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Special Session

Technology of Nanostructured Carbon Based Materials and Sensing

Session Organizers:

Alessandro Massaro - Consiglio Nazionale delle Ricerche - Istituto di Metodologie Inorganiche e dei Plasmi (CNR-IMIP), Bari, Italy. alessandro.massaro@imip.cnr.it.

Grazia Ciacla - Consiglio Nazionale delle Ricerche - Istituto di Metodologie Inorganiche e dei Plasmi (CNR-IMIP), Bari, Italy. grazia.cicala@imip.cnr.it.

Session Abstract:

Carbon-based materials offer a number of exciting challenges for both new nano-science and sensing. Many of these are based on graphene, diamond films with different grain sizes, diamond nanoparticles (NPs), carbon nanotubes, offering the potential for high speed nanoscale electronics and MEMS/NEMS sensors. Technological optimization of these materials allows the implementation in tailored nanostructured devices exploiting the superior mechanical, thermal, electrical, electronic and chemical properties.

List of topics, but not limited to:

- Poly-, Nano-, and Ultrananocrystalline Diamond;
- Technological aspects of CVD, MWCVD, HFCVD carbon/diamond films;
- Diamond NPs as nanosensors and nanocomposites;
- Carbon Nanotubes;
- Carbon Based Nanoelectronics;
- Carbon Based MEMS/NEMS;
- Nanostructured carbon for energy applications;
- Graphene Based Sensors;
- Diamond Like Carbon Nano-implementation;
- Self-Assembled Carbon Based Nanostructures;
- Carbon and Bio-Sensing;
- Design and Simulations of Carbon Based Nanosensors.