. Fish, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, U.K., Phone (71) 437-8656, Fax (71) 734-1227.

- 6.42 **Surfaces in Biomaterials '94**, 8-10 September 1994, Scottsdale, Arizona, U.S.A. Contact: Surfaces in Biomaterials Foundation, c/o Ardel Management, P.O. Box 26-111, Minneapolis, MN 55426-0111, U.S.A., Phone (612) 927-6707, Fax (612) 927-8127.

- 6.43 **11th European Conference on Biomaterials**, 8-11 September 1994, Pisa, Italy. Contact: P. Giusti, Department of Chemical Engineering, University of Pisa, Via Diotallevi 2, I-56121 Pisa, Italy.

6.44 6th European Symposium on Thermal Analysis and Calorimetry, 11-16 September 1994, Grado, Italy. Contact: A. Cesaro, Dip. BCM, University of Trieste, 34127 Trieste, Italy, Phone (40) 676-3684, Fax (40) 676-3691, E-mail cesaro@univ.trieste.it, Telex UNIVTS. 460865.

6.45 13th European Chemistry at Interfaces Conference, 11-16 September 1994, Kiev, Ukraine. Contact: A.A. Chuiko, Academy of Sciences of the Ukrainian SSR, Institute of Surface Chemistry, Prospect Nauki 31, 252028 Kiev, Ukraine, Phone (044) 265-4160, Fax (044) 264-0446.

6.46 Polymers at Surfaces and Interfaces, 12-14 September 1994, Bristol, U.K. General Discussion 98 of the Faraday Division of the Royal Society of Chemistry. Contact: Y.A. Fish, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, U.K., Phone (71) 437-8656, Fax (71) 734-1227.

6.47 3rd International Conference on Separations for Biotechnology, 12-15 September 1994, Reading, U.K. Contact: SCI Conference Secretariat 14/15, Belgrave Square, London SW1X 8PS, U.K., Phone (71) 235-3681, Fax (71) 823-1698.

6.48 International Conference on Activated Carbon, 12-16 September 1994, Pittsburgh, Pennsylvania, U.S.A. Contact: H.G. Nowicki, PACS, 409 Meade Drive, Corapolis, PA 15108, U.S.A., Phone (412) 457-6576.

6.49 Photoelectric Chemistry of Dispersions, 12-16 September 1994, Edinburgh, U.K. Contact: Secretariat Society of Chemical Industry, Dr. I. Callaghan, 14-15 Belgrave Square, London SW1X 8PS, U.K., Phone (71) 235-3681.

6.50 Surface Science and Electrochemistry, 12-16 September 1994, San Benedetto Del Tronto, Italy. IUVSTA (International Union for Vacuum Science, Technique and Application) Workshop. Contact: S. Trasatti, Department

of Physical Chemistry and Electrochemistry, University of Milan, Via Venezian 21, I-20133 Milano, Italy, Phone (2) 2660-3223, Fax (2) 2660-3224, E-mail Trasatti@IMICILEA.CILEA.IT, Telex 320-484 UNIMI I (incoming only).

6.51 4th International Symposium on Aerogels, 18-21 September 1994, Berkeley, California, U.S.A. Contact: R.W. Pekala, P.O. Box 808, L-322, Chemistry and Materials Science Department, Lawrence Livermore National Laboratory, Livermore, CA 94550, U.S.A., Phone (510) 422-0152, Fax (510) 423-4897.

6.52 14th International CODATA Conference (Committee on Data for Science and Technology) of the International Council of Scientific Unions (ICSU), 18-22 September 1994, Chambéry, France. Contact: J.E. Dubois, ITODYS - Université Paris VII, 1 rue Guy de la Brosse, 75005 Paris, France, Phone (1) 4427-6805/7922, Fax (1) 4427-6814, E-mail dubois@paris7.jussieu.fr.

6.53 Polymat 94, 19-22 September 1994, London, U.K. Contact: The Institute of Materials, 1 Carlton House Terrace, London SW1Y 5DB, U.K., Phone (71) 839-4071, Fax (71) 839-3576.

6.54 8th European Colloid and Interface Society (ECIS) Conference, 26-30 September 1994, Montpellier, France. Contact: VIIIth ECIS Meeting, G.D.P.C., Case 26, Université Montpellier II-STL, 34 095 Montpellier cedex 05, France, Phone 6714-3501/3596, Fax 6714-4284, E-mail GDPC@FRMOP 22.

6.55 The Pacific Conference on Rheology and Polymer Processing (PCR '94), 26-30 September 1994, Kyoto, Japan. Contact: Secretariat PCR '94, Research Center for Biomedical Engineering, Kyoto University, Kyoto 60 601, Japan, Phone (75) 751-4125, Fax (75) 751-4141.

6.56 IUPAC International Molecular Mobility and Order in Polymer Systems, 3-6 October 1994, St.

Petersburg, Russia, Contact: A.A. Darinskii or Y.Y. Gotlib, Institute of Macromolecular Compounds, Russian Academy of Sciences, Bolshoi pr. 31, 199004 St. Petersburg, Russia.

6.57 6th Israeli Conference on Surface and Colloid Science, 5-6 October 1994, Zichron-Yaakov, Israel. Contact: Dan Knassim Ltd., P.O. Box 57005, Tel-Aviv 61570, Israel, Phone (3) 562-6470, Fax (3) 561-2303.

6.58 66th Annual Meeting of the Society of Rheology, 6-7 October 1994, Philadelphia, Pennsylvania, U.S.A. Contact: N. Wagner, Department of Chemical Engineering, University of Delaware, Newark, DE 19716, U.S.A., Phone (302) 831-8079, Fax (302) 831-1048.

6.59 International Conference on Reactive Polymers (Ion Exchange and Adsorption), 8-11 October 1994, Xi'an, China. Contact: Che Rongrui, Editorial Board of "Ion Exchange and Adsorption", Nankai University, Tianjin 300071, P.R. of China, Phone (22) 342-161, ext. 2964, Fax (22) 345-714.

6.60 5th European Polymer Federation Symposium on Polymeric Materials, 9-12 October 1994, Basel, Switzerland. Contact: R. Martie, Kongresszentrum Messe Basel, Messeplatz 21, CH-4021 Basel, Switzerland, Fax (61) 686-2185.

6.61 5th International Symposium on Fine Chemistry and Functional Polymers FCFP-V, 12-15 October 1994, Jinan, China. Contact: Y.Y. Jiang, Institute of Chemistry, Academia Sinica, Zhongguancun, Beijing, 100080, China, Phone (1) 225-9368, Fax (1) 256-6099.

6.62 Polymer Surfaces and Interfaces, 18-20 October 1994, Cape Cod, Massachusetts, U.S.A. Contact: A. Balazs, Department of Materials Science, University of Pittsburgh, PA 15261, U.S.A.

