

## **Workshop**

### ***Materiale multifunctionale micro si nanostructurate: de la cercetare la aplicatii***

Institutul National pentru Fizica Materialelor, Magurele (sala de seminar)

#### **Draft program**

### ***22 septembrie***

8:30-9:30 Inregistrare participanti

9:30-9:40 Deschidere lucrari

#### **9:40-11:20 Sesiunea 1-Nanostructures, nanocomposites. Moderatori: dr. Ovidiu Ersen si prof. Ioan Grozescu**

9:40- *Mircea Chipara*: „Multifunctional nanocomposites”

10:00-*Ionut Enculescu*: „Functional devices based on template method”

10:20-*Leonard Spanu*: „Coupled magnetic nanostructured systems for nonvolatile memory technologies”

10:40-*Astilean Simion*: „Multifunctional plasmonic nanostructures: from fabrication to applications”

11:00-*Vasile Parvulescu*: „Nanostructuri metalice suportate: sinteza, caracterizare si comportare catalitica”

#### ***11:20-11:40 Pauza de cafea***

#### **11:40-13:20 Sesiunea 2-Materials. Moderatori: dr. Catalin Harnagea si dr. Magdalena Nistor**

11:40- *Ioan Grozescu*: „Oportunitati in cercetarea de materiale la INCEMC Timisoara”

12:00-*Ovidiu Ersen*: „Solving the chemistry of a 3D structure at the nanometer scale by analytical electron tomography”

12:20- *Stefan Antohe*: „Progress in Photovoltaic cells based on organic thin films and organic/inorganic structures”

12:40-*Albu Nicolae*: „Stochastic Models of Organic Nano-Materials for Solar Cells”

13:00-*Roxana Piticescu*: "Wet chemical processes and services for sustainable development of hybrid nanomaterials"

#### ***13:20-14:20 Pauza de pranz (bufet in institut)***

#### **14:30-16:00 Vizita facilitati experimentale**

#### ***16:00-16:20 Pauza de cafea***

#### **16:20 Sesiunea 3-Ferroids, oxides. Moderatori: prof. Mircea Chipara si prof. Stefan Antohe**

16:20- *Catalin Harnagea*: „Electromechanical properties of multifunctional nanoobjects”\*

16:40-*Melvin Vopson*: „The interplay between time and temperature in ordered ferroic systems”

17:00- *Lavinia Curecheriu*: „Functional properties of multiferroic composites with core-shell structure related to macrostructure characteristics”

17:20-*Magdalena Nistor*: „Nanocomposite oxide films grown by pulsed energy beam deposition”

17:40-*Radoi Antonio*: „Materiale nanostructurate: aplicatii practice in nanomedicina”

#### ***18:00-18:15 Pauza de cafea***

18:15-19:00 Masa rotunda: Materialele in zodia NANO-de la cercetare la aplicatii.

#### ***19:00-21:00 Bufet si discutii libere-Networking (curtea interioara a institutului si holul de la intrare)***

## **23 septembrie**

**9:10-11:00 Sesiunea 4-Materials and Life Sciences. Moderatori: prof. Leonard Spanu si dr. Nicolae Barsan**

9:10-*Hutanu Daniela*: „On chip aptamer based sandwich assay for thrombin detection employing magnetic beads and quantum dots”

9:30-*Simionescu Bogdan*: „Micro/nanostructured polymeric materials: micro/nanoparticles, nanocomposites, collagen-based matrices”

9:50-*Catalina Achim*: „Mössbauer Spectroscopy Studies of Spin Transitions in Polynuclear Iron Complexes”

10:10-*Constantin Ciobanu*: “Biopoliuretani cu nanoparticule de argint”

10:30-*Ion Alina Catrinel*: “Nanotechnology applications in agriculture”

10:50-*Marcel Ionel Popa*: "Micro si nanoparticule utilizate in domeniul biomedical"

### **11:10-11:30 Pauza de cafea**

**11:30-13:10 Sesiunea 5-Applications. Moderatori: dr. Daniela Hutanu si prof. Ion Alina Catrinel**

11:30- *Nicolae Barsan*: „Miniaturized metal oxide based gas sensors: the way from an idea to a product”

11:50-*Vlad Badilita*: „Microstructured arrays of 3D solenoids for fine electromagnetics”

12:10- *Adrian Jianu*: „Corrosion barriers for in-core components of nuclear reactors”

12:30-*Dan Vasilache*: „New deep reactive ion etching process for through wafer via manufacturing”

12:50-*Alexandru Muller*: „Dispozitive acustice si pentru fotodetectie UV pe baza de GaN/Si”

13:10-*Marilena Tomut*: „Carbon materials for high power heavy ions accelerators”

### **13:30-14:30 Pauza de pranz (bufet in institut)**

**14:30-15:30 Sesiune poster**

(in holul central al institutului)

*Jenica Neamtu*: “Magnetic Nanoparticles for Magneto-Resonance Imaging and Targeted Drug Delivery”

*Dan Pantis*: „Top Technologies and Technical Aspects of Radiofrequency in Nanomedicine”

*Cornel Sarbu*: „Surprising Plasticity at Cryogenic Temperatures of an Oxidic Perovskite. The Dislocation Core Structure in SrTiO<sub>3</sub> Single Crystals Plastically Deformed at RT, Low Temperatures and High Temperatures”

*Magdalena Lidia Ciurea*: “Percolation in CNT network”

*Liliana Laura Badita*: “Topographic Characterization, Improvement and 3d Nanometric Control of Hip Prostheses Surfaces”

**15:30-18:00 Sesiune speciala. Moderator: Prof. Rodica Stănescu**

Dezbateri „Criteriile de evaluare a cercetării științifice din universități, pe domenii specifice” - Proiect FSE „Doctoratul in Scoli de Excelenta- Evaluarea calitatii cercetarii in universitati si cresterea vizibilitatii prin publicare stiintifica”

**18:00-18:15 Inchiderea lucrarilor**