

**FIRST CONFERENCE OF THE EUROPEAN COLLOID AND INTERFACE SOCIETY  
VILLA OLMO, COMO, ITALY, SEPTEMBER 2-4, 1987**

**Program**

**September 1**

16.00-18.00 Registration

**September 2**

8.30- 9.00 Registration

9.00-13.00 Session 1: Behavior of Interfaces and Adsorption

13.00-14.45 Lunch

14.45-17.15 Session 2: Membranes and Vesicles

17.15-19.15 Posters

19. 20 Reception

**September 3**

9.00-13.00 Session 3: Surfactant Micelles and Phase Diagrams

13.00-14.45: Lunch

14.45-17.15 Session 4: Microemulsions

17.15-19.00 Posters

20. 30 Workshop Dinner

**September 4**

9.00-13.00 Session 5: Particle Interactions and Fractals

13.00-14.30 Lunch

14.30-16.30 Session 6: Reactions in Disperse Systems

17.00-19.00 General Assembly of ECIS

List of papers.

**Session I. Behavior of interfaces and adsorption**

**Aveyard (Hull)**

- 1 R.K. Thomas (Oxford):  
"The nature of adsorption at liquid surfaces"
- 2 F. C. De Schryver (Leuven):  
"Adsorption at clays probed by fluorescence spectroscopy"
- 3 R. H. Ottewill and S. J. Burkitt (Bristol):  
"The behaviour of mixed hydrocarbon-fluorocarbon surface active agents at interfaces"
- 4 A. Skauge, T. Lind and H. Hoiland (Bergen):  
"Adsorption of sodium dodecyl sulfate on alumina"
- 5 P. Joos, M. Vermeulen and J. van Hunsel (Antwerp):  
"The interfacial tension during transport of n-alkanols and n-carbonic acids between water and hexane"

- 6 A. Prins (Wageningen):  
"Disproportionation of gas bubbles as affected by viscoelastic surface properties"
- 7 J. Belloni (Paris):  
"Radiation induced metal aggregates and deposits: synthesis and properties"

## **Session 2. Membranes and vesicles**

### **Corti (Pavia)**

- 8 P. A. Kralchevsky, A. V. Groshev and I. B. Ivanov (Sofia):  
"Disjoining pressure and line tension in curved liquid films"
- 9 E. J. Dufourc (Bordeaux):  
"Interaction between amphipatic peptides and phospholipidic membranes"
- 10 D. Babils, C. M. Paleos and A. Malliaris (Athens):  
"Phase transitions in monomeric and polymerized vesicles of diallyldidodecylammonium bromide"
- 11 M. Angelova and D. S. Dimitrov (Sofia):  
"Mechanisms of liposome formation in electric fields"
- 12 P. Fromherz, C. Kemper and E. Wiedemann (Ulm):  
"The mechanism of formation of lipid-vesicles: free assembly and forced closure of disks"

## **Session 3. Surfactant micelles and phase diagrams**

### **Bothorel (Bordeaux)**

- 13 E. Jahns and H. Finkelmann (Freiburg):  
"Micellar aggregation of monomeric C<sub>14</sub>E<sub>8</sub> surfactants"
- 14 I. Johnson and G.Olofsson (Lund):  
"Thermodynamics of micelle formation of alkali metal perfluoroalkanates in water: role of hydrophobic hydration of the perfluoro-alkyl group"
- 15 M. Almgren (Uppsala):  
"Diffusion-controlled deactivation of excited states in rod-like micelles and hexagonal phases"
- 16 A. Khan, K. P. Das, L. Ebersson and B. Lindman (Lund):  
"Phase equilibria and micromulsion structure for a triple-chained soap: sodium di-2-butyldecanoate"
- 17 J. Marignan, J. Appell, P. Bassereau, P. Delord, F. C. Larche, G. Porte and R. May (Montpellier):  
"Quasi long range order in swollen lyotropic lamellar phases"
- 18 U. Olsson, M. Jonströmer and O.Söderman (Lund):  
"Nuclear magnetic resonance relaxation in microemulsions formed by nonionic surfactants"
- 19 O. Abillon, B. Binks, D. Langevin, J. Meunier and R. Ober (Paris):  
"Relationship between surfactant film bending elasticity, and structure and interfacial tensions in microemulsion systems"

#### **Session 4. Microemulsions Senatra (Firenze)**

- 20 D. Wielekinski, B. Föllner, K. Selcan and G. H. Findenegg (Bochum): "Hydrophile-lipophile balance and interfacial tensions in water-hydrocarbon-surfactant systems"
- 21 R. Strey and M. Teubner (Göttingen): "Microstructure of Microemulsions"
- 22 U. Olsson, K. Nagai and H. Wennerström (Lund) "On the hydrocarbon diffusion in microemulsion system"
- 23 P.-J. Dérian, M. Drifford, T. Zemb, J.S. Barnes, S. Hide and B. W. Ninham (Saclay and Canberra): "The disordered open connected model of microemulsions"
- 24 E. Hirsch, R. Machloufi, S. J. Candau, J. L. Mansot and J. M. Martin (Strasbourg and Lyon): "Structural investigation of organometallic inverse micellar systems "

