



European Workshop on
Nano Transparent Conductive Materials

NanoTCMs

MINATEC – Grenoble, France
June 14-15th, 2012



Scientific Program

| Thursday, June 14, 2012 | |
|-------------------------|---|
| 8:00 – 8:45 | <i>Welcome, coffee</i> |
| 8:45 – 9:00 | <i>Introduction</i> |
| 9:00 – 10:00 | <u>Invited conference 1: “Transparent electronics”</u> <i>Elvira FORTUNATO, CENIMAT-13N, Caparica (Portugal)</i> |
| 10:00 – 10:30 | <i>“Transparent Electrode with tuned work function for enhanced charge collection in photovoltaics devices”</i> O. Tosoni, CEA-LITEN, Grenoble (France) |
| 10:30 – 11:00 | <i>Coffee Break</i> |
| 11:00 – 11:30 | <i>“n-type ZnO nano-particles by soft chemistry routes”</i> M. Gaudon, ICMCB, Bordeaux (France) |
| 11:30 – 12:30 | <u>Invited conference 2: “p-type TCOs from delafossite to new materials”</u> Dr. Karsten Fleischer, Trinity College, Dublin (Ireland) |
| 12:30 – 13:30 | <i>Lunch (on site)</i> |
| 13:30 – 14:30 | <i>Poster session 1</i> |
| 14:30 – 15:30 | <u>Invited conference 3: “A general introduction for the use and needs of TCMs”</u> Arnaud VERGER, Lecturer at Saint Gobain Recherche (France) |
| 15:30 – 16:00 | <i>“Electron transport in polycrystalline thin films of fluorine-doped tin oxide”</i> G. Rey, LMGP, Grenoble (France) |
| 16:00 – 16:30 | <i>“Preparation of delafossite p-type TCO thin films by non reactive radio-frequency sputtering on conventional glass substrate”</i> A. Barnabe, Université Paul Sabatier, Toulouse (France) |
| 16:30 – 17:00 | <i>Refreshments</i> |
| 17:00 – 17:30 | <i>“IZO deposition by RF and DC sputtering on paper and application on flexible electrochromic devices”</i> C. Costa, Ydreams, Caparica (Portugal) |
| 17:30 – 18:00 | <i>“Characterization of transparent Indium Gallium Oxide semiconductor for application in thin-film transistors”</i> T. Nguyen, CEA-LETI, Grenoble (France) |
| 18:00 – 18:30 | <i>“Oxidized Ni capped Al-doped ZnO for organic optoelectronics”</i> D.S. Ghosh, ICFO, Barcelona (Spain) |
| 18:30 – 19:00 | <i>“Influence of sputtering conditions on the optoelectronic properties of 3% silicon doped zinc oxide TCO thin films”</i> A. Rougier, CNRS, Bordeaux (France) |
| 20:00 | <i>Dinner (restaurant “Chez le Père’Gras” at La Bastille)</i> |



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| Friday, June 15, 2012 | |
|-----------------------|---|
| 8:45 – 9:00 | <i>Welcome</i> |
| 9:00 – 10:00 | Invited conference 4: “Emerging flexible transparent electrodes based on nanomaterials” Jean-Pierre Simonato, CEA LITEN, Grenoble (France) |
| 10:00 – 10:30 | “Electro-optical and mechanical properties of sprayed silver nanowire networks on transparent substrates” G. Giusti, LMGP, Grenoble (France) |
| 10:30 – 11:00 | <i>Coffee Break</i> |
| 11:00 – 11:30 | “Transparent conducting silver nanowire networks” J. Van de Groep, FOM, Amsterdam, Netherlands |
| 11:30 – 12:00 | “Growth of large scale graphene by solid carbon source for transparent conductive electrodes” A. Delamoreanu, CEA-LETI, Grenoble (France) |
| 12:00 – 12:30 | “Graphene: Atomic Carbon Single-Layer for Flexible Transparent Electrodes” Z. Han, Institut Louis Neel, Grenoble (France) |
| 12:30 – 13:30 | <i>Lunch (on site)</i> |
| 13:30 – 15:00 | Poster session 2 |
| 15:00 – 15:30 | “Nanoparticle synthesis and (aqueous) chemical solution deposition of Al-doped ZnO and doped Ti O₂” H. Damm, IPC, Diepenbeek (Belgium) |
| 15:30 – 16:00 | “Innovative TCO grids for enhanced light trapping into photovoltaics devices” C. Ducros, CEA-LITEN, Grenoble (France) |
| 16:00 – 16:30 | “AZO thin film preparation by pulsed DC sputtering for flexible organic solar cell” S. B. Srivastava, MBIL, Greater Noida (India) |
| 16:30 – 17:00 | <i>Workshop conclusion</i> |

-  Invited conferences
-  Oral presentations
-  Poster sessions
-  Food / drink services