



*International Association of Colloid
and Interface Scientists*

NEWSLETTER NO. 18

JUNE 1991

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COMPILED BY J. LYKLEMA

**INTERNATIONAL ASSOCIATION OF COLLOID
AND INTERFACE SCIENTISTS**

NEWSLETTER NO. 18

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**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, developments, and personal news from various countries.

So far, I have edited 18 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 so that the NL could become more encompassing, complete and useful.

The conference agenda (item 5 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 and do so well in advance, even if the plans are only provisional. As a further service to our members we shall from now on 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, Telephone 31 (Netherlands) - 8370 (area code) - 82279 (extension); FAX 31-8370-84141; E-mail FYSKO@RCL.WAU.NL.

3 IACIS NEWS

3.1 President's Message

Since the last Newsletter, I have written to several companies in Europa and U.K. asking them to join IACIS (I suggested US\$500 per company). Unfortunately, the response so far has been negative, but I am still waiting for further replies. I will write now to several companies in the U.S.A., hoping to succeed. In the meantime, we will do our best at the 7th IACIS meeting in Compiègne to recruit more members for IACIS. The help of the members is greatly appreciated. Please ask your colleagues within your organisation to join IACIS. We need to raise funds to help our underprivileged scientists,

who are increasing in number. We certainly would keep the momentum of communication with scientists all over the world; we believe that funds are required for this. As scientists, we should set the example of breaking barriers between countries. Your help and support is greatly appreciated.

It is perhaps appropriate to say a few words about some major events that happened during 1990 and 1991. We had several celebrations in the Netherlands to honour achievements of a number of Dutch Scientists. In November 1990, Professor Lyklema celebrated his 60th birthday and a special issue of Colloids and Surfaces was dedicated to him. In January 1991, Professor Overbeek celebrated his 80th birthday and a special issue of Advances in Colloid and Interface Science was dedicated to him. In June 1991, a major conference on Surface Forces took place at Utrecht in honour of Professor Overbeek, Professor de Bruyn and Professor Vrij and also to celebrate the 355th Anniversary of the University of Utrecht. Scientists from all over the world attended this Conference and the presentations also were of an international level. IACIS will certainly support this type of international communication.

I would like to close my message by thanking the members for their support and I look forward to meeting many of you at Compiègne.

With best regards and wishes,

Tharwat F. Tadros

3.2 General Assembly and Council Meeting

All IACIS members are invited to participate at the General Assembly that will be held during the 7th Conference in Compiègne. During this Conference the Council will also meet.

- 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.
- 11) June 1991, Bergen (Norway) 11th Scandinavian Symposium on Surface Chemistry, with international participation.

5 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.

- 5.1 **5th International Fischer Symposium on Adsorbates, Intermediates and Inhibitors**, 16-20 June 1991, Bombannes, France. Contact: W.J. Lorenz, Institut für Physikalische Chemie und Elektrochemie, Lehrstuhl III, Universität (TH) Karlsruhe, Kaiserstrasse 12, D-7500 Karlsruhe, Germany.
- 5.2 **4th World Congress of Chemical Engineering**, 16-21 June 1991, Karlsruhe, Germany. Contact: DECHEMA, P.O. Box 97 01 46, D-6000 Frankfurt am Main 97, Germany.
- 5.3 **65th Colloid and Surface Science Symposium** (Division of Colloid and Surface Chemistry ACS), 17-19 June 1991, Norman, Oklahoma, U.S.A. Contact: J.F. Scamehorn or

4 IACIS-SPONSORED MEETINGS

4.1 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 7-13
 8th Conference, Adelaide, Australia, 1994, February 12-19.

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 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.

J.H. Harwell, Institute for Applied Surfactant Research, The University of Oklahoma, The Sarkeys Energy Center, 100 East Boyd, Room T-335, Norman, OK 73019, U.S.A., Phone (405) 325 5811. The sessions include:

- Surfactant-Based Separation
- Adsorption at Solid Interfaces
- Biomedical Applications of Surface and Colloid Science
- Colloid and Interfacial Aspects of Groundwater and Soil Cleanup
- Enhanced Oil Recovery
- General Papers
- Surface Science and Catalysis
- Interfacial Reactions
- Mixed Surfactants
- Novel Surfactants
- Polymer/Surfactant Interactions.

5.4 3rd International Symposium on Polymer Electrolytes, 17-21 June 1991, Annecy, France. Contact: M. Armand, ENSEEG, B.P. 75, 38402 Saint-Martin-d'Heres, France.

5.5 International Symposium on Calorimetry and Chemical Thermodynamics, 24-28 June 1991, Moscow, U.S.S.R. Contact: L.V. Gurvich, Thermocenter of the U.S.S.R. Academy of Sciences, IVYAN, Izorskaya St. 13/19, Moscow 127412, U.S.S.R.

5.6 Emulsions - A Fundamental and Practical Approach, NATO Advanced Research Workshop, 24-25 June 1991, Bergen, Norway. Contact: J. Sjöblom or A.M. Blokhus, Department of Chemistry, University of Bergen, Allégt 41, N-5007 Bergen, Norway, Phone (47)5 213358 or 213355. Followed by

5.7 11th Scandinavian Symposium on Surface Chemistry with international participation, 26-28 June 1991, Bergen, Norway. Sponsored by IACIS; members will be allowed a 10% discount on the conference fee. Contact: J. Sjöblom, Department of Chemistry, University of Bergen, Allégt 41, N-5007 Bergen, Norway.

5.8 Progress in Membrane Science and Technology, 25-28 June 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.

5.9 Particles in the Nineties, July 1991, Les Houches, France. NATO Advanced Study Institute. Contact: J. Illopoulos, Laboratoire de Physique Théorique, École Normale Supérieure, 24 Rue Lhomond, F-75231 Paris Cedex 05, France.

5.10 Physics of Nanostructures, July 1991, St. Andrews, U.K. NATO Advanced Study Institute. Contact: A.R. Long, Department of Physics and Astronomy, University of Glasgow, Glasgow G12 8QG, U.K.

5.11 2nd International Conference on Inorganic Membranes, 1-4 July 1991, Montpellier, France. Contact: L. Cot, ENSCM, 8 Rue de l'École Normale, 34053 Montpellier Cedex 1, France.

5.12 Understanding Self-Assembly and Organization in Liquid Crystals, 3-5 July 1991, Leeds, U.K., limited admission. Organised by the British Liquid Crystal Society and the Statistical Mechanics and Thermodynamics Group of the Royal Society of Chemistry. Contact: N. Boden or J.R. Henderson, Department of Chemistry, University of Leeds, Leeds LS2 9JT, U.K.

5.13 7th International IACIS Conference on Colloid and Interface Science, 7-13 July 1991, Compiègne, France. IACIS members will be allowed a discount on the conference fee. Contact: M. Clausse, Université de Technologie de Compiègne, B.P. 649, F-60206 Compiègne Cedex, France. The symposia include:

Section A: Molecules at Interfaces

- Surfactancy and Supramolecular Self-Assemblies
- Characterization and Modification of Surfaces
- Wetting and Adhesion

- Chemical Processes on Solid Surfaces
 - Section B: Disperse Systems
 - Nucleation Phenomena
 - Aerosols
 - Preparation and Characterization of Colloidal Particles
 - Emulsions and Suspensions
 - Section C: Biosystems
 - Biosurfactants
 - Food Colloids
 - Biological Macromolecules in Microcompartmentalized Media
 - Interactions between Living Systems and Biomaterials.
- IACIS General Assembly and Council Meeting, see 3.2.**

5.14 14th Discussion Conference on Macromolecular Rheology of Polymer Melts, 15-18 July 1991, Prague, Czechoslovakia. Contact: P.M.M. Secretariat, c/o Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, 162 06 Prague, Czechoslovakia, Phone +42 (2) 360341, FAX +42 (2) 367981, Telex 122019 IMCP C.

5.15 Microscopic Simulations of Complex Hydrodynamic Phenomena, 15-27 July 1991, Alghero, Sardinia. NATO Advanced Study Institute. Contact: M. Mareschal, Université Libre de Bruxelles, Chimie Physique II, P.O. Box 231, Bld. du Triomphe, B-1050 Brussels, Belgium.

5.16 Polymer Surfaces and Interfaces II, 21-26 July 1991, Durham, U.K. Contact: M.J. Richardson, National Physical Laboratory, Queens Road, Teddington, Middlesex, TW11 0LW, U.K.

5.17 Characterization of Polymers, 28 July - 1 August 1991, Oxford, Ohio, U.S.A. Summer Symposium of the Division of Analytical Chemistry of the American Chemical Society. Contact: T.P. Lodge, Department of Chemistry, University of Minnesota, Minneapolis, MN 55455-0431, U.S.A.

5.18 22nd Annual Meeting Fine Particle Society, 29 July - 2 August 1991, San Jose, California, U.S.A. Contact: Fine Particle Society, 505 S. Gary, Suite 47, Tulsa, OK 74104, U.S.A., Phone (918) 631 2575, FAX (918) 587 6150, in conjunction with

Symposium on Surface Charge Characterization (Colloid/Polymer Science and Engineering Division). Contact: K. Oka, Otsuka Electronics Company Ltd., 1-10 Sasagaoka, Minakuchi-cho, Kouga-gun, Shiga-ken, Japan 528, Phone 748 63 0151, FAX 748 63 0150, or H.P. Pendse, University of Maine, 211 Jenness Hall, Orono, ME 04469, U.S.A., Phone 207 581 2290, FAX 207 581 2323, and with

Third Symposium on Particles in Gases and Liquids: Detection, Characterization and Control (The Contamination Control Division). Contact: K.L. Mittal, IBM U.S. Technical Education, 500 Columbus Avenue, Thornwood, NY 10594, U.S.A., Phone (914) 742 5747, FAX (914) 742 5594.

5.19 Fundamentals of Friction, 29 July - 9 August 1991, Braunlage, Germany. NATO Advanced Study Institute. Contact: I.L. Singer, Naval Research Laboratory, Tribology Section/Code 6176, Washington, DC 20375, U.S.A.

5.20 Clay Swelling and Expansive Soils, August 1991, Ithaca, New York, U.S.A. NATO Advanced Research Workshop. Contact: P. Bavaye, Soil Science Department, Cornell University, Bradfield Hall, Ithaca, NY 14853, U.S.A.

5.21 36th IUPAC General Assembly, 7-15 August 1991, Hamburg, Germany. At this occasion also Commission I.6 (Surface and Colloid Science, including Catalysts) and the Macromolecular Division will meet.

5.22 33rd IUPAC Congress, 17-22 August 1991, Budapest, Hungary. Organised by the Hungarian Academy of Sciences. Contact: E. Pungor, Hungarian Academy of Sciences, Gellért tér 4, H-1111 Budapest, Hungary, Phone +36 (1) 851 477, Telex 225931 MUEGY H.

