



*International Association of Colloid  
and Interface Scientists*

## **NEWSLETTER NO. 48**

**October 2011**

**EDITED BY GER KOPER**

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# **INTERNATIONAL ASSOCIATION OF COLLOID AND INTERFACE SCIENTISTS**

**NEWSLETTER NO. 48**

**October 2011**

## **1. FROM YOUR NEWSLETTER EDITOR**

Before you lies NL48 the third newsletter that appears in digital form. Most of the information that you can find here is also available on the website and I kindly ask you to find out about it. Just navigate to the IACIS website – [www.iacis.nl](http://www.iacis.nl) – and it might very well be that you find out that the information there is frequently updated. You need a user name and a password for that. These will be sent to you after you send a request by e-mail to [webmaster@iacis.nl](mailto:webmaster@iacis.nl); please do include your membership number.

On the website we maintain a list of upcoming conferences, meetings, schools, etc. and these will not all be published in the newsletter. For that we rely on the information that the webmaster receives. Therefore, if you wish something to be posted in this list, please send us the necessary information and it will be done.

Likewise, as the previous newsletter editor did, we maintain a list of recently published books. There is a change here too: only those publications that are reviewed will be posted. So, if you wish your book advertised, please ask a colleague for a review.

As with the past newsletters, the maintenance of the website is a single person's effort. Not all changes will therefore be carried out as fast as you might like to see. We will try to do our best but we hope

you realize this when addressing us! Please, let this not refrain you from sending relevant information, suggestions, additions, etc.

Waiting for your response, I remain

Ger Koper  
webmaster@iacis.nl

## **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 appears 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 cannot accept any responsibility for them.

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### **3. IACIS NEWS**

#### **3.1. Presidential Message**

##### IACIS Lifetime Achievement Award

I am very pleased to announce that Professor Tom Healy has been chosen as the first recipient of the IACIS Lifetime Achievement Award to be presented at the next IACIS meeting. I feel this choice is especially fitting because Tom was one of the founders of IACIS in 1979. For a short history of IACIS and a group photo of the founders, see <http://www.iacis.nl/history.html>.

This new Lifetime Achievement Award replaces the previous Lectureship Award. Past awardees were selected by the Standing Committee (the current office holders) in concert with the local meeting organizers, and then ratified by IACIS Council. The former award was primarily designed to recognize outstanding service to IACIS, as well as to colloid and interface science. Past recipients of the IACIS Lectureship have been: Hans Lyklema (2000), Egon Matijevic (2003), Bob Hunter (2006) and Brian Vincent (2009).

Nominations for the new Lifetime Achievement Award were solicited in May from all IACIS members. An Award Committee (separate from the Standing Committee) now evaluates the nominations and chooses the winner. More information about this new award can be found at <http://www.iacis.nl/LifeTime.php>. You will need to be logged in as a member to access this page. This year the Award Committee consisted of Brian Vincent (Chair) plus the organizer of the next IACIS meeting and of the last three meetings: Kazuo Kurihara (Japan), Som Somasundaran (USA), Rong Guo (China) and Fernando Galembeck (Brazil). A total of five nominees were considered. All of the nominations were very strong so I thank the nominators as well as the members of the committee for their efforts on behalf of IACIS. Unsuccessful nominees shall have their nomination carried forward for two subsequent meetings.

### Next IACIS Meeting in Sendai

Elsewhere in this Newsletter is a report from Professor Kurihara on the preparations for the next IACIS meeting in Sendai, Japan. These preparations are proceeding according to schedule.

Several IACIS members have expressed their concern to me regarding possible radiation levels arising from the events at the Fukushima nuclear power plant which was damaged by the tsunami in March. Fukushima is located between Tokyo and Sendai, but closer to Sendai than Tokyo. Since the Fukushima event, the radiation level measured daily by physics faculty at Tohoku University in Sendai has declined continuously to current readings of 0.07 – 0.08 microsieverts/hr. While this level is almost twice the historical average background value for Japan, it is well below the background radiation levels for Brazil and China, where past IACIS meetings were held. So I personally am not concerned about the radiation levels in Sendai. If you would like more information about radiation monitoring in Sendai, go to

<http://www.bureau.tohoku.ac.jp/anzen/monitoring/english.htm>. If you would like more information about normal background levels, see the link at this same URL or see the original report at the United Nations Scientific Committee on the Effects of Atomic Radiation: <http://www.unscear.org>.

### ACS Award

Some of you might know that I received the annual ACS Award in Colloid and Surface Chemistry in 2011 from the American Chemical Society. I thought you might find amusing the story about how I was notified of this award. I was actually nominated in 2009, but someone else was chosen for the 2010 award. So I assumed that was the end of it. But, as it turns out, nominations are recycled for three years.

In July of 2010, I received a phone call on my voice mail at home from someone identifying himself as “a former president of ACS” with “news that you will definitely want to hear.” Would I please call him back. Of course, he did not say what the “news” was and I

did not recognize his name. Now my home answering machine records several telephone solicitations every day, which I promptly delete. Back before caller ID was available, when I actually answered all phone calls myself, I used to get extremely annoyed by such solicitations. So my reaction was “yeah, right; if you think I’m going to call you back so I can listen to a sales pitch, you’re crazy.” In other words, I assumed that this call was just another sales pitch for some professional product or subscription that this ex-ACS officer was peddling. This conclusion was reinforced by my caller ID which reported “out of area” or “unavailable” which usually indicates a blocked caller. A couple of weeks later, the phone call was repeated. I thought, “well, this guy is persistent” but it never occurred to me that this was anything other than a sales pitch.

