

WELCOME TO NICE2014 CONFERENCE

Dear Delegates,

Dear Colleagues,

It is my great honour and privilege to welcome you to Nice (France) for the second International Conference on Bioinspired and Biobased Chemistry & Materials from 15th to 17th October 2014. “NICE” as “Nature Inspires, Chemistry Engineers” is also the acronym of the thematic of this conference. NICE 2014 conference gathers in the most famous Palace of the French Riviera more than 500 scientists from 50 countries in comparison to the previous one in 2012 (200 scientists).

I express thanks to all delegates, all speakers and poster presenters, coming from all over the world, to communicate the latest exciting developments and results in the dynamic fields of Materials and Chemistry and will turn that conference into an exciting and successful event. The intention is to provide a dynamic platform for academic colleagues or industrial partners but also to give an intimate environment in order to stimulate ideas or to start collaborative projects, in a scientific field which impacts so importantly on the future. Thanks to you for contributing to the success of this meeting. Of course, thanks to all of you for attending. I think that you will be glad that you did. As the conference showcase new multidisciplinary research and present pioneering advances in science, I hope you will have some time to explore joint ventures for collaborative scientific research projects in the place of the conference or ... in the old town.

The entire organizing committee has put in months of valuable efforts for your service and for the quality of scientific speakers. We hope you will find the meeting scientifically stimulating and thought-provoking for new projects. If you need anything further, do not hesitate to contact me or any other member of the conference team.

Yours,

Frederic GUITTARD

Chair – N.I.C.E. 2014 conference

KEYNOTE SPEAKERS

NanoTech



Nicholas Abbott
University of Wisconsin-
Madison



Joachim Bill
University of Stuttgart



Jim De Yoreo
Lawrence Berkeley National
Laboratory



Olli Ikkala
Helsinki University of
Technology/Aalto University



Jas Pal Badyal
Durham University



Paul K. Chu
City University of Hong Kong



Francisco Del Monte
ICMM



Vadim Kessler
Swedish University of
Agricultural Sciences



Matthias Ballauff
Helmholtz-Zentrum Berlin für
Materialien und Energie



Thierry Darmanin
University of Nice



Catarina Esteves
Eindhoven University of
Technology



Rüdiger Knip
Max-Planck-Institute for
Chemical Physics of Solids



NANOTECH SESSION

	"Salon de Versailles" Room	"Salon Nations" Room
	<u>Chairman</u> : Catarina Esteves	<u>Chairman</u> : Bernd Rauschenbach
8 :30	<p>Thierry Darmanin Tunable surface nanofibrous structures and nanoporosity for superhydrophobic and superoleophobic properties NANOTECH-KN27</p>	<p>Natasa Novak Tusar Advanced nanostructured catalysts for removal of volatile organic compounds from polluted air NANOTECH-KN44</p>
8 :55	<p>Mika Latikka Magnetic Droplets for Exploring Dynamics and Dissipation on Superhydrophobic Surfaces NANOTECH-OR145</p>	<p>Grazia Totaro Poly(1,4-dimethylcyclohexane adipate) nanocomposites with organoclays modified with ionic liquid based on phosphonium salt NANOTECH-OR150</p>
9 :10	<p>Nina Gaissert Knowledge about fish and geckos hybridizes to form an energy-efficient gripper NANOTECH-OR146</p>	<p>Remo Merijs Meri Modification of thermoplastic starch - nanoclay composites by means of ionic liquid NANOTECH-OR151</p>
9 :25	<p>Mark Rutland Understanding the Surface of Hair NANOTECH-OR147</p>	<p>Akira Otsuki Electric field-induced nanoparticle dispersion NANOTECH-OR152</p>
9 :40	<p>Alon Gorodetsky Infrared Invisibility Stickers Inspired by Cephalopods NANOTECH-OR148</p>	<p>Yin Chang Ultra-thin, Highly Extensible, and Puncture Resistant Bio-composite: An Investigation on Cobra Snake Eggshells NANOTECH-OR153</p>
9 :55	<p>Mariya Kyulavska Modern approach on the in-situ synthesis of novel polyether and fluorine-containing poly(ϵ-caprolactam) copolymers based on multipurpose prepolymers NANOTECH-OR149</p>	<p>Ewa Krysiak Organic-inorganic hybrid materials based on TiO₂ nanoparticles obtained via Atom Transfer Radical Polymerization NANOTECH-OR154</p>
10 :10	Coffe Break (Salon royal)	
10 :30	<p>Xuehong Lu Mussel-Inspired Surface Functionalization of Nanostructures: Some New Applications and Opportunities NANOTECH-KN37</p>	<p>Paul K. Chu Plasma Surface Modified Biomaterials NANOTECH-KN26</p>

Keynote lectures Abstracts

Plasma Surface Modified Biomaterials

Paul K Chu*

*Department of Physics and Materials Science, City University of Hong Kong, Tat Chee Avenue,
Kowloon, Hong Kong, China*

The surface properties of materials dictate the physical, chemical, and biological interactions between the materials and outside environment and are crucial to biomedical applications. Plasma-based and related technology offers the unique capabilities of modification of selected surface properties, functionalization, and fabrication of special surface structures whereas the inherent favorable bulk properties of the materials and components are preserved. In this keynote, recent research work performed in the Plasma Laboratory of City University of Hong Kong is described. Examples will include plasma-treated bio-conductive coatings, biodegradable metals and polymers, and other functional biomaterials.