5.23 Equilibrium Structure and Properties of Surfaces and Interfaces, 18-30 August 1991, Maleme, Crete, Greece. NATO Advanced Study Institute. Contact: A. Gons, Chemistry and Materials Science, Lawrence Livermore National Laboratory, L-268 Livermore, CA 94550, U.S.A.

5.24 202nd ACS National Meeting and 4th Chemical Congress of North America, 25-30 August 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:

- Molecular Processes at Solid Surfaces: Surface Chemistry of Nonmetals (Division of Colloid and Surface Chemistry). Contact: M.A. Barteau, Department of Chemical Engineering, University of Delaware, Newark, DE 19716, U.S.A., Phone (302) 451 8905.
- Surface Science of Catalysis: Environmental Applications of Catalysts (Division of Colloid and Surface Chemistry). Contact: R.G. Silver or J. Sawyer, Allied Signal Inc., P.O. Box 580970, Tulsa, OK 74518-0970, U.S.A., Phone (918) 266 1400, FAX (918) 266 3958.
- Surface Chemistry in Biology, Medicine, and Dentistry (Division of Colloid and Surface Chemistry). Contact: W. Duncan-Hewitt, Faculty of Pharmacy, University of Toronto, Toronto, Ontario M5S 1A1, Canada.
- Colloidal Particles: Colloidal Particles in External Fields - Electric, Magnetic and Hydrodynamic (Division of Colloid and Surface Chemistry). Contact: R.S. Farinato, American Cyanamid Company, 1937 W. Main Street, Stamford, CT 06904, U.S.A., Phone (203) 321 2556.
- Photochemical and Electrochemical Surface Science (Division of Colloid and Surface Chemistry): Scanning Tunneling Microscopy and Related Studies. Contact: B.C. Schardt, Department of Chemistry, Purdue University, West Lafayette, IN 47907, U.S.A., Phone (317) 494 5255.
- Tribology: Friction, Wear and Lubrication: Molecular Basis of Friction (Division of Colloid and Surface Chemistry). Contact: G. McClelland, IBM Research Division, Almaden

Research Center, 650 Harry Road, San Jose, CA 95120-6099, U.S.A., Phone (408) 927 2406.

- Surfactants and Associated Colloids: Electrochemistry in Microheterogeneous Fluids (Division of Colloid and Surface Chemistry). Contact: R.A. Mackay, Detector Technical Division, Chemical Research and Development Center, Aberdeen Proving Ground, MD 21010-5423, U.S.A., Phone (301) 671 5532, FAX (301) 671 3160, or J. Texter, Photographic Research Laboratories, Eastman Kodak Company, Rochester, NY 14650-2109, U.S.A., Phone (716) 477 3019, FAX (716) 722 2327.
- Colloid and Surface Chemistry of Advanced Materials: Growth of Electro-Mat. from Organo/Metallic Precursors (Division of Colloid and Surface Chemistry). Contact: J.W. Rogers or R. Creighton, Sandia National Laboratories, Albuquerque, NM 85721, U.S.A., Phone (505) 844 8050.
- The Procter & Gamble UERP Symposium on Polymer Solutions, Blends and Interfaces (Division of Colloid and Surface Chemistry). Contact: I. Noda or D. Rubingh, The Procter & Gamble Company, Corporate Research Division, Miami Valley Laboratories, P.O. Box 398707, Cincinnati, OH 45239, U.S.A., Phone (513) 245 2677/2339, FAX (513) 245 1612.
- Environmental Applications of Catalysis (Division of Colloid and Surface Chemistry). Contact: R.G. Silver or J.E. Sawyer, Allied-Signal Inc., P.O. Box 580970, Tulsa, OK 74158-0970, U.S.A., Phone (918) 266 1400, FAX (918) 266 3958.
- Diffusion Processes in Polymers.
- Instrumental Methods in Polymer Characterization (Optical Methods).
- Polymers for Photonic and Optical Applications.
- New Directions in Inorganic Electrochemistry. Contact: M. Weaver, Department of Chemistry, Purdue University, West Lafayette, IN 47907, U.S.A.
- Tunneling Microscopy and Related Studies.
- General Papers (Division of Colloid and Surface Chemistry). E.L. Kugler, Department of Chemical Engineering, P.O. Box

6101, Morgantown, WV 26506-6106, U.S.A., Phone (304) 293 2111.

5.25 5th International Conference on Langmuir-Blodgett Films, 25-30 August 1991, Paris, France. Contact: A. Ruaudel, DLPC/SCM, B.P. 121, C.E.N. Saclay, 91191 Gif-sur-Yvette Cedex, France.

5.26 42nd Meeting of the International Society for Electrochemistry, 25-30 August 1991, Montreux, Switzerland. Contact: O. Dossenbach, Technisches-Chemisches Labor, ETH Zentrum, CH-8092 Zürich, Switzerland.

5.27 10th International Symposium on Cationic Polymerization and Related Ionic Processes, 26-29 August 1991, Balatonfüred, Hungary. Contact: T. Kelen, Institute of Applied Chemistry, Kossuth Lajos University, H-4010 Debrecen, Hungary.

5.28 4th Asian Chemical Congress, 26-30 August 1991, Beijing, P.R. China. Topics include Polymer Science and Catalysis. Contact: D. Zhang, Chinese Chemical Society, P.O. Box 2709, Beijing 100080, P.R. China.

5.29 Colloids and Interfaces: Dynamics and Charge Effects in Amphiphilic and Interfacial Systems, 1-5 September 1991, Klingenthal, France. Contact: J. Hendekovic, European Science Foundation, 1 Quai Lezay-Marnésia, F-67000 Strasbourg, France, Phone (33) 88 25 57 47, FAX (33) 88 36 69 87.

5.30 International Symposium on the Physics and Chemistry of Ice, 1-6 September, 1991, Sapporo, Japan. Contact: N. Maeno, Institute of Low Temperature Science, Hokkaido University, Sapporo, Japan.

5.31 International Conference on Polymer-Solid Interfaces, 2-6 September 1991, Namur, Belgium. Contact: J.J. Pireaux, Facultés Universitaires Notre-Dame de la Paix, L.I.S.E., Rue de Bruxelles 61, B-5000 Namur, Belgium.

5.32 6th IFF Research Conference on Exploration-Production: Physical Chemistry of Colloids and Interfaces in Oil Production, 4-6 September 1991, Saint-Raphaël, France. Contact: H. Toulhoat and J. Lecourtier, Institut Français du Pétrole, B.P. 311, 92506 Rueil-Malmaison Cedex, France.

Topics include:

- Interfacial Phenomena
- Complex Fluids: Polymers and gels, surfactants, emulsions and foams, clay dispersions
- Colloids in Porous Media.

5.33 Geocolloids 1991, 9-11 September 1991, Plymouth, U.K. Contact: W.A. House, Institute of Freshwater Ecology, River Laboratory, East Stoke, Wareham, Dorset BH20 6BB, U.K., Phone 0929 462314, FAX 0929 462180.

5.34 International Conference on Engineering Rheology, 9-12 September 1991, Bristol, U.K. Contact: R. Carter, The British Society of Rheology, Carter Baker Enterprises Ltd., 2 Marshbrook Business Park, Marshbrook, Church Stretton, Shropshire, SY6 6QE, U.K.

5.35 Synchrotron Radiation and Dynamic Phenomena, 9-13 September 1991, Grenoble, France. Contact: C. Troyanowsky, SFC/Division de Chimie Physique, 10 Rue Vauquelin, F-75005 Paris, France, Phone (1) 47 07 54 48, FAX (1) 43 31 42 22.

5.36 Adsorption of Surfactants and Polymers, 10-12 September 1991, U.K. Organised by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry. Contact: W.D. Cooper, Shell Research Ltd., Thornton Research Centre, P.O. Box 1, Chester CH1 3SH, U.K.

5.37 2nd Conference of the European Ceramic Society, in conjunction with the 5th International Trade Fair for the Ceramic Industry **Ceramitec '91**, 11-14 September 1991, Munich, Germany. Contact: Deutsche Keramische

Gesellschaft e.V., Frankfurter Strasse 196, D-5000 Köln 90, Germany.

5.38 Molecular Liquids: New Perspectives in Physics and Chemistry. 15-26 September 1991, Figueira-da-Foz, Portugal. NATO Advanced Study Institute. Contact: J.J.C. Teixeira-Dias, University of Coimbra, Chemical Department, P-3049 Coimbra, Portugal.

5.39 23rd Colouristic Symposium (with international participation). 16-18 September 1991, Balatonszéplak, Hungary. Contact: Hungarian Chemical Society, Fő u. 68, H-1027 Budapest, Hungary.

5.40 Conference on Interfacial Phenomena in Composite Materials. 17-19 September 1991, Leuven, Belgium. Contact: J. Miles, Butterworth Scientific Ltd., P.O. Box 63, Westbury House, Bury Street, Guildford, Surrey GU2 5BH, U.K.

5.41 The Chemistry and Physics of Small Metallic Particles. 18-20 September 1991, London, U.K. General Discussion 92 of the Faraday Division of the Royal Society of Chemistry. Contact: J.M. Thomas, The Royal Institution of Great Britain, 21 Albemarle Street, London W1X 4BS, U.K.

5.42 6th International Symposium on Colloid and Molecular Electrooptics and International School on Electro-optic and Related Phenomena in Colloids - Charge Distribution and Dynamics, Interactions, Stability. 19-26 September 1991, Varna, Bulgaria. Contact: I.B. Petkanchin, Institute of Physical Chemistry, Bulgarian Academy of Sciences, 1040 Sofia, Bulgaria.

5.43 1st European Congress on Catalysis Europacat. 20-25 September 1991, Montpellier, France. Contact: F. Figueras, Laboratoire de Chimie Organique, Physique et Cinétique Chimique Appliquées, U.R.A. 418 du CNRS, 8 Rue de l'École Normale, 34053 Montpellier Cedex 1, France.

5.44 Liquid Crystalline Polymers. 24-26 September 1991, Orlando, Florida, U.S.A. Contact: ECN, P.O. Box 272, Plymouth, MI 48170, U.S.A.

5.45 2nd Panamerican Chemical Congress. 24-29 September 1991, San Juan, Puerto Rico, U.S.A. Contact: G.A. Castillo, Colegio de Químicos de Puerto Rico. Apartado 11183, Caparra Heights 00922, Calle Penuelas 658, Esq. hatilo, Hato Rey, Puerto Rico, U.S.A., Phone (809) 763 6070 or 6076.

