

## 1st WORKSHOP ON CVD DIAMOND APPLICATIONS

STOCKHOLM 19-20 SEPTEMBER 2003

Italian Culture Institute, Stockholm

### Organizing committee

#### University of Torino

Alessandro Logiudice,  
Claudio Manfredotti,  
Ettore Vittone,  
Paolo Olivero,  
Chiara Paolini,

#### Italian Embassy in Stockholm

Roberto Galloni, Scientific Attaché  
Luca Neri, Assistant

### Program

---

#### Session I - Hydrogenated and oxidated diamond surface : theory and characterization

##### Friday morning

- 8:30 Registration**
- 9:00 Welcome address**
- 9:15 K. Larsson:**  
Effect of Surface Adsorbates on Electron Transfer Processes
- 9:55 C. E. Nebel:**  
Nanoelectronics on Hydrogen Terminated Diamond
- 10:35 J. Ristein:**  
Charge Carrier Diffusion Profiles in Diamond
- 11:15 Coffee break**
- 11:30 C. Paolini:**  
Local Anodic Oxidation of hydrogenated diamond surfaces
- 12:00 C. Manfredotti:**  
Priming and photoconductivity in CVD diamond

**12:30 E. Vittone:**  
Diamond surface functionalization for neuronal cells stimulation

**13:00 Lunch**

---

## **Session II - CVD diamond devices : surface and bulk**

### **Friday afternoon**

**14:30 E. Kohn:**  
Recent Advances in the Characterization of the H-terminated Diamond Surface and Surface Channel Field Effect Transistors

**15:10 R. Sussmann:**  
The use of CVD diamond for high-power switching using electron beam excitation

**15:50 J. Isberg:**  
High voltage Schottky diodes in single crystal CVD diamond

**16:30 Coffee break**

**16:45 P. Chow:**  
High voltage diamond Schottky rectifiers

**17:25 P. John:**  
Surface Modification for Diamond Sensors

---

## **Session III - CVD diamond detectors and dosimeters**

### **Saturday morning**

**8:30 P. Ascarelli :**  
Conditions and testing of low energy X-ray radiation dose-rate response linearity of thin CVD diamond films

**9:10 P. Bergonzo:**  
Radiation detection devices made from synthetic diamond

**9:50 M. Bruzzi:**  
CVD diamond off-line dosimeters for radiotherapy applications

**10:30 P. Rava:**  
Multichamber PECVD-HWCVD systems for deposition of silicon and carbon thin films

**11:00 Coffee break**

**11:15 S. Onori:**  
Applications of CVD diamond in radiotherapy

**12:55 E. Pace:**  
Towards diamond UV imaging detectors

**12:35 R. B. Jackman:**  
Properties of CVD diamond for UV detector applications

### **Saturday evening**

**19:00 Social dinner at the Scientific Attaché residence**