



International Association of Colloid and Interface Scientists

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From your Newsletter Editor

This Newsletter is largely devoted to our new council, the members present themselves below. The big event of the month is of course the meeting in Mainz and I do hope to meet many of you!

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Elections for the IACIS Council

The results of the election for the IACIS President-Elect and IACIS Council have now been obtained. On the basis of 81 votes from IACIS members for President-Elect and 472 votes for the Council, Hans-Jürgen Butt (Max Planck Institute for Polymer Research, Mainz, Germany) has been chosen as President-Elect. He will join the Standing Committee from the IACIS Conference in Mainz in May and will become President in 2018. The Standing Committee for the period 2015-2018 will further consist of Reinhard Miller, Germany (President), Kazue Kurihara, Japan (Immediate Past President), Mieke Kleijn, The Netherlands (Hon. Secretary and Treasurer) and Ger Koper, The Netherlands (Newsletter editor and webmaster). Six new council members have been elected. The council members, newly elected as well as acting ones, will introduce themselves further down in this Newsletter.

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The Elected IACIS Council ...

Nicholas Abbott, University of Wisconsin-Madison (USA)



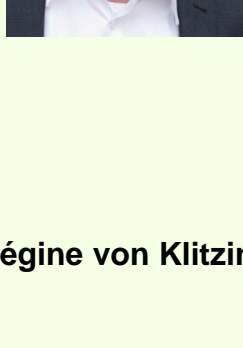
My technical interests span fundamental issues related to the origins of colloidal interactions through to the application of chemically tailored interfaces in chemical and biological sensors, biomedical devices and separations processes. We have designed and synthesized a range of surfactants that incorporate molecular triggers that permit reversible control of surfactant-based properties of aqueous systems. We are exploring their use in separations processes and for the delivery of biomolecules to cells. We are particularly interested in colloidal forces in liquid crystalline phases, and we have designed liquid crystalline interfaces that permit chemical and biomolecular events to be amplified into easily measured signals in sensors. A third area of interest is related to interfacial engineering of wound beds, including characterization of the chemical functionality of wounds and management of microbial burden in wounds so as to promote wound healing. These technical interests are unified by the challenge of understanding molecules and their assemblies at interfaces.

Russell Crawford, Swinburne University of Technology (AUS)

His research is in the area of surface and colloid science, with his early work focussing on the surface chemistry of mineral flotation and the removal of heavy metals from aqueous environments. His current research investigates the ways in which biological organisms interact with solid substrate surfaces, particularly those used in the construction of medical implants, and the development of processes to prevent the attachment of pathogenic bacteria from surfaces. Professor Crawford has supervised 23 PhD students to completion, and has over 100 refereed international publications. His bio-interface science research, undertaken together with colleague Professor Elena Ivanova, was featured in an ABC Australia [television program Catalyst](#).



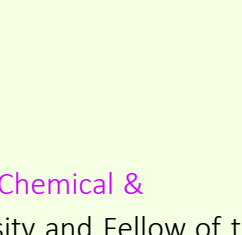
Jasper van der Gucht, Wageningen University (NL)



He obtained his PhD from the same University in 2004 with a thesis on reversible supramolecular polymers, supervised by Prof. Gerard Fleer, Prof. Martien Cohen Stuart, and Dr. Klaas Besseling. After his PhD, he moved to Paris to do a postdoc at Institut Curie, with Dr. Cécile Sykes and Prof. Jean-François Joanny, where he worked on the physics of actin-based cell movement. In 2006 he returned to Wageningen and in 2013 he became head of the Laboratory of Physical Chemistry and Colloid Science, which recently changed name to Physical Chemistry and Soft Matter. His research interests cover a wide range of topics in soft matter science, from self-assembly of block copolymers, polyelectrolytes and colloidal particles, to the rheological and mechanical properties of polymer gels.

