

## Conference Report

First Polish - French Workshop on Organic Electronics and Nanophotonics:  
January 31-February 4, 2010 - Swieradow Zdroj, Poland

---

J. Ulanski

### General summary

The Workshop has provided an interdisciplinary forum for Polish and French scientists working in the field of molecular and polymeric materials with emphasis on novel phenomena in electronics and nanophotonics. The objectives were to deepen existing and open new co-operations of researchers and to stimulate growth in this field.

Around 80 participants from leading research centres in Poland and in France were participating in this very fruitful meeting. The presented works were oriented both on fundamental research as well as on practical application of organic materials in electronics and photonics, as one can see from the below listed few selected papers which have attracted a special attention.

### Highlights

*"New insights in the structures of hybrid organic-inorganic materials for optical applications"* by **S. Parola** (**Université Lyon 1**, France) in which it was shown how the structure and interactions on molecular level can influence the macroscopic properties. By controlled sol-gel process and by control molecular organisation of the dyes dispersed in the solid, optical properties of such hybrid composite can be mastered.

*"Laser patterning of p-n structures and CMOS logic circuits in solution processible organic semiconductor"* by **J.C. Ribierre** in which it was shown, that using low-bandgap dicyanomethylene substituted quinoidal quaterthiophene derivative one can get ambipolar OFETs and also CMOS inverter based on two identical OFETs because by annealing or by laser writing, HOMO/LUMO levels and obtain p- and n-type regions separately can be changed.

*"Molecular composites of semiconductor nanocrystals and conjugated polymers ..."* by **A. Pron** (**CEA**, Grenoble) in which three different types of hybrid nanocomposites were presented, obtained by ligand exchange; by grafting polymers to nanocrystals or by molecular recognition between functionalized polymers and complementary functionalized nanocrystals (the last system can be used for LbL deposition).

*"Unusual electronic properties of polycarbazole derivatives ..."* by **M. Lapkowski** (**Silesian University**, Gliwice, Poland) in which electrochemically polymerised biscarbazole monomer yields polymer with larger bandgap (shorter conjugation length) than the monomer. Another, thiophene-carbazole monomer yields via electrosynthesis oligomers of different chain length, but with the same band-gap, insensitive to the number of repeat units.