6.63 International Symposium on Polymers at the Phase Boundary, 25-29 October 1994, Lviv, Ukraine.

Contact: S. Voronov, Lvivska Polytechnica State University 12 Badera Street, Lviv-13, 290646 Ukraine, Phone (322) 744-300, Fax (322) 744-300/744-143, E-mail sav%ipi.lviv.ua@realy.ussr.eu.net, Telex 234 139 ORFEJ.

6.64 International Adhesion Symposium IAS 94, 6-10 November 1994, Yokohama, Japan. Contact: IAS 94 Japan, Secretariat, Department of Forest Products, Faculty of Agriculture, The University of Tokyo, 1-1-1, Yayoi Bunkyo-ku, Tokyo, Japan, Phone (3) 3812-2111, Fax (3) 5684-0299.

6.65 The 1994 Industrial Symposium on Surface Chemistry, 8-9 November 1994, Gothenburg, Sweden. Contact: YKI (Institute for Surface Chemistry) Information, P.O. Box 5607, S-114 86 Stockholm, Sweden, Fax (8) 208-998.

6.66 Excitation of Semiconductor Surfaces: Fundamental Concepts and Application in Semiconductor Processing, 13-18 November 1994, Hawaii, U.S.A. Contact: J.T. Yates, Jr., Department of Chemistry, Surface Science Center, University of Pittsburgh, Pittsburgh, PA 15260, U.S.A., Phone (412) 624-8320, Fax (412) 624-6003, or N. Itoh, Department of Physics, Laboratory of Photo-physics and Surface Physics of Solids, Nagoya University, Furo-cho, Chikusa-ku, Nagoya 464, Japan, Phone (52) 781-5111, ext. 3552, Fax (52) 702-7994.

6.67 Annual Meeting of the AIChE, (American Institute of Chemical Engineers), 13-18 November 1994, San Francisco, U.S.A. There will be sessions on

- *Application of Adsorption in Waste Management*. Contact: B.K. Kaul, Exxon Research and Engineering Co., P.O. Box 101, Florham Park, NJ 07932, U.S.A., Phone (201) 765-6697, Fax (201) 765-1189, or M. Suzuki, University of Industrial Science, University of Tokyo, 22-1 Roppongi 7 Chrome, Minato-ku, Tokyo 106, Japan, Phone (3) 3407-0294, Fax (3) 3408-0593.

- *Complex Molecular Fluids. I. Polymeric Fluids: Static Properties. II. Polymeric Fluids: Dynamic Properties.* Contact: H.D. Cochran, Oak Ridge National Laboratory, Chemical Technology Division, P.O. Box 2008, Oak Ridge, TN 37831-6224, U.S.A., Phone (615) 574-6821, Fax (615) 574-6442, E-mail hdc@ornl.gov, or J.J. de Pablo, University of Wisconsin, Department of Chemical Engineering, 1415 Johnson Drive, Madison, WI 53706, U.S.A., Phone (608) 262-7727, Fax (608) 262-5434, E-mail DEPABLO@che31a.che.wisc.edu.

- *Fundamentals of Adsorption and Ion Exchange.* Contact: H.W. Dandekar, UOP Research Center, 50 East Algonquin Road, Des Plaines, IL 60017-5016, U.S.A., Phone (708) 391-3641, Fax (708) 391-3724, or M.B. Rao, Air Products and Chemicals Inc., 7201 Hamilton Boulevard, Allentown, PA 18195-1501, U.S.A., Phone (215) 481-8737, Fax (215) 481-4210.

- *Molecular Theory of Adsorption Equilibria and Kinetics.* Contact: P.A. Monson, Department of Chemical Engineering, University of Massachusetts, Amherst, MA 01003, U.S.A., Phone (413) 545-0661, or J.A. O'Brien, Department of Chemical Engineering, Yale University, New Haven, CT 06520-2159, U.S.A., Phone (203) 432-4382.

- *New Adsorbent Synthesis and Characterization.* Contact: A. Kapoor or M. Bülow, Technical Center, The BOC Group, Inc., 100 Mountain Avenue, Murray Hill, NJ 07974, U.S.A., Phone (908) 771-6449/6210, Fax (908) 771-6113.

- *Recent Developments in Adsorption and Ion Exchange.* Contact: P.C. Wankat, School of Chemical Engineering, Purdue University, West Lafayette, IN 47907-1283, U.S.A., Phone (317) 494-3886, Fax (317) 494-5819, E-mail wankat@ecn.purdue.edu, or S. Alexandratos, Department of Chemistry, University of Tennessee, Knoxville, TN 37996-1600, U.S.A., Phone (615) 974-

3399, Fax (615) 974-3454, E-mail ALEXANDRATOS@novell.chem.utk.edu.

6.68 **IUPAC International Symposium on Functional and High Performance Polymers**, 14-16 November 1994, Taipei, Taiwan. Contact: Ging-Ho Hsueh, National Tsing Hua University, Department of Chemical Engineering, Hsinchu, Taiwan 300, Fax (35) 726-825, E-mail ipst@nthu.edu.tw.

6.69 **5th SPSJ International Polymer Conference IPC 94**, 28 November - 2 December 1994, Osaka, Japan. Contact: T. Takahiko The Society of Polymer Science, Japan, Nagaoka Building 2-4-2 Tsukiji, Chuo-ko, Tokyo 104, Japan, Fax (3) 3545-8560.

6.70 **Vibrational Optical Activity: from Fundamentals to Biological Applications**, 19-21 December 1994, Glasgow, U.K. General Discussion 99 of the Faraday Division of the Royal Society of Chemistry. Contact: Y.A. Fish, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, U.K., Phone (71) 437-8656, Fax (71) 734-1227.

1995

6.71 **20th Australian Polymer Symposium**, 5-8 February 1995, Adelaide, South Australia. Contact: M. Fisher, SOLA International Holdings Ltd., P.O. Box 244, Morphett Vale, South Australia 5162, Australia, Phone (8) 329-0100, Fax (8) 326-1037.

6.72 **Concentrated Dispersions**, 29-31 March 1995, Bristol, U.K. Organised by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry. Contact: A. Lips, Unilever Research, Colworth Laboratory, Colworth House, Sharnbrook, Bedford MK44 1LQ, U.K., Phone (234) 222-002, Fax (234) 222-401.

6.73 **26th International Conference on Vacuum Microbalance Techniques**, Spring 1995, Marrakech, Morocco. Contact: M. Ben Channaa, Département Chimie, Université Caddi Ayyad, B.P. S 15, MA-Marrakech, Morocco.