Then in mid-August of 2010 I received an email message from Felicia Dixon, the ACS Awards Manager, announcing that I had won this award. While I had never heard of Dixon either, her email had the familiar ACS.ORG return address, so I assumed it was official. She explained that she was writing on behalf of Dr. Thomas Lane, the Immediate Past-President of ACS. This was the same name on the two phone calls I received. I felt like a complete idiot for not recognizing Lane’s name and eventually emailed him to apologize. In my defense, ACS is a huge organization which changes presidents every year. Having been a member of ACS for over 40 years, I no longer pay any attention to who is president.

Of course I was elated by the news, which came as a complete surprise because I did not know I was still nominated. Below is a photo of me, taken at the awards ceremony during the March 2011 ACS national meeting in Anaheim, CA. Holding the plaque is Mai-sha Gray-Diggs, Director of PhD Recruiting for Procter & Gamble Co., sponsor of this award. On the far left is Nancy B. Jackson, 2011 President of ACS. On the far right is Joseph Francisco, 2010 President of ACS. Thomas Lane was the 2009 President of ACS. I had to look up these names because I never met any of them before this event.

If this story has a moral it is, in this age of caller ID, if you use a phone call from a blocked number to notify the winner of the award



for your organization, pick someone more politically savvy than me as your awardee.

I am looking forward to seeing you in Sendai in May.

*Dennis Prieve,  
Pittsburgh, Pennsylvania,*



*Dennis Prieve receiving the 2011 ACS Award in Colloid and Surface Chemistry at the March ACS meeting in Anaheim. Holding the plaque is Maisha Gray-Diggs, Director of PhD Recruiting for Procter & Gamble Co., sponsor of this award. On the far left is Nancy B. Jackson, President of ACS. On the far right is Joseph Francisco, Past-President of ACS.*

### 3.2. Financial report September 2010 – September 2011

		<b>Totals</b>
	€9.649	
<b>Balance per September 1, 2010</b>		€9.649
<b><u>Receipts</u></b>		
IACIS membership fee	€5.150	
ECIS membership fee	€225	
Interest	€9	
		€5.384
		€15.033
<b><u>Payments</u></b>		
Sponsoring	€0	
Bank costs	€180	
Mailing	€215	
Printing	€82	
Debt collection charges	€197	
Other costs	€36	
Administrative support	€750	
		€1.460
<b>Balance per September 1, 2011</b>		€13.573
Number of members Sep. 1, 2010	405	
Number of members Sep. 1, 2011	393*	

Amounts are rounded.

\* 40 new members, 52 x undeliverable, retired, no longer interested, defaulters or deceased

### **3.3. IACIS lifetime membership for Dr Ferenc Csempesz**

The Council of IACIS has agreed to confer lifetime membership on Dr Ferenc Csempesz for his outstanding contributions to the Association. Dr Csempesz is currently Head of the Laboratory of Colloid and Supramolecular Systems, in the Faculty of Science at the Eötvös Loránd University in Budapest. This prestigious school of colloid science dates back to the late 1930's and many famous colloid scientists, prior to Dr Csempesz, have been associated with it (for example, in its early years, Aladár Buzágh and Erwin Wolfram).

IACIS was formally established in 1979 (one of its founding Council members being Erwin Wolfram). Its office was (and still is) located in Wageningen. However, during the early years, contact, and in particular the transfer of money, between Western Europe and Eastern Europe was difficult. It was, therefore, decided in 1989 that registration fees for IACIS members in Eastern Europe, who did not have access to Western currencies, would be collected in Budapest in the local currency (Hungarian forints) and the money held in an account in the Hungarian State Bank. Dr Csempesz administered this account and, in effect, acted as the Treasurer for IACIS in Eastern Europe.

He was co-opted onto the IACIS Council for this purpose. In addition, a preferential rate was set for Eastern Europeans. In particular, a large number of Hungarian members (more than 30) were able to join / maintain their membership of IACIS because of this scheme. The funds held in the Hungarian account were mainly used to support colloid meetings held in Eastern Europe.

Gradually during the 1990's the political situation in Europe became easier, and a decision was taken in 1996 that a separate bank account in Budapest and preferential rates for Eastern Europeans were no longer necessary. So the fees were gradually raised, over a five-year

period, to be commensurate with the regular IACIS membership fee. However, Dr Csempesz had done more than just collect registration fees; he helped considerably in sustaining and promoted the IACIS presence in Eastern Europe during difficult times. He retired from the Council in 2006.

IACIS has much to be grateful to Dr Csempesz for and that is why we are presenting lifetime membership to him.

*Brian Vincent*

### 3.4. IACIS 2012 in Sendai (May 13 – May 18, 2012)

We are happy to write that preparation of IACIS2012 has been in progress. The homepage of IACIS 2012 was recently renewed, and homepages for registration and abstract submission are now ready for use. Please visit IACIS 2012 homepage:

<http://res.tagen.tohoku.ac.jp/~iacis/>

A few important issues are

- The deadline for abstract submission, both of oral and poster presentation, is November 30, 2011. Oral presentations are for 15 min. including discussion.
- Keynotes (30 min) of IACIS 2012 will be selected by the program committee from contributed orals (15 min) upon indication of author's interest. We plan to choose ca. 30 keynotes in this way. Please indicate your interests when you wish to present your paper as a keynote, though number of slots is limited.
- Poster awards will be given to excellent posters presented by students.
- The dead line for early registration, which saves you some registration fee and necessary for being accepted for the presentation, is February 15, 2012. Without completing early registration, your presentation will be automatically cancelled. Please make a note of this date.

We are looking forward to welcoming you all in Sendai.

