



*International Association of Colloid
and Interface Scientists*

NEWSLETTER NO. 16

FEBRUARY 1990

COMPILED BY J. LYKLEMA

INTERNATIONAL ASSOCIATION OF COLLOID AND INTERFACE SCIENTISTS

NEWSLETTER NO. 16

February 1990

1 ABOUT THE NEWSLETTER/FROM YOUR NEWSLETTER 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 and important developments, and about contact addresses in various countries.

So far, I have edited 16 Newsletters. Although the task is not too heavy and I receive much help from my secretary, it is still too much a one-man show. Response from IACIS members is limited to a score of faithful correspondents who supply me with useful new items. Many people around the world show from time to time their appreciation for the NL (which is appreciated in turn) but if each member would write me once a year with the information he/she has available, the NL could become more encompassing, complete and useful.

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. To my knowledge several times over the past years the NL has been instrumental in the planning of new conferences. Nevertheless I sometimes note items where the synchronisation could be better. Hence, please

keep me posted and do so well in advance, even if the plans are only provisional. See also my note 3.4 in NL 14.

With best wishes from your Newsletter Secretary,

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. These letters were sent to IUPAC officials and to about 200 colloid and interface scientists in 28 countries, free of charge.

NL 3 appeared in June 1980 under IACIS auspices. It was also sent to those who are on the mailing list of NL 1 and NL 2.

Starting with NL 4, the Newsletters are only sent to IACIS-members, as a benefit of their membership.

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, Telephone 31 (Netherlands) - 8370 (area code) - 82279 (extension); FAX 31-8370-84141; E-mail FYSKO@RCL.WAU.NL.

3 IACIS NEWS

3.1 Composition of Council 1988-1990

President:

Prof.dr. Douglas Everett

President-elect:

Dr. Tharwat Tadros

Immediate Past President:

Prof.dr. Per Stenius

expiration on 1 Sept.
of the year:

Vice-presidents:

Prof.dr. J.P. Kratochvil

Prof.dr. D.H. Napper

Prof.dr. A. Scheludko

1990
1992
1992

Ordinary Council Members:

Prof.dr. A.M. Cazabat

Prof. J.C. Eriksson

Prof.dr. G.J. Fleer

Prof. B. Lindman

Prof. E.D. Shchukin

Dr. A. Silberberg

Prof.dr. P. Somasundaran

Prof. T.G.M. van de Ven

Dr. B. Vincent

1992
1990
1990
1992
1990
1992
1992
1990
1990

Co-opted Council Members:

Prof.dr. B.H. Bijsterbosch
(Honorary Secretary and Treasurer)

1992

Prof. D.K. Chattoraj

1991

Prof. M. Clausse

1990

Dr. F. Csmpesz

1991

Dr. E.D. Goddard

1990

Prof.dr. H. Hofmann

Prof.dr. J. Lyklema

(Newsletter Secretary)

1990

Prof. K. Meguro

1990

Prof. J. Ralston

3.2 President's Message

During the past few months further progress has been made in developing the international character of IACIS.

The new Constitution has been designed to enable the Council co-opt additional members so that a better regional balance is achieved. This has been necessary since the normal election procedures inevitably lead to a preponderance of members from countries where interface and colloid science is well established, and neglect of those countries in which we would wish to see these subjects developed. As will be seen from Prof. Matijevic's letter he feels that we have not gone far enough in ensuring a better balance; but I believe we should see how successful we are with the present arrangements before making further changes. Meanwhile I would urge those members in countries where we are underrepresented to take the initiative of increasing our membership and nominating a member of Council; and those of our members visiting such countries to encourage such nominations.

The vacancy among co-opted members of Council has now been filled by Prof. D.K. Chattoraj of the Jadavpur University, Calcutta, India. The main region which is not now represented in Council is Latin America, and one hopes that nominations will be made to remedy this defect. Moreover, Council does not have an adequate representation from Industry, and this is again something which should be rectified. I very much hope that when members are casting their votes they will bear in mind the importance of ensuring that IACIS is truly international and that this is reflected in the composition of Council.

The international status of IACIS has been further enhanced by the decision of IUPAC to give it "Associated Organisation" status.

Arrangements for the 7th International Conference to be held at Compiègne in July 1991 are proceeding well; and the

preliminary organisation of the 8th Conference: Australia in 1994 has been set up.

Members in Hungary are now able to pay their dues in local currency: Dr. F. Csmpesz of the University of Budapest is acting as Treasurer for East Europe. It is hoped that in due course the Hungarian Bank will be able to accept other currencies.

Among the Conférences which have now been co-sponsored by IACIS is the International Conference in Toronto, June 1990, on Contact Angles and Wetting, and the International Conference on Surface Forces in Moscow, November 1990.

D.H. Everett
President

3.3 From the Honorary Secretary and Treasurer

3.3.1 Financial Report 01-01-1989/31-08-1989 (subject to approval by the auditors and therefore provisional)

Balance per 01-01-1989*

US\$ 13.200,-

Receipts:

Membership fee
Interest

1.290,-
190,-
US\$ 14.680,-

Payments:

Costs secretary, etc.

1.365,-

Costs cheques

80,-

10th Scandinavian Symposium

1.500,-

Travel expenses J. Lyklema 7th. Intern. Conf. Paris

185,-

Post costs

900,-

Balance per 31-8-1989

10.650,-

US\$ 14.680,-

Amounts are rounded.

Total receipt of "member-year" payments (during eight months; many receipts later than September 1): $86 \times \text{US\$}15,- = \text{US\$} 1.290,-$.

Number of members at	01-01-1989:	320
	31-08-1989:	326

For conversion the rate U.S.\$ 1,- = Dfl. 2.00 is used.

- The difference in balance of 31-12-1988 (earlier state) and 01-01-1989 is caused by a different rate of conversion.

3.3.2 Membership Fee

To avoid the costs of two accounts it was decided to fix the annual membership fee at Dutch Guilders (Dfl. 32.-, for registered students Dfl. 11.-).

Following the new Constitution the administrative year runs from September 1st on (was January 1st). For that reason the 1990 dues cover only eight months (Dfl. 22.-, registered students Dfl. 8.-). As usual, each member will receive a request for payment.

We opened the possibility of payment by **credit card**. Please use this facility if you can, because it saves time and money both to you and to IACIS. Details will be provided with the annual request for payment. Payment by cheque or bank transfer remains possible.

Another change to facilitate the administration: Acknowledgements of receipt of membership fee will no longer be sent automatically. However, we will be glad to do so if requested.

Bert Bijsterbosch
Honorary Secretary and Treasurer

3.4 Report on IACIS-sponsored meeting: Thin Solid and Liquid Films

This meeting, although primarily organised by the U.K. Society of Chemical Industry (Colloid and Surface Chemistry Group), was co-sponsored by IUPAC and IACIS. It attracted 72 registered delegates from all six continents. The plenary lectures were presented by Dimo Platikanov from Sofia on Thin *Liquid* films (this also constitutes the 1989 Sir Eric Rideal Memorial Lecture) and by Jerry Swalen from I.B.M. on Thin *Solid* Films. Some 30 other talks were given covering a wide variety of topics, both pure and applied; half of these were of 35 min. duration and most will be published as a Special Issue of "Colloids and Surfaces" in 1990; the rest were short (10 min.) contributions summarising latest results. This latter format proved to be a successful alternative to having a poster session. Following the main meeting, a half-day session was held (chaired by Emeritus Professor D.H. Everett F.R.S. - the IACIS President) to discuss the current draft of the document being produced by an IUPAC sub-committee on "Thin Films".

B. Vincent
Secretary IUPAC Commission I.6

4 IUPAC COMMISSION ON SURFACE AND COLLOID CHEMISTRY, INCLUDING CATALYSIS

4.1 Proposed Commission Membership 1989-1991:

Titular members:

Prof. K.S.W. Sing	(1983-1991)	U.K.
Chairman		
Prof. J.H. Block	(1983-1991)	F.R.G.
Vice-Chairman		
Dr. B. Vincent	(1985-1993)	U.K.
Secretary		

Prof. B. Delmon	(1987-1991)	Belgium
Prof. J. Ralston	(1987-1991)	Australia
Dr. J. Rouquérol	(1987-1991)	France
Dr. J. Czarnecki	(1987-1991)	Poland

Associate Members:

Prof. J. Butt	(1987-1991)	U.S.A.
Dr. D. Fairhurst	(1987-1991)	U.S.A.
Dr. A. Maroto	(1983-1991)	Argentina
Prof. M. Misono	(1985-1993)	Japan
Prof. G.I. Panov	(1989-1993)	U.S.S.R.
Dr. P. Pendleton	(1989-1993)	U.S.A.
Dr. D. Platikanov	(1987-1991)	Bulgaria

National Representatives:

Prof. G.F. Froment	(1981-1991)	Belgium
Dr. L.A. Petrov	(1987-1991)	Bulgaria
Dr. C.W. Fairbridge	(1987-1991)	Canada
Prof. G.H. Findenegg	(1989-1991)	F.R.G.
Prof. G. Öhlmann	(1987-1991)	G.D.R.
Prof. L.G. Nagy	(1979-1991)	Hungary
Prof. D.K. Chattoraj	(1989-1991)	India
Prof. J. Manassen	(1985-1991)	Israel
Prof. S. Ardizzone	(1989-1991)	Italy
Prof. H. Chon	(1989-1991)	Korea
Prof. M.S. Suwandi	(1984-1991)	Malaysia
Prof. J. Lyklema	(1983-1991)	Netherlands
Prof. J. Haber	(1987-1991)	Poland
Prof. M. Brotas	(1981-1991)	Portugal
Dr. M.S. Scurrell	(1989-1991)	South Africa
Prof. J.A. Pajares	(1983-1991)	Spain
Prof. H.-F. Eicke	(1985-1991)	Switzerland
Dr. S. Pekar	(1985-1991)	Turkey
Dr. K.P. Kutzenoglu	(1989-1991)	U.S.S.R.
Dr. S. Milonjic	(1989-1991)	Yugoslavia

Subcommittee on Catalyst Characterization:

Prof. J. Haber	Chairman
Prof. J.H. Block	Secretary

Subcommittee on Characterisation of Porous Solids:	
Dr. J. Rouquérol	Chairman
Dr. D. Avnir	Secretary

Subcommittee on Thin Films:

Dr. L. Ter-Minassian-Saraga	Chairman
Dr. B. Vincent	Secretary

4.2 Report on the 35th IUPAC General Assembly: Commission I.6 (Surface Chemistry and Colloids, including Catalysis), Lund, Sweden, 9-13 August 1989.