5.46 Trends in Colloid and Interface Science (5th European Colloid and Interface Society Conference together with the 35th Meeting of the Deutsche Kolloidgesellschaft). 25-28 September 1991, Mainz, Germany. Contact: M. Lösche or C.A. Helm, Johannes-Gutenberg-Universität, Institut für Physikalische Chemie, Jakob-Welder-Weg 11, D-6500 Mainz, Germany, Phone (49) 6131 39 2470, FAX (49) 6131 39 3768, Bitnet ECIS@DMZRZU71.bitnet.

5.47 Workshop on Liquid Crystalline Polymers. 29 September 1991, Storrs, Connecticut, U.S.A. Organised by the Division of Polymer Chemistry of the American Chemical Society. Contact: R.A. Weiss, Institute of Materials Science, University of Connecticut, Storrs, CT 06268, U.S.A., Phone (203) 486 4698.

5.48 Properties and Applications of Molecular Sieves. 30 September - 2 October 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. Ramsay, Chemistry Division, Harwell Laboratory, Oxfordshire OX11 0RA, U.K.

5.49 Sprays and Aerosols '91. 30 September - 2 October 1991, Surrey, U.K. Contact: W. Balachandran, Department of Electronic and Electrical Engineering, University of Surrey, Guildford, Surrey GU2 5XH, U.K.

5.50 4th International Symposium on Macromolecular Metal Complexes, 30 September - 5 October 1991, Siena, Italy. Contact: R. Barbucci, Dipartimento di Chimica, Università di Siena, Piano dei Mantellini 44, 53100 Siena, Italy.

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

5.52 8th International Conference on Ion Exchange (Fundamentals, Synthesis of New Materials, Chromatography, Water Purification, Environmental Applications and Ion Exchange Membranes), 2-4 October 1991, Tokyo, Japan. Contact: M. Abe, Department of Chemistry, Tokyo Institute of Technology, O-okayama, Meguro-ku, Tokyo 152, Japan. Phone (03) 729 0099.

5.53 28th Annual Meeting Clay Minerals Society, 5-10 October 1991, Houston, Texas, U.S.A. Contact: D.R. Pevear, Phone (713) 965 4452.

5.54 Interfacial Phenomena in the Environment, an International Conference in Honour of Werner Stumm, 6-11 October 1991, Davos, Switzerland. Contact: B. Schwerfeger, EAWAG, CH8600 Dübendorf, Switzerland, Phone 0041 1 823 50 35, FAX 0041 1 823 50 28, E-mail SCHWABA@EAWAG.CH.

5.55 180th Electrochemical Society Meeting, 13-18 October 1991, Arizona, U.S.A. Contact: Electrochemical Society Inc., 10 South Main Street, Pennington NJ 08534-2896, U.S.A.

5.56 The Preparation of Dispersions, 14-16 October 1991, Eindhoven, The Netherlands. Contact: H.N. Stein, Technical University Eindhoven, Building SL 1.28, Laboratory of Colloid Chemistry and Thermodynamics, P.O. Box 513, NL-5600 MB Eindhoven, The Netherlands.

5.57 4th European Conference on Applications of Surface and Interface Analysis, 14-18 October 1991, Budapest,

Hungary. Contact: the Organizing Committee MTA ATOMKI, Pf. 51, H-4001 Debrecen, Hungary.

5.58 63rd Annual Meeting of the Society of Rheology, 20-24 October 1991, Rochester, New York, U.S.A. Contact: G.H. Pearson, Eastman Kodak Co., Rochester, NY 14650, U.S.A.

5.59 4th International Conference on Separation Technology, 20-25 October 1991, Hawaii, U.S.A. Contact: Engineering Foundation, 345 East 47th Street, New York, N.Y. 10017, U.S.A.

5.60 International Symposium on Polymeric Microspheres, 23-26 October 1991, Fukui, Japan. Contact: M. Nomura, Department of Materials Science and Engineering, Fukui University, Fukui, Japan.

5.61 5th National Conference on Surfactants, Emulsions and Bloccoloids, 28-30 October 1991, Baroda, India. Contact: A.K. Rakshit, Department of Chemistry, M.S. University, Baroda 390 002, India.

5.62 3rd International Reservoir Characterization Technical Conference: Reservoir Characterization Requirements for Different Stages of Development, 3-5 November 1991, Tulsa Oklahoma, U.S.A. Contact: B. Linville, IIT Research Institute NIPER, P.O. Box 2128, Bartlesville, OK 74005, U.S.A., Phone 918 337 4375, FAX 918 337 4365.

5.63 Slow Dynamics in Condensed Matter, 4-8 November 1991, Fukuoka, Japan. Contact: M. Tokuyama, Tohwa Institute for Science, Tohwa University, Fukuoka 815, Japan.

5.64 Workshop on Molecule-Surface Interactions: Theory and Experiment, 13-15 November 1991, Amsterdam, The Netherlands. Contact: C.M. van den Heuvel, Koninklijke Nederlandse Academie van Wetenschappen, P.O. Box 19121, 1000 GC Amsterdam, The Netherlands, Phone (020) 222 902.

5.65 **1st International Symposium on Atomically Controlled Surfaces and Interfaces**, 19-22 November 1991, Tokyo, Japan. Contact: The Japan Society for Applied Physics, Kunimatsu Building, 1-2-6 Kudan-kita, Tokyo, Japan.

5.66 **2nd Pacific Polymer Conference**, 26-29 November 1991, Shiga, Japan. Contact: T. Takahiko, Society of Polymer Science, 5-12-8 Ginza, Chuo-ku, Tokyo 104, Japan.

5.67 **International Symposium on New Polymers**, 30 November - 1 December 1991, Kyoto, Japan. Contact: T. Higashiura, Department of Polymer Chemistry, Kyoto University, Yoshida, Kakyo-ku, Kyoto 606, Japan.

5.68 **Materials Research Society 1991 Fall Meeting**, 2-6 December 1991, Boston, Massachusetts, U.S.A. Contact: J.M. Phillips, Phone (908) 582 4428, FAX (908) 582 2521, or M.M.J. Treacy, Phone (609) 951 2613, FAX (609) 951 2496, or M.H. Yoo, Phone (615) 574 5165, FAX (615) 574 7659. Includes symposia on

- Phase Formation and Modification by Beam-Solid Interactions. Contact: G.S. Was, Nuclear Engineering, University of Michigan, 213 Cooley Building, 2355 Bonisteel Boulevard, Ann Arbor, MI 48105, U.S.A., Phone (313) 763 4675, FAX (313) 763 4540, Bitnet Gary S. Was@um.cc.umich.edu, or L.E. Rehn, Materials Science Division, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, IL 60439, U.S.A., Phone (708) 972 5021, FAX (708) 972 4798, or D. Follstaedt, Sandia National Laboratories, Division 1112, P.O. Box 5800, Albuquerque, NM 87185, U.S.A., Phone (505) 844 2102, FAX (505) 844 7775.

- Photons and Low Energy Particles in Surface Processing. Contact: C. Ashby, Sandia National Laboratories, Division 1126, P.O. Box 5800, Albuquerque, NM 87185, U.S.A., Phone (505) 844 2303, FAX (505) 844 3211, or J.H. Brannon, IBM Almaden Research Center, K66/803, 650 Harry Road, San Jose, CA 95120, Phone (408) 927 1626, FAX (408) 927 2100, or S. Pang, Department of Electrical

Engineering and Computer Science, University of Michigan, Ann Arbor, MI 48109, Phone (313) 936 2962, FAX (313) 747 1781.

- Structure and Properties of Interfaces in Materials. Contact: W.A.T. Clark, Department of Materials Science and Engineering, The Ohio State University, 116 West 19th Avenue, Columbus, OH 43210, Phone (614) 292 2538, FAX (614) 292 1537, or C.L. Briant, General Electric Corporate Research and Development, P.O. Box 8, MB 269-K1, Schenectady, NY 12301, Phone (518) 387 5765, FAX (518) 387 7495, or U. Dahmen, National Center for Electron Microscopy, Lawrence Berkeley Laboratory, 1 Cyclotron Road, Building 72, Berkeley, CA 94720, U.S.A., Phone (415) 486 4627, FAX (415) 486 5888.

- Thin Films: Stresses and Mechanical Properties III. Contact: W.D. Nix, Materials Science and Engineering, Stanford University, Stanford, CA 94305, Phone (415) 725 2605, FAX (415) 725 4034, or J.C. Bravman, Materials Science and Engineering, Stanford University, Stanford, CA 94305, Phone (415) 723 3698, FAX (415) 725 4034, or E. Arzt, Max-Planck-Institut für Metallforschung, University of Stuttgart, D-7000 Stuttgart 1, Germany, Phone (49) 711 2095 219, FAX (49) 711 2095 250, or L.B. Freund, Division of Engineering, Brown University, Providence, RI 02912, Phone (401) 863 1476, FAX (401) 863 1157.

- Ferroelectric Thin Films II. Contact: A.I. Kingon, Department of Materials Science and Engineering, North Carolina State University, P.O. Box 7907, Raleigh, NC 27695-7907, U.S.A., Phone (919) 737 2347, FAX (919) 737 7724, or E.R. Myers, National Semiconductor Corporation, M/S E-140, 2900 Semiconductor Drive, Santa Clara, CA 95052-8090, U.S.A., Phone (408) 721 2258, FAX (408) 736 8503, or Bruce Tuttle, Sandia National Laboratories, Division 1842, P.O. Box 5800, Albuquerque, NM 87185, U.S.A., Phone (505) 845 8026, FAX (505) 844 2974.

- Complex Fluids. Contact: D. Weitz, Exxon Research and Engineering Company, Route 33 East, Annandale, NJ

08801, Phone (908) 730 3536, FAX (908) 730 3076, or E. Sirota, Exxon Research and Engineering Company, Route 33 East, Annandale, NJ 08801, Phone (908) 730 3407, FAX (908) 730 3076, or T. Witten, Department of Physics, University of Chicago, 5640 S. Ellis Street, Chicago, IL 60637, Phone (312) 702 0947, FAX (312) 702 7423, or J. Israelachvili, Department of Materials Science, University of California, Santa Barbara, Santa Barbara, CA 93106, Phone (805) 893 8407, FAX (805) 893 4731.

- Disordered Materials: Fractals, Scaling, and Dynamics. Contact: L.M. Schwartz, Schlumberger-Doll Research, Old Quarry Road, Ridgefield, CT 06877-4108, Phone (203) 431 5210, FAX (203) 438 3819, or J.V. Maher, Department of Physics, University of Pittsburgh, Pittsburgh, PA 15260, U.S.A., Phone (412) 624 9007, FAX (412) 624 9163, or Th.C. Halsey, James Franck Institute, University of Chicago, Chicago, IL 60637, U.S.A., Phone (312) 702 7207, FAX (312) 702 5863.