*Kazue Kurihara*

*Chairperson, IACIS2012*



## **4. IACIS-SPONSORED MEETINGS**

### **4.1. International Conferences on Surface and Colloid Science** (since 1979 under auspices of, and sponsored by, IACIS)

- History: 1st Conference, Budapest, Hungary, 1975  
2nd Conference, Puerto Rico, 1976  
3rd Conference, Stockholm, Sweden, 1979  
4th Conference, Jerusalem, Israel, 1981  
5th Conference, Potsdam NY, U.S.A., 1985  
6th Conference, Hakone, Japan, 1988  
7th Conference, Compiègne, France, 1991  
8th Conference, Adelaide, Australia, 1994  
9th Conference, Sofia, Bulgaria, 1997  
10th Conference, Bristol, United Kingdom, 2000  
11th Conference, Iguassu Falls, Argentina/Brazil, 2003  
12th Conference, Beijing, China, 2006  
13th Conference, New York NY, U.S.A., 2009, see section 5 for further details
- Future: 14th Conference, 2012, Sendai, Japan. See item 3.3 for details.

### **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 sponsored smaller conferences:

- 1) September 1983 Paris (France) Physical Chemistry of Colloids and Interfaces: Biotechnology and Drug Research
- 2) June 1984 Lund (Sweden) 8th Scandinavian Symposium on Surface Chemistry with international participation

- 3) June 1984 Pittsburgh (U.S.A.) 58th Colloid and Surface Science Symposium ACS
- 4) May 1986 Zakopane (Poland) IX European Chemistry at Interfaces Conference
- 5) June - July 1986 Crveni Otok (Yugoslavia) 7th International Summer Conference on the Chemistry of Solid-Liquid Interfaces
- 6) September 1987 Eindhoven (The Netherlands) Polymers in Colloidal Systems: Adsorption, Stability and Flow
- 7) May 1988 San Benedetto (Italy) X European Chemistry at Interfaces Conference
- 8) June 1989 Åbo/Turku (Finland) EUCHEM Workshop on Adsorption of Surfactants and Macromolecules from Solution, and 10th Scandinavian Symposium on Surface Chemistry
- 9) June 1990, Toronto (Canada) International Symposium on Contact Angles and Wetting Phenomena
- 10) November 1990, Moscow (Russia) International Conference on Surface Forces
- 11) June 1991, Bergen (Norway) 11th Scandinavian Symposium on Surface Chemistry, with international participation
- 12) June-July 1992, Lund (Sweden) XII European Chemistry at Interfaces Conference
- 13) August 1992, Moscow (Russia) 10th International Conference on Surface Forces
- 14) September 1992, London (United Kingdom), Colloids in the Aquatic Environment
- 15) May 1993, Louvain-la-Neuve, (Belgium) Bioadhesion II, International Conference on the Fundamental Aspects of Bioadhesion and Flocculation and their Implications in Technological, Ecological and Medical Fields
- 16) September 1993, Bristol (United Kingdom) Polymers at Interfaces
- 17) September 1993, Granada (Spain) Electrokinetic Phenomena '93

- 18) January 1994, Kona (Hawaii, U.S.A.) Surface Characterization of Adsorption and Interfacial Reactions
- 19) June 1994, Espoo (Finland) 12th Scandinavian Symposium on Surface Chemistry
- 20) September 1994, Kiev (Ukraine) XIIIth European Chemistry at Interfaces Conference
- 21) July 1995, Maratea (Italy) Nato Advanced Research Workshop on Fine Particle Science and Technology from Micro to Nanoparticles
- 22) March 1996, Crete (Greece) European Research Conference on Wetting and Capillarity
- 23) March 1996, Szeged (Hungary) Nanoparticles in Solids and Solutions (NATO Advanced Research Workshop)
- 24) June 1996, Moscow (Russia) 11th International Conference on Surface Forces
- 25) September 1996, Eger (Hungary) 7th Conference of Colloid Chemistry
- 26) September-October 1996, Rome (Italy) Electrokinetic Phenomena '96
- 27) October 1996, Antwerp (Belgium) XIV European Chemistry at Interfaces Conference
- 28) August 1997, Wageningen (The Netherlands) Interfaces Against Pollution
- 29) January 1998, Kona (Hawaii) Surface Characterization of Adsorption and Interfacial Reactions II
- 30) May 1998, Amalfi (Italy) Organisation in Polymer-Surfactant Systems
- 31) June 1998, Stockholm (Sweden) 12th International Symposium on Surfactants in Solution
- 32) October 1998, Moscow (Russia) International Conference on Colloid Chemistry and Physical-Chemical Mechanics
- 33) March 2000, ELKIN (Germany)
- 34) June 2000, France, 3rd World Congress on Emulsion



- 35) October 2000, Dresden (Germany) International Symposium on Electrokinetic Phenomena
- 36) May 2002, Miskolc (Hungary) 2nd International IAP Conference on Interfaces Against Pollution
- 37) May 2003, Vladimir (Russia) 16th European Chemistry at Interfaces Conference
- 38) May 2004, Juelich (Germany) 3rd Interfaces against Pollution Conference
- 39) February 2005, Sydney (Australia) 2nd Australian Colloid and Interface Symposium ACIS 2005
- 40) July 2005, Loughborough (United Kingdom) 17th European Chemistry at Interfaces Conference
- 41) June 2006, Moscow (Russia) 13th International Conference on Surface Forces
- 42) June 2008, Kyoto (Japan) 5th International Conference on Interfaces Against Pollution IAP2008.
- 43) October 2010, Lyon (France) World Congress on Emulsions.
- 44) November 27 - December 1, 2011, Cancun, Mexico. Fray International Symposium and Young Scientists Forum.
- 45) June 11-14, 2012, Nancy (France) Interfaces Against Pollution.

## **5. CONFERENCES ... more on IACIS.NL *with hyperlinks!***

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

### **15th International Conference on Miniaturized Systems for Chemistry and Life Sciences**

October 2-6, 2011, Washington, USA.

Info: Conference secretariat

### **Scanning Probe Microscopy & Optical Tweezers**

October 5-6, 2011, Berlin, Germany.

Info: Claudia Böttcher

### **2nd WTA-International Ph.D. Symposium**

October 6-7, 2011, Brno, Czech Republic.