#### **Session 5. Particle Interaction and Fractals Burchard (Freiburg)**

- 25 R. Klein (Konstanz): "Fractal structure of colloidal aggregates"
- 26 C. G. de Kruif, P. Rouw and A. Vrij (Utrecht): "Adhesive hard sphere dispersions"
- 27 R. Zerrouk, R. Mercier and A. Foissy (Besançon): "Interfacial analysis of pyrogenic and precipitated silica sols. Kinetics of silica coagulation"
- 28 H. Hoffmann, M. Angel, G. Huber and H. Rehage (Bayreuth) "Electro-optic and rheological behavior of aqueous dispersions of polytetrafluoroethylene (PTFE) fibrilles"
- 29 C. Mathis, G. Bossis and J. Brady (Nice and Caltech): "Structure of colloidal suspensions under shear flow"
- 30 J. C. Eriksson and S. Ljunggren (Stockholm): "Molecular calculations for interacting adsorbed surfactant layers"
- 31 H. Füredi-Milhofer, D. Skrtic, M. Markovic and Lj. Komunjer (Zagreb) "Nucleation, crystal growth and aggregation in model systems relevant to pathological mineralization".

#### **Session 6. Reactions in Disperse Systems Pelizzetti (Torino)**

- 32 J. B. Baussant, R. Mercier, A. Foissy and J. Bernard (Besançon): "Microcalorimetric analysis of the surface ionization of titanium oxide and silica"
- 33 O. I. Micic, M. T. Nenadovic, T. Rajh and M. I. Vucemilovic (Belgrade): "Kinetic and spectroscopic properties of small colloids of layered semiconductors"
- 34 A. Harriman, G. R. Millward and J. M. Thomas (London Cambridge): "Properties of hydrous iridium oxide colloids"
- 35 H. Weller, M. Haase and A. Henglein (Berlin): "Photoelectron emission from CdS particles and related chemical changes"

## Posters.

- 1 L. Cantú, M. Corti, V. Degiorgio, R. Piazza and A. Rennie (Milano, Pavia and Grenoble) "Neutron scattering from ganglioside micelles"
- 2 C. Solans, N. Azemar and J. L. Parra (Barcelona): "High-internal-phase-volume emulsions in water/nonionic surfactant hydrocarbon systems"
- 3 L. Latie, J.- Biais, B. Clin and P. Lalanne (Bordeaux): "Phase diagram and structural study of water-hexanol-SDS system"
- 4 C. Blom and J. Mellema (Twente): "Rheological behavior of microemulsions"
- 5 W. Knoche, K. Stickdorn, B. H. Robinson, J. McDonald and K. Galvin (Bielefeld and Norwich): "Determination of water activity in water-in-oil microemulsions"
- 6 P. Baglioni, R. Cocciaro and L. Dei (Firenze): "Surface properties of carboxylated latex particles"
- 7 P. Baglioni and L. Kevan (Firenze): "Structural effects of alcohol addition to sodium dodecylsulfate micelles studied by electron spin echo modulation of 5-doxylstearic acid spin probe"
- 8 A. Baszkin, M. Deyme, P. Couvreur and G. Albrecht (Paris) "Surface pressure and surface potential studies of poly(isobutyl cyanoacrylate)-ampicillin association"
- 9 D. Bauer and P. Fourre (Paris): "Hydrometallurgy: the example of an industrial process based on microemulsions"
- 10 A. M. Bellocq and D. Gazeau (Bordeaux): "Phase behavior of the quinary mixture: H<sub>2</sub>O-NaCl- dodecane-pentanol-SDS. Origin of the Winsor III equilibria"
- 11 A. M. Bellocq and D. Gazeau (Bordeaux): "Critical behavior in microemulsions"
- 12 W. Richtering, W. Burchard, E. Jahns and H. Finkelmann (Freiburg): "A light scattering and thermodynamic study of the micellar solution of a nonionic surfactant in a wide concentration and temperature range"
- 13 M. Clause, D. Touraud, H. Mokrini, L. Nicolas-Morgantini A. Zradba and J. Heil (Compiègne): "Structural diversity of quaternary monophasic microemulsions. Influence of the molecular structure of the non-aqueous constituents"
- 14 H. Oberndorfer and E. Dobias (Regensburg): "Interaction of surfactants with polyvalent cations in solution and at the mineral-water interface"
- 15 K. A. Wierer and B. Dobias (Regensburg): "Adsorption of surfactants at the solid water interface. Calorimetric study"
- 16 N. Rebbouh, J. Buchert and J. R. Lalanne (Bordeaux): "Singular behavior of the refractive index in a critical microemulsion"
- 17 J. M. Bonmatin, E. J. Dufourc, J. F. Faucon, G. Fourche and J. Dufourcq (Bordeaux): "Changes in the resulting structure of melittin- phospholipid complexes depending on the chemical structure of lipid"
- 18 G. Durand-Piana, F. Lafuma and R. Audebert (Paris): "Adsorption of cationic polyelectrolytes at clay colloid interface in dilute aqueous suspensions"
- 19 G. Ebert, M. Plachky and M. Seno (Marburg and Tokyo): "Studies on the solubilization of basic poly- ( $\alpha$ -amino acids) in reverse micelles by ultracentrifuge measurements"
- 20 M. A. Schafheutle and H. Finkelmann (Freiburg): "Lyotropic liquid crystals-Shape of micelles and molecular geometry"
- 21 C. M. C. Gambi, L. Léger and C. Taupin (Firenze and Paris): "Diffuse interfacial regions between o/w microemulsions at low surfactant concentration: phase diagram, composition and structure investigations"