6.74 **209th ACS National Meeting**, 2-7 April 1995, Anaheim, California, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A., Phone (206) 543-2250. The symposia include:

Division of Colloid and Surface Chemistry:

- Surfactants and Associated Colloids: Symposium Honoring Stig E. Friberg.
- Surface Science of Catalysis.
- New Concepts in Surface Science.
- Surface Science of Catalysis.
- Molecular Tribology.
- Molecular Processes at Solid.
- Surface and Colloid Chemistry of Advanced Materials: Chemical Sensors and Interfaces.
- Colloid Particles: Surface Modification and Particle Structure.
- Colloid Science and Related Topics: General Papers/Poster Session.

Division of Polymer Chemistry:

- New Polymeric Reactions and Reaction Mechanism.
- Agricultural Applications of Biotechnology.
- General Papers.

6.75 **Multi-Phase Materials prepared by Emulsion Polymerization**, 4-7 April 1995, Lancaster, U.K. Contact: P.A. Lovell, Manchester Materials Science Centre, University of Manchester and UMIST, Grosvenor Street, Manchester M1 7HS, U.K., Phone (61) 200-3568, Fax (61) 200-3586.

6.76 **Atmospheric Chemistry: Measurements, Mechanisms and Models**, 19-21 April 1995, Norwich, U.K. General Discussion 100 of the Faraday Division of the Royal Society of Chemistry. Contact: Y.A. Elsh, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, U.K., Phone (71) 437-8656, Fax (71) 734-1227.

6.77 **5th International Conference on Fundamentals of Adsorption**, 13-18 May 1995, Pacific Grove, California, U.S.A. Contact: M. Douglas LeVan, Department of Chemical Engineering, Thornton Hall, University of Virginia, Charlottesville, VA 22903-2442, U.S.A., or J.P. Auskaitis, UOP Adsorbents - Far East, c/o Union Showa K.K., Sanwa Building, 27-17 Hamamatsu-Cho, 1-Chome, Minato-Ku, Tokyo 105, Japan.

6.78 **69th Colloid and Surface Science Symposium ACS**, 11-14 June 1995, Salt Lake City, Utah, U.S.A. Contact: A.P. Gast, Stanford University, Department of Chemical Engineering, Stanford, CA 94305-5025, U.S.A., Phone (415) 725-3145, Fax (415) 725-7294, E-mail gast@leland.stanford.edu. Tentative listing of symposia:

- Sydney Ross Symposium.
- Biopolymers and Cells at Interfaces.
- Catalysis and Catalytic Gas Sensors.
- Colloidal Dispersions.
- Colloids in Drug Delivery.
- Controlled Colloid Synthesis.
- Electrochemistry of Organized Molecular Interfaces.
- Instrumentation in Colloid and Surface Analysis.
- Micellar Systems.
- Modeling of Interfacial Phenomena.
- Scanning Probe Microscopies and Surface Spectroscopy.
- Wetting and Interfacial Phenomena.
- General Papers.

6.79 **19th Summer School on Crystal Growth**, 11-16 June 1995, Arnhem, The Netherlands. Contact: J.P. van

der Eerden, UU, P.O. Box 80 050, NL-3508 TB Utrecht, Phone (30) 533-601, Fax (30) 533-946.

6.80 Echem-Conference on Surface Forces in Science and Technology, 15-17 June 1995, Stockholm, Sweden. Contact: The Swedish National Committee for Chemistry, Wallingatan 24 3tr, S-111 24 Stockholm, Sweden, Phone (8) 115-280, Fax (8) 106-678.

6.81 11th International Conference on Crystal Growth, 18-23 June 1995, The Hague, The Netherlands. Contact: ICCG XI, Congrex Holland B.V., Kettersgracht 782, 1017 EC Amsterdam, The Netherlands, Phone (20) 626-1372, Fax (20) 625-9574.

6.82 Electrical Properties and Polymer Morphology, 2-4 July 1995, Warsaw, Poland. Contact: W. Heitz, Fachbereich Physikalisches Chemie der Philipps-Universität, Institut für Polymere, Hans-Meerwein-Strasse, D-3550 Marburg, Germany, Phone (6421) 285-776, Fax (6421) 285-785.

6.83 Gordon Research Conference on Polymer Colloids, 2-7 July 1995, Tilton, New Hampshire, U.S.A. Contact: T.G.M. van de Ven, McGill Pulp and Paper Research Centre, 3420 University Street, Montreal, Quebec, Canada H3A 2A7, Phone (514) 398-6180, Fax (514) 398-6256.

6.84 36th Microsymposium on High Swelling Gels, 10-14 July 1995, Prague, Czech Republic. Contact: W. Heitz, Fachbereich Physikalisches Chemie der Philipps-Universität, Institut für Polymere, Hans-Meerwein-Strasse, D-3550 Marburg, Germany, Phone (6421) 285-776, Fax (6421) 285-785.

6.85 3rd UK Colloid and Surface Science Student Meeting (SCI), 16-19 July 1995, Hull, U.K. Contact: B.P. Binks, School of Chemistry, University of Hull, Hull HU6 7RX, U.K., Phone (482) 465-450, Fax (482) 466-410, E-mail BPBinks@chem.hull.ac.uk.

6.86 IUPAC General Assembly, 7-15 August 1995, Guildford, Surrey, U.K. At this occasion there will be meetings of Commission 1.6 (on Surface and Colloid Science, including Catalysis) and of the Macromolecular Division. Contact: IUPAC Secretariat, Bank Court Chambers, 2-3 Pound Way, Templars Square, Cowley, Oxford OX4 3YF, U.K., Phone (865) 747-744, Fax (865) 747-510, Telex 83147 VIA OR G, attn. IUPAC, Telegrams: IUPAC OXFORD.

6.87 35th IUPAC Congress, 14-19 August 1995, Istanbul, Turkey. Contact: W. Heitz, Fachbereich Physikalisches Chemie der Philipps-Universität, Institut für Polymere, Hans-Meerwein-Strasse, D-3550 Marburg, Germany, Phone (6421) 285-776, Fax (6421) 285-785.

6.88 210th ACS National Meeting, 20-25 August 1995, Chicago, Illinois, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A., Phone (206) 543-2250. The symposia include:

Division of Colloid and Surface Chemistry:

- Electrochemical Surface Science: Electrochemical Material Science.
- Colloid Particles: New Approaches in Particle Characterization.
- Colloid Science and Related Topics: General Papers/Poster Session.

6.89 Gels, 5-8 September 1995, Paris, France. General Discussion 101 of the Faraday Division of the Royal Society of Chemistry. Contact: Y.A. Fish, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, U.K., Phone (71) 437-8656, Fax (71) 734-1227.

6.90 13th International Vacuum Congress and 9th International Conference on Solid Surfaces, 25-29 September 1995, Yokohama, Japan. Contact: IVC13/ICSS9

Office, Nihonbashi 2-14-9, Kasho-bld. 2F, Chyuo-ku, Tokyo, Japan, Phone (3) 3272-8013, Fax (3) 3273-2445.

