



ΟΜΙΛΗΤΗΣ: **Mario Leclerc**

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Université Laval, Department of Chemistry
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ΘΕΜΑ: **Plastic Solar Cells.**

ΤΟΠΟΣ: Αίθουσα Σεμιναρίων ΙΤΕ/ΕΙΧΗΜΥΘ

ΗΜΕΡΟΜΗΝΙΑ: **Πέμπτη, 4 Νοεμβρίου 2010**

ΩΡΑ: **12:00**

ΠΕΡΙΛΗΨΗ:

Solar cells are one key technology for solving world energy needs. The development of new materials such as semiconducting conjugated polymers as active components in bulk heterojunction (BHJ) photovoltaic devices could help to significantly reduce the fabrication cost of such devices. In the last few years, many chemists proposed new polymeric structures. Among them, we would like to report new poly(2,7-carbazole) derivatives that show good solubility and good hole mobility, resulting in power conversion efficiencies up to 7.1%. We will also report about new promising polymeric structures that could lead to efficiencies up to 10% in a single cell configuration.



SHORT BIOGRAPHY:

Professor Leclerc did his graduate studies at Université Laval under the guidance of Professor Robert E. Prud'homme. He earned his Ph. D. in Chemistry (Polymer Science) in 1987. He then joined the Institut national de recherche scientifique-Énergie et Matériaux (INRS) near Montreal for a short postdoctoral stay (1987-1988) in the group of Professor Lê H. Dao. He pursued his postdoctoral studies the Max-Planck-Institute for Polymer Research in Mainz (1988-1989), Germany, working with Professor Dr. Gerhard Wegner.

Professor Leclerc started his academic career at the Université de Montréal in 1989. He got promoted to the level of Associate Professor in 1994 and to Full Professor in 1998. He returned to Université Laval in 1998 as Full Professor, where he holds since 2001 the Canada Research Chair on Electroactive and Photoactive Polymers. This Chair has been recently renewed until 2015. He has co-authored about 200 papers published in leading scientific journals which have been cited more than 9000 times. According to Science Citation Index, he has an H-index of 53. About 50 students have already graduated from his laboratory and about 12 are currently pursuing their formation together with 6 post-doctoral students.