

Monday, July 28, 2008

9:00 – 18:00

Hall H

## **Special Focus Symposium on Nanotechnology and Nanoscience**

Chair: Dr. S. Santoli, Director,  
INT - International Nanobiological Testbed Ltd. (London), UK  
Via A. Zotti 86, I-00121 Rome, Italy

### **Session 1 - Nanomaterials**

#### **Introduction and Welcoming Address**

S. Santoli  
INT - International Nanobiological Testbed Ltd., London, UK

#### **Effect of Linker Molecules on the Attachment of Gold Nanoparticles on Indium Tin Oxide Surfaces**

M. Oyama and A. Orimo  
Graduate School of Engineering, Kyoto University, Japan

#### **The Influence of Silver Nanoparticles in the Second Harmonic Generation of Er<sup>3+</sup> doped PbO/GeO<sub>2</sub> Glasses**

I.V Kityk<sup>1</sup>, M.Piasecki<sup>1</sup>, L. Reyes Pires Kassab<sup>2</sup>, D.M.da Silva<sup>3</sup>  
<sup>1</sup>Inst.of Physics, J. Dlugosz Univ. Czestochowa, Poland; <sup>2</sup>Laboratorio de Vitros e Datação, Faculdade de Tecnologia de São Paulo, São Paulo, Brazil; <sup>3</sup>Departamento de Engenharia de Sistemas Eletrônicos, Escola Politécnica da USP, São Paulo, Brazil

#### **Germanate and Tellurite Glasses with Metallic Nanoparticles for Photonic Applications**

L. Reyes Pires Kassab<sup>1</sup>, D. M. da Silva<sup>2</sup>, R.da Almeida Pinto<sup>2</sup>, C.B.de Araújo<sup>3</sup>, A.S.L.Gomes<sup>3</sup>  
<sup>1</sup>Laboratorio de Vitros e Datação, Faculdade de Tecnologia de São Paulo, São Paulo, Brazil;  
<sup>2</sup>Departamento de Engenharia de Sistemas Eletrônicos, Escola Politécnica da USP, São Paulo, Brazil;  
<sup>3</sup>Departamento de Física, Universidade Federal de Pernambuco, Brazil

#### **Manifestation of Nanocrystallites in UV-Induced Piezooptics of Nanocrystallites**

M. Piasecki  
J. Duglosz University Czestochowa, Poland

**LUNCH BREAK 12:00 – 14:00**

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## Session 2 – Nanobiology and Biomedicine

### **Steric Hindrance on Biochemical Reactions of Surface-Bound DNA**

M. Castronovo<sup>\*1,2,3,4</sup>, S. Radovic<sup>5</sup>, Ch. Grunwald<sup>1,4</sup>, L. Casalis<sup>1,3</sup>, M. Morgante<sup>5,6</sup>, G. Scoles<sup>1,3,4,7</sup>

\* present affiliation: NanoBioMed Laboratory, CBM S.c.r.l – Cluster of Molecular Biomedicine, Basovizza (Trieste), Italy

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<sup>2</sup>University of Trieste, Trieste, Italy

<sup>3</sup>SISSA-Scuola Internazionale Superiore di Studi Avanzati, Trieste, Italy; <sup>4</sup>IIT-Italian Institute of Technology – SISSA Unit, Trieste, Italy; <sup>5</sup>Univ. of Udine, Dept. of Agricultural and Environmental Sciences, Udine, Italy

<sup>6</sup>Istituto di Genomica Applicata, Parco Scientifico e Tecnologico di Udine ‘Luigi Danieli’, Udine, Italy

<sup>7</sup>Princeton University, Chemistry Department, Princeton NJ, USA

### **Polyelectrolyte-Based Nanostructures in Medicine**

F. Zanuttin<sup>1</sup>, S. Mandal<sup>2</sup>, F. Petrera<sup>1</sup>, J. Lopez-Viota Gallardo<sup>1</sup>, E. Toffoli<sup>1</sup>, S. Krol<sup>2\*</sup>

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<sup>2\*</sup>SISSA-Scuola Internazionale Superiore di Studi Avanzati, Trieste, Italy; corresponding and presenting Author

### **Nanobioprobes for Multimodal Molecular Imaging: Chemical Design, Spectral Characteristics and Biomedical Applications**

R. Bakalova<sup>1</sup>, Zh. Zhelev<sup>1</sup>, I. Aoki<sup>1</sup>, K. Matsumoto<sup>2</sup>, V. Gadjeva<sup>3</sup>, I. Kanno<sup>1</sup>

<sup>1</sup>Molecular Imaging Center, NIRS – National Institute of Radiological Sciences, Inage, Chiba, Japan

<sup>2</sup>Research Center for Charged Particle Therapy, NIRS – National Institute of Radiological Sciences, Inage, Chiba, Japan

<sup>3</sup>Department of Chemistry and Biochemistry, Thracian University, Stara Zagora, Bulgaria

### **Receptors and Drugs as Logic Formulas**

A.R. Grappone

Rome Second University, Faculty of Medicine; Ed.-in-Chief, ‘Metalogicon’ Intl. Journal

### **Logic in the Eyes of Biomacromolecules – Can Nanobiology Be Engineered?**

S. Santoli

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