Info: Stepan Bohus

### **2nd International Conference on Bio-Sensing Technology 2011**

October 10-12, 2011, Amsterdam, The Netherlands.

Info: Conference secretariat

### **Capturing Colloids II**

October 11-12, 2011, Manchester, UK.

Info: Conference secretariat

### **7th European Detergents Conference EDC**

October 12-14, 2010, Fulda, Germany.

Info: U. Bechler

### **Exosome and Microvesicle 2011**

October 15 - 17, 2011, Orlando, USA.

Info: Douglas Taylor

### **AIChE's Annual Meeting**

October 16-21, 2011, Minneapolis, USA.

Info: Conference secretariat

### **1st World congress of Environmental Biotechnology-2011 (WCEB-2011)**

October 19-22, 2011, Dalian, China.

Info: Hebe Leng

### **BIT's 1st Annual World Congress of Nano-S&T**

October 23-26, 2011, Dalian, China.

Info: Conference secretariat

### **Soft and hard materials – A symposium on surface and materials chemistry**

October 25-27, 2011, Lund, Sweden.

This international symposium is devoted to the promising link between surface chemistry and materials chemistry. Topics included are Nanoparticles (synthesis, properties and assembly); Biomineralisation and biomimetics; Nanocellulose films, foams and composites; Surface chemistry in biomedical applications; and Surface and Materials chemistry for new functional devices.

Info: Ulrika Örn

### **4th IRUN\* symposium on Nano Technology**

October 27-28, 2011, Nijmegen, the Netherlands.

Info: Conference secretariat

### **CHEM SHOW 2011 / NANO 2011**

November 1-3, 2011, New York, USA.

In conjunction with Innovative Research and Products

Info: Conference secretariat

### **Jülich Soft Matter Days 2011**

November 15-18, 2011, Bonn, Germany.

Info: Conference secretariat

### **12th Australia-Japan Colloid and Interface Science Symposium**

November 21-23, 2011, Cairns, Australia.

Info: George Franks

### **First International Conference on Plasma Processing of Organic Materials and Polymers (PPOMP 2011)**

November 25-27, 2011, Kottayam, Kerala, India.

Info: Conference secretariat

### **Fray International Symposium**

November 27 - December 1, 2011, Cancun, Mexico.

This major symposium is in honor of the distinguished work and lifetime achievements of Prof. Derek Fray. Professor Fray is a well known figure for his deeply impact in materials extraction and processing world. He is author of almost 400 scientific papers and inventor on approximately 179 patents arising from 62 families of patents.

*Sponsored by IACIS.*

Info: Florian Kongoli

### **Young Scientists Forum**

November 27 - December 1, 2011, Cancun, Mexico.

"Young Scientists Forum" will include papers from undergraduate and graduate students as well as young scientists below the age of 35. Three different awards will be given to the best papers published and presented at the symposium.

Info: Florian Kongoli

### **2011 MRS Fall Meeting**

November 28 - December 2, 2011, Boston, MA, USA.

Info: Cammy R. Abernathy

### **Largest Dutch chemical conference ever: CHAINS2011**

November 28-30, 2011, Maarssen, the Netherlands.

Info: Conference secretariat

### **Nanotech India 2011**

December 1-3, 2011, Kerala, India .

Info: Conference secretariat

### **2nd Nano Today Conference**

December 11-15, 2011, Hawaii, USA.

Info: Jie Chen

### **3rd International Conference on “Current Developments in Atomic, Molecular, Optical & Nano Physics with Applications” (CDAMOP-2011)**

December 14-16, 2011, New Delhi, Delhi, India.

The 3rd Int. Conference (cdamop2011 ) will focus on development of atomic ,molecular ,optical & nano science which is proved to be powerful enabling science supporting many other areas of science & technology.

Info: Prof. Man Mohan

### **Beyond Self-Assembly**

January 21-25, 2012, Bad Gastein, Austria.

Info: Otto Glatter

### **3rd Asia-Pacific Optical Sensors Conference (APOS 2012)**

January 31 - February 3, 2012, Sydney, Australia.

Info: Conference secretariat

### **Gordon Research Conference on "Colloidal, Macromolecular & Polyelectrolyte Solutions"**

February 2-10, 2012, Ventura Ca, USA.

Info: Norman Wagner

**13th International Symposium on Colloidal and Molecular Electrooptics (ELOPTO 2012)**

February 5-8, 2012, Sydney, Australia.

Info: Conference secretariat

**28th Australian Colloid and Surface Science Student Conference**

February 6-10, 2012, Riverwood Downs, NSW, Australia.

Info: Ben Boyd

**Bio-inspired Materials**

March 20-23, 2012, Potsdam, Germany.

Info: Conference secretariat

**CODEF III “Colloidal Dispersions in External Fields”**

March 20-23, 2012, Bonn, Germany..

Info: Barbara Schumann

**243rd ACS National Meeting & Exposition**

March 25-29, 2012, San Diego Ca, USA.

Info: ACS office

**Proteins at Interfaces III (during 243rd ACS National Meeting & Exposition)**

March 25-29, 2012, San Diego Ca, USA.

Info: Willem Norde

**Tribology: Faraday Discussion 156**

April 2-4, 2012, Southampton, UK.

Info: Conference secretariat

**14<sup>th</sup> IACIS International Conference on Surface and Colloid Science**

May 13-18, 2012, Sendai, Japan.

Info: Kazue Kurihara

### **ELKIN 2012**

May 20-24, 2012, Japan.

Info: Hiroyuki Oshima

### **International Workshop on Bubble and Drop Interfaces**

May 20-24, 2012, Krakow, Poland.

Info: Piotr Warszynsky

### **12th World Congress on Environmental Health: New Technologies, Healthy Human Being and Environment**

May 21-27, 2012, Vilnius, Lithuania.