One of the primary objects of these Assemblies is to review reports currently being produced by working parties on various themes, in the case of Commission I.6: colloid and surface science. These reports are intended to be authoritative recommendations concerning, not only nomenclature, definitions, symbols and techniques, but also indicating where current problems exist and future study therefore required. Most appear in "Pure and Applied Chemistry". Although reviewed by IUPAC Commission members and large numbers of selected experts, the Commission would welcome constructive comments from anyone interested. Indicated below are the current topics being considered and details of whom to approach for information/a current-draft copy of the document concerned:

recent topics completed (i.e. not subject to further review):

- 1) "Experimental Techniques in Surface Chemical Physics"
Prof. J.H. Block, Fritz Haber Institut der Max-Planck-Gesellschaft, Faradayweg 4-6, D-1000 Berlin 3, F.R.G.
- 2) "Electrified Interfaces in Aqueous Dispersions of Solids"
Prof. J. Lyklema, Department of Physical and Colloid Chemistry, Wageningen Agricultural University, Postbus 8038, 6700 EK Wageningen, The Netherlands.
- 3) "Manual on Catalyst Characterisation A: Terminology"
Prof. J. Haber, Instytut Katalizy i Fizykochemii Powierzchni, Polska Akademia Nauk, ul Niezapominajek 1, PL-30 239 Kraków, Poland.

current topics in progress:

- 1) "Manual on Catalyst Characterisation B: Methodology" Prof. J. Haber, Instytut Katalizy i Fizykochemii Powierzchni, Polska Akademia Nauk, ul Niezapominajek 1, PL-30 239 Krakow, Poland.
- 2) "Characterisation of Porous Solids" Prof. J. Rouquerol, Centre de Thermodynamique et de Microcalorimétrie du CNRS, 26 Rue du 141ème RIA, 13003 Marseille, France.
- 3) "Thin Films and Layers" Dr. L. Ter-Minassian-Saraga, CNRS - UA400, Lab. Chimie Biochimie, Université R. Descartes, 45 Rue des Saints Pères, 75270 Paris cedex 06, France.

In addition two new studies are about to be initiated and suggestions/comments on matters to be included would be particularly welcome:

- 4) "Role of Surface and Colloid Chemistry in Environmental Protection" Prof. J. Ralston, School of Chemical Technology, S.A. Institute of Technology, P.O. Box 1, Ingle Farm, S.A. 5098, Australia.
- 5) "Surface Chemical Problems in the Development of Advanced Materials" Prof. K.S.W. Sing, Chemistry Department, Brunel University, Kingston Lane, Uxbridge, Middlesex UB8 3PH, U.K.

These latter two topics are in line with the new 'philosophy' of IUPAC, which felt that its work ought to be more broadly based and address current issues in which Chemistry plays a role.

Finally, but not least it is pleasing to report the proposal that IACIS becomes an "Associated Organisation" within IUPAC was unanimously and enthusiastically accepted.

B. Vincent
Secretary IUPAC Commission I.6

5 IACIS-SPONSORED MEETINGS

5.1 International Conference 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
 Future: 7th Conference, Compiègne, France, 1991,
 July 7-12
 8th Conference, Adelaide, Australia, 1994,
 Febr. 12-19.

5.2 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) EUACHEM 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 (U.S.S.R.) International Conference on Surface Forces.

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.

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.

- 6.1 **18th Australian Polymer Symposium**, February 4-8, 1990, Bendigo, Victoria, Australia. Contact: E. Rizzardo, CSIRO Division of Polymers and Chemicals, P.O. Box 4331, Melbourne 3001, Australia.

- 6.2 **Physics of Granular Media**, February 20 - March 1, 1990, Les Houches, France. Contact: D. Bideau, Université de Rennes I, Campus Scientifique de Beaulieu, Avenue du Général Leclerc, 35042 Rennes Cedex, France.

- 6.3 **Interphase Reactions and Interactions**, February 25-27, 1990, Freiburg, F.R.G. Contact: H.-J. Cantow, Hermann-Staudinger-Haus, Stefan Meierstrasse 31, D-7800 Freiburg, F.R.G.

- 6.4 **3rd International Symposium on Polymer Analysis and Characterization**, Spring 1990, Dresden, G.D.R. Contact: H.G. Barth, Du Pont Company, Experimental Station, Wilmington, DE 19898, U.S.A.

- 6.5 **Mechanics of Thin-Film Coating**, March 18-22, 1990, Orlando, U.S.A. Contact: American Institute of Chemical Engineers Meetings Department, 345 East 47th Street, New York, NY 10017, U.S.A.

- 6.6 **3rd Annual Meeting of the American Filtration Society**, March 19-22, 1990, Washington D.C., U.S.A. Contact: S.H. Chian, University of Pittsburgh, Chemistry and Petroleum Engineering Department, 1249 Benedum Hall, Pittsburgh, PA 15261, U.S.A. or F. Tiller, Department of Chemical Engineering, Mail Stop 52221, University of Houston, 4800 Calhoun Street, Houston, TX 77004, U.S.A.

- 6.7 **9th Seminar on Lacquer and Paint Industry**, March 26-28, 1990, Budapest, Hungary. Together with Exhibition organised by FMJ International England, March 28-29, 1990. Contact: Hungarian Chemical Society, Anker Kőz 1, H-1061 Budapest, Hungary.

- 6.8 **Stability of Proteins: Theory and Practice**, March 26-29, 1990, Cambridge, U.K. Organised by the Biotechnology Group of the Royal Society of Chemistry. Contact: F. Franks, Biopreservation Division, Pafra Ltd., 150 Cambridge Science Park, Cambridge CB4 4GG, U.K.

- 6.9 **Functional Properties of Macromolecules in Food**, March 28-30, 1990, London, U.K. Contact: J.F. Gibson, Royal Society of Chemistry, Burlington House, Piccadilly, London, W1V 0BN, U.K.

- 6.9 **International Symposium on Food Polymers, Gels and Colloids**, March 28-30, 1990, Norwich, U.K. Organised by the Food Chemistry Group of the Industrial Division of the Royal Society of Chemistry. Contact: E. Dickinson, Procter Department of Food Science, University of Leeds, Leeds LS2 9JT, U.K.

- 6.10 **Adhesion and Surface Analysis**, April 3-5, 1990, Loughborough, U.K. Contact: D.W. Brewis, University of Technology, Loughborough, Leicestershire, LE11 3TF, U.K.

6.11 **Structure of Surfaces and Interfaces as Studied Using Synchrotron Radiation**, General Discussion No. 89 of the Faraday Division of the Royal Society of Chemistry, April 4-6, 1990, Manchester, U.K. Contact: Mrs. Y.A. Fish, The Royal Society of Chemistry, Burlington House, London W1V 0BN, U.K.

6.12 **Geocolloids 1990**, April 9-11, 1990, Plymouth, U.K. Topics include: Surface and colloid chemistry of clays, Role of colloids in groundwater transport of radionuclides. Contact: Dr. E. Tipping, Institute of Freshwater Ecology, Windermere Laboratory, Ambleside, Cumbria LA22 0LP, U.K.

6.13 **Non-Aqueous Dispersions**, April 10-11, 1990, Chester, U.K. (Colloid and Interface Science Group of the Society of Chemical Industry together with the Colloid and Interface Science Group of the Royal Society of Chemistry). Contact: W.D. Cooper, Shell Research Centre, Thornton, P.O. Box 1, Chester CH1 3SH, U.K.

6.14 **Structural Evaluation of Polymers**, April 10-11, 1990, Strathclyde, U.K. Contact: R.W. Richards, Department of Pure and Applied Chemistry, University of Strathclyde, Thomas Graham Building, 295 Cathedral Street, Glasgow, G1 1XL, U.K.

6.15 **New Materials and Their Applications**, April 10-12, 1990, Warwick, U.K. Contact: M. Richardson, National Physical Laboratory, Queens Road, Teddington, Middlesex, TW11 0LW, U.K.

6.16 **Physical Phenomena in Granular Materials**, April 16-20, 1990, San Francisco, U.S.A. Contact: T.H. Geballe, Department of Applied Physics, Stanford University, Stanford, CA 94305, U.S.A.