- Synthesis and Processing of Ceramics: Scientific Issues. Contact: W.E. Rhine, Ceramics Processing Research Laboratory, MIT, 77 Massachusetts Avenue, Room 12-002, Cambridge, MA 02139, U.S.A., Phone (617) 253 5186, FAX (617) 258 6936, or Th.M. Shaw, IBM T.J. Watson Research Center, P.O. Box 218, Yorktown Heights, NY 10598, U.S.A., Phone (914) 945 3196, FAX (914) 945 4001, or R.J. Gottschall, DOE, Division of Materials Science, Office of Basic Energy Sciences, Washington, DC 20545, U.S.A., Phone (301) 353 3428, FAX (301) 353 6594, or Y. Chen, Oak Ridge National Laboratory, Solid State Division, P.O. Box 2008, Oak Ridge, TN 37831, Phone (301) 353 3428, FAX (301) 353 6594.

5.69 **The Conformation of Flexible Molecules in Fluid Phases**, 16-18 December 1991, Southampton, U.K. Faraday Symposium 27. Contact: G.R. Luckhurst, Department of Chemistry, The University, Southampton SO9 5NH, U.K.

5.70 **Emulsions**, 18-19 December 1991, Reading, U.K. Organised by the Society of Chemical Industry and

sponsored by the Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry. Contact: D. Cebula, Unilever Research, Colworth Laboratory, Sharnbrook, Bedford MK44 1LQ, U.K. or T. Hardman, Chemistry Department, Reading University, Reading, Berks. RG6 2AD, U.K., Phone 44 734 875123.

1992

5.71 **Fluid/Particle Processing and Separation Conference**, 11-16 January 1992. Organised by the American Filtration Society. Includes flocculation, mixing, rheology, particle deposition, coalescence, transport in porous media, etc. Contact: F.M. Tiller, 7901 Montglen, Houston, TX 77061-1319, U.S.A., Phone 713 645 7689, FAX 713 747 6323.

5.72 **19th Australian Polymer Symposium**, February 1992, Perth, Australia. Contact: G. Gerguson, Chemistry Centre, WA, 125 Hay Street, Perth, W. Australia 6000.

5.73 **PARTEC/POWTECH '92: 5th European Symposium Particle Characterization, 2nd European Symposium Separation of Particles from Gases**, 24-26 March 1992, Nürnberg, Germany. Contact: GVC VDI Verfahrenstechnik, P.O. Box 101139, D-4000 Düsseldorf 1, Germany.

5.74 **Symposium on Polymer Colloids**, in honour of Professor R.H. Ottewill, 30 March - 1 April 1992, Bristol, U.K. Contact: J.W. Goodwin, School of Chemistry, Bristol University, Cantock's Close, Bristol BS8 1TS, U.K.

5.75 **Structure and Activity of Enzymes**, 1-3 April 1992, Cambridge, U.K. General Discussion 93 of the Faraday Division of the Royal Society of Chemistry. Contact: A.D. Buckingham, Department of Chemistry, University of Cambridge, Lensfield Road, Cambridge CB2 1EW, U.K.

5.76 **203rd ACS National Meeting**, 5-10 April 1992, San Francisco, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. Symposia include:

E.S.P.C.I., 10 Rue Vauquelin, F-75005 Paris Cedex 05, France, FAX +33 1 4331 4222, or U.W. Suter, Institut für Polymere, ETH-Zürich, ETH-Zentrum CNB E92, CH-8092 Zürich, Switzerland, FAX +41 1 261 0215/4633, E-mail suter@CZHETH5A, or D.N. Theodorou, Department of Chemical Engineering, University of California at Berkeley, 218 Gilman Hall, Berkeley, CA 94720, U.S.A., FAX +1 415 642 4778, E-mail doros@ucbmsa or doros@mycenae.cchem.berkeley.edu.

- Surface Precipitation and Solid Solutions at the Mineral/Water Interface (Division Geochemistry). Contact: D.A. Dzombak, Department of Civil Engineering, Carnegie Mellon University, Pittsburgh, PA 15213, U.S.A., Phone 412 268 2946, FAX 412 268 7813, or P.D. Glynn, U.S. Geological Survey, 432 National Center, Reston, VA 22092, U.S.A., Phone 703 648 5823, FAX 703 648 5274.

- Molecular Dynamics.

- Polymer Photophysics: Fundamentals and Applications.

- Synthesis, Purification and Processing of Polymers in Microgravity.

- Water Based Coatings (Division of Polymeric Materials: Science and Engineering). Contact: F. Louis Floyd, The Glidden Company, 16651 Sprague Road, Strongsville, OH 44136, Phone 216 826 5448, FAX 216 826 5555, or J.L. Massingill Jr., The Dow Chemical Company, Bldg B-1603, Freeport, TX 77541, U.S.A., Phone 409 238 4399, FAX 409 238 4530.

- General Papers (Division of Colloid and Surface Chemistry). Contact: D.W. Osborne, The Upjohn Company, Kalamazoo, MI 49001, U.S.A., Phone (616) 385 5285.

5.77 **Electrochemical Engineering and the Environment**, 7-9 April 1992, Loughborough, U.K. Contact: R.J. Mortimer, Department of Chemistry, Loughborough University of Technology, Loughborough, Leicestershire LE11 3TU, U.K., Phone +44 (509) 222 583, FAX +44 (509) 233 163.

5.78 **Food Colloids and Polymers: Structure and Dynamics**, 8-10 April 1992, Lunteren, The Netherlands.

- Surface Science of Catalysis: Students and Friends of Gabor Somorjai (Division of Colloid and Surface Chemistry). Contact: F. Zaera, Department of Chemistry, University of California, Riverside, CA 92521, U.S.A., Phone (714) 787 5498, FAX (714) 787 4713, Bitnet Zaera@UCRVM.S.

- Surface Chemistry in Biology, Medicine and Dentistry: Surface Phenomena of Biopolymers and Cells (Division of Colloid and Surface Chemistry). Contact: W. Duncan-Hewitt, Faculty of Pharmacy, University of Toronto, Toronto, Ontario M5S 1A1, Canada.

- Photochemical and Electrochemical Surface Science: The Roger Parsons Symposium on the Electrical Double Layer Honoring Roger Parsons (Division of Colloid and Surface Chemistry). Contact: J. Lipkowski, Department of Chemistry, University of Guelph, Guelph, Ontario N1G 2W1, Canada, Phone (519) 824 4120.

- Tribology: Friction, Wear and Lubrication: New Tools for Tribology: Surface Force Balance to Atomic Force Microscopy (Division of Colloid and Surface Chemistry). Contact: M.R. Philpott, IBM Research Division, Almaden Research Center, 650 Harry Road, San Jose, CA 95120-6099, U.S.A., Phone (408) 927 2410, or V. Novotny, IBM Research Division, Almaden Research Center, 650 Harry Road, San Jose, CA 95120-6099, U.S.A., Phone (408) 927 2080.

- Surfactants and Associated Colloids: Reactions in Organized Media (Division of Colloid and Surface Chemistry). Contact: C.A. Bunton, Department of Chemistry, University of California, Santa Barbara, CA 93106, U.S.A., Phone (805) 961 2931.

- Colloids and Surface Chemistry of Advanced Materials: Novel Structural, Mechanical and Electrical Aspects of Chemical Interfaces (Division of Colloid and Surface Chemistry). Contact: N. Lewis, California Institute of Technology, 1201 East California Boulevard, Pasadena, CA 91125, U.S.A., Phone (818) 356 3646.

- Modelling and Computer Simulation (Division of Polymer Chemistry). Contact: L.M. Monnerie, École Supérieure de Physique et de Chimie Industrielles de la Ville de Paris,

Contact: Y.H.M. Smolders, Department of Food Science, Wageningen Agricultural University, P.O. Box 8129, 6700 EV Wageningen, The Netherlands, Phone (08370) 82520.

5.79 Characterisation of Solids and Surfaces, 13-16 April 1992, Manchester, U.K. Annual Congress of the Royal Society of Chemistry. Contact: J.F. Gibson, The Royal Society of Chemistry, Burlington House, Piccadilly, London W1V 0BN, U.K.

5.80 SPE/DOE 8th Symposium on Enhanced Oil Recovery, 21-24 April 1992, Tulsa, Oklahoma, U.S.A. Contact: J.L. Thurber, Society of Petroleum Engineers, P.O. Box 833836, Richardson, TX 75083-3836, U.S.A., Telex 730989.

5.81 Materials Research Society 1992 Spring Meeting, 27 April - 1 May 1992, San Francisco, California, U.S.A. Contact: J.D. Passaretti, Phone (215) 861 3431, FAX (215) 861 3412, or L.E. Rehn, Phone (708) 972 5021, FAX (708) 972 4798, or D.W. Schaefer, Phone (505) 844 7937, FAX (505) 846 5064.

5.82 Concentrated Colloidal Dispersions: Advances in Experimental Methods, 13 May 1992, London, U.K. Contact: D. Wedlock, Shell Research, Sittingbourne, Kent ME9 8 AG, U.K., Phone 44 795 24444.

5.83 4th International Conference on Fundamentals of Adsorption, 17-22 May 1992, Kyoto, Japan. Organised by the Japan Society on Adsorption. Contact: M. Suzuki, Institute of Industrial Science, University of Tokyo, 7-22-1 Roppongi, Minato-ku, Tokyo 106, Japan, Phone 81 3 402 6231 ext. 2412.

5.84 181st Electrochemical Society Meeting, 17-22 May 1992, Arizona, U.S.A. Contact: Electrochemical Society Inc., 10 South Main Street, Pennington NJ 08534-2896, U.S.A.

5.85 4th International Conference on Composite Interfaces ICCI-IV: Engineered Interphases, 26-29 May 1992, Cleveland, Ohio, U.S.A. Contact: H. Ishida, Department of Macromolecular Science, Case Western Reserve University.

Cleveland, OH 44106, U.S.A., Phone 216/368 4285, FAX 216/368 4164, Telex 980 676 CWRU-CLEVE.

5.86 Surface and Colloid Science at Fluid Interfaces, symposium at the Central Regional Meeting of the American Chemical Society, 27-29 May 1992, Cincinnati, Ohio, U.S.A. Contact: E. Sprague, Department of Chemistry, University of Cincinnati, Cincinnati, OH 45221-0172, U.S.A., Phone 513/556 9200, FAX 513/556 9239, or R.G. Laughlin, Miami Valley Laboratories, The Procter & Gamble Company, P.O. Box 398707, Cincinnati, OH 45239-8707, U.S.A., Phone 513/245 2248, Telex 6503262506, FAX 513/245 1233.