6.91 Intersocietal Polymer Conference, 7-10 October 1995, Baltimore, Maryland, U.S.A. Contact: D. Morill, Division of Polymer Chemistry, 1103 Hahn Hall, Virginia Polytechnic Institute, Blacksburg, VA 24061-0212, U.S.A., Fax (703) 231-8517.

6.92 IUPAC 6th International Symposium on Macromolecule-Metal Complexes MMC-VI, 22-26 November 1995, Guangzhou, China. Contact: Y.Y. Jiang, Institute of Chemistry, Academia Sinica, Zhonguancun, Beijing, 100080, China, Phone (1) 225-9368, Fax (1) 256-6099.

6.93 Fundamentals of Colloid and Interface Science, an international symposium at the occasion of the retirement of Hans Lyklema, 26-29 November 1995, Wageningen, The Netherlands. Contact: B.H. Bijsterbosch or W. Norde or M.A. Cohen Stuart, Department of Physical and Colloid Chemistry, Wageningen Agricultural University, P.O. Box 8038, 6700 EK Wageningen, The Netherlands, Phone (8370) 83540/2279, Fax (8370) 83777, E-mail Willem @FenK.WAU.NL.

6.94 International Chemical Congress of Pacific Basin Societies, 17-22 December 1995, Honolulu, Hawaii, U.S.A. Contact: American Chemical Society Meetings, 1155 16th St., N.W., Washington, DC 20036, U.S.A., Phone (202) 872-4396.

Preview 1996 and later

6.95 Hydration Processes in Macromolecules, 1996. General Discussion 103 of the Faraday Division of the Royal Society of Chemistry. Contact: Y.A. Fish, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, U.K., Phone (71) 437-8656, Fax (71) 734-1227.

6.96 European Research Conference on Wetting and Capillarity, 22-27 March 1996, Crete, Greece. Organised by the European Science Foundation. Contact: A.M. Cazabat, Collège de France, Physique de la Matière Condensée, 11 Place Marcelin Berthelot, 75231 Paris Cedex 05, France, Phone (1) 4427-1081, Fax (1) 4427-1082, or S. Dietrich, Fachbereich Physik, Universität Wuppertal GHS, 42119 Wuppertal, Germany, Phone (202) 439-2744, Fax (202) 439-2811.

6.97 211th ACS National Meeting, 24-29 March 1996, New Orleans, Louisiana, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A., Phone (206) 543-2250. The symposia include:

Division of Colloid and Surface Chemistry:

- Surface Science of Catalysis.
- Molecular Processes at Solid Surfaces.
- Surfactants and Association Colloids: Biomimetic Approaches to Electro-Chemical Generation of Advanced Materials.
- New Concepts in Surface Science.

6.98 11th International Symposium on Surfactants in Solution: Synergism and Mixtures, 2-6 June 1996, Jerusalem, Israel. For information and suggestions contact: N. Garti, The Hebrew University of Jerusalem, The Casali Institute of Applied Chemistry, School of Applied Science, Jerusalem 91904, Israel, Fax (2) 520-262, or S. Safran, The Weizmann Institute of Science, P.O. Box 26, Rehovot 76100, Israel, Fax (8) 344-138, E-mail bpsafran@weizmann.weizmann.ac.il.

6.99 212th ACS National Meeting, 25-30 August 1996, Boston, Massachusetts, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A., Phone (206) 543-2250. The symposia include:

Division of Colloid and Surface Chemistry:

- Electrochemical Surface Science.
- Chemical Physics of Colloidal Phenomena: Self-Assembly in Solution.
- Colloidal Particles: Colloid-Polymer Interactions.
- Fundamentals of Colloid and Surface Chemistry: General Papers/Poster Session.

6.100 36th IUPAC International Symposium on Macromolecules, Macro 96, August - September 1996, Seoul, South Korea, Contact: Dr. Ahn, c/o ACS Macromolecular Division, 1155 Sixteenth Street, N.W., Washington, DC 20036, U.S.A.

6.101 14th European Chemistry at Interfaces Conference, 1996, probably September, Wallis, Switzerland. Contact: H.-F. Eicke, Universität Basel, Physikalisch-Chemisches Institut, Klingelbergstrasse 80, 4056 Basel, Switzerland.

6.102 9th International IACIS Conference on Colloid and Interface Science, 1st or 2nd week of July 1997, Sofia, Bulgaria. IACIS members will be allowed a discount on the conference fee. Contact: D. Platikanov or D. Exerowa, University of Sofia, Department of Physical Chemistry, Blvd. James Bouchier 1, BG-1126 Sofia, Bulgaria, Phone (2) 62561, Fax (2) 622-808.

6.103 ACS National Meetings

- 213th 6-11 April 1997, San Antonio, Texas
- 214th 7-12 September 1997, Las Vegas, Nevada
- 215th 29 March - 3 April 1998, St. Louis, Missouri
- 216th 23-28 August 1998, Orlando, Florida
- 217th 21-26 March 1999, Anaheim, California
- 218th 22-27 August 1999, New Orleans, Louisiana
- 219th 26-31 March 2000, Las Vegas, Nevada
- 220th 20-25 August 2000, Washington DC
- 221st 1-6 April 2001, San Francisco, California
- 222nd 19-24 August 2001, Chicago, Illinois.

7 REGIONAL AND PERSONAL NEWS

7.1 Personal News

Obituary

Professor Alexander Silberberg 1923-1993

Alexander Silberberg, who died in Israel last September, was a leading figure in the areas of polymers, colloids and biorheology.

Alex (as his friends and colleagues knew him) was born in Vienna in 1923, and moved to South Africa in 1935. After graduating in Chemical Engineering he entered the University of Basel, and in 1952 received the PhD degree 'summa cum laude'. In 1953 Alex joined the Weizmann Institute in Israel, where he was to research and teach for the next four decades. Throughout his life Alex's work was characterised by a broad vision together with deep scientific intuition. He left a legacy of over 170 scientific papers, many of which have become classics in their fields.

Alex had a lifelong interest in transport, flow and deformation in living tissue, and was a recognised leader in this interdisciplinary area which came to be known as biorheology; among his many honours he was a President of the European Microcirculation Society, and Editor-in-chief of *Biorheology*. He was also a founder and a President of the International Society of Biorheology, and in 1981 he received the Polisseuille Gold Medal, that Society's highest award.

In his work on the properties of polymers at surfaces and at interfaces Alex was at the very forefront of research in a difficult and important field. Among many important contributions to polymer physical chemistry, his landmark series of papers on the statistical mechanics of polymer adsorption have become a classic reference in these areas. He was highly sought as a speaker in leading scientific conferences, and a natural leader and counsel in many forums. He was an editor of *Rheology*, and on the

council of the International Society of Colloid and Interface Scientists (IACIS), as well as on the Macromolecular Committee of IUPAC.