Régine von Klitzing, Technische Universität Berlin (GER)

Her research group works in the area of phases and interfaces. We examine the interactions in thin liquid films (foam films and wetting films between two solid interfaces) and at the air / water interface (pure water, and multi-component solutions). Another main focus is polyelectrolyte multilayers and temperature and / or pH sensitive hydrogels. This includes production and characterisation of nanostructured (two dimensional) polymer films with specific response characteristics, and the analysis of structure-property relationship that enables the practical use of such materials for "smart" switches and sensors.



Peter Kralchevsky, University of Sofia (BUL)



He is a full professor in the [Department of Chemical & Pharmaceutical Engineering](#) in Sofia University and Fellow of the Bulgarian Academy of Sciences. He got PhD (1985) and DSc (2001) in Physical Chemistry at Sofia University. His research contributions are in the area of particles at fluid interfaces – capillary forces; attachment of particles to interfaces; surfactant solutions: micellization, solubilization, thermodynamics & kinetics of surfactant adsorption, thin liquid films, surface forces (oscillatory-structural and hydration forces), and interactions in colloidal and bio-colloidal dispersions. He served in many organizational committees and boards of conferences; co-organized the EUFOAM 2010 conference in Borovets (BG); a training school of COST Action D43 (2011), and a topical Workshop on Hydration Forces (2012) in Sofia. He was the Chair of COST D43 (2008-2011) and Vice Chair of COST CM1101 (2012-present). Since 2010, he has been Secretary of the European Colloid and Interface Society (ECIS).

Schlomo Magdassi, The Hebrew University of Jerusalem (ISR)

He is a professor of applied chemistry, at the [Institute of Chemistry and the Center for Nanoscience and Nanotechnology](#) at the Hebrew University of Jerusalem, Israel. His research focuses on colloid science, and in particular on formulation, formulation and applications of novel micro and nanoparticles. These particles can be used as delivery systems and as components in functional printing and coating. Examples are: metal nanoparticles and CNT inks for 2D and 3D printing, and organic nanoparticles for new drug formulations. In addition to his scientific publications, he also has about 60 inventions on applications of colloids in various industries. Based on these inventions, some commercial activities evolved leading to worldwide sales and establishing new companies.



Hideki Matsuoka, Kyoto University (JAP)



Research interests are (1) Amphiphilic Polymers, Ionic Polymers, Polyampholytes, (2) Polymer Micelle, Polymer Monolayer, Polymer Brush, (3) Polymer Nanoparticles, and (4) Small-angle Scattering, Light Scattering, Reflectivity. Presently he serves as vice-chairman of the the Division of Colloid and Surface Chemistry of the the Chemical Society of Japan

Elena Mileva, Bulgarian Academy of Science (BUL)

Research interests include (1) Theoretical modelling of static and dynamic properties of disperse systems, (2) interfaces and complex fluids, including both analytical and numerical methods; (3) Structure and rheology of molecular and complex fluids; (4) Nanoscale phenomena and structures in fluid media; (5) Physicochemical hydrodynamics of thin liquid films; (6) Hydrodynamic interactions in suspensions and bubble-driven flows; and she has a scientific background of flotation and separation processes. She authored of 150 scientific papers.



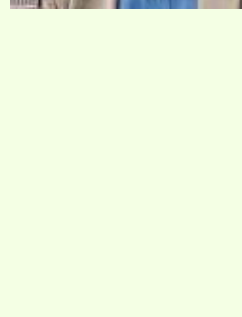
Victor Starov, Loughborough University (UK)



He is presently professor in the Department of Chemical Engineering, Loughborough University (UK). In 2007 Victor was elected a Fellow of the Royal Society of Chemistry, UK. Victor's scientific interests cover a broad range of problems: influence of surface forces on both equilibrium wetting phenomena and dynamic and quasi-equilibrium wetting phenomena, spreading over porous substrates, influence of surfactants on wetting phenomena, membrane separation including reverse osmosis, ultra- and micro-filtration, gel layer and dynamic membrane formation on membrane surfaces, influence of porous/gel layers on solid surfaces on hydrodynamic and electrokinetic phenomena, effective properties of porous and dispersed media and rheology of suspensions/emulsions including computer simulations.