6.17 **Surface and Near Surface Structure of Polymer Interfaces**, April 16-20, 1990, San Francisco, U.S.A. 1990 Spring Meeting of the Materials Research Society. Contact: J.A. Kelber, Org. 1812, Sandia National Laboratories, Albuquerque, NM 87185, U.S.A.

6.18 **6th Annual Meeting of the Polymer Processing Society**, April 17-20, 1990, Nice, France. Contact: M. Vincent, CEMEF, Ecole des Mines de Paris, Rue Claude Daunesse - Sophia Antipolis, F-06560 Valbonne, France.

6.19 **International Magnetism Conference INTERMAG '90**, April 17-20, 1990, Brighton, U.K. Contact: ITEL, Brighton Polytechnic, Brighton BN2 4GJ, U.K.

6.20 **Structural Aspects of Polymers**, April 18-19, 1990, Strathclyde, U.K. Contact: R.W. Richards, Department of Pure and Applied Chemistry, University of Strathclyde, Thomas Graham Building, 295 Cathedral Street, Glasgow, G1 1XL, U.K.

6.21 **199th ACS National Meeting, including Division of Colloid and Surface Chemistry and Division of Polymer Chemistry**, April 22-27, 1990, Boston, U.S.A.

Colloid and Surface Chemistry Division, contact: D.W. Osborne, Upjohn Company, Kalamazoo, MI 49001, U.S.A. Subsymposia include:

- Molecular Processes at Solid Surfaces. Metal Clusters in Beams and on Supports: Chemistry and Catalysis
- Surface Chemistry in Biology, Medicine and Dentistry: Cell Adhesion
- Photochemical and Electrochemical Surface Science: Surface Electrochemistry
- Chemical Physics of Colloid Phenomena: Chemical Physics of Interfaces
- Tribology (Friction, Lubrication, and Wear): Fluorinated Lubricant Materials
- Surfactants and Association Colloids: Zwitterionic Surfactants
- Catalysis and Surface Science: Industrial Application of Homogeneous Catalysis III
- Colloid Science and Related Topics: General Papers
- FT-IR in Colloid Science
- Catalysis and Surface Science: General Papers
- Polymer Surfaces.

Polymer Chemistry Division, contact: A.D. English, Central Research and Development Department, E.I. du Pont de Nemours & Co., Experimental Station, Wilmington, DE 19880-0356, U.S.A., or C.W. Frank, Department of Chemical Engineering, Stanford University, Stanford, CA 94305-5025, U.S.A. Subsymposia:

- Instrumental Methods for Polymer Characterization No. 12: Thermal Analysis
 - Thermal Analysis
 - Supercritical Fluids
 - Ring Opening Polymerization
 - Biological Sources of Monomers and Polymers
 - Chemical Modification of Biopolymers
 - Polymer Surfaces
 - Diffusion Through Polymers
 - International Symposium in Materials Science: Non-crystalline Materials
 - Fluorine-Containing Polymeric Materials
 - General Papers.
- Environmental Chemistry Division*, contact R.A. Baker, U.S. Geological Survey, Building 2101, Stennis Space Center, MS 39529, U.S.A. Subsymposium o.a.:
- Organic Substances and Sediment in Water.

6.22 **Journées Polymères Conducteurs 1990**, April 23-25, 1990, Dourdan, France. Contact: P. Audebert, Electrochimie Moléculaire, 2 place Jussieu, Tour 44-45, 4^e étage, 75251 Paris Cedex 05, France.

6.23 **XI European Chemistry at Interfaces Conference**, April 23-28, 1990, Berlin, G.D.R. Main theme: Amphiphilic Substances at Interfaces. Contact: R. Miller, Zentral-Institut für Organische Chemie, Akademie für Wissenschaften der D.D.R. Rudower Chaussee 5, Berlin 1199, G.D.R.

6.24 **Polymer Science and Technology in the Nineties**, 5th Rolduc Meeting, April 29 - May 3, 1990, Kerkrade, The Netherlands. Contact: Drs. L. Nelissen, Eindhoven University of Technology, Dept. TPK, P.O. Box 513, NL-5600 MB Eindhoven, The Netherlands.

6.25 **Gels**, May 1, 1990, London, U.K. Organised by the Colloid and Surface Chemistry Group of the Society of Chemical Industry. Contact: A. Howe, Kodak Ltd., Headstone Drive, Harrow, HA1 4TY, U.K.

6.26 **2nd IUPAC Symposium on the Characterization of Porous Solids (COPS II)**, May 6-9, 1990, Alicante, Spain. Contact: F. Rodriguez-Reinos, Departamento de Química Inorgánica e Ingeniería Química, Universidad de Alicante, Apartado 99, Alicante, Spain.

6.27 **Advanced Workshop on Capillarity in memoriam of Raymond Defay**, May 6-9, 1990, Brussels, Belgium. Contact: Secretariat Organizing Committee, Service de Chimie Physique, Campus Plaine, Université Libre de Bruxelles, Boulevard de Triomphe, 1050 Bruxelles, Belgium.

6.28 **Fluid-Particle Interactions II**, May 13-18, 1990, Davos, Switzerland. Sponsored by the Engineering Foundation and the Swiss Federation of Engineers and Architects. Contact: H.A. Comer, Engineering Foundation, 345 East 47th Street, New York, NY 10017, U.S.A.

6.29 **5th International Conference on Recovery of Biological Products**, May 13-18, 1990, St. Petersburg Beach, FL, U.S.A. Contact: H.A. Comer, Engineering Foundation, 345 East 47th Street, New York, NY 10017, U.S.A.

6.30 **Fundamentals of Fluid Transport in Porous Media**, May 14-18, 1990, Arles, France. Contact: F. Kalaydjian, Institut Français du Pétrole, B.P. 311, 92506 Rueil-Malmaison Cedex, France.

6.31 **3rd International Conference on Composite Interfaces ICCI-III: Controlled Interphase Structures**, May 21-24, 1990, Cleveland, OH, U.S.A. Contact: H. Ishida, Department of Macromolecular Science, Case Western Reserve University, Cleveland, OH 44106-1712, U.S.A.

6.32 **Networks 90: 10th Polymer Networks Group Meeting and IUPAC 10th International Symposium on**

Polymer Networks, May 20-25, 1990, Jerusalem, Israel. Contact: M. Gottlieb, Chemical Engineering Department, Ben Gurion University, Beer Sheva 84105, Israel.

6.33 5th World Filtration Congress - The Separation Technology of the 21st Century, June 5-8, 1990, Nice, France, together with an exhibition of products for solid/liquid separation and gas filtration. Sponsored by the French Filtration Society and the European Federation of Chemical Engineering. Contact: Société Française de Filtration, 21 Avenue de la Division Leclerc, F-94230 Cachan, France.

6.34 8th International Symposium on Surfactants in Solution, June 10-15, 1990, Gainesville, U.S.A. Contact: K.L. Mittal, IBM, 500 Columbus Ave., Thornwood, NY 10594, or D.O. Shah, Center for Surface Science and Engineering, 419 Chemical Engineering Building, University of Florida, Gainesville, FL 32611-9988, U.S.A.

6.35 7th European Symposium on Commminution, June 12-14, 1990, Ljubljana, Yugoslavia Contact: K. Schoenert, Technische Universität Clausthal, Institut für Aufbereitung und Veredelung, Erzstrasse 20, D-3392 Clausthal-Zellerfeld, F.R.G.

6.36 64th Colloid and Surface Science Symposium (Division of Colloid and Surface Chemistry ACS) June 18-20, 1990, Bethlehem, U.S.A. Contact: M.S. El-Aasser, Emulsion Polymers Institute, Lehigh University, Bethlehem, PA 18015, U.S.A. Topics include:

- Adhesion of Proteins and Cells to Particles/Surfaces
- Organic Thin Films
- Colloidal and Surface Chemistry of Coals
- Rheology of Concentrated Dispersions and Associative Thickeners
- Monolayers and Thin Polymeric Films in Electronics
- Catalysis by Oxidic, Sulfidic, and Colloidal Systems
- Molecular Design of Metal Oxide Catalysts

- New Surface Analysis Techniques/Advances in Electron Spectroscopy
- Polymer Colloids
- Substrate/Interface/Polymer: Chemistry and Structure
- Acid-Base Interactions: Relevance to Adhesion Science and Technology
- General Papers.

6.37 International Nucleation Symposium, June 18-20, 1990, Bethlehem, U.S.A. Held together with the 64th Colloid and Surface Science Symposium. Contact: J.L. Katz, Department of Chemical Engineering, The Johns Hopkins University, Baltimore, MD 21218, U.S.A.

6.38 International Symposium on Contact Angles and Wetting Phenomena, June 21-23, 1990, Toronto, Canada. Joint with the American Chemical Society, the Society of Chemical Industry and IACIS. IACIS members will be allowed a discount on the conference fees. Contact: A.W. Neumann, Department of Mechanical Engineering and Biomedical Engineering, University of Toronto, 5 King's College Road, Toronto, Ontario M5S 1A4, Canada, or Th.F. Tadros, ICI Agrochemicals, Jealott's Hill Research Station, Bracknell, Berkshire RG12 6EY, U.K. Topics:

- Dynamic contact angles
- Wetting films
- Microscopic approaches to contact angles
- Effect of molecular structure on contact angles
- Line tension
- Critical point wetting phenomena
- Wetting of porous media
- Measurement techniques.

6.39 6th CIMTEC World Ceramics Congress, June 24-28, 1990, Rimini, Italy. Contact: P. Vincenzini, P.O. Box 174, 48018 Faenza, Italy.