- 22 G. Hertel and H. Hoffmann (Bayreuth): "New nematic lyotropics"
- 23 F.-H. Haegel and H. Hoffmann (Bayreuth): "Selective incorporation of dyes with fluorocarbon and hydrocarbon chains into coexisting micellar phases of sodiumperfluorooctanoate and dimethyltetradecylaminoxid"
- 24 H. Rehage and H. Hoffmann (Bayreuth): "Rheological properties of viscoelastic surfactant systems"
- 25 A. Tuel, P. Dautry, H. Hommel, A. P. Legrand and J. C. Morawski (Paris): "Simulation of some steps in the synthesis of precipitate silica"
- 26 P. A. Gunning, D. J. Hibberd, A. M. Howe, A. R. Mackie, P. Richmond and M. M. Robins (Norwich). "Gravitational stability of dispersions-Non-intrusive measurement of concentration profiles"
- 27 A. M. Howe, A. Katsikides, A. V. Chadwick, A. Al-Mudarif B. H. Robinson (Norwich and Canterbury): "Structure and dynamics of microemulsion based gels"
- 28 K. Jakobsen (Stavanger): "Oil penetration into surfactant monolayers"
- 29 M. Jonströmer, K. Nagai., U. Olsson and O. Söderman (Lund and Nagasaki): "A field dependent NMR-relaxation study on a sodium dodecyl sulfate/butanol/toluene/brine microemulsion system"
- 30 P. Joos and J. Van hunsel (Antwerp): "The mechanism of demicellization studied by the dynamic surface tension of aqueous Brij 58 solutions"
- 31 P. Joos and Y. Balbaert (Antwerp): "A form of Rayleigh-Taylor instability during curtain coating"
- 32 P. Joos and M. Braecke (Antwerp): "Contact angle hysteresis on rough surfaces"
- 33 C. P. Kurzendörfer and W. von Rybinski (Düsseldorf): "Mechanisms of action of threshold-active substances with respect to calcium carbonate precipitation in the washing process"
- 34 J. L. Mansot and P. Lagarde (Lyon and Paris): "Local structure analysis in organometallic reverse micellar systems"
- 35 G. Porte, P. Bassereau, J. Marignan, R. May and I. Poggi (Montpellier): "A neutron scattering study of the anomalous isotropic phase in a ternary surfactant/alcohol /brine system"
- 36 M. Medina-Noyola, R. Klein, H. Ruiz-Estrada and A. Vizcarra-Rendon (Konstanz and Mexico): "A mode-mode coupling theory of electrolyte friction on charged polyions"
- 37 G. Nägele, M. Medina-Noyola, R. Klein, J. L. Arauz-Lara and W. Dozier (Konstanz, Syracuse and Annandale): "Ionic-strength dependence of the self-diffusion coefficient in polyball systems: theory vs. experiment"
- 38 G. Girod, J. M. Lamarche and A. Foissy (Besançon): "Adsorption of hydrolyzed polyacrylamides on TiO<sub>2</sub> and CaCO<sub>3</sub>. Influence of electrical interaction and measurement procedure"
- 39 A. Pierre, J. M. Lamarche, R. Mercier and A. Foissy (Besançon): "Adsorption of polynaphthalene sulfonic acid onto titanium dioxide"
- 40 S.-A. Nordin and B. Kasemo (Göteborg): "Weighing monolayers of colloidal silica particles with a quartz crystal microbalance"
- 41 P. Sjödin and P. Persson (Solna): "Modification of crystal size and shape by surface active agents"
- 42 G. Peschel and P. Ludwig (Essen): "Determination of the coagulation kinetics of differently sized silica particles in various aqueous electrolyte solutions by dynamic light scattering"
- 43 J.-E. Proust and S. D. Tchaliowska (Paris): "Size separation of polydisperse microspheres or microcapsules"