In Israel Alex was among the founders of both the Israel Polymer Society and the Israel Society for Microcirculation, and trained a generation of students and postdocs. He had a warm and open personality and was always willing to help others, in particular younger people. His loyalty and steadfastness to his many friends, world-wide, ran especially deep. He was in full vigour of mind when struck down by his final illness. He bore it, characteristically, with uncomplaining dignity.

Farewell Alex, we miss your wisdom and your kindness.

Jacob Klein

The Board of Directors of the Society of Cosmetic Chemists has voted to present **Dr. E. Desmond Goddard** with the 1993 Literature Award, for his extensive work and outstanding research in surface and colloid science of polymeric materials, specifically as applied to hair and skin treatment materials.

Professor S. Trasatti, Laboratory of Electrochemistry of the University of Milan, Italy, has been awarded by the International Society of Electrochemistry (ISE) 1993 Pergamon-Electrochimica Acta Gold Medal, in recognition of his outstanding contributions to the understanding of the metal/electrolyte interface and electrocatalysis.

7.2 International and Regional News

The **International Adsorption Society** has nearly 250 members from 30 countries. President is Prof. A.L. Myers, Secretary is Dr. K.S. Knaebel, 6185-D Shamrock Court,

Dublin, OH 43017, U.S.A., Tel. (614) 798-9090, Fax (614) 798-9091.

Europe

The **European Colloid and Interface Society (ECIS)** has at present 210 regularly paying members. Prof. Dr. Per Stenius (Finland) is now president; as new Vice-President Dr. P. Schurtenberger (Switzerland) is elected.

U.K.

The **Bristol Colloid Centre (BCC)** has been set up and launched by Prof. Brian Vincent and Dr. Jim Goodwin at the University of Bristol. The intention of the centre is to provide a focus for colloid problems in industry and strengthen the links between academia and industry. The BCC has three full time employees and is managed by Dr. Paul Reynolds with two other scientific staff, Dr. Cheryl Flynn and Mrs. Julie Shankey. For more information contact Dr. Paul Reynolds at Bristol Colloid Centre, School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS, U.K., Phone/Fax (44) 272 298-388.

U.S.A.

For 1994 Raymond A. Mackay is chairman of the **Colloid and Surface Chemistry Division of the American Chemical Society**. Chairman-elect is Jay B. Benziger, Anastasia Morfesis is Vice-Chairman and Lisa B. Quencer (The Dow Chemical Company, Larkin Laboratory, Midland, MI 48674, Phone (517) 636-5619) is Secretary.

The **Engineering Foundation** announced that Professor P. Somasundaran (Columbia University) was elected to serve as Board Chair for 1994 with Professor Larry Feeser serving as Vice Chair.

8 NEW JOURNALS AND BOOKS

The main purpose of the following list is to inform IACIS-members on new titles in the field of colloid and surface science. Mention of a given title is not a guarantee of its quality. Details can only be given if this information has been made available. Suitable titles for forthcoming Newsletters can be sent to the author of this Newsletter.

8.1 New Journals

Adsorption, Journal of the International Adsorption Society, K.S. Knaebel, Ed., Kluwer Academic Publishers, Norwell, Massachusetts, U.S.A. Vol. 1 (1994) Institutional rate US\$216.00/Dfl.414.00, ISSN 0929-5607; Individual subscriptions are available with membership to The International Adsorption Society (see item 7.2).

Colloid Journal, the English version of the Kolloidnyi Zhurnal of the Russian Academy of Sciences. Authors can send their English written papers to the Editorial Board in Moscow (Kolloidnyi Zhurnal, Podsosenskiy per. 21, 103717 Moscow, Russia) for publishing in both versions of the journal. English version distributed by Plenum Press. Vol. 56 (1994), six issues, US\$1345.00 (U.S.A. US\$1150.00), ISSN 1061-933X.

Supramolecular Science, W. Knoll, Ed., Volume 1 (1994, two issues) plus Volume 2 (1995, four issues) £170.00 (Europe £160.00), Butterworth-Heinemann, ISSN 0968-5677.

Thermochimica Acta News, E.P.M. Wijnhoven, Ed. A newsletter with information on aspects of the journal *Thermochimica Acta*, sent free of charge. Elsevier Science B.V., Amsterdam, The Netherlands.

8.2 Books 1992

Ashby, C.I.H., Brannon, J.H., and Pang, S.W., Eds., **Photons and Low Energy Particles in Surface Processing** (Proceedings Symposium, Boston, Massachusetts, U.S.A., December 1991) Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Beddell, C.R., **The Design of Drugs to Macromolecular Targets**, Wiley, £60.00, ISBN 0-471-92080-0.

Benedek, G., Ed., **Surface Properties of Layered Structures**, Kluwer, Dordrecht, The Netherlands.

Buschow, K.H.J., Ed., **Materials Science and Technology: A Comprehensive Treatment. Vol. 3A: Electronics and Magnetic Properties of Metals and Ceramics Part 1**, VCH, DM430.00, ISBN 3-527-26816-2.

Clark, W.A.T., Dahmen, U., and Briant, C.L., Eds., **Structure and Properties of Interfaces in Materials** (Proceedings Symposium, Boston, Massachusetts, U.S.A., December 1991) Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Dines, T.J., Rochester, C.H., and Thomson, J., Eds., **Catalysis and Surface Characterisation**, Royal Society of Chemistry, Cambridge, U.K.

Harding, S.E., et al., Eds., **Analytical Ultracentrifugation in Biochemistry and Polymer Science**, Royal Society of Chemistry, £85.00 (for members £55.00), ISBN 0-85186-345-0.

Li, X., Qiu, Z., Shen, D., and Wang, D., Eds., **Surface Physics** (Proceedings CCAST Symposium-Workshop, Beijing, P.R. China, May 1991), Gordon & Breach, Philadelphia, Pennsylvania, U.S.A.

Liang, K.S., Anderson, M.P., Bruinsma, R.F., and Scoles, G., Eds., **Interface Dynamics and Growth** (Proceedings

Symposium, Boston, Massachusetts, U.S.A., December 1991) Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Moldenaers, P., and Keunings, R., **Theoretical and Applied Rheology** (Proceedings XIth International Congress on Rheology, Brussels, Belgium, August 1992), Elsevier, US\$372.00/Dfl.595.00, ISBN 0-444-89007-6.

Ohtaki, H., and Yamatera, H., Eds., **Structures and Dynamics of Solutions**, Elsevier, US\$194.00/Dfl.310.00, ISBN 0-444-89651-1.