6.40 7th CIMTEC World Ceramics Congress, June 24-30, 1990, Montecatini Terme, Italy. Contact: 7th CIMTEC World Congress, P.O. Box 174, 48018 Faenza, Italy.

- 6.41 **International Conference on Surface Engineering: Current Trends and Future Prospects**, June 25-27, 1990, Toronto, Canada. Contact: S.A. Meguid, Department of Mechanical Engineering, University of Toronto, 5 King's College Road, Toronto, Ontario, Canada M5S 1A4.
- 6.42 **3rd International Conference on Near Infrared Spectroscopy**, June 25-29, 1990, Brussels, Belgium. Contact: N. Bartiaux-Thill, Agricultural Research Center, 22 avenue de la Faculté d'Agronomie, B-5800 Gembloux, Belgium.
- 6.43 **20th ACS NorthEast Regional Meeting NERM 20**, June 26-29, 1990, Potsdam, N.Y., U.S.A. This meeting will include a symposium on Fine Particles: Preparation, Characterization and Application. Contact: J.P. Kratochvil, Department of Chemistry, Clarkson University, Potsdam, N.Y. 13676, U.S.A.
- 6.44 **International Symposium on Chemistry of Microporous Crystals**, June 27-29, 1990, Tokyo, Japan. Contact: Tomoyuki Inui, Faculty of Engineering, Kyoto University, Sakyo-ku, Kyoto 606, Japan.
- 6.45 **Composite Materials Applied to Building Construction and Related Components**, July 1990, Lyon, France. Contact: FIFAT, 34 rue de la Charité, 69002 Lyon, France.
- 6.46 **1st Tokyo Conference on Advanced Catalytic Science and Technology**, July 1 - 5, 1990, Tokyo, Japan. Contact: M. Misono, Department of Synthetic Chemistry, Faculty of Engineering, The University of Tokyo, Hongo, Bunkyo-ku, Tokyo 113, Japan.
- 6.47 **26th Yamada Conference "Surface as a New material"**, July 2-6, 1990, Osaka, Japan. Contact: Ayao Okiji, Faculty of Engineering, Osaka University, Suita-shi, Osaka 565, Japan.
- 6.48 **1st Conference on Liquid Matter**, July 7-11, 1990, Lyon, France. Organised by the European Physical Society. Among the topics are: Polymer solutions and melts,

polyelectrolytes; Polymers at interfaces and in confined geometries; Amphiphilics, micelles and microemulsions; Structure and dynamics of colloids; Liquids at interfaces and wetting; Rheology of dispersed media. Contact: J.C.I. Leicknam, Physique Théorique des Liquides, Université Pierre et Marie Curie, 4 place Jussieu, Tour 16, 5^e étage, F-75252 Paris Cedex 05, France.

6.49 **33rd IUPAC International Symposium on Macromolecules, MACRO 90**, July 8-13, 1990, Montréal, Canada. Contact: IUPAC MACRO 90 Secretariat, Department of Chemical Engineering, McGill University, 3480 University St., Montréal, Québec, Canada H3A 2A7.

6.50 **1990 ASCE National Conference on Environmental Engineering**, July 9-11, 1990, Washington, DC, U.S.A. Contact: Dr. C.R. O'Melia, Department of Geography and Environmental Engineering, The Johns Hopkins University, Baltimore, MD 21218, U.S.A.

6.51 **13th Discussion Conference on Mechanisms of Polymer Strength and Toughness**, July 16-19, 1990, Prague, Czechoslovakia. Contact: P.M.M. Secretariat, c/o Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, 16206 Prague, Czechoslovakia.

6.52 **International Solvent Extraction Conference ISEC '90**, July 16-21, 1990, Kyoto, Japan. Contact: Conference Secretariat, Department of Chemistry, Science University of Tokyo, Shinjuku-ku, Tokyo 162, Japan.

6.53 **13th International Liquid Crystal Conference**, July 22-27, 1990, Vancouver, Canada. Contact: B. Bergersen, Department of Physics, University of British Columbia, Vancouver, B.C., Canada V6T 2A6.

6.54 **International Symposium on Polymer Analysis and Characterization**, July 23-25, 1990, Brno, Czechoslovakia. Sponsored by IUPAC. Contact: H.W. Barth, DuPont Company, Experimental Station E228/238, P.O. Box 80228, Wilmington, DE 19880-0228, U.S.A.

6.55 **Electrified Interfaces in Physics, Chemistry and Biology**, July 23 - August 3, 1990, Varenna, Italy. (NATO Advanced Study Institute) Contact: R. Guidelli, Dipartimento di Chimica, Via G. Capponi 9, 50121 Firenze, Italy.

6.56 **3rd European Symposium on Polymer Blends**, July 24-26, 1990, Cambridge, U.K. Contact: The Plastics and Rubber Institute, 11 Hobart Place, London SW1W 0HL, U.K.

6.57 **8th International Meeting on Small-Angle Scattering**, August 6-9, 1990, Leuven, Belgium. Contact: H. Reynaers, Department of Chemistry, Celestijnenlaan 200 F, B-3030 Leuven, Belgium.

6.58 **Specialty Polymers '90**, August 8-10, 1990, Baltimore, MA, U.S.A. Contact: A.H. Fawcett, Department of Pure and Applied Chemistry, The Queen's University of Belfast, Northern Ireland.

6.59 **IUTAM Symposium on Fluid Mechanics of Stirring and Mixing**, August 20-24, 1990, San Diego, U.S.A. Contact: H. Aref, IGPP, A-025, UCSD, La Jolla, CA 92093, U.S.A.

6.60 **41st Meeting of the International Society for Electrochemistry**, August 20-25, 1990, Prague, Czechoslovakia. Theme: Electro-analytical Chemistry. Joint with Heyrovsky Centennial Congress on Polarography. Contact: the Congress Secretariat, J. Heyrovsky Institute of Physical Chemistry and Electrochemistry, Czechoslovak Academy of Sciences, Dolejskova 3, CS-182 23 Prague 8, Czechoslovakia.

6.61 **21st Annual Meeting of the Fine Particle Society**, August 21-25, 1990, San Diego, CA, U.S.A. Contact: K.L. Mittal, IBM US Technical Education, 500 Columbus Avenue, Thornwood, NY 10594, U.S.A.

6.62 **200th ACS National Meeting, including Division of Colloid and Surface Chemistry and Division of Polymer Chemistry**, August 26-31, 1990, Washington, U.S.A.

Colloid and Surface Chemistry Division, contact: D.W. Osborne, Upjohn Company, Kalamazoo, MI 49001, U.S.A. Subsymposia:

- Surface Chemistry in Biology, Medicine and Dentistry: Protein Adsorption and Proteins at Interface
- Photochemical and Electrochemical Surface Science: Organometallic Electrochemistry
- Surfactants and Associated Colloids: Electrochemistry in Surfactants Media
- Tribology (Friction, Wear and Lubrication): Tribology for the Nineties - Lubrication for Emerging Technologies
- Ralph K. Iler Memorial Symposium on the Colloid Chemistry of Silica.

Polymer Chemistry Division, contact: A.D. English, Central Research and Development Department, E.I. du Pont de Nemours & Co., Experimental Station, Wilmington, DE 19880-0356, U.S.A., or C.W. Frank, Department of Chemical Engineering, Stanford University, Stanford, CA 94305-5025, U.S.A. Subsymposia:

- Polymer Science and Engineering Series No. 28 - X-Ray and Neutron Scattering in Polymer Characterization
- X-Ray and Neutron Scattering in Polymer Characterization
- Reactions on Polymers/Chemical Modification of Polymers
- Copolymerization
- International Symposium on Polymeric Drugs and Delivery Systems
- Radiation Effects on Polymeric Materials
- Adsorption Phenomena in Polymers
- Solid State NMR
- General Papers.

6.63 **11th IUPAC Conference on Chemical Thermodynamics**, August 26-31, 1990, Como, Italy. With sponsorship of the Società Chimica Italiana. Topics include: "Polymers" and "Surfaces, interfaces and micellar systems". Contact: Dipartimento Chimica Fisica Applicata, Politecnico di Milano, Via Golgi 39, I-20133 Milano MI, Italy.

6.64 **Les Journées de la Matière Condensée**, September 3-6, 1990, Montpellier, France. Contact: J. Grilhe, Laboratoire de Métallurgie, Bâtiment de Physique, 40 avenue du Recteur Pineau, 86022 Poitiers Cedex, France.

6.65 **International Symposium on Mechanisms and Kinetics of Polymerization Reactions: Their Use in Polymer Synthesis**, September 9-13, 1990, Paris, France. Contact: E. Maréchal, Laboratoire de Synthèse Macromoléculaire, 12 rue Cuvier, F-75005 Paris, France.

6.66 **4th International Conference on Adhesion: Adhesion '90**, September 10-12, 1990, Cambridge, U.K. Contact: The Plastics and Rubber Institute, 11 Hobart Place, London SW1W 0HL, U.K.

6.67 **Colloidal Dispersions**, September 11-13, 1990, Bristol, U.K. (General Discussion No. 90 of the Faraday Division of the Royal Society of Chemistry and 10th Joint Meeting with the Division de Chimie Physique of the Société Française de Chimie, Deutsche Bunsen-Gesellschaft für Physikalische Chemie, Associazione Italiana di Chimica Fisica and Koninklijke Nederlandse Chemische Vereniging). Contact: R.H. Ottewill, School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS, U.K.