5.87 3rd CESIO International Surfactants Congress and Exhibition, 1-5 June 1992, London, U.K. Contact: I. Shepherd, Gardiner-Caldwell Communications Ltd., The Old Ribbon Mill, Pitt Street, Macclesfield, Cheshire, SK11 7PT, U.K., Phone 0625 618507, FAX 0625 610260.

5.88 66th Colloid and Surface Science Symposium (Division of Colloid and Surface Chemistry of the American Chemical Society), 15-18 June 1992, Morgantown, West Virginia, U.S.A. Contact: D.H. Smith, Enhanced Oil Recovery Group, U.S. Department of Energy, Morgantown, WV 26507-0880, U.S.A., Phone (304) 291 4069.

5.89 9th International Symposium on Surfactants in Solution, 7-12 June 1992, Varna, Bulgaria. Contact: I.B. Ivanov, Laboratory of Thermodynamics and Physico-chemical Hydrodynamics, University of Sofia, 1 Anton Ivanov Avenue, Sofia 1126, Bulgaria.

5.90 14th International Liquid Crystal Conference, 21-26 June 1992, Pisa, Italy. Contact: Prof. Chiellini, c/o ACS Macromolecular Division, 1155 Sixteenth Street, N.W., Washington, DC 20036, U.S.A.

5.91 12th European Chemistry at Interfaces Conference, 28 June - 2 July 1992, Lund, Sweden. Themes:

1. Adsorption of surfactants and polymers
2. Interaction between surfactants and polymers

3. Concentrated dispersions
4. Microemulsions.
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, Phone +46 46 10 81 75, FAX +46 46 10 45 33, Telex 33533 LUNIVER S.
- 5.92 **International Conference Surface Heterogeneity Effects in Adsorption and Catalysis**, provisionally July 1991, Casimierz, Poland. Contact: W. Rudzinski, Department of Theoretical Chemistry, Lublin, Poland.
- 5.93 **34th International Symposium on Macromolecules**, 13-18 July 1992, Prague, Czechoslovakia. Contact: P. Cefelin, Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Heyrovského nám. 18882/2, 162 06 Prague 6-Petriny, Czechoslovakia, Phone +42 (2) 360317, Telex 122019 IMCP C.
- 5.94 **6th International Conference on Magnetic Fluids**, 20-24 July 1992, Paris, France. Contact: V. Cabuil, Université Pierre et Marie Curie, Boîte 740, 4 Place Jussieu, 75252 Paris Cedex 05, France, Phone (33-1) 44 27 31 74 or 44 27 31 66, FAX (33-1) 44 27 38 41 or 44 27 38 66, Telex UPMC SIX200145F.
- 5.95 **3rd IUPAC International Symposium on Analytical Chemistry in the Exploration, Mining, and Processing of Materials**, 2-7 August 1992, Sandton, South Africa. Contact: The Symposium Secretariat Mintek, Private Bag X3015, Randburg 2125, South Africa, Phone (27)(11)793 3511, FAX (27)(11) 793 2413, Telex 424867 SA.
- 5.96 **204th ACS National Meeting**, 23-28 August 1992, Washington DC, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. The symposia include:
 - Surface Science of Catalysis: Spectroscopic Characterization of Catalysts (Division of Colloid and Surface

- Chemistry). Contact: H.H. Lamb, Department of Chemical Engineering, North Carolina State University, Raleigh, NC 27695-7905, U.S.A., Phone (917) 737 3572.
- Surface Chemistry in Biology, Medicine and Dentistry: Surface Phenomena of Biopolymers and Cells (Division of Colloid and Surface Chemistry). Contact: W. Duncan-Hewitt, Faculty of Pharmacy, University of Toronto, Toronto, Ontario M5S 1A1, Canada.
- Photochemical and Electrochemical Surface Science: Electroanalysis and Surfaces (Division of Colloid and Surface Chemistry). Contact: J. Osteryoung, Department of Chemistry, State University of New York at Buffalo, 3435 Main Street, 113 Acheson Hall, Buffalo, NY 14214, U.S.A., Phone (716) 831 2513.
- Surfactant and Association Colloids: Solubilization Phenomena (Division of Colloid and Surface Chemistry). Contact: A.J.I. Ward, Department of Chemistry, Clarkson University, Potsdam, NY 13676, U.S.A., Phone (315) 268 3886, FAX (315) 268 6570.
- Colloid and Surface Chemistry of Advanced Materials: Theoretical Aspects of Materials-Related Surface Chemistry (Division of Colloid and Surface Chemistry). Contact: H. Jonsson, Department of Chemistry, University of Washington, B6-10, Seattle, WA 98195, U.S.A., Phone (206) 543 1610.
- Electroactive Polymers.
- Plasma Polymerization.
- General Papers (Division of Colloid and Surface Chemistry). Contact: D.W. Osborne, The Upjohn Company, Kalamazoo, MI 49001, U.S.A., Phone (616) 385 5285.
- 5.97 **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.
- 5.98 **Colloid Science in the Aquatic Environment**, 7-9 September 1992, London, U.K. Organised by the SCI Surface and Colloid Chemistry Committee. Contact: J. Gregory,

Preview 1993 and later

5.106 **4th Aachen Membran Kolloquium**, 9-11 March 1993, Aachen, Germany. Contact: GVC VDI Verfahrens-technik, P.O. Box 101139, D-4000 Düsseldorf 1, Germany, Phone (0211) 6214 257, Telex 8586525, FAX (0211) 6214 575.

5.107 **205th ACS National Meeting**, 28 March - 2 April 1993, Denver, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. The symposia include:

- Surface Science of Catalysis: Kinetics of Elementary Steps on Surfaces (Division of Colloid and Surface Chemistry). Contact: R.F. Hicks, Department of Chemical Engineering, 5531 Boelter Hall, University of California, Los Angeles, CA 90024-1592, U.S.A., Phone (213) 206 6865.
- Surface Chemistry in Biology, Medicine and Dentistry: Surface Phenomena of Biopolymers and Cells (Division of Colloid and Surface Chemistry). Contact: W. Duncan-Hewitt, Faculty of Pharmacy, University of Toronto, Toronto, Ontario M5S 1A1, Canada.
- Photochemical and Electrochemical Surface Science: Immobilization of Biomolecules at Surfaces (Division of Colloid and Surface Chemistry). Contact: W. Heineman, Department of Chemistry, University of Cincinnati, Cincinnati, OH 45221, U.S.A., Phone (513) 556 9208.
- Colloid and Surface Chemistry of Advanced Materials: Surface Science Related to Advanced Materials (Division of Colloid and Surface Chemistry). Contact: S. Williams, Department of Chemistry, University of California, 405 Hilgard Avenue, Los Angeles, CA 90024, U.S.A., Phone (206) 543 0156.

5.108 **9th Summer Conference on the Chemistry of Solid/Liquid Interfaces**, provisionally 23 June - 3 July 1993, Dubrovnik, Cavtat, Yugoslavia. Contact: V. Pravdic, Institute Ruder Boskovic, P.O. Box 1016, 41001 Zagreb, Croatia.

Chemical Engineering, University College, Gower Street, London WC1E 6BT, U.K., Phone 44 71 387 7050.

5.99 **The Liquid-Solid Interface at High Resolution**, 7-9 September 1992, Newcastle upon Tyne, U.K. Contact: A. Hamnett, Department of Chemistry, Bedson Building, The University, Newcastle upon Tyne, NE1 7RU, U.K.

5.100 **Colloids in External Fields**, 18-19 or 21-22 September 1992, Cambridge, U.K. Contact: I.D. Robb, Unilever Research, Port Sunlight Laboratory, Quarry Road East, Bebington, Wirral, Merseyside L63 3JW, U.K.

5.101 **6th European Colloid and Interface Society (ECIS) Conference**, end September 1992, Graz, Austria. Contact: H. Hoffmann, Universität Bayreuth, Lehrstuhl für Physikalische Chemie, Postfach 3008, 8580 Bayreuth, Germany, Phone (0921) 552760.

5.102 **6th Conference on Colloid Chemistry**, provisionally October 1992, Balatonszéplak Hungary. Contact: Hungarian Chemical Society, Fő u. 68, H-1027 Budapest, Hungary.

5.103 **17th Congress International Federation of Societies of Cosmetic Chemists**, 13-16 October 1992, Yokohama, Japan. Contact: Society of Cosmetic Chemists of Japan, c/o Shiseido Co. Ltd., Ginza, Tokyo, Japan.

5.104 **Materials Research Society 1992 Fall Meeting**, 30 November - 4 December 1992, Boston, Massachusetts, U.S.A. Contact: C.C. Koch, Phone (919) 737 7340, FAX (919) 737 7724, or S.J. Pennycook, Phone (615) 574 5504, FAX (615) 574 4143, or A.E. White, Phone (908) 582 2506, FAX (908) 582 2783.

5.105 **Colloidal Aspects of Aerosols**, December 1992, U.K. Contact: I.C. Callaghan, B.P. Research Centre, Chertsey Road, Sunbury-on-Thames, Middlesex TW16 7LN, U.K.

Yugoslavia, Phone 41 435 111, Telex 213 83, FAX 041 425 497.

5.109 **33rd Microsymposium, Optics and Dynamics of Polymers**, 12-15 July 1993, Prague, Czechoslovakia. Contact: P. Cefelin, Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Heyrovského nám. 18882/2, 162 06 Prague 6-Petriny, Czechoslovakia, Phone +42 (2) 360317, Telex 122019 IMCPC.

5.110 **206th ACS National Meeting**, 22-27 August 1993, Chicago, U.S.A. Contact: Th.A. Horbett, Chemical Engineering Department, University of Washington, Seattle, WA 98195, U.S.A. The symposia include:

- Surface Chemistry in Biology, Medicine, and Dentistry (Division of Colloid and Surface Chemistry). Contact: W. Duncan-Hewitt, Faculty of Pharmacy, University of Toronto, Toronto, Ontario M5S 1A1, Canada.

- Photochemical and Electrochemical Surface Science: Vibrational Spectroscopy at Surfaces (Division of Colloid and Surface Chemistry). Contact: A. Campion, Department of Chemistry, University of Texas, Austin, Austin, TX 78712, U.S.A., (512) 471 3949.

- Colloid and Surface Chemistry of Advanced Materials: Chemically Sensitive Interfaces: Molecular Recognition and Signal Transduction (Division of Colloid and Surface Chemistry). Contact: T. Mallouk, Department of Chemistry, University of Texas, Austin, Austin, TX 78712, U.S.A., Phone (512) 471 3949.