Brian Vincent, University of Bristol (UK)

I am currently an Emeritus Professor and an (honorary) Senior Research Fellow at the University of Bristol, UK. The latter title may be awarded by the University if one is still active in science after one has officially retired. That means I am still publishing and working with others doing research. However, part of my time now is devoted to writing historical articles about colloid and interface science, and books about the history of science in Bristol. I have had a long and happy association with IACIS, since first being elected to its Council in 1984. Along with my close colleague of many years, Terry Cosgrove, and others, I was involved in organising the triennial IACIS international conference in Bristol in 2000. I was President of IACIS from 2003 to 2006; my main duty in that role was to oversee the organisation of the IACIS conference in Beijing in 2006. In 2009 I was awarded the *IACIS (plenary) lectureship* in New York. This was the forerunner of the current *IACIS Lifetime Achievement Award*, for which I have acted as chair of the selection committee for the Sendai and Mainz IACIS conferences. I am delighted to have the opportunity to serve IACIS as a Council member again.



Gregory Warr, University of Sydney (AUS)



His research is aimed at understanding the behaviour of amphiphilic compounds in bulk phases (solutions, liquid crystals, complex fluids), in colloidal systems (emulsions, foams, dispersions), and at interfaces. We have been pursuing a wide range of projects examining the structure and dynamics of bulk phases and dispersions using techniques including neutron and x-ray scattering (SANS and SAXS), optical microscopy, rheology and calorimetry, and interfacial structure by neutron reflectometry, atomic force microscopy, and surface force measurements. By combining these techniques we are discovering new structures formed when surface-active

molecules adsorb at the solid/liquid interface or when complex fluids abut an interface, and use this to design new nanostructured materials.

Thomas Zemb, Marcoule Institute for Separation Chemistry (F)

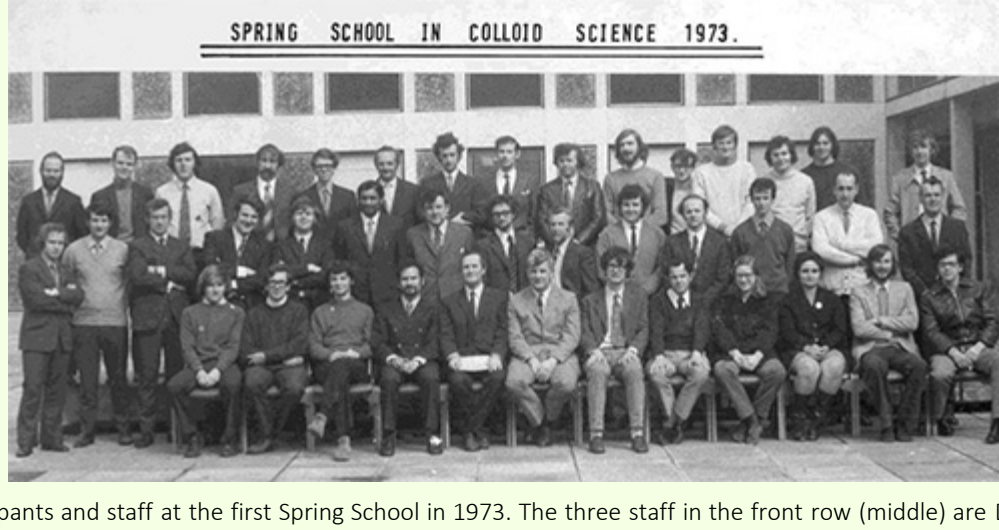
He is founding Director of the Institut de Chimie Séparative de Marcoule (CEA/CNRS/University of Montpellier/ENSCM) since March 2007. He was formerly Director of the Laboratoire Claude Fréjacques in Saclay. He is Full Professor at Institut des Sciences et Techniques Nucléaires since 1994 : teaching colloidal chemistry, nuclear chemistry, general physical chemistry, and cosmetics in three different masters programs. He was in Charge the Group of Chemistry of ultra-divided matter in the French Atomic commission in Saclay from 1992 to 2004. This group discovered the unique properties of `salt-free' catanionic materials, their preparation and usage, including two general patents. He is in charge of the Excellence initiative LABEX systems chemistry of Montpellier since 2011 and PI of the ERC Project *Rare earth extraction using low harmful emissions*. Current research interests are extraction, impregnation and recycling of metals and biomass without solvent or without extractant or triggered by external fields such as mechanics