6.68 **2nd International Conference on Electrical, Optical and Acoustic Properties of Polymers**, September 11-13, 1990, Canterbury, U.K. Contact: Mrs. M. Peacock, The Plastics and Rubber Institute, 11 Hobart Place, London SW1W 0HL, U.K.

6.69 **2nd European Conference on the Mathematics of Oil Recovery**, September 11-14, 1990, Southeastern France. Contact: D. Guérillot, Institut Français du Pétrole, 1 et 4 avenue de Bois-Préau, 92 Rueil Malmaison, France.

6.70 **Physics and Chemistry of Electrified Interfaces**, September 16-21, 1990, Asilomar, CA, U.S.A. Contact: J. Bamrick or D. Henderson, IBM Almaden Research Center, K33/801, 650 Harry Road, San Jose, CA 95120-6099, U.S.A.

6.71 **1st European Conference on Diamond and Diamond-like Carbon Coatings: Diamond Films '90**, September 17-19, 1990, Montreux, Switzerland. Contact: COMST Conference Organizers in Medicine, Science and Technology, P.O. Box 415, 1001 Lausanne 1, Switzerland.

6.72 **11th Symposium on Industrial Crystallization**, September 18-20, 1990, Garmisch-Partenkirchen, F.R.G. Contact: GVC.VDI-Gesellschaft Verfahrenstechnik, Chemieingenieurwesen, Postfach 1139, D-4000 Düsseldorf 1, F.R.G.

6.73 **Polymer Characterisation II**, September 19-20, 1990, U.K.. Contact: P.A. Holmes, Pilkington Research Centre, Lathom, Near Ormskirk, Lancashire, U.K.

6.74 **2nd World Congress Particle Technology**, September 19-22, 1990, Kyoto, Japan. Contact: G. Jimbo, Department of Chemical Engineering, Nagoya University, Chikusa-ku, Nagoya 464-01, Japan.

6.75 **4th European Colloid and Interface Society Conference**, September 24-27, 1990, Copanello (Catanzaro), Italy. Contact: Prof. F. Mallamace, Dipartimento di Fisica dell'Università, 98166 Villaggio S. Agata P.O. Box 55, Messina, Italy.

6.76 **3rd International Aerosol Conference**, September 24-27, 1990, Kyoto, Japan. Contact: K. Takahashi, Institute of Atomic Energy, Kyoto University, Uji, Kyoto 611, Japan.

6.77 **18th International Symposium on Chromatography**, September 24-28, 1990, Amsterdam, The Netherlands. Contact: Free University, Department of General and Analytical Chemistry, De Boelelaan 1083, NL-1081 HV Amsterdam, The Netherlands.

6.78 **3rd International Aerosol Conference**, September 24-28, 1990, Kyoto, Japan. Contact: Kanji Takahashi, Institute of Atomic Energy, Kyoto University, Uji, Kyoto 611, Japan.

6.79 **Polymers in Marine Environment III**, October 1990, U.K. Contact: M. Richardson, National Physical Laboratory, Queens Road, Teddington, Middlesex, TW11 0LW, U.K.

6.80 **Annual Meeting of Colloid and Interface Chemistry of Japan**, October 12-14, 1990, Kagawa, Japan. Contact: Division of Colloid and Interface Chemistry of the Chemical Society of Japan, Kanda, Chuo-ku, Tokyo 101, Japan.

6.81 **2ème Congrès sur les Formulations: FORMULA II**, October 17-19, 1990, Toulouse, France. Topics include: Formulation et Etats de Surface. Contact: A. Lattes, Université Paul Sabatier, Interactions Moléculaires et Réactivité Chimique et Photochimique, 118 route de Narbonne, F 31062 Toulouse Cedex, France.

6.82 **National Congress of the Italian Group for Colloids and Interfaces (GICI)**, October 17-19, 1990, Florence, Italy. Contact: L. Formaro, Department of Physical Chemistry and Electrochemistry, University of Milan, Via Golgi 19, 20133 Milan, Italy

6.83 **International Conference on Surface Forces**, November 13-15, 1990, Moscow, U.S.S.R. Organised by the Department of Surface Phenomena of the Institute of Physical Chemistry of the U.S.S.R. Academy of Sciences. Sponsored by IACIS; members will be allowed a discount on the conference fee. Contact: B.V. Derjaguin or Dr. Z.M. Zorin, Department of Surface Phenomena, The Institute of Physical Chemistry of the U.S.S.R. Academy of Sciences, 31 Lenin Prospect, Moscow 117915, U.S.S.R.

6.84 **Bioadhesion**, November 6-9, 1990, Groningen, The Netherlands. Contact: Congress Secretariat, Laboratory for Materia Technica, Antonius Deusinglaan 1, NL-9713 AV Groningen, The Netherlands.

6.85 **IUPAC Symposium on Speciality Polymers**, November 7-9, 1990, Singapore. Contact: Department of Chemistry, National University of Singapore, 10 Kent Ridge Crescent, Singapore 0511.

6.86 **Future Directions in Surface Coatings**, November 15, 1990, London, U.K. Contact: S. Lenon, ICI Paints Division plc, Wexham Road, Slough SL2 5DS, U.K.

6.87 **3rd SPSJ International Polymer Conference IPC 90: Membranes and Interfacial Phenomena of Polymer**, November 26-29, Nagoya, Japan. Contact: IPC 90 Secretariat, The Society of Polymer Science, 5-12-8 Ginza, Chuo-ku, Tokyo 104, Japan.

6.88 **Functionalised and polymeric Surfactants**, December 13-14, 1990, London, U.K. Organised by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry. Contact: B.H. Robinson, School of Chemical Sciences, University of East Anglia, Norwich, U.K.

6.89 **Polyelectrolytes**, December 13-14, Leiden, The Netherlands. Honouring Professor M. Mandel at the occasion of his 65th birthday. Contact: J.C. Leyte, Department of Physical and Macromolecular Chemistry, State University of Leiden, Gorlaeus Laboratories, 2333 CC Leiden, The Netherlands.

6.90 **Molecular Transport in Confined Regions and Membranes**, December 17-18, 1990, Oxford, U.K. Contact: D.J. Tildesley, Department of Chemistry, The University, Southampton SO9 5NH, U.K.

1991

6.91 **IUPAC International Symposium on Polymer Materials: Preparation, Characterization and Properties: Polymer 91**, February 10-15, 1991, Melbourne, Australia. Contact: G.B. Guise, RACI Polymer Division, P.O. Box 224, Belmont, Victoria 3216, Australia.

6.92 **Deformation, Yield and Fracture of Polymers VIII**, April 1991, Cambridge, U.K. Contact: The Plastics and Rubber Institute, 11 Hobart Place, London, SW1W 0HL, U.K.

6.93 **201st ACS National Meeting**, April 14-19, 1991, Atlanta, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. Symposium items include:

- Electronically Conducting Polymeric Materials (Division of Polymer Chemistry). Contact: A.D. English, Central Research and Development Department, E.I. du Pont de Nemours & Co., Experimental Station, Wilmington, DE 19880-0356, U.S.A., or C.W. Frank, Department of Chemical Engineering, Stanford University, Stanford, CA 94305-5025, U.S.A.
- Preparation, Properties and Application of Polymeric Latexes. Contact: M.S. El-Aasser, Emulsion Polymers Institute, Lehigh University, Bethlehem, PA 18015, U.S.A.
- Photochemical and Electrochemical Surface Science: Reactions at Solid Electrodes (Division of Colloid and Surface Chemistry). Contact: J.G. Chambers, Department of Chemistry, University of Tennessee, Knoxville, TN 37996, U.S.A.

6.94 **65th Colloid and Surface Science Symposium** (Division of Colloid and Surface Chemistry ACS), June 1991, Norman, OK, U.S.A. Contact: J.F. Scamehorn, Chemical Engineering Department, University of Oklahoma, Norman, OK 73019, U.S.A.

6.95 **AKZO Ketjen Catalysts Symposium**, June 2-5, 1991, The Hague, The Netherlands. Contact: M. Wildemans, Gevers Deynootplein 30, 2586 CK The Hague, The Netherlands.

6.96 **5th International Fischer Symposium on Adsorbates, Intermediates and Inhibitors**, June 15-20, 1991, Bombannes, France. Contact: W.J. Lorenz, Institut für Physikalische Chemie und Elektrochemie, Lehrstuhl III, Universität (TH) Karlsruhe, Kaiserstrasse 12, D-7500 Karlsruhe, F.R.G.

6.97 **Emulsions**, June 24-26, 1991, Bergen, Norway. EUCHEM or NATO workshop. Contact: J. Sjöblom,

Department of Chemistry, University of Bergen, Allegt 41, N 5007 Bergen, Norway.

6.98 **Progress in Membrane Science and Technology**, June 25-28, 1991, Enschede, The Netherlands. Contact: A. van den Boomgaard, Technical University Twente, Faculty CT, Room 1348, P.O. Box 217, 7500 AE Enschede, The Netherlands.

6.99 **11th Scandinavian Symposium of Surface Chemistry**, June 26-28, 1991, Bergen, Norway. Contact: J. Sjöblom, Department of Chemistry, University of Bergen, Allegt 41, N 5007 Bergen, Norway.

6.100 **7th International IACIS Conference on Colloid and Interface Science, July 7-12, 1991, Compiègne, France**. IACIS members will be allowed a discount on the conference fees. Contact: M. Clause, Université de Technologie de Compiègne, B.P. 649, F-60206 Compiègne cedex, France.