The Congress will focus on the most relevant issues that reflect the main theme of the Congress – “New Technologies, Healthy Human Being and Environment” including traditional topics and aspects of environmental health, such as health impact.

Info: Andrius Kavaliunas

### **International Paper and Coating Chemistry Symposium**

June 10-12, 2012, Stockholm, Sweden.

The 2012 International Paper and Coating Chemistry Symposium is the eighth in a series of meetings that started in 1988. The symposium will cover the latest developments in the fields of paper chemistry, coating chemistry and nanotechnology.

Info: Mikael Ankerfors

### **ACS Colloids and Surfaces 2012 Symposium**

June 10-13, 2012, Baltimore, Maryland, USA.

The 86th ACS Colloid and Surface Science Summer Symposium typically attract >500 attendees from a number of fields including Chemistry, Chemical Engineering, Materials Science, Physics and other physical and life sciences. The 86th Symposium is also ex-

pected to draw a diverse range of attendees with biological and medical perspectives on colloid and surface science. The symposium will offer 14 parallel sessions on diverse topics of colloids and surface chemistry, with Plenary and Award speakers, and poster sessions.

Info: Michael A. Bevan

### **Interfaces Against Pollution**

June 11-14, 2012, Nancy, France.

The main topics covered in the conference include : Resources and interfaces: water treatment, mineral processing, polluted soils and industrial waste remediation, bioremediation; Environmental colloids and interfaces: properties, structure, reactivity; Environmental Microbiology: bioavailability, ecotoxicity, diversity and population dynamics; Interfacial processes in the environment: adsorption, aggregation, speciation, (bio)adhesion; Synchrotron source as a tool in environmental science: case studies; Scale changes: from the colloidal interface to the ecosystem; Nano-Particles in the environment.

***Sponsored by IACIS.***

Info: David Waite

### **Nanofair 2012**

June 12-13, 2012, Dresden, Germany.

Info: Conference secretariat

### **6th International Conference on High Performance Structures and Materials**

June 18-20, 2012, New Forest, Hampshire, UK.

This conference addresses issues involving advanced types of structures, especially those based on new concepts or materials. Contributions will highlight the latest developments in design, optimization, manufacturing and experimentation.

Info: Alice Jones



**2012 IUPAC World Polymer Congress**

June 24-29, 2012, Blacksburg, VA, USA.

Info: Conference secretariat

**GRC Bioinspired Materials**

June 24-29, 2012, Davidson NC, USA.

Info: Ashutosh Chilkoti

**Soft Matter Approaches to Structured Foods: Faraday Discussion 158**

July 2-4, 2012, Wageningen, The Netherlands.

Info: Conference secretariat

**XVIth International Symposium on Small Particles and Inorganic Clusters (ISSPIC XVI)**

July 8-13, 2012, Leuven, Belgium.

The ISSPIC conference is an international cluster and nanoscience symposia on results, emerging trends and perspectives in the science of atomic and molecular clusters, nanoparticles and nanostructures.

Info: Peter Lievens

**9th International Symposium on Polyelectrolytes - ISP 2012**

July 9-12, 2012, Lausanne, Switzerland.

Info: Christine Wandrey

**244th ACS National Meeting - Philadelphia - August 19-23, 2012  
August 19-23, 2012, Philadelphia, USA.**

Info: ACS office

**26th Conference of the European Colloid and Interface Science society, ECIS2012**

September 2-7, 2012, Malmö/Lund, Sweden.

Info: Thomas Arnebrant

**245th ACS National Meeting**

April 7-11, 2013, New Orleans, USA.

Info: ACS office

**27th Conference of the European Colloid and Interface Science society, ECIS2013**

September 7-12, 2013, Sofia, Bulgaria.

Info: Elena Mileva

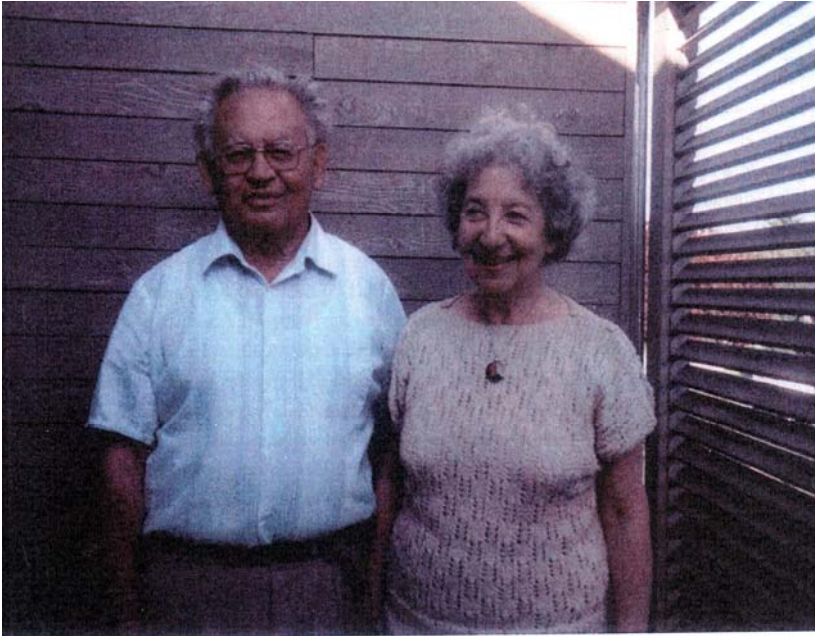
**246th ACS National Meeting**

September 8-12, 2013, Indianapolis, USA.

Info: ACS office

## 6. REGIONAL AND PERSONAL NEWS

### 6.1. Obituary Sam Levine (1911 - 2011)



*Sam Levine and Mollie, 1985*

In July of this year Sam Levine died after a life of over a century. Longevity seems to prevail among those involved in double layers and colloid stability. Just to mention two Dutchmen and two Russians who also lived till well in their nineties: Overbeek, Casimir, Deryagin and Churaev. The younger generation will have never heard of Levine but around the Second World War when, what is now called, DLVO theory was developed after intense international disputes, the young Levine was an important player. His contributions were cited both by the Russians and the Dutch.