5.111 **Advanced Polymer Materials Conference, Dresden '93**, 30 August - 3 September 1993, Dresden, Germany. Contact: M. Rätzsch, c/o ACS Macromolecular Division, 1155 Sixteenth Street, N.W., Washington, DC 20036, U.S.A.

5.112 **Gas-Solid Surface Dynamics**, 13-15 September 1993, Cambridge, U.K. General Discussion 96 of the Faraday Division of the Royal Society of Chemistry. Contact: D.A. King, Department of Chemistry, University of Cambridge, Lensfield Road, Cambridge CB2 1EW, U.K.

5.113 **44th Meeting of the International Society for Electrochemistry**, 20-24 September 1993, Berlin, Germany. Contact: W. Plieth, Free University of Berlin, Institute of Physical and Theoretical Chemistry, Takustrasse 3, D-1000 Berlin 33, Germany.

5.114 **8th International IACIS Conference on Colloid and Interface Science, 12-19 February 1994, Adelaide, Australia**. IACIS members will be allowed a discount on the conference fee. Topics include:

- Mineral science
- Self-assembly
- Dispersion stability
- Membrane technology
- Swelling amphiphiles.

Contact: J. Ralston, Department of Applied Chemistry, University of South Australia, Adelaide, S.A. 5095, Australia.

5.115 **207th ACS National Meeting**, 13-18 March 1994, San Diego, 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: Spectroscopy of Electrode Surfaces (Division of Colloid and Surface Chemistry). Contact: M.P. Soriaga, Department of Chemistry, Texas A&M University, College Station, TX 77843, U.S.A., Phone (409) 723 4643.

- Surfactants and Associated Colloids: Microemulsions and Micellar Systems (Division of Colloid and Surface Chemistry). Contact: J. Puig, Universidad de Guadalajara, Boulevard Tlaquepaque 1451, Guadalajara, Jalisco 44430, Mexico.

5.116 **13th European Chemistry at Interface Conference**, provisionally May 1994, Kiev, U.S.S.R.

5.117 **35th IUPAC International Symposium on Macromolecules, Macro 94**, 11-15 July 1994, Acron, Ohio, U.S.A. Contact Dr. Kennedy, c/o ACS Macromolecular Division, 1155 Sixteenth Street, N.W., Washington, DC 20036, U.S.A.

5.118 **35th Microsymposium on Polymer Networks**, 25-28 July 1994, Prague, Czechoslovakia. Contact: P. Cefelin, Institute of Macromolecular Chemistry, Czechoslovak Academy of Sciences, Heyrovského nám. 18882/2, 162 06 Prague 6-Petriny, Czechoslovakia, Phone +42 (2) 360317, Telex 122019 IMCPC.

5.119 **209th 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. The symposia include:

- Photochemical and Electrochemical Surface Science (Division of Colloid and Surface Chemistry). Contact: J. Stickney, Department of Chemistry, University of Georgia, Athens, GA 30602, U.S.A., Phone (404) 542 1967.

5.120 **209th ACS National Meeting**, 2-7 April 1995, Anaheim, 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: Monomers and Polymers at Electrode Surfaces (Division of Colloid and Surface Chemistry). Contact: H. Zimmer, Department of Chemistry, University of Cincinnati, Cincinnati, OH 45221, U.S.A., Phone (513) 556 9273.

- Surfactants and Associated Colloids: Symposium Honoring Stig E. Friberg (Division of Colloid and Surface Chemistry). Contact: D.W. Osborne, The Upjohn Company, Kalamazoo, MI 49001, U.S.A., Phone (616) 385 5285.

5.121 **210th ACS National Meeting**, 20-25 August 1995, Chicago, 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: Microstructure of Electrode Surfaces (Division of Colloid and Surface Chemistry). Contact: D.G. Frank (513) 559-1099.

5.122 **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.

5.123 **ACS National Meetings**

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.

6 **REGIONAL AND PERSONAL NEWS**

6.1 **Personal News**

IACIS regrets to report the deaths of **Professor Per Ekwall**, who has been a member of our Association almost since its foundation, and **Professor dr. Kenjiro Meguro**, who has been a member of IACIS for more than 11 years.

We also commemorate **Professor Albert C. Zettlemoyer** who passed away on January 27, 1991, at the age of 75. Zettlemoyer was president of the American Chemical Society in 1981 and former Lehigh University provost and vice-president.

Obituary

Professor Per Ekwall, Stockholm, one of the founding fathers of colloid chemistry in the Nordic countries, died on 19 december 1990 at the age of 95.

In his thesis, which he obtained at Åbo Akademi, Åbo (Turku), Finland in 1927 (where he remained until 1963) Ekwall noted the occurrence of a "critical concentration" around which the properties of fatty acid soap solutions changed abruptly. Thus, at the same time as, but independently of, Buty in England, he defined what we now call the "critical micelle concentration". During a research career which lasted for more than 60 years and resulted in about 260 papers Ekwall extended his studies of aqueous surfactant systems to solubilization and a series papers on phase equilibria in multicomponent systems containing

amphiphiles, water and other solvents which now form part of the essential background in surfactant science and its applications in biology and emulsion as well as microemulsion technology.

Ekwall combined these fundamental studies with a strong interest in their application in biology, pharmacology and wood chemistry. An important result of this work was that, on his retirement from his chair in Physical Chemistry at Åbo Akademi, he was in 1963 asked by the Royal Swedish Academy of Engineering Sciences to set up the Laboratory for Surface Chemistry which in 1968-69 (under the directorship of Stig Friberg) became the nucleus of the present Institute for Surface Chemistry.

Ekwall was scientifically active to the end: his last paper dates from 1989 and up to the last day of his life he was compiling experimental results for publication. However, his impact on colloid science cannot be measured from the contents of his papers only. His enormous scientific imagination and enthusiasm provided him with an unusual capability of inspiring his pupils and colleagues. Thus, more than a dozen of them have been appointed to chairs in physical chemistry, biochemistry, wood chemistry, pharmaceutical chemistry of wood chemistry in the Nordic countries.

Per Stenius
Institute for Surface Chemistry, Stockholm, Sweden

Obituary

The death of **Dr. Kenjiro Meguro** on March 1, 1991, at the age of 64 saddened his many friends, colleagues, and students; the world of colloid and interface science has lost a remarkable and amiable scientist, especially in the field of surfactant and dispersion science.

He was born in Tokyo on January 13, 1927, and graduated from Osaka university in 1948. After working at the Nezu Chemical Institute, Muddashi University, Tokyo, for 13 years from 1948 to 1961, he became a Professor of Physical Chemistry at the Science University of Tokyo.

during which time he proposed and developed, in collaboration with this writer, a model, now widely known as the Meguro-Kondo model, for the flocculation and deflocculation of colloidal particles by surfactants. His research work at the Science University of Tokyo covered a wide range of topics in colloid and interface science, including monolayers, colloidal dispersions and surfactant solutions, and the number of papers he published in various scientific journals, both domestic and international, exceeded 300. In the meantime, he directed more than 500 graduate and undergraduate students and served as a consultant to many Japanese companies.

As a human being, Dr. Meguro was a man of delicate sentiment, contrary to his appearance. He very much loved Chopin's music and old French movies. He is survived by his wife, Yoko, and a daughter and a son.

Tamotsu Kondo
Science University of Tokyo, Japan

Professor P. Somasundaran (chairman of the Henry Krumb School, Columbia University in the City of New York, U.S.A.) was awarded the "Ellis Island Medal of Honor".

6.2 International and Regional News

Australia

Professors T. Healy, L. White and D. Boger have joined forces (Physical Chemistry, Mathematics and Chemical Engineering, respectively) to establish a new **Centre for Advanced Minerals Processing** in the University of Melbourne.

Hungary

Some copies of the Proceedings of the 5th Conference on Colloid Chemistry, Balatonfüred '88 (published in 1990) are

still available and can be ordered from the Hungarian Chemical Society, Fő u. 68, H-1027 Budapest, Hungary. Price US\$15 for IACIS members and US\$30 for others.

Scandinavia

Professor Per Stenius will resign as the director of the **Institute for Surface Chemistry, Stockholm, Sweden**, in August 1991 in order to become professor at the Faculty of Process Technology at Helsinki University, Finland. The new director of the Institute will be Dr. Krister Holmberg who is presently research director at Berol Nobel AB, Stenungsund, Sweden, and adjoint professor at Chalmers University of Technology, Gothenburg, Sweden.

U.K.

For 1990-1991 Dr. W.D. Cooper is chairman of the **Colloid and Interface Science Group of the Faraday Division of the Royal Society of Chemistry**. Honorary Secretary is Dr. R. Buscall (Corporate Colloid Science Group, ICI plc, The Heath, Runcorn, Cheshire, U.K.).

U.S.A.

As from January 1991 E. L. Kugler is chairman of the **Colloid and Surface Chemistry Division of the American Chemical Society**; Secretary is M.E. Labib (David Sarnoff Research Center, CN 5300, Princeton, NJ 08543-5300, U.S.A.).

Educational Films on Topics of Colloid and Interface Science

For several reasons I have recently been interested in obtaining educational films (or videotapes) on topics of Colloid and Interface Science. It appears to be quite difficult to obtain information on available modern material and the only comprehensive list I have found was published in the IUPAC publication "Physical Chemistry: Enriching Topics From Colloid and Surface Science" edited by Van Olphen and Mysels in 1975. I am now trying to make a new one. If those who have

films available would send me information on topic, producer, length of film/videotape, technical requirements for projection and price for purchase and/or rental I would undertake to compiling a list which I would be happy to send for free to anyone interested and which will be published in this Newsletter.

Per Stenius
Institute for Surface Chemistry, Box 5607, 11486
Stockholm, Sweden, FAX (46) 8 208998.

7 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.

7.1 New Journals

Journal of Cluster Science, D.H. Russell and B.K. Teo, Eds., Plenum New York-London, Vol. 1 (1991) four issues, US\$135.00 (US US\$115.00).

Journal of Fluorescence, J.R. Lakowicz, Ed., Plenum New York-London, Vol. 1 (1991) four issues, US\$160.00 (US US\$135.00).

Journal of Inorganic and Organometallic Polymers, M. Zeldin, Ed., Plenum New York-London, Vol. 1 (1991) four issues, institutional rate: US\$160.00 (US US\$135.00); personal rate: US\$40.00 (US US\$35.00).

Journal of Materials Chemistry, A.R. West, Ed., Royal Society of Chemistry, U.K., Vol. 1 (1991), six issues, £195.00 (EC £175.00, US \$395.00).