6.101 **33rd IUPAC Congress**, August 17-22, 1991, Budapest, Hungary. Organised by the Hungarian Academy of Sciences. Contact: E. Pungor, Hungarian Academy of Sciences, Gellért tér 4, H-1111 Budapest, Hungary.

6.102 **202nd ACS National Meeting and 4th Chemical Congress of North America**, August 25 - 30, 1991, New York City, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. The symposia include:

- Photochemical and Electrochemical Surface Science: New Directions in Inorganic Electrochemistry (Division of Surface and Colloid Chemistry). Contact: M. Weaver, Department of Chemistry, Purdue University, West Lafayette, IN 47907, U.S.A.

6.103 **5th International Conference on Langmuir-Blodgett Films**, August 25-30, 1991, Paris, France. Contact: Mrs. A. Ruauadel, DLPC/SCM, B.P. 121, C.E.N. Saclay, 91191 Gif-sur-Yvette Cedex, France.

6.104 **Electropto '91**, September 1991, Varna, Bulgaria. Contact: S.P. Stoylov, Institute of Physical Chemistry, Bulgarian Academy of Sciences, 1040 Sofia, Bulgaria.

6.105 **5th European Colloid and Interface Society (ECIS) Conference**, provisionally end of September, 1991, Graz, Austria. Contact: M. Corti, Università di Pavia, Via Abbiategrasso 209, 27100 Pavia, Italy.

6.106 **42nd Meeting of the International Society for Electro-chemistry**, September 1991, Switzerland. Contact: O. Dossenbach, Technisches-Chemisches Labor, ETH Zentrum, CH-8092 Zürich, Switzerland.

6.107 **The Modification of Interfaces by the Adsorption of Surfactants and Polymers**, (provisionally) three days in September 1991, U.K. Organised by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry.

6.108 **Properties and Applications of Molecular Sieves**, September 30 - October 2, 1991, Bath, U.K. Sponsored by the British Zeolite Association, the Industrial Division of the Royal Society of Chemistry, the Colloid and Surface Chemistry Group of the Society for Chemical Industry and the Carbon Group of the Faraday Division of the Royal Society of Chemistry. Contact: J.D.F. Ramsy, Chemistry Division, Harwell Laboratory, Oxfordshire OX11 0RA, U.K.

6.109 **Polymers in Marine Environment IV**, October 1991, U.K. Contact: M. Richardson, National Physical Laboratory, Queens Road, Teddington, Middlesex, TW11 0LW, U.K.

6.110 **33th Kolloidtagung**, provisionally early October 1991, Mainz, F.R.G. Contact: Prof. H. Möhwald, University of Mainz, Institute of Physical Chemistry, Welderweg 11, D-6500 Mainz, F.R.G.

6.111 **The Preparation of Dispersions**, October 14-16, 1991, Eindhoven, The Netherlands. Contact: H.N. Stein, Eindhoven University of Technology, Department of Colloid

Chemistry and Thermodynamics, P.O. Box 513, NL-5600 MB Eindhoven, The Netherlands.

6.112 **4th European Conference on Applications of Surface and Interface Analysis**, October 14-18, 1991, Budapest, Hungary. Contact: the Organizing Committee MTA ATOMKI, Pf. 51, H-4001 Debrecen, Hungary.

6.113 **International meeting on Polymeric Microspheres**, October 24-27, 1991, Japan.

6.114 **Emulsions**, Provisionally December 1991, London, U.K. Organised by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry together with the Society of Chemical Industry.

Preview 1992 and later

6.115 **19th Australian Polymer Symposium**, February 1992, Perth, Australia. Contact: G. Gerguson, Chemistry Centre, WA, 125 Hay Street, Perth, W Australia 6000.

6.116 **Nucleation**, provisionally Spring 1992, U.K., organised by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry.

6.117 **203rd ACS National Meeting**, April 5-10, 1992, San Francisco, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. Symposia include:

- Photochemical and Electrochemical Surface Science: Electrical Double Layer (Division of Surface and Colloid Chemistry). Contact: J. Lipkowski, Department of Chemistry, University of Guelph, Guelph, Ontario N1G 2W1, Canada.

6.118 **4th International Conference on Fundamentals of Adsorption**, May 17-22, 1992, Kyoto, Japan. Contact: M. Suzuki, Institute of Industrial Science, University of Tokyo, 7-22-1 Roppongi, Minato-ku, Tokyo 106, Japan.

6.119 **66th Colloid and Surface Science Symposium** (Division of Colloid and Surface Chemistry ACS), June 15-18, 1992, Morgantown, WV, U.S.A. Contact: D.H. Smith, U.S. Department of Energy, Morgantown Energy Technology Center, Morgantown, WV 26507-0880, U.S.A.

6.120 **12th European Chemistry at Interfaces Conference**, provisionally June 1-5, 1992, Ystads Saltsjöbad, Sweden. Contact: B. Lindman, Physical Chemistry 1, Chemical Center, P.O. Box 124, S-221 00 Lund, Sweden, or G. Olofsson, Thermochemistry Chemical Center, University of Lund, P.O. Box 124, S-221 00 Lund, Sweden.

6.121 **34th International Symposium on Macromolecules**, July 13-18, Prague, Czechoslovakia. Contact: P. Cefelin, Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Heyrovského n. 2, 162 06 Prague 6-Petriny, Czechoslovakia.

6.122 **204th ACS National Meeting**, August 23-28, 1992, Washington D.C., U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. The symposia include::

- Photochemical and Electrochemical Surface Science: Electrical Double Layer (Division of Surface and Colloid Chemistry). Contact: J. Osteryoung, Department of Chemistry, State University, NY at Buffalo, 3435 Main Street, 113 Acheson Hall, Buffalo, NY 14214, U.S.A.

6.123 **43rd Meeting of the International Society for Electrochemistry**, August or September 1992, Argentina. Contact: A.J. Arvia, INIFTA, Casilla de Correo 16, Sucursal 4, 1900 La Plata, Argentina.

6.124 **Colloids in the Environment**, provisionally September 1992, U.K. Organised by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry.

6.125 **44th Meeting of the International Society for Electrochemistry**, September 20-24, 1993, Berlin, F.R.G. Contact: W.

Plieth, Free University of Berlin, Institute of Physical and Theoretical Chemistry, Takustrasse 3, D-1000 Berlin 33, F.R.G.

6.126 **8th International IACIS Conference on Colloid and Interface Science**, February 12-19, 1994, Adelaide, Australia. IACIS members will be allowed a discount on the conference fees. Contact: J. Ralston, School of Chemical Technology, S.A. Institute of Technology, P.O. Box 1, IngleFarm, S.A. 5098, Australia.

6.127 **ACS National Meetings**

205th April 18-23, 1993, Minneapolis, U.S.A.

206th August 22-27, 1993, Chicago, U.S.A.

207th with 5th Chemical Congress of North America, April 10-15, 1994, Mexico City, U.S.A.

208th August 21-26, 1994, Washington D.C., U.S.A.

209th April 2-7, 1995, Anaheim, U.S.A.

210th Aug. 27 - Sep. 1, 1995, Chicago, U.S.A.

211th March 24-29, 1996, Salt Lake City, U.S.A.

212th August 25-30, 1996, Boston, U.S.A.

214th September 7-12, 1997, Las Vegas, U.S.A.

7. REGIONAL AND PERSONAL NEWS

7.1 Personal News

IACIS regrets to report the death of **Dr. A.M. Schwartz**, Rockville MD, U.S.A., who has been a member of our Association for almost nine years, and of **Professor F. Szanto** of Szeged, Hungary. There will appear a special issue of Colloids and Surfaces dedicated to the memory of Professor Szanto.

7.2 International and Regional News

The International Adsorption Society

A new society was created at the 3rd Fundamentals of Adsorption Conference in May 1989 at Sonthofen, Bavaria, F.R.G. The *International Adsorption Society* was formed from an embryonic group from the U.S.A., who had perceived that the large national associations (e.g. American Chemical Society, and American Institute of Chemical Engineers) could not devote sufficient attention to adsorption and ion exchange, nor special interests such as water purification, statistical mechanics, materials, chromatography, etc. Furthermore, there was an excellent example of what could be done in the area already started in Japan, the Japanese Society on Adsorption. Several people at the Fundamentals of Adsorption meeting agreed that there exists an international community that has similar interests. So the decision was made to abandon the U.S. version and forge an international society instead.

In September 1989 the first Newsletter of the IAS was published, along with a call for members. Since then over 100 people and companies have joined. The second issue of the Newsletter was mailed in January 1990. As mentioned in the first Newsletter, the IAS is striving to be an open society with membership of chemists, engineers, physicists, and others

who are interested in adsorption in its broadest sense. The newsletter intends to reflect the diversity of interests of the members. Regular features will include: details of upcoming meetings, summaries of recent meetings, critiques of papers in journals and patents, book reviews, and brief technical and business-related articles on adsorption.

People interested in the IAS may contact the Newsletter editor, Dr. Kent S. Knaebel, International Adsorption Society, Inc., 140 West 19th Avenue, Columbus, OH 43210-1180, U.S.A., for more information. Membership dues are US\$25 per year.

Brasil

Contact person for IACIS is Dr. Gaspar González, Petrobrás Research Center, Cidade Universitária - Quadra 7, Ilha do Fundão, CEP 21911-0, Rio de Janeiro, Brasil.