Sam Levine was born in Poland as the only son of a poor carpenter. Two of his three sisters died prematurely. The family es-

caped the country before Russian pogroms and/or Nazi anti-Semitism hit them. Sam got fellowships because of his excellent school records and eventually got a PhD from Toronto. After that, and a short stint at Birkbeck College in London, he settled in Manchester, UK for most of his active scientific career. After that he moved to the University of British Columbia at Vancouver, Canada, where he remained scientifically active till well in his eighties.

Sam was trained as a physicist but among colloid scientists he was rather considered a mathematician. That impression was earned because of his, sometimes very rigorous, theoretical analyses. He was, so to say, always thinking in equations. In some respects he was ahead of his time. The best illustration is his theory of discrete charges, also known as the discrete ion effect. It was a kind of precursor to modern ion correlation theories. He was aware of the necessity of discriminating between mean potentials and potentials of mean force, but the statistical mechanics behind the theory of ion correlations was so involved that realistic solutions had to wait till the advent of modern computers. Often he was so deeply involved in the basic problems that he lost contact with reality; say by deriving rigorous formulas for situations that never occurred in practice. Nevertheless it was always good to listen to what he had to say. By way of illustration I recall a discussion we had with him in the nineteen sixties on the electrophoretic mobility of silver iodide sols as a function of the surface potential. Experimentally we found it to pass through a maximum, for which at that time there was no explanation. Levine attributed it to the discrete ion effect. He made theory for that, but, in order to explain those maximums he needed a surface charge that was a factor of three higher than actually measured. The useful follow-up of this debate was that we more systematically studied patch-wise charge distributions.

Let me, as a tribute to Sam recall the following anecdote. Around 1960 I was Sam's and Mollies house guest in Manchester. At that occasion I also met D.C. Henry, one of the founders of modern electrophoresis theories. He told me that once he gave a presentation

of his recent research on surface conduction. In the ensuing discussion a man in the audience asked a question about double layer structure, to which Henry responded. However, the man was not satisfied and asked a more advanced question. Again Henry answered to the best of his knowledge. However the man persisted with his questions till Henry got exasperated and said: "Such questions you must not ask me but Levine." Then the man replied: "But I am Levine!"

*Hans Lyklema*

## 6.2. **Heinz Hoffmann: Overbeek Gold Medal winner 2011**



*Heinz Hoffmann and Helmut Möhwald.*

The 2011 Overbeek Gold Medal Winner is professor Heinz Hoffmann from Bayreuth, Germany. He was awarded in recognition of his many outstanding contributions to the field of colloid and interface science - one of them being one of the founding fathers of ECIS. In his long career he surely has been one of the main drivers of colloid research in Europe over more than 35 years.

Heinz Hoffmann started his research career in 1962 with a PhD in electrochemistry under the supervision of Prof. Walther Jaenicke at the TH Karlsruhe. Afterwards he went for a post-doc with Prof. Ernest Yeager at the Case-Western-Reserve University in Cleveland/Ohio which brought him into the field of fast reaction kinetics - and also getting to know his wife Claudia, another constant in his life apart from his passion for science. In the following years he split his time between Cleveland and the University of Erlangen, where he completed his habilitation in the field of kinetic investigations, in particular by means of relaxation kinetics. Soon afterwards he modi-

fied and applied these techniques to the investigation of surfactant systems thereby becoming one of the pioneers in the field of micellar kinetics. Shortly later in 1975 he became appointed as a full professor to the University of Bayreuth, at that time a newly founded university, where he started the field of physical chemistry and stayed ever after, by now being a professor emeritus there since 2003.

With his broad background as a physico-chemist Heinz Hoffmann contributed largely to many different fields of colloid science during his long scientific career of more than half a century. The results of this work are documented in more than 350 publications in research papers and book articles, as well as some patents - and even more so in the large number of co-workers, PhD students and post-docs, that had the pleasure of working with him and the stimulating environment he had created at his institute.

This work comprises contributions to many different topics such as surfactant phase science, solubilisation, aggregation behavior of block copolymers, kinetics of aggregation processes, colloid dynamics, rheology of micellar networks, clay colloids, formulation science - just to name a few of the fields he was working in. In this work he has been connected in cooperation with people from throughout the world. This openness to the broad scientific community was certainly one of the driving forces why more than 25 years ago he became one of the founding fathers of ECIS and thereby initiated a true success story of European colloid science. It should also be mentioned that Heinz Hoffmann was always in his career very interested in bridging the gap between fundamental science and its application, which resulted naturally in many industry collaborations.

Of course, in his career Heinz Hoffmann received many awards, the most prestigious ones being: the Nernst prize in 1976 from the Deutsche Bunsengesellschaft, the Wolfgang-Ostwald prize from the German Colloid Society in 1995, and lectureship awards from the Chemical Society of Japan and from the Chemical Society of India in 1998. One of the highlights of his career was certainly to establish the Bayreuth Center for Colloids and Interfaces, for which he had

fought for some years, which was founded in 2000 and saw completion of its own building in 2004. This center, which functions as an interface between university research and commercially applied colloid science, symbolizes very nicely the keen interest of Heinz Hoffmann not only to understand colloidal systems and interfaces from an academic point of view but also to bring this understanding into useful applications that give benefit to the society. Despite of the fact that Heinz Hoffmann retired from his university chair in 2003 and became professor emeritus he remained very active in research by running his own independent laboratory, still having a small but active group of students and post-docs. Here he has been concentrating now still more on cooperations with industry, but never forgetting to connect the investigation of problems in application and formulation science with fundamental colloid research that enables one even to understand such more complex system.