Persans, P.D., Bradley, J.S., Chianelli, R.R., and Schmid, G., Eds., **Chemical Processes in Inorganic Materials: Metal and Semiconductor Clusters and Colloids** (Symposium held April 1992, San Francisco, California, U.S.A.), Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Pireaux, J.J., Bertrand, P., and Bredas, J.L., Eds., **Polymer-Solid Interfaces** (Proceedings First International Conference, Namur, Belgium, September 1991), IOP, Bristol, U.K.

Radionuclide Sorption From the Safety Evaluation Perspective (Proceedings NEA Workshop, Interlaken, Switzerland, October 1991), OECD, Paris, France.

Salahub, D.R., and Russo, N., Eds., **Metal-Ligand Interactions: From Atoms, to Clusters, to Surfaces** (Proceedings Cetraro, Italy, 1991; NATO ASI Series C, Mathematical and Physical Sciences, 376), Plenum, Dfl.375.00/US\$149.00, ISBN 0-7923-1930-3.

Schramm, L.L., Ed., **Emulsions: Fundamentals and Applications in the Petroleum Industry** (Advances in Chemistry Series 231), American Chemical Society, Washington DC, US\$89.95.

Steslicka, M., Ed., **Proceedings of the Sixteenth International Seminar on Surface Physics, Kudowa, Poland, October 5-10, 1992**, Pergamon, New York NY, U.S.A.

Tarasenko, A.A., Tomchuk, P.M., and Chumak, A.A., **Fluctuations in Volume and on Solid State Surfaces** (in Russian), Naukova Dumka, Kiev, Ukraine.

Tyman, J.H.P., Ed., **Surfactants in Lipid Chemistry: Recent Synthetic, Physical and Biodegradative Studies**, Royal Society of Chemistry, £39.50, ISBN 0-85186-395-7.

Vilminot, S., Nass, R., and Schmidt, H., Eds., **Eurogel '91** (Proceedings Second European Conference on Sol-Gel Technology, Saarbrücken, Germany, June 1991), North-Holland, Amsterdam, The Netherlands.

Wicks Jr., Z.W., Jones, F.N., and Pappas, S.P., **Organic Coatings: Science and Technology. Vol. 1: Film Formation, Components, and Appearance**, John Wiley, New York, U.S.A., £70.00, ISBN 0 471 61406 8.

8.3 Books 1993

Belozerski, G.N., **Moessbauer Studies of Surface Layers**, Elsevier, Amsterdam, The Netherlands.

Berkin, B.I., and Sokolov, S.S., **Introduction to the Physics of Gels** (in Russian), Naukova Dumka, Kiev, Ukraine.

Biegelsen, D.K., Smith, D.J., and Tong, S.Y., Eds., **Atomic Scale Imaging of Surfaces and Interfaces** (Symposium, Boston MA, U.S.A., November 30 - December 2, 1992), Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Bockris, J. O'M., Conway, B.E., and White, R.E., Eds., **Modern Aspects of Electrochemistry 25**, Plenum,

US\$102.00 (U.S.A. and Canada US\$85.00), ISBN 0-306-44375-9.

Boyd, R.H., and Phillips, P.J., **The Science of Polymer Molecules**, Cambridge University Press, £60.00, ISBN 0-521-32076-3.

Cardona, M., Barrachina, R.O., and Ferron, J., Eds., **Papers Presented at the Seventh Latin-American Symposium on Surface Science, Bariloche, Argentina, November 1992**, IOP, Bristol, U.K.

Chenn, C.J., **Introduction to Scanning Tunneling Microscopy**, Oxford University Press, New York NY, U.S.A., US\$65.00.

Clegg, D.W., and Collyear, A.A., **The Structure and Properties of Polymeric Materials**, The Institute of Materials, London, U.K., £35.00/US\$70.00 (students £10.00/US\$20.00), plus carriage, ISBN 0-904357-98-8.

Cleland, J.L., Ed., **Protein Folding: In Vivo and In Vitro** (ACS Symposium Series 526), American Chemical Society, Washington DC, U.S.A., US\$54.95, ISBN 0-8412-2640-7.

Davies, G.J., and Williams, R.H., Eds., **Semiconductor Growth, Surfaces and Interfaces**, The Royal Society, London, U.K.

Davison, S.G., Ed., **Dynamics of Disperse Systems, Selected Works of B.V. Derjaguin, Vol. 2**, Pergamon, New York NY, U.S.A.

Dyer, A., et al., Eds., **Ion Exchange Processes**, Royal Society of Chemistry, £52.50 (members £35.00), ISBN 0-85186-445-7.

Feast, W.J., Munro, H.S., and Richards, R.W., Eds., **Polymer Surfaces and Interfaces II**, Wiley, Chichester, U.K.

Fleer, G.J., Cohen Stuart, M.A., Scheutjens, J.M.H.M., Cosgrove, T., and Vincent, B., **Polymers at Interfaces**, Chapman & Hall, ISBN 0-412-58160-4.

Folkes, M.J., and Hope, P.S., **Polymer Blends and Alloys**, Chapman & Hall, £69.00, ISBN 0-7514-0081-5.

Givargizov, E.I., and Grinberg, S.A., Eds., **Growth of Crystals Vol. 19**, Plenum, US\$114.00 (U.S.A. and Canada US\$95.00), ISBN 0-306-18119-3.

Guzman, N.A., Ed., **Capillary Electrophoresis Technology**, Marcel Dekker, New York NY, U.S.A.

Helms, C.R., and Deal, B.E., Eds., **The Physics and Chemistry of SiO₂ and the Si-SiO₂ Interface 2**, Plenum, US\$150.00 (U.S.A. and Canada US\$125.00), ISBN 0-306-44419-4.

Hoheisel, C., **Theoretical Treatment of Liquids and Liquid Mixtures**, Elsevier, US\$200.00/Dfl.320.00, ISBN 0-444-89835-2.

Hunt, B.J., and James, M.I., Eds., **Polymer Characterisation**, Chapman & Hall, New York NY, U.S.A., US\$99.95.

Hunter, R.J., **Introduction to Modern Colloid Science**, Oxford University Press Australia, paperback US\$39.95, ISBN 0-19-855386-2, hardback US\$110.00, ISBN 0-19-855387-0.

Jonker, B.T., et al., **Magnetic Ultrathin Films: Multilayers and Surfaces, Interfaces and Characterization** (Proceedings Symposium, San Francisco CA, U.S.A., April 1993), Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Kelly, J.M., et al., Eds., **Photochemistry and Polymeric Systems**, Royal Society of Chemistry, £45.00 (members £30.00), ISBN 0-85186-485-6.

King, D.A., and Woodruff, D.P., Eds., **Coadsorption, Promoters and Poisons** (The Chemical Physics of Solid Surfaces 6), Elsevier, US\$182.75/Dfl.320.00, ISBN 0-444-81468-X.