Beginning January 1, 1991, **Journal de Physique** (founded in 1872) appears in four sections:

JP I, fundamental physics, 12 issues per year FF 1440.00 (France FF 1195.00)

JP II, fundamental physics, 12 issues per year FF 1440.00 (France FF 1195.00)

JP III, applied physics, formerly published in *Revue de Physique Appliquée*, 12 issues per year, FF 1440.00 (France FF 1195.00)

JP IV, proceedings international colloquia, 8-10 issues per year, FF 4500.00 (France FF 3750.00)
combined subscription FF 7620.00 (France FF 6350.00).

7.2 Books 1989

Bässler, H., Ed., **Optical Techniques to Characterize Polymer Systems** (Studies in Polymer Science 5), Elsevier Amsterdam, The Netherlands, US\$178.00/Dfl.365.00.

Betz, G., and Varga, P., **Desorption Induced by Electronic Transition DIET IV** (Proceedings 4th International Workshop, Gloggnitz Austria, October 1989; Springer Series in Surface Sciences 19), Springer Berlin, Germany.

Bienfait, M., Ed., **X-Ray and Neutron Scattering from Surfaces and Thin Films** (Proceedings International Conference on Surface and Thin Films Studies Using Glancing-Incidence X-Ray and Neutron Scattering, Marseille France, May-June 1989), Les Éditions de Physique Les Ulis, France.

Birdi, K.S., **Lipid and Biopolymer Monolayers at Liquid Interfaces**, Plenum New York, U.S.A., US\$78.00 (US and Canada US\$65.00).

Blums, E.Ya., Malorov, M.M., and Gebers, A., **Magnetic Liquids** (in Russian), Zinatne Riga, U.S.S.R.

Derjaguin, B.V., **Theory of Stability of Colloids and Thin Films** (translated from Russian), Plenum New York, U.S.A., US\$102.00 (US and Canada US\$85.00).

Derjaguin, B.V., Churaev, N.V., and Muller, V.M., **Surface Forces** (translated from Russian by V.I. Kisin, translation edited by J.A. Kitchener), Consultants Bureau New York-London.

Ducarrolr, M., Bernard, C., Vandenbulcke, L., Eds., **Proceedings of the 7th European Conference on Chemical Vapor Deposition, Perpignan France, June 1989** (in French and English), Les Éditions de Physique Les Ulis, France.

Hemsley, D.A., Ed., **Applied Polymer Light Microscopy**, Elsevier Barking-New York, £46.00/US\$82.75.

Hoffmann, R., **Solids and Surfaces: A Chemist's View of Bonding in Extended Structures**, VCH Weinheim, Germany, DM 48.00.

Intergranular and Interphase Boundaries in Materials (Proceedings Conference Paris, France, September 1989), Les Éditions de Physique, Les Ulis, France, FF 700.00 (in France FF 650.00).

Janson, J.-C., and Ryden, L., Eds., **Protein Purification: Principles, High Resolution Methods, and Applications**, VCH Publishers, Deerfield Beach FL, U.S.A., US\$55.00.

Klinowski, J.B., and Patrick, J., Eds., **Recent Advances in Zeolite Science** (Proceedings Conference Cambridge, U.K., April 1989; Studies in Surface Science and Catalysis 52), Elsevier Amsterdam, The Netherlands.

LeBeyec, Y., Della Negra, S., Thomas, J.P., Eds., **2nd International Workshop on MeV and KeV Ions and Cluster Interactions with Surfaces and Materials, Orsay France, September 1988**, Les Éditions de Physique Les Ulis, France.

MacCullum, J.R., and Vincent, C.A., Eds., **Polymer Electrolyte Reviews - 2**, Elsevier London-New York, £55.00/US\$99.00.

Madou, M.J., and Morrison, S.R., **Chemical Sensing with Solid State Devices**, Academic Press Boston, U.S.A., US\$89.50.

Mann, S., Webb, J., and Williams, R.J.P., **Biomineralization, Chemical and Biochemical Perspectives**, VCH Weinheim, Germany, £98.00/DM 274.00.

Mittal, K.L., and Susko, J.R., Eds., **Metallized Plastics 1: Fundamental and Applied Aspects**, Plenum New York, U.S.A., US\$65.00.

Nowotny, J., and Weppner, W., Eds., **Nonstoichiometric Compounds: Surfaces, Grain Boundaries and Structural Defects** (NATO ASI Series C: Mathematical and Physical Sciences 276), Kluwer Dordrecht, The Netherlands.

Petryanov-Sokolov, I.V., and Sutugin, A.G., **Aerosols** (in Russian), Nauka Moscow, U.S.S.R.

Vagner, G.R., **Formation of Structures in Silicate Dispersions** (in Russian), Naukova Dumka Kiev, U.S.S.R.

Visnawath, D.S., and Natarajan, **Data Book on the Viscosity of Liquids**, Hemisphere New York, U.S.A., £125.00.

Voltylov, V.V., and Trusov, A.A., **Electrooptics and Conductometry of Polydisperse Systems** (in Russian), Leningradskii Gos. Univ. Leningrad U.S.S.R.

7.3 Books 1990

Abruna, H.D., Ed., **Electrochemical Interfaces, Modern Techniques for In-Situ Interface Characterization**, VCH Weinheim, Germany, DM 144.00.

d'Agostino, R., Ed., **Plasma Deposition, Treatment, and Etching of Polymers**, Academic Press London, U.K., £52.75.

Aleshin, V.G., Smekhov, A.A., Bogatyreva, G.P., and Kruk, V.B., **Chemistry of Diamond Surfaces** (in Russian), Naukova Dumka Kiev, U.S.S.R.

Auciello, O.G., Valles-Abarca, J.A., and Flamm, D.L., Eds., **Plasma-Surface Interactions and Processing of Materials** (NATO ASI Series E: Applied Sciences 176), Kluwer Dordrecht, The Netherlands.

Bangert, H., et al., **Selected Proceedings of the 11th International Vacuum Congress (IVC-7), Cologne, Germany, September 1989**, Pergamon Oxford, U.K.

Berghmans, H., and Koningsveld, R., Eds., **Structure Formation in Polymer Solutions** (22nd Europhysics Conference in Macromolecular Physics, Leuven Belgium, September 1989), Huethig and Wepf Basel, Switzerland.

Biederman, H., et al., **Polymer Physics** (Advances in Polymer Science 95), Springer New York, U.S.A., US\$89.00.

Bortolani, V., March, N.H., and Tosi, M.P., **Interactions of Atoms and Molecules with Solid Surfaces**, Plenum New York, U.S.A., US\$138.00 (US and Canada US\$115.00).

Bradshaw, A.M., Hermann, K., and Woodruff, D.T., **Selected Proceedings of the 7th International Conference on Solid Surfaces (ICSS-7), Cologne, Germany, September 1989**, Plenum Oxford, U.K.

Brotselt, E., Muenz, W.D., Oechsner, H., Rie, K.T., and Wolf, G.K., **Plasma Surface Engineering Vol. 2** (1st International Conference on Plasma Surface Engineering, Garmisch-Partenkirchen Germany, 1988), DMG Informations-gesellschaft Oberursel, Germany.

Burchard, W., and Ross-Murphy, S.B., **Polymers and Gels**, Elsevier Barking-New York, £70.00/US\$126.00.

Buschow, K.H.J., and Wohlfarth, E.P., **Ferromagnetic Materials: A Handbook on the Properties of Magnetically Ordered**

Substances, Vol. 5, Elsevier (North Holland) Amsterdam, The Netherlands, US\$166.75/Dfl.325.00.

Candau, F., and Ottewill, R.H., **Scientific Methods for the Study of Polymer Colloids and Their Applications** (NATO ASI Series C: Mathematical and Physical Sciences 303), Kluwer Dordrecht, The Netherlands, US\$39.00/Dfl.75.00/£24.75.

Charltonet, R., and Rivat, C., **Electrophoresis: Methodological Principles and Concepts**, Les Éditions INSERM Paris, France.

Charvolin, J., Joanny, J.-F., and Zinn-Justin, J., Eds., **Liquids at Interfaces** (Proceedings Les Houches Summer School, Session XLVIII, May-June 1988; Les Houches Summer School Proceedings 48), Elsevier (North Holland) Amsterdam, The Netherlands, US\$179.50/Dfl.350.00.

Cheremisinoff, N.P., **Handbook of Ceramics and Composites, Vol. 1: Synthesis and Properties**, Marcel Dekker New York, US\$222.00 (US and Canada US\$185.00).

Chetbit, G., Ed., **Fractals: Non-Integral Dimensions and Applications**, Wiley Chichester, U.K., ca. £32.50/US\$67.30.

Cloizeaux, J. des, and Jannink, G., **Polymers in Solution: Their Modelling and Structure**, Oxford University Press, U.K., £95.00.

Collon, R.J., and Murday, J.S., Eds., **Proceedings of the Topical Conference on Nanometer Scale Properties of Surfaces and Interfaces, Boston MA, U.S.A., October 1989**, American Institute of Physics New York, U.S.A.

Craver, C.D., and Provder, Th., **Polymer Characterization: Physical Property, Spectroscopic, and Chromatographic Methods** (Advances in Chemistry Series 227), American Chemical Society, Washington DC, U.S.A., US\$109.95.

Damanskii, A.V., **Colloidal Chemistry: Selected Papers** (in Russian), Voronezhskii Universitet Voronezh, U.S.S.R.

Daw, M.S., and Schlueter, M.A., Eds., **Atomic Scale Calculations of Structure in Materials** (Symposium San Francisco, California, U.S.A., April 1990; Materials Research Society Symposium Proceedings 193), Materials Research Society Pittsburgh PA, U.S.A.

De Boedt, M.F., Hayes, M.H.B., and Herbillon, A., Eds., **Soil Colloids and Their Associations in Aggregates**, Plenum New York, U.S.A., US\$150.00 (US and Canada US\$125.00).

Dispersed Systems and Surface Phenomena: Topical Collection of Scientific Papers (in Russian), Kharkovskii Gos. Univ. Kharkov, U.S.S.R.

Dowben, P.A., and Miller, A., Eds., **Surface Segregation Phenomena**, CRC Boca Raton, Florida, U.S.A.

Dubois-Violette, E., and Pansu, B., Eds., **International Workshop on Geometry and Interfaces, Aussois France, September 1990**, Les Éditions de Physique Les Ulis, France.

Dzombak, D.A., and Morel, F.M.M., **Surface Complexation Modelling - Hydrous Ferric Oxide**, John Wiley Somerset, U.S.A.

Eisele, U., **Introduction to Polymer Physics** (translated from German), Springer Berlin etc., DM58.00.

Elliott, S.R., **Physics of Amorphous Materials 2nd Ed.**, Longman Harlow, Essex, U.K., £19.99.

Findenegg, G.H., **Interfaces in Condensed Systems** (Progress in Colloid and Polymer Science 83), Steinkopff Verlag Darmstadt, Germany.