*ECIS press release*



### 6.3. **Bernie Binks: RHODIA ECIS PRIZE 2011**



Professor B. P. (Bernie) Binks of the University of Hull has worked on fluid-fluid interfaces, emulsions, microemulsions and foams throughout his career, covering a very wide range of territory and producing an impressive body of accessible work of lasting value. His early work concerned surfactant-stabilised systems in the main and then, about a decade ago, he turned his attention to particles at interfaces and particle-stabilized systems. It is for his work in this latter area that the award has been made, his excellent and important work on surfactants and surfactant-stabilised systems notwithstanding.

Even though the first scientific papers on particle-stabilised emulsions (Ramsden - Pickering emulsions) appeared a century ago, these systems were then largely neglected by academia thereafter, whereas industry saw them as a problem by and large, as it did particle stabi-

lized foams. All that has changed of late. Particles-at-interfaces is now an important and rapidly growing area of soft matter science and particle-stabilised emulsions and foams now find application in areas as diverse as cosmetics and metallurgy. Professor Binks can take much of the credit for this upsurge of interest and he remains at the forefront of the subject, as can be judged from the following recent papers,

- Phase inversion of particle-stabilised perfume oil-water emulsions: experiment and theory, Binks, BP; Fletcher, PDI; Holt, BL; et al., Physical Chemistry Chemical Physics Volume: 12 Issue: 38 Pages: 11954-11966 (2010).
- Inversion of 'dry water' to aqueous foam on addition of surfactant, Binks, BP; Johnson, AJ; Rodrigues, JA, Soft Matter Volume: 6 Issue: 1 Pages: 126-135 (2010).
- Aqueous foams stabilized solely by particles, Stocco, A; Rio, E; Binks, BP; et al., Soft Matter Volume: 7 Issue: 4 Pages: 1260-1267 (2011).
- Phase inversion of particle-stabilized materials from foams to dry water, Binks, BP; Murakami, R., Nature Materials Volume: 5 Issue: 11 Pages: 865-869 (2006).

In the first paper listed above, Binks et al. exploited the chemical diversity of a subset of common fragrance oils in order to study systematically the effect of oil polarity on emulsion stability and phase inversion. The experimental work is of very high quality, as one has come to expect from Hull, and the team was able to develop a thermodynamic model which explains and rationalises the data entirely. The work advances our fundamental understanding of Ramsden-Pickering emulsions and it provides clear messages and teachings of technological significance also. Anyone wishing to improve the impact and clarity of their presentation of their work could do worse than read paper one for that reason alone. The fourth paper on "Dry Water", a seemingly dry powder of very high water content, attracted substantial attention from the scientific and public media when it first

appeared. The second and third papers describe subsequent related investigations.

For those wishing to find out more, a comprehensive list of papers can be found at Prof. Binks web-site. There is also book on particles at interfaces, published in 2006 and co-edited with Tommy Horozov, is available from CUP.

*ECIS press release*

#### **6.4. ECIS Lifetime Membership Award for Hans Lyklema**

In 2006, at the 20<sup>th</sup> ECIS meeting in Budapest, the activities in Europe have been bundled by the combining the annual meeting of ECIS with the biennial “European Chemistry at Interfaces” (ECIC) meetings. The ECIC conferences have been started in 1968 in order to bring scientists from East and West together which was quite hard due to the Iron Curtain. Since then, 17 ECIC meetings were organized biennially and alternately in the east and west part of Europe. Hans Lyklema belongs to the pioneers for this enormously important activity and paid responsible for the establishment and continuous work of the steering committee since then. For this important contribution he was awarded by the of the ECIS at the General Assembly in Berlin.

*Reinhard Miller*

## JOURNALS AND BOOKS

### 6.5. Interfacial Rheology

R. Miller and L. Liggieri (Eds.)

Progress in Colloid and Interface Science, Volume 1

Brill Publ., Leiden, 2009

ISBN 978 90 04 17586 0

<http://www.brill.nl/interfacial-rheology>

This is the first volume in the new series of books named “Progress in Colloid and Interface Science”, with R. Miller and L. Liggieri as series editors. The Volume 1 is obviously the first complete book on interfacial rheology, including the history, the theoretical background and state of the art experimental tools. The increasing role of interfacial dynamics and mechanics in modern technologies was surely one of the reasons for publication of this book, the enormous insight into the fundamental mechanisms in interfacial layers gained via interfacial relaxation studies was another.

This scientific field of two-dimensional rheology is rather young and goes back to the nineteenth century, connected with names like Plateau, Marangoni, Gibbs, Lord Rayleigh. However, only in the sixties of the twenties century the basic ideas on the 2D rheology got input from dedicated experiments, performed in a few highly specialized laboratories. Since the nineties then, the scientific community got access to professional equipment. Due to the availability of commercial instruments it was possible to elaborate that interfacial rheology is one of the main factors in stabilizing liquid films, foams and emulsions. It also gives important insight into the composition and structure of interfacial layers, essentially when built up from solutions of mixtures of surface active molecules.

The book contains sixteen chapters, starting with a general introduction into the basics of interfacial rheology (V.V. Krotov†), followed by the “Past and Present” of surface dilational rheology written by two pioneers in the field Lucassen-Reynders and Lucassen.

Further chapters are dedicated to particular methodologies and applications of instruments to specified systems. Dilational rheology methods elaborated in much detail are for example surface and interfacial tension relaxations, capillary wave damping and Langmuir trough techniques written by well known authors, such as Fainerman, Kovalchuk, Liggieri, Miller, Noskov. Summarized results were presented for interfacial systems comprising surfactants, polymers, proteins and various mixtures, with contributions by Benjamins, Dukhin, Fischer, Kazakov, Langevin, Rubio, Vollhardt, Windhab and others. An overview of measuring techniques in interfacial shear rheology and their applications mainly to protein and mixed protein-surfactant layers is presented by Krägel and Derkatch. The final chapter by Khattari and Fischer is dedicated to the micro-rheology of monolayers studied with optical tweezers.