Hungary

Dr. I. Dékány has been elected chairman of the *Hungarian Chemical Society*.

A *Hungarian IACIS* group has been founded. The purpose of this chapter is to promote colloid and interface science on a local scale and to act as a liaison between Hungarian scientists and IACIS. So far 33 members made use of the possibility to pay their membership fee in local currency. For information contact Dr. F. Csémpesz, Department of Colloid Science, Loránd Eötvös University, Puskin u. 11-13, Budapest VIII, Hungary.

(Perhaps the establishment of local chapters is an idea that deserves to be followed elsewhere!)

India

In its five years of existence the *Indian Society of Surface Science and Technology* made rapid growth in terms of academic activities, journal publications, arrangement of workshops etc. The Society would like to receive advice to

achieve cooperation between research scientists in surface science with various types of related industries in India. Suggestions are welcomed by Professor D.K. Chattoraj, Department of Food Technology and Bio-Chemical Engineering, Jadavpur University, Calcutta 700 032, India.

Report on the 4th National Conference on "Surfactants, Emulsions and Biocolloids", sponsored jointly by *Indian Society of Surface Science and Technology* and Indian Institute of Technology Bombay, and held in IIT Campus, Bombay from December 11 to 13, 1989. Nearly eighty papers were presented in different branches of Surface Science namely

- a) Reactions and separations in disperse systems
- b) Structure and aggregation in surfactant systems
- c) Biological amphiphiles
- d) Adsorption at interfaces
- e) Disperse systems
- f) Applications in industries.

Four plenary lectures on liquid crystals, surface thermodynamics, surfactants and interfacial engineering were delivered by Dr. G. Tiddy, Prof. D.K. Chattoraj, Dr. Th.F. Tadros and Prof. M.M. Sharma. There were altogether twelve invited lectures on different branches of surface science delivered by Prof. S.S. Katyer, Prof. D. Balusubramanian, Dr. S.P. Moulik, Dr. C. Manohar, Dr. M. Mambudiry, Dr. G. Bognolo, Dr. Pradip, Dr. O.P. Jhamb, Dr. N.B. Godrej, Dr. P.K. Ghosh, Dr. A.K. Ray respectively.

Nearly 200 scientists and technologists from different organisations all over India participated in this conference. There were close interactions between scientists and technologists during these three days of the Conference. Several foreign scientists from U.K. and Belgium also participated in the conference.

Prof. D.K. Chattoraj

Japan

The *Division of Colloid and Surface Chemistry* of the Chemical Society of Japan now has 934 members including 37 corporation members.

United Kingdom

As mentioned in NL 15 Dr. B. Vincent is chairman of the *Colloid and Interface Science Group of the Society of Chemical Industry*, as from April 1989. Vice-chairman is Dr. J. Gregory (University College, London), Secretary is Dr. T. Cosgrove (University of Bristol) and Treasurer Dr. T.D. Blake (Kodak, Harrow).

The Group runs a series of evening lectures (followed by dinner) at the SCI headquarters in London, at 5.30 p.m. (tea at 5.0 p.m.). Speakers: Dr. John Adams (20 February), Dr. R. Harrison (20 March) and Sir Sam Edwards (24 April). Further details from the group secretary, Dr. T. Cosgrove, Department of Physical Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS, U.K.

U.S.A.

The *American Filtration Society* now has about 800 members, 55 corporate members, 11 local chapters, the *Fluid/Particle Separation Journal*, and an executive secretary, Guy Welsmantel. The third Annual Meeting will be held in Washington, D.C., during March 19-22, 1990. A three-day regional meeting devoted to Filtration and Separation in the Oil and Gas Industry was held at the end of November. Although still in a developmental state, the Society has made commendable progress.

The officers are planning a study of university education in the field of fluid/particle processing and separation. An academic group will be requested to lay out an undergraduate curriculum containing both fundamental and applied subjects. Colloids, interfacial phenomena, rheology, and particle characterization will play important roles in the basic area. Storage, transport, and particularly separation will be

emphasized in the applied part of the program. The Society will request input and support from both government and industry.

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

8.1 New Journals

Ecoulements Solide-Liquide/Solid Liquid Flow (in French and English, with summaries in several other languages) Groupe d'Etudes et de Publications Scientifiques, Toulouse, France, Vol. 1 (1989) four issues, FF 950.00/US\$170.00.

Journal of Computer-Assisted Microscopy, J.C. Russ, Ed., Plenum, New York-London. Vol. 1 (1989) four issues, US\$135.00 (U.S. US\$115.00).

Structural Chemistry, I. Hargittal and A. Greenberg, Eds., VCH Verlag Weinheim, F.R.G. Published bimonthly. Vol. 1 (1989) DM 580.00 plus postage and handling charges.

8.2 Books 1986

Ronby, B., Ed., **Physical Chemistry of Colloids and Macromolecules**, Blackwell Oxford, U.K., £22.40/US\$29.30 (Affiliate IUPAC members £16.80/US\$22.00).

8.3 Books 1987

Proceedings Interface Science and Engineering '87, Lake Placid, U.S.A., 1987, Les Editions de Physique, Les Ulis, France, FF 550.00 (France FF 500.00).

8.4 Books 1988

Barton, J. and E. Borsig, **Complexes in Free-Radical Polymerization** (Polymer Science Library 6), Elsevier Amsterdam, The Netherlands, US\$126.25/Dfl. 240.00.

Borisov, S.F., N.F. Balakhonov and V.A. Gubanov, **Interaction of Gases with Surface of Solids** (in Russian), Nauka Moscow, U.S.S.R.

Chrambach, A., M.J. Dunn and B.J. Radola, Eds., **Advances in Electrophoresis Vol. 2**, VCH Weinheim, F.R.G.

Clark, R.J.H. and R.E. Hester, Eds., **Spectroscopy of Surfaces** (Advances in Spectroscopy 16), Wiley Chichester, U.K.

Feder, J., **Fractals**, Plenum New York, U.S.A., US\$59.40 (U.S. and Canada US\$49.50).

Hartmeyer, W., **Immobilized Biocatalysts**, Springer Verlag Berlin, DM39.00.

Helms, C.R. and B.E. Deal, Eds., **The Physics and Chemistry of Silica and the Silicon-Silica Interface** (Proceedings Symposium 173rd Meeting Electrochemical Society, Atlanta, U.S.A., 1988), Plenum New York, U.S.A.

Hoffmann, R., **Solids and Surfaces: A Chemist's View of Bending in Extended Structures**, VCH Weinheim, F.R.G.

Howle, A. and U. Valdre, Eds., **Surface and Interface Characterization by Electron Optical Methods** (NATO ASI Series, Series B 191), Plenum New York, U.S.A.

Ishida, H., Ed., **Interfaces in Polymer, Ceramic and Metal Matrix Composites** (Proceedings 2nd International Conference on Composite Interfaces, Cleveland, U.S.A., 1988), Elsevier Barking, U.K., US\$120.00/£78.00.

Izmailova, V.N., G.P. Yampol'skaya and B.D. Summ, **Surface Phenomena in Protein Systems** (in Russian), Khimiya Moscow, U.S.S.R.

Kirovskaya, I.A., **Surface Properties of Diamond-Like Semiconductor. Chemical Composition of the Surface** (in Russian), Izdatel'stvo Irkutskogo Univ., Irkutsk, U.S.S.R.

Larsen, P.K. and P.J. Dobson, Eds., **Reflection High-Energy Electron Diffraction and Reflection Electron Imaging of Surfaces** (Proceedings NATO Workshop, Veldhoven, The Netherlands, 1987; NATO ASI Series, Series B 188), Plenum New York, U.S.A.

Mittal, K.L., Ed., **Particles on Surfaces 1: Detection, Adhesion and Removal**, Plenum New York, U.S.A., US\$99.00 (U.S. and Canada US\$82.50).

Povstugar, V.I., V.I. Kodolov and S.S. Mikhailova, **Structure and Properties of the Surface of Polymeric Materials** (in Russian), Khimia Moscow, U.S.S.R.

Ross, S. and I.D. Morrison, **Colloidal Systems and Interfaces**, Wiley New York, U.S.A., in U.S. US\$49.95.

Rzhanov, A.V. and S.M. Repinski, Eds., **Present Problems of Physical Chemistry of the Surface of Semiconductors** (in Russian), Nauka Moscow, U.S.S.R.

Stanley, H.E. and N. Ostrowsky, Eds., **Random Fluctuations and Pattern Growth: Experiments and Models** (NATO ASI Series, Series E 157), Kluwer Dordrecht, The Netherlands.

Timashev, S.F., **Physical Chemistry of Membrane Processes** (in Russian), Khimiya Moscow, U.S.S.R.

Vanselow, R. and R.F. Howe, Eds., **Chemistry and Physics of Solid Surfaces VII** (Springer Series in Surface Sciences 10), Springer Berlin, F.R.G.

Velarde, M.G., Ed., **Physicochemical Hydrodynamics: Interfacial Phenomena** (NATO ASI Series, Series B 174), Plenum New York, U.S.A.

Zimon, A.D., **World of Particles: Colloidal Chemistry for Everyone** (in Russian), Nauka Moscow, U.S.S.R.

Proceedings 2nd International Conference on Mechanical and Physical Behaviour of Materials under Dynamic Loading, Ajaccio, France, 1988, Les Editions de Physique, Les Ulis, France, FF 550.00 (France FF 520.00).