Flick, E.W., **Emulsifying Agents: An Industrial Guide**, Noyes Publications Park Ridge NJ, U.S.A., US\$54.00.

Guérillot, D., and Guillon, O., Eds., **Mathematics of Oil Recovery** (2nd European Conference, Arles, France, September 1990), Éditions Technip Paris, France, FF 545.00.

Gutierrez, C., Nelendres, C., Eds., **Spectroscopic and Diffraction Techniques in Interfacial Electrochemistry** (NATO ASI Series C: Mathematical and Physical Sciences 320), Kluwer Dordrecht, The Netherlands.

Huln, J.-P., Cazabat, A.-M., Guyon, E., and Carmona, F., Eds., **Hydrodynamics of Dispersed Media** (Random Materials and Processing Series), Elsevier (North Holland) Amsterdam, The Netherlands, US\$64.00/Dfl. 125.00.

International Workshop on Geometry and Interfaces (Proceedings Conference Paris, France, September 1990), Les Éditions de Physique, Les Ulis, France, FF 450.00 (in France FF 400.00).

Karsa, D.R., Ed., **Additives for Water-based Coatings** (Royal Society of Chemistry Special Publication 76), Royal Society of Chemistry Letchworth, U.K., £45.00.

Kliss, É. and Printér, J., Eds., **Proceedings International Conference on Colloid Chemistry in Honour of the Late Professor E. Wolfram, Balatonfüred, Hungary, 1988**, Lorand Eötvös University Budapest, Hungary.

Komarov, F.F., Kumakhov, M.A., and Tashlykov, I.S., **Non-destructive Ion Beam Analysis of Surfaces** (translated from Russian), Gordon & Breach New York, U.S.A., US\$140.00 (SAS members US\$84.00).

Konorov, P.P., Ed., **Laser Desorption** (in Russian), Leningradskii Gos. Universitet Leningrad, U.S.S.R.

Konov, V.I., Lukyanchuk, B.S., and Boyd, I., **First International School on Laser Surface Microprocessing, Tashkent, U.S.S.R., October-November 1989** (Proceedings SPIE-The International Society for Optical Engineering 1352), SPIE-The International Society for Optical Engineering Bellingham, Washington, U.S.A.

Koros, W.J., **Barrier Polymers and Structures** (ACS Symposium Series 423), American Chemical Society Washington DC, U.S.A., US\$89.95.

Kruglyakov, P.M., and Ekserova, D.R., **Foams and Foam Films** (in Russian), Khimiya Moscow, U.S.S.R..

Lindman, B., Rosenholm, J.B., and Stenius, P., Eds., **Surfactants and Macromolecules: Self-Assembly at Interfaces and in Bulk** (10th Scandinavian Symposium on Surface Chemistry, Åbo (Turku), Finland, June 1989), Steinkopff Verlag Darmstadt, Germany.

Linford, R.G., Ed., **Electrochemical Science and Technology of Polymers - 2**, Elsevier London-New York, £68.00/US\$122.50; **Part 1** (1987) £56.00/US\$100.75

March, N.H., **Chemical Physics of Liquids** (Contemporary Topics in Pure and Applied Condensed Matter Science Series 1), Gordon & Breach New York, U.S.A., US\$145.00 (SAS members US\$85.00).

Mark, H.F., et al., **Encyclopedia of Polymer Science and Engineering 2nd Ed. Index Volume**, John Wiley & Sons New York, U.S.A., US\$200.00.

Metanomski, W.V., Ed., **Compendium of Macromolecular Nomenclature (The Purple Book)**, Blackwell Scientific Publications, U.K., Cloth £28.50/US\$43.00 (IUPAC members £21.40/US\$32.00), Paper £11.00/US\$17.50 (IUPAC members £8.25/US\$17.50).

Mittal, K.L., Ed., **Particles in Gases and Liquids 2: Detection, Characterization, and Control**, Plenum New York, U.S.A., US\$107.40 (US and Canada US\$89.50).

Moreau, M. and Brace, G., **Dictionnaire du Forage et des Puits - Dictionary of Drilling and Boreholes**, Éditions Technip Paris, France, FF 389.00.

Neagle, W., and Randell, D.R., Eds., **Surface Analysis Techniques and Applications** (International Symposium

- Manchester, U.K., September 1989; Royal Society of Chemistry Special Publication 84), Royal Society of Chemistry Letchworth, U.K.
- Patsis, V., Ed., **Fourteenth International Conference in Organic Coatings Science and Technology, Proceedings Vol. 12**, Technomic Publishing Co. Lancaster, PA 17604, U.S.A., US\$89.00.
- Perry, D.L., **Instrumental Surface Analysis of Geologic Materials**, VCH Weinheim, Germany.
- Pevnitskaya, M.V., Ed., **Electrochemistry in the Solution of Ecology Problems: Collection of Scientific Papers** (in Russian), Nauka Sibirskoe Otd. Novosibirsk, U.S.S.R.
- Podenko, L.S., **Relaxation of Nuclear Magnetization of Liquids in Colloidal Systems** (in Russian), Nauka Sibirskoe Otd. Novosibirsk, U.S.S.R.
- Rivière, J.C., **Surface Analytical Techniques**, Oxford University Press, U.K., £75.00.
- Roberts, G., Ed., **Langmuir-Blodgett Films**, Plenum New York, U.S.A., US\$102.00 (US and Canada US\$85.00).
- Rubingh, D.N., and Holland, P.M., Eds., **Cationic Surfactants: Physical chemistry** (Surfactants Science Series 37), Marcel Dekker New York, U.S.A.
- Sacher, E., Pireaux, J.-J., and Kowalczyk, S.P., Eds., **Metallization of Polymers** (ACS Symposium Series 440), American Chemical Society, Washington DC, U.S.A., US\$99.95.
- Scheuing, D.R., Ed., **Fourier Transform Infrared Spectroscopy in Colloid and Interface Science** (developed from a Symposium Sponsored by the division of Colloid and Surface Chemistry by the American Chemical Society at the 199th National Meeting Boston, Massachusetts, U.S.A., April 1990; ACS Symposium Series 447), American Chemical Society Washington DC, U.S.A.

- Schmitz, K.S., **An Introduction to Dynamic Light Scattering of Macromolecules**, Academic Press London, U.K., £57.50.
- Scrosati, B., Ed., **Second International Symposium on Polymer Electrolytes** (Proceedings Conference Siena, Italy, June 1989), Elsevier London-New York, £75.00/US\$135.00.
- Seymour, R.B., and Carraher, C.H., **Giant Molecules**, John Wiley New York, U.S.A., US\$49.95.
- Separation of Gases** (5th BOC Priestley Conference; Royal Society of Chemistry Special Publication 80), Royal Society of Chemistry Letchworth, U.K., £49.50.
- Sikes, C.S., and Wheeler, A.P., Eds., **Surface Reactive Peptides and Polymers: Discovery and Commercialization** (ACS Symposium Series 444), American Chemical Society Washington, DC 20036, U.S.A., US\$69.95.
- Simon, J., Ed., **Conducting Polymers**, VSP Utrecht, The Netherlands.
- Tarasevich, M.R., Orlov, S.B., and Shkol'nikov, E.I., **Electrochemistry of Polymers** (in Russian), Nauka Moscow, U.S.S.R.
- Tovbin, Yu.K., **Theory of Physicochemical Processes at the Gas-Solid Boundary** (in Russian), Nauka Moscow, U.S.S.R.
- Tsukruk, V.V., and Shilov, V.V., **Structure of Polymeric Liquid Crystals** (in Russian), Naukova Dumka Kiev, U.S.S.R.
- Williams, P.A., and Hudson, M.J., Eds., **Recent Developments in Ion Exchange Vol. 2**, Elsevier London, U.K.
- Wilson, T., **Confocal Microscopy**, Academic Press London, U.K., £33.00.
- Wise, H., and Oudar, Jac., **Material Concepts in Surface Reactivity and Catalysis**, Academic Press London, U.K., £46.50.

7.4 Books 1991

- Anderson, J.R., and Boudart, M., **Catalysis, Science and Technology Vol. 7**, Springer IJmuiden, The Netherlands, DM 128.00.
- Beckett, R., Ed., **Surface and Colloid Chemistry in Natural Waters and Water Treatment**, Plenum New York, U.S.A., US\$71.40 (US and Canada US\$59.50).
- Bodor, G., **Structural Investigation of Polymers**, Simon & Schuster Hemel Hempstead, U.K., £45.00/US\$89.95.
- DeRossi, D., Ed., **Polymer Gels: Fundamentals and Biomedical Applications** (Proceedings International Symposium Tsukuba, Japan, September 1989), Plenum New York, US\$102.00 (US and Canada US\$85.00).
- Hearle, J.W.S., **Polymeric Materials. Vol. 1: Structure, Properties and Performance**, Simon & Schuster Hemel Hempstead, U.K., approx. £80.00/US\$159.95.
- Jankowska, H., Swiatkowski, A., and Choma, J., **Active Carbon** (translated from Polish), Simon & Schuster Hemel Hempstead, U.K., £39.95/US\$79.95.
- Krestov, G.A., **Thermodynamics of Solvation: Solution and Dissolution; Ions and Solvents; Structure and Energetics** (translated from Russian), Simon & Schuster Hemel Hempstead, U.K., £48.00/US\$95.95.
- Mittal, K.L., and Anderson Jr., H.R., **Acid-Base Interactions: Relevance to Adhesion Science and Technology** (Proceedings Conference in honor of Professor Frederick M. Fowkes, Lehigh, U.S.A., June 1990), VSP Zeist, The Netherlands, DM 110.00/US\$75.00.
- Richards, G., Ed., **Scattering Methods in Polymer Science**, Simon & Schuster Hemel Hempstead, U.K., £50.00/US\$99.95.
- Schroeder, M.R., **Fractals, Chaos, Power Laws**, Freeman Oxford, U.K., £24.95.

- Schwertmann, U., and Cornell, R.M., **Iron Oxides in the Laboratory**, VCH Weinheim, Germany, DM 118.00.
- Separation Techniques/Thermodynamics/Liquid Crystal Polymers** (Advances in Polymer Science 98), Springer IJmuiden, The Netherlands, DM 148.00.
- Sharma, M.K., and Micale, F.J., Eds., **Surface Phenomena and Fine Particles in Water-Based Coatings and Printing Technology**, Plenum New York, U.S.A., US\$95.40 (US and Canada US\$79.50).
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8 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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A handwritten signature in black ink, reading "Hans Lyklema". The signature is written in a cursive, flowing style. The first name "Hans" is written with a large, stylized 'H' and 'a'. The last name "Lyklema" is written with a large 'L' and 'y', and the 'ma' is written in a smaller, more compact script.