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The Long-Standing Bristol *Spring School in Colloid Science*

In 1973 Ron Ottewill founded an annual short-course, *The Spring School in Colloid Science*, that is still running today. The Spring School was initially set up in conjunction with the one-year M.Sc. course, by advanced study and research, in Surface and Colloid and Surface Chemistry, which ran from 1964 until 1994. Whereas the M.Sc. course was aimed at those with a first degree in chemistry, the Spring School is aimed primarily at industrial researchers who have a background in science or engineering, but no formal training in surface or colloid science. The original course was spread over 4.5 days and consisted of 12 lectures plus hands-on practical work, using various types of instruments set up for the M.Sc. course. Much of the equipment was home - built, as there were relatively few instrument makers operating in the area at that time. Each of the Spring School attendees spent one hour on each piece of equipment doing each experiment, in groups guided by a demonstrator. There were also social events in the evenings such as a formal course dinner on the Thursday evening at which the attendees could interact with staff delivering the course.



Participants and staff at the first Spring School in 1973. The three staff in the front row (middle) are Dr Aitken Couper, Prof Ron Ottewill and Dr Brian Vincent. In addition, standing in the back row, on the far right, is Dr Jim Goodwin. The two course technicians are Peter Rogers (front row, extreme left) and John Dimery (second row, extreme right).

There were 36 attendees on the first course in 1973, and these are shown above together with the staff involved. The maximum number of participants (40) was set by the practical classes. In those early years there were representatives from various UK companies, who in the 1970s were themselves running large R&D groups working in applied areas of surface and colloid science, including: ICI, Unilever, P&G, Shell, BP, etc. The four academic staff who delivered the lectures on that first course included myself, then a young lecturer. I have actually lectured on every course since that first one, including since my *retirement* in 2007! So successive course photos sadly show me ageing in quantum leaps! Although the basic course structure and contents have largely remained similar down the years, there have been a number of inevitable changes, in particular in regard to the instrumentation used, and the academic and technical staff involved. The current course has been shortened to 3 days, as many companies can no longer let their staff be away for a whole week. The practical course, mainly for health and safety reasons, is now an instrument demonstration course, rather than hands-on. The number of lectures has varied between 12 and 16, since some more modern topics have been introduced, such as neutron and X-ray scattering and reflection methods, and surface-force measurement methods. In 2005 Prof Terry Cosgrove compiled and edited [the book of the course](#). This is a compilation of the lecture notes, with each chapter written by the lecturer concerned. A copy of this book is given to each course participant, as well as an electronic copy of the lectures and instrument demonstration notes. Although we still receive a basic core of participants from some of the older, long-established companies who are still involved in the field, such as Unilever and P&G, we have had, down the years, attendees from a large range of companies including SMEs, in particular those involved in formulation of colloidal-based systems of all sorts. For the last few years the administration of the course has been handed over to [Formumetrics](#) which is in essence the *son* of the old Bristol Colloid Centre (BCC) which I started in 1994, and which operated as a commercial unit within the School of Chemistry in Bristol. In 2011 the BCC was in effect re-branded as a commercial venture, [Formumetrics](#), outside the University. This company employs some of the former BCC staff and plays a similar role to the BCC, namely giving research, consulting and training support to industries, in particular those involved with formulation. For further details of the 2015 Bristol Spring School (18-20 May) please contact [Dr Samantha Hutton](#).

Brian Vincent, Bristol, Jan 2015

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Selected announcements

The **CoWet Summer Training School *Flows, stability and Marangoni effects*** will take place from Monday, August 31st, to Friday, September 4th, in Madrid, Spain; organised by [Manuel Velarde](#) and [Ramon Rubio](#). The draft program and registration information will be available soon on the [CoWet web page](#).

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