Kissa, E., **Fluorinated Surfactants - Synthesis, Properties, Applications** (Surfactant Science Series 50), Marcel Dekker, US\$165.00, ISBN 0-8247-9011-1.

Kosaric, N., Ed., **Biosurfactants: Production, Properties, Applications**, Marcel Dekker, New York NY, U.S.A., US\$175.00.

La Mantia, F.P., **Thermotropic Liquid Crystal Polymer Blends**, Technomic, Lancaster, Pennsylvania, U.S.A.

Landau, D.P., Mon, K.K., and Schüttler, H.-B., **Computer Simulation Studies in Condensed-Matter Physics VI** (Proceedings Workshop, Athens, GA, U.S.A., February 1993; Springer, DM148.00, ISBN 3-540-57143-4).

Lasic, D.D., **Liposomes: From Physics to Applications**, Elsevier, Dfl.475.00/US\$271.50, ISBN 0-444-89548-5.

Lipkowski, J., and Ross, P.N., Eds., **Structure of Electrified Interfaces**, VCH Publishers, New York NY, U.S.A., DM196.00/£80.00.

Lucovsky, G., Ed., **Proceedings of the 39th National Symposium of the American Vacuum Society, Chicago, Illinois, 9-13 November 1992**, AIP/AVS, New York NY, U.S.A.

Mark, H.F., **From Small Organic Molecules to Large: A Century of Progress**, American Chemical Society, Washington DC, U.S.A., US\$24.95.

Martini, G., Ed., **Magnetic Resonance in Colloid and Interface Science** (Papers 6th International Symposium, Florence, Italy, June 1992), Elsevier, Amsterdam, The Netherlands.

Masuko, N., Osaka, T., and Fukunaka, Y., **New Trends and Approaches in Electrochemical Technology**, Kodansha Ltd., Tokyo, Japan.

Matijevic, E., Ed., **Surface and Colloid Science Vol. 15**, Plenum, New York NY, U.S.A.

McCauley, J.L., **Chaos, Dynamics, and Fractals: An Algorithmic Approach to Deterministic Chaos**, Cambridge University Press, New York NY, U.S.A., US\$89.95.

Mittal, K.L., Ed., **Particles in Gases and Liquids 3: Detection, characterization, and Control** (Proceedings Third Symposium, held as part of the 22nd Annual Meeting of the Fine Particle Society, San Jose, California, July 29 - August 2, 1991), Plenum, New York NY, U.S.A.

Mittal, K.L., Ed., **Contact Angle, Wettability and Adhesion - Festschrift in honor of Professor Robert J. Good** (Proceedings ACS Symposium, San Francisco, April 1992), VSP, DM299.00/US\$187.00, ISBN 90-6764-157-X.

Morel, F.M.M., and Hering, J.G., **Principles and Applications of Aquatic Chemistry**, John Wiley, New York NY, U.S.A., US\$59.95.

Opila, R.L., Boerio, F.J., and Czanderna, A.W., **Polymer/Inorganic Interfaces** (Symposium, San Francisco, California, U.S.A., April 1993), Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Polyurethanes World Congress 1993 (October 1993, Vancouver BC, Canada), Technomic, SFr.295.00, ISBN 1-56676-079-8.

Provdor, T., Ed., **Chromatography of Polymers: Characterization by SEC and FFF**, American Chemical Society, US\$94.95, ISBN 0-8412-2625-3.

Pugh, R.J., and Bergström, L., Eds., **Surface and Colloid Chemistry in Advanced Ceramics Processing** (Surfactant

Science Series 51), Marcel Dekker, US\$145.00, ISBN 0-8247-9098-7.

Reichmanis, E., Frank, C.W., and O'Donnell, J.H., Eds., **Irradiation of Polymeric Materials; Processes, Mechanisms, and Applications** (ACS Symposium Series 527), American Chemical Society, Washington DC, U.S.A., US\$89.95.

Schramm, L.L., **The Language of Colloid and Interface Science: A Dictionary of Terms** (ACS Professional Reference Series), American Chemical Society, Washington DC, U.S.A., US\$69.95.

Schultz, F.A., and Taniguchi, I., Eds., **Proceedings Fifth International Symposium on Redox Mechanisms and Interfacial Properties of Molecules of Biological Importance, Honolulu, Hawaii, 16-21 May 1993**, Electrochemical Society, Pennington, New Jersey, U.S.A.

Scott, R.P.W., **Silica Gel and Bonded Phases: Their Production, Properties and Use in LC**, John Wiley, New York NY, U.S.A., US\$64.95.

Shalaby, S.W., Ikada, Y., Langer, R., and Williams, J., Eds., **Polymers of Biological and Biomedical Significance** (ACS Symposium Series 540), American Chemical Society, US\$89.95, ISBN 0-8412-2732-2.

Somasundaran, P., and Bergna, H.E., Eds., **The Colloid Chemistry of Silica** (Papers Presented at the Ralph K. Iler Memorial Symposium, held at the 200th National Meeting of the American Chemical Society, Washington DC, 26-30 August 1990), Elsevier, Amsterdam, The Netherlands.

Somorjai, G.A., Ed., **Catalysts and Related Surfaces Characterized by X-Ray Absorption Fine Structure** (Proceedings Symposium, Tokyo, Japan, August 31 - September 1, 1992), Baltzer, Basel, Switzerland.

Struble, L.J., Zukoski, C.F., and Maitland, G.C., Eds., **Flow and Microstructure of Dense Suspensions** (Symposium Boston, Massachusetts, November 30 - December 2, 1992), Materials Research Society, Pittsburgh, Pennsylvania, U.S.A.

Suzuki, M., Ed., **Fundamentals of Adsorption** (Proceedings Fourth International Conference, Kyoto, May 1992), Kodansha Ltd., Tokyo, Japan.

Tamaru, K., Ed., **Dynamic Processes on Solid Surfaces**, Plenum, US\$114.00 (U.S.A. and Canada US\$95.00), ISBN 0-306-44268-4.

Terakura, K., and Murata, Y., Eds., **Proceedings of the Third ISSP International Symposium on Dynamical Processes at Solid Surfaces**, Tokyo, Japan, 20-23 April, North Holland, Amsterdam, The Netherlands.

Thiem, J., Ed., **Liquid Crystals** (Landolt-Börnstein Series Group IV: Macroscopic and Technical Properties of Matter, Volume 7) Springer Verlag, Berlin etc. Subvolumes:

a: **One-Ring System and Two-Ring Systems without Bridging Groups** (1992), DM1000.00, ISBN 3-540-55503-X

b: **Two-Ring Systems with Bridging Group** (1992), DM2400.00, ISBN 3-540-555-4-8

c: **Three-Ring Systems without Bridging Groups** (1993) DM970.00, ISBN 3-540-56136-6

d: **Three-Ring Systems with one Bridging Group** (1993) ISBN 3-540-56757-7

e and f: scheduled to appear in 1994.