The book provides information for beginners as well as experts in the field, as each chapter comprises of some basic information combined with the most recent state of the art of experimental and theoretical issues. The book can be recommended as a guide for understanding the main principles of two-dimensional rheology and for choosing suitable instruments for respective investigations in fundamental and applies research.

*Victor Starov*

## **6.6. Bubble and Drop Interfaces**

R. Miller and L. Liggieri (Eds.)

Progress in Colloid and Interface Science, Volume 2

Brill Publ., Leiden, 2011

ISBN 978 90 04 17495 5

<http://www.brill.nl/bubble-and-drop-interfaces>

This second volume in the book series “Progress in Colloid and Interface Science, edited by R. Miller and L. Liggieri, is a collection of manuscripts dedicated to the use of drops and bubbles as tools for interfacial studies. The book goes beyond the beauty of liquid menisci like dew droplets on leaves in the early morning or a rising bubble in a glass of beer or Champaign. It rather demonstrates by many examples how useful studies are on single drops and bubble for understanding the (dynamic) properties of liquid interfaces.

Similar to its predecessor, published 13 years ago with Elsevier, this book describes very carefully several standard methods, such as drop/bubble profile, drop volume and maximum bubble pressure tensiometry as routine methods in interfacial research. Among these, the profile tensiometry is presented as a versatile tool for rather extended studies. Together with bubble pressure and capillary pressure tensiometry, respectively, it provides a complementary set of methods to cover adsorption time intervals from few milliseconds (or even less) to hours of surface age, hence covering about eight orders of magnitude of time. In addition, the tensiometry methods applied to oscillating drops or bubbles provide the dilational rheology for a spectrum of perturbation frequencies. The key authors of these chapters are Fainerman, Javadi, Kovalchuk, Loglio, Liggieri, Miller, Ravera.

Some specific applications of the profile tensiometry was also applied to studies of wetting (Dutschk) or mechanical response of membranes (Ferry and Fernandes). The last also showed one important limit of profile tensiometry – when drops are covered by membranes rather than molecular adsorption layers.

Several chapters were then dedicated to special application in fundamental research (rising bubble by Malysa et al., bubble-particle interaction by Nguyen, interaction of drops with solid surfaces by Dorbolo et al.) and some applications (to polymer melts by Chen et al., tensiography by McMillan et al., emulsification by Boom et al., mass transfer by Bastani et al.). An impressive new interfacial device was presented for the first time – a micromanipulator for testing and monitoring the direct interaction between drops or bubbles (Loglio et al.). This tool is equipped like two independent standard capillary pressure cells, allowing for following up the contact between two drops of a desired size by pressure measurements and video monitoring. This method can mimic the situation happening in real foams and emulsions. A second interesting tool with the further scientific potential is the combination of profile tensiometry with a double capillary for internal drop liquid exchange (Ferri et al.). On the basis of dedicated experiments and fluid dynamic simulations the efficiency of drop liquid exchange is demonstrated and exciting examples of investigations on the adsorption of surfactants and proteins at liquid interfaces discussed.

The book provides not only basic information for beginners who want to use a standard method properly. Also experts in the field are provided with the most recent state of the art of the presented methods with respect to experimental peculiarities and the theoretical basis. The book can therefore be recommended for students as well as experts in fundamental and applied science and technologies dealing with dynamic liquid interfaces.

*Victor Starov*

## 7. CONTRIBUTIONS

### 7.1. Where is Faraday's gold?

While preparing a manuscript on *high yield synthesis of uniform gold nanoparticles*, a discussion of the stability time scale of colloidal dispersions developed in which it seemed appropriate to mention the world record in this: the more than 150 year stability of the gold sols prepared by Michael Faraday. In 1856 Faraday turned his attention to the interaction between light and matter after noticing that very thin films of gold kept the shiny yellow reflection but transmitted green light. He made numerous samples of colloidal gold of



@Paul Wilkinson

which he learned how to obtain the various colours as well as how to make them stable. In 1857 this work was described in the Bakerian lecture to the Royal Society. Many of these samples are lost but according to common knowledge, some of them remain in London.

For the manuscript at hand, a primary source was needed to refer to but what-ever we could find; they were all – at best – secondary sources: information collected by others. One of the more explicit sources, the website of a well known manufacturer of colloid scientific equipment, mentions the Science Museum in London. Many other sites and documents do likewise.

After sending an electronic request to the conservator of the museum, the following answer was received “The situation is a little bit complex. Until 1999 we had a Faraday exhibit which displayed gold



films deposited on watch glasses made by Faraday alongside a tall vessel containing colloidal gold (Zsigmondy's method) which otherwise had nothing to do with Faraday." The interesting consequence of this statement by the conservator of the Science Museum could be that there are quite a few false statements about and very likely even pictures of vessels not older than a few years instead of the 155 as claimed!

A further message from the conservator of the Science Museum reveals that some gold sols, of which pictures circulate the internet, could be in the Royal Institution (Ri), also in London. The confirmation came from the Curator of Collections who stated that "They are on permanent display within the Michael Faraday Museum area of the Ri, on the lower ground floor of the building, within the only section of Faraday's original laboratory that still exists." In addition, pictures were sent of which one accompanies this article and demonstrates the Tyndall effect that betrays colloidal dispersions.

In conclusion, the gold sols made by Faraday are indeed in London but not in the often mentioned Science museum but in the museum of the Royal Institution. We are happy to have spent some time finding out the truth about these gold sols and not to have merely repeated a false statement.

*Ger Koper*

## 8. NEWSLETTER IDEAS AND INFORMATION

All members are invited to send their suggestions on the contents, 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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