- 44 J.-C. Ravey (Nancy): "Small angle light scattering patterns from micrometer- sized spheroids"
- 45 H. Rupprecht and K. H. Ziller (Regensburg): "Adsorption of polymers on drug crystals"
- 46 J. Y. Calves, F. Danes, E. Gentric, Y. Lijour, A. Sanfeld and P. Saumagne (Brest and Bruxelles): "Kinetics of complexation of  $\text{Co}^{2+}$  by sodium di-(2-ethyl hexil) phosphate (NaL) at the water/toluene interface"
- 47 N. O. Belambri, P. Vanel and D. Schuhmann (Montpellier): "Adsorption of alkyl betains in the presence of various supporting electrolytes"
- 48 D. Senatra and Z. Zhou (Firenze): "From isotropic w/o microemulsions to lyotropic o/w type mesophases by thermal and dielectric analysis"
- 49 R. Söderblom (Linköping): "Clay chemistry-colloidal chemistry"
- 50 A.Ceglie, M. Monduzzi, B. Lindman and O. Söderman (Lund): "Non-aqueous microemulsions. A NMR relaxation study"
- 51 N. Azemar, C. Solans, P. Erra, J. L. Parra, M. Clause, D. Touraud and D. Clause (Barcelona and Compiègne): "Detection of microemulsion structure variety by electroconductimetry, viscosimetry, densitometry and microcalorimetry"
- 52 M.J. Stebe and J.-C- Ravey (Nancy): "A structure and phase behavior comparative study of fluorinated and hydrogenated nonionic surfactant systems"
- 53 J.Szymanowski and K.Prochaska (Poznan): "Interfacial mechanism of copper extraction"
- 54 J.Szymanowski and K.Prochaska (Poznan): "Adsorption of some oligooxyethylene amine derivatives at toluene/water interface"
- 55 J.Szymanowski and I. Miesiac (Poznan): "Hydrophilicity of polyoxyethylene chain in nonionic surfactants with blocked terminal hydroxyl group"
- 56 P. Quienne, J.Y.Bottero and D. Tchoubar (Orleans and Nancy): "Colloids species as mass fractal aggregates in aluminium and iron hydroxide diluted solutions"
- 57 C. Treiner (Paris): "Micellar solubilization of alcohols in binary surfactant mixtures"
- 58 S.Vass (Budapest): "The comparison of nuclear and thermodynamical structural data obtained from sodium alkylsulfates"
- 59 K. Veggeland, E. Gilje and H.Hoiland (Stavanger and Bergen): "Phase diagrams of the systems water, sodium dodecylsulfate, heptane and 1-,2-, and pentanol"
- 60 W. Mayer and D. Woermann (Köln): "Nonequilibrium states of a binary liquid mixture with miscibility gap in the vicinity of its critical point in homogeneous phase: Study of the system 2,6-dimethyl pyridine water"
- 61 J. Wiesner, A. Wocaun and H. Hoffmann (Bayreuth): "Surface enhanced Raman spectroscopy (SERS) of surfactants adsorbed to colloidal metal particles"
- 62 U. Wurz (Göttingen): "Small angle X-ray scattering of microemulsion"
- 63 A. Xenakis, C.T. Cazianis and A.E. Evangelopoulos (Athens): "Solubilization of glycogen phosphorylase b into microemulsion droplets. An electron spin resonance study"
- 64 M.A. Lopez-Quintela, A. Fernández-Nóvoa, D.Losada and "Nonequilibrium phenomena in critical microemulsion"
- 65 A. Genz, J. McDonald and J.F. Holzwarth (Berlin): "New absorption and fluorescence probes to follow the dynamics in lipid bilayer systems"
- 66 N.M. Dimitrijevic and P.V. Kamat (Notre Dame and Belgrade): "Electron transfer reactions of  $\text{In}_2\text{Se}_3$  and  $\text{In}_2\text{S}_3$  semiconductor colloids"
- 67 B. Closs, J.L. Couthaudon and D. Lorient (Dijon): "Surface properties of the bovine casein components"

- 68 K. Fontell (Lund): "The cubic phase in ternary systems of dialkyldimethyl"Ammonium bromide, hydrocarbon and water".
- 69 P.Lianos (Patras): "Fractal modeling of luminiscence quenching in microemulsions"
- 70 B.R. Voca, J.Canselier, C.Noik and M. Bavière (Toulouse and Malmaison):"Three-phase behavior of alpha-olefinsulfonates in quinary mixtures".

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