Thrower, P.A., Ed., **Chemistry and Physics of Carbon Vol. 24**, Marcel Dekker, New York-Basel, US\$165.00.

Tikhomolova, K.P., **Electro Osmosis**, Ellis Horwood, Chichester, U.K., £55.00.

Tredgold, R.H., **Order in Thin Organic Films**, Cambridge University Press, £30.00, ISBN 0-521-39484-8

Urban, M.W., and Craver, C.D., Eds., **Structure-Property Relations in Polymers: Spectroscopy and Performance** (Advances in Chemistry Series 236), American Chemical Society, US\$149.95, ISBN 0-8412-2525-7.

Ward, I.M., and Hedley, D.W., **Introduction to Mechanical Properties of Solid Polymers** (Students Edition), Wiley, ISBN 047193-8874/8742.

White, R.E., and Conway, B.E., Eds., **Modern Aspects of Electrochemistry 24**, Plenum, US\$107.40, ISBN 0-306-44288-4.

Yalpani, M., Ed., **Carbohydrates and Carbohydrate Polymers**, ATL Press, Mt. Prospect, IL 60056, U.S.A., US\$175.00.

Yanovsky, Y.G., **Polymer Rheology**, Chapman & Hall, £69.00, ISBN 0-412-53460-6.

Zegenhagen, J., **Surface Structure Determination with X-Ray Standing Waves**, North-Holland, Amsterdam, The Netherlands.

8.4 Books 1994

Bagotzky, V.S., **Fundamentals of Electrochemistry**, Plenum, US\$138.00 (U.S.A. and Canada US\$115.00), ISBN 0-306-44338-4.

Bogan, D., and Hinders, M.K., **Interface Effects in Elastic Wave Scattering** (Lecture Notes in Physics, Monographs 19), Springer, DM58.00, ISBN 3-540-57657-6.

Colbourn, E.A., Ed., **Computer Simulation of Polymers** (Polymer Science and Technology Series), Longman, £70.000, ISBN 0-582-08347-5.

Conway, B.E., Bockris, J.O'M., and White, R.E., Eds., **Modern Aspects of Electrochemistry 26**, Plenum,

US\$107.40 (U.S.A. and Canada US\$59.50), ISBN 0-306-44608-1.

Cross, J., and Singer, E.J., **Cationic Surfactants** (Surfactant Science Series 53), Marcel Dekker, US\$150.00, ISBN 08247-9177-0.

Cullum, D.C., Ed., **Introduction to Surfactant Analysis**, Chapman & Hall, £69.00, ISBN 0-7514-0025-4.

Dickinson, E., **Advances in Food Colloids**, Chapman & Hall, £69.00, ISBN 0-7514-0203-6.

Dong, R.Y., Ed., **Nuclear Magnetic Resonance of Liquid Crystals**, Springer, DM108.00, ISBN 3-540-94121-5.

Fannes, M., Maes, Chr., and Verbeure, A., Eds., **On Three Levels: Micro-, Meso- and Macro-Approaches in Physics** (NATO ASI Series B, Physics, 324), Plenum, US\$155.40 (U.S.A. and Canada US\$129.50), ISBN 0-306-44704-5.

Freund, H.-J., and Umbach, E., **Adsorption on Ordered Surfaces of Ionic Solids and Thin Films** (Springer Series in Surface Sciences 33), Springer, DM118.00, ISBN 3-540-57416-6.

Gedde, W., **Polymer Physics**, Chapman & Hall, £40.00, ISBN 0-412-59020.

Griffin, G.J.L., Ed., **Chemistry and Technology of Biodegradable Polymers**, Chapman & Hall, £59.00, ISBN 0-7514-0003-3.

Griskey, R.G., **Polymer Process Engineering**, Chapman & Hall, £55.00, ISBN 0-442-00731-0.

Imelik, B., and Vedrine, J.C., Eds., **Catalyst Characterization, Physical Techniques for Solid Materials**, Plenum, US\$150.00 (U.S.A. and Canada US\$125.00), ISBN 0-306-43950-6.

Klempner, D., and Frisch, K.C., Eds., **Advances in Interpenetrating Polymer Networks Vol. IV**, Technomic Publishing, ISBN 1-56676-091-7.

Krestov, G.A., et al., **Ionic Solvation**, Paramount Publishing, ISBN 13-225509-X.

Leonov, A.I., and Prokunin, A.N., Eds., **Nonlinear Viscoelastic Effects in Flows of Polymer Melts and Concentrated Polymer Solutions**, Chapman & Hall, £79.00, ISBN 0-412-58200-7.

McKay, R.B., Ed., **Technological Applications of Dispersions** (Surfactant Science Series 52), Marcel Dekker, US\$195.00, ISBN 0-8247-9180-0.

Porter, M.R., and Karsa, D.R., **Biodegradability of Surfactants**, Chapman & Hall, £69.00, ISBN 0-7514-0206-0.

Russ, J.C., **Fractal Surfaces**, Plenum, US\$66.00 (U.S.A. and Canada US\$55.00), ISBN 0-306-44702-9.

Russell, D.H., Ed., **Experimental Mass Spectrometry** (Topics in Mass Spectrometry 1), Plenum, US\$95.40 (U.S.A. and Canada US\$79.50), ISBN 0-306-44457-7.

Schweizer, P.M., and Kistler, S.F., Eds., **Liquid Film Coating: Scientific Principles and Their Technological Implications**, Chapman & Hall, £69.00, ISBN 0-442-00923-2.

Shibaev, V.P., and Lam, L., **Liquid Crystalline and Mesomorphic Polymers**, Springer, DM228.00, ISBN 3-540-94046-4.

Simkin, B.J., and Shekhet, I.I., **Quantum Chemical and Statistical Theory of Solutions - A Computational Approach**, Paramount Publishing, ISBN 13-747460-1.

Spells, S.J., **Characterization of Solid Polymers**, Chapman & Hall, £55.00, ISBN 0-412-58490-5.

Vaughan, D.J., and Patrick, R.A.D., Eds., **Mineral Surfaces**, Chapman & Hall, £24.95, ISBN 0-7412-56340-1.

Yada, R.Y., Jackman, R.L., and Smith, J.L., **Protein Structure - Function Relationships in Food**, Chapman & Hall, £65.00, ISBN 0-7514-0186-2.

9 NEWSLETTER IDEAS AND INFORMATION

All members are invited to send their suggestions on the scope and other aspects of these Newsletters. Contributions to fostering international contacts are specifically solicited but information on meetings is also very welcome!

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Greetings from Hans Lyklema