8.5 Books 1989

Alper, J. and G.L. Nelson, **Polymeric Materials: Chemistry for the Future**, American Chemical Society, U.S.A., clothbound US\$29.95, paperbound US\$17.95.

Arend, H. and J. Hulliger, **Crystal Growth in Science and Technology** (NATO ASI Series, Series B 210), Plenum New York-London, US\$111.00 (U.S. and Canada US\$92.50).

Avnir, D., Ed., **The Fractal Approach to Heterogeneous Chemistry**, Wiley Chichester, U.K., £75.00/US\$155.25.

Barnes, H.A., J.F. Hutton and K. Walters, **An Introduction to Rheology** (Rheology Series 3), Elsevier Amsterdam-New York, hardbound Dfl. 175.00 / US\$92.00, paperback Dfl. 115.00/US\$60.50, students' pack (5 copies of paperback, only outside U.S. and Canada) Dfl. 475.00.

Bauer, R.S., Ed., **Proceedings 16th Annual Conference on the Physics and Chemistry of Semiconductor Interfaces**, American Institute of Physics Woodbury, U.S.A.

Bezugly, V.D., **Polarography in Chemistry and Technology of Polymers**, 3rd ed. (in Russian), Khimiya Moscow, U.S.S.R.

Bocek, P. and E. Kennler, Eds., **Proceedings 6th International Symposium on Isotachophoresis and Capillary Zone Electrophoresis**, Elsevier Amsterdam, The Netherlands.

Bond, G.C. and G. Webb, **Catalysis Volume 8**, Royal Society of Chemistry, Letchworth, U.K., £70.00 (Volumes 1-8 £218.00).

Bonsel, H.P., A.M. Bradshaw and G. Ertl, Eds., **Physics and Chemistry of Alkali Metal Adsorption** (Materials Science Monographs 57), Elsevier Amsterdam, The Netherlands, Dfl. 280.00/US\$136.50.

Briggs, D., A. Brown and J.C. Vickerman, **Handbook of Static Secondary Ion Mass Spectrometry (SIMS)**, Wiley Chichester, U.K., £125.00/US\$258.75.

Culbertson, B.M., **Multiphase Macromolecular Systems** (Contemporary Topics in Polymer Science 6), Plenum New York, U.S.A., US\$150.00 (U.S. and Canada US\$125.00).

Deryagin, B.V., N.V. Churaev, F.D. Ovcharenko et al., Eds., **Water in Disperse Systems** (in Russian), Khimiya Moscow, U.S.S.R.

El-Noklay, M.A., **Polymer Association Structures: Microemulsions and Liquid Crystals** (ACS Symposium Series 384), American Chemical Society, U.S.A., US\$95.95 (U.S. and Canada US\$79.95).

Glass, J.E., Ed., **Polymers in Aqueous Media** (Advances in Chemistry Series 223), American Chemical Society, U.S.A., US\$119.95.

Grunze, M. and H.J. Kreuzer, Eds., **Adhesion and Friction** (Springer Series in Surface Science 17), Springer IJmuiden, The Netherlands, DM78.00.

Jacobs, P.A. and R.A. Van Santen, Eds., **Zeolites: Facts, Figures, Future Parts A and B** (Proceedings 8th International

Zeolite Conference, Amsterdam, The Netherlands, 1989; Studies in Surface Science and Catalysis 49), Elsevier Amsterdam, The Netherlands.

Jellinek, H.H.G., Ed., **Degradation and Stabilization of Polymers** (A Series of Comprehensive Reviews 2), Elsevier Amsterdam-New York, Dfl. 445.00/US\$234.25.

Karge, H.G. and J. Weitkamp, Eds., **Zeolites as Catalysts, Sorbents and Detergent Builders: Applications and Innovations** (Proceedings International Symposium, Würzburg, F.R.G., 1988; Studies in Surface Science and Catalysis 46), Elsevier Amsterdam, The Netherlands.

Kessler, H.G. and D.B. Lund, **Fouling and Cleaning in Food Processing** (Proceedings 3rd International Conference, Prien, Bavaria, F.R.G., 1989), available from H.G. Kessler, Institute for Dairy Science and Food Processing, Technical University Munich, D-8050 Freising-Weihenstephan, F.R.G., DM 70.00.

Lawley, K., Ed., **Molecular Surface Interactions** (Advances in Chemical Physics), Wiley Chichester, U.K., £56.00/US\$ 107.55.

MacCarthy, P., **Aquatic Humic Substances: Influence on Fate and Treatment of Pollutants** (ACS Advances in Chemistry 219), American Chemical Society, U.S.A., £95.00.

Mazanko, A.F., G.M. Kamar'yan and O.P. Romashin, **Industrial Membrane Electrodialysis** (in Russian), Khimiya Moscow, U.S.S.R.

Mittal, K.L., Ed., **Particles in Gases and Liquids I: Detection, Characterization, and Control**, Plenum New York, U.S.A., US\$83.40 (U.S. and Canada US\$69.50).

Mittal, K.L., Ed., **Surfactants in Solution, Volumes 7-10** (Proceedings 6th International Symposium, New Delhi, India, 1986), Plenum New York, U.S.A., per volume:

US\$138.00 (U.S. and Canada US\$115.00), volumes 7-10 US\$395.00.

Moulson, A.J. and J.M. Herbert, **Introduction to Electroceramics**, Chapman and Hall London, U.K., £35.00.

Nakagaki, M. and E. Drioli, Eds., **Proceedings International Congress on Membranes and Membrane Processes**, Elsevier Amsterdam, The Netherlands.

Neiman, R.E., **Dielectrics of Science on Colloids** (in Russian), Izdatel'stvo Voronezhskogo Universiteta Voronezh, U.S.S.R.

Plocharski, J. and S. Roth, **Electrochemistry of Conductive Polymers** (Proceedings 2nd International School, Sulejow, Poland, 1988), Trans Tech. Publications Aedermannsdorf, Switzerland.

Privman, V. and N.M. Svrtakic, **Directed Models of Polymers, Interfaces, and Clusters: Scaling and Finite-Size Properties** (Lecture Notes in Physics 338), Springer IJmuiden, The Netherlands, DM 39.00.

Riste, T. and D. Sherrington, **Phase Transitions in Soft Condensed Matter** (NATO ASI Series, Series B 211), Plenum New York-London, US\$107.40 (U.S. and Canada US\$89.50).

Rosen, M.J., **Surfactant and Interfacial Phenomena**, 2nd ed., Wiley Chichester, U.K., £35.85/US\$59.45.

Saegusa, T., T. Higashimura and A. Abe, **Frontiers of Macromolecular Science** (Proceedings 32nd International IUPAC Symposium on Macromolecules, Kyoto, Japan, 1988), Blackwell Oxford, U.K., £72.00/US\$121.50 (Affiliate IUPAC members £54.00/US\$91.00).

Saxana, S.C. and R.K. Joshi, **Thermal Accomodation and Adsorption Coefficients of Gases** (CINDAS Data Series on Material Properties II-1), Hemisphere New York, U.S.A.

Shaposhnik, V.A., **Kinetics of Electrodialysis** (in Russian), Izdatel'stvo Voronezhskogo Universiteta Voronezh, U.S.S.R.

Small, H., **Ion Chromatography**, Plenum New York, U.S.A., US\$59.40 (U.S. and Canada US\$49.50).

Soriaga, M.P., **Electrochemical Surface Science: Molecular Phenomena at Electrode Surfaces** (ACS Symposium Series 378), American Chemical Society, U.S.A.

Suzuki, M., **Adsorption Engineering** (Chemical Engineering Monographs 25), Elsevier Amsterdam-New York, Dfl. 285.00/ US\$139.00.

Takeda, M., N. Koide, K. Limura and N. Plate, Eds., **Applied Liquid Polymers**, Gordon Breach New York, U.S.A.

Conducting Polymers/Molecular Recognition (Advances in Polymer Science 90), Springer IJmuiden, The Netherlands, DM 134.00.

Proceedings 7nd European Conference on Chemical Vapour Deposition, Perpignan, France, 1989, Les Editions de Physique, Les Ulis, France, FF 550.00 (France FF 520.00).

8.6 Books 1990

Briggs, D. and M.P. Seah, **Practical Surface Analysis**, 2nd ed., Vol. 1 and 2, Wiley Chichester, U.K., due Summer 1990.

Chen, Sow-Hsin and R. Rajagopalan, **Micellar Solutions and Microemulsions: Structure, Dynamics and Statistical Thermodynamics**, Springer New York, U.S.A., tentative: February 1990, US\$95.00.

Mittal, K.L., Ed., **Particles on Surfaces 2: Detection, Adhesion and Removal**, Plenum New York, U.S.A., US\$99.00 (U.S. and Canada US\$82.50).

Polovin, R.V. and V.P. Demutskii, **Fundamentals of Magneto-hydrodynamics**, Plenum New York, U.S.A., US\$114.00 (U.S. and Canada US\$95.00).

Riste, T., Ed., **Phase Transitions in Soft Condensed Matter** (Proceedings NATO ASI, Geilo, Norway, 1989; NATO ASI Series, Series B 211), Plenum New York, U.S.A., US\$107.40 (U.S. and Canada US\$89.50).

White, R.E., J. O'M. Bockris and B.E. Conway, Eds., **Modern Aspects of Electrochemistry Vol. 21**, Plenum New York, U.S.A., US\$83.40 (U.S. and Canada US\$69.50).

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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