





#### Joint scientific meeting of

### The Wallonia Network for Nanotechnologies – NANOWAL

and

### The 'Materials, Interfaces and Nanostructures' Doctoral School – MAIN

on

## 'Nanomaterials and Energy'

Friday May 8 2015 at the University of Mons

Salle Marie Curie, Les Grands Amphithéâtres, Campus de la Plaine de Nimy

9h15 – 9h40 : Welcome, registration, and poster installation

9h40-9h45: Opening of the workshop: Christian Michaux, Dean of the Faculty of Science

9h45 – 10h30 : **Fabrice Odobel** (Université de Nantes) Engineering new generation of dye-sensitized solar cells based on NiO photocathodes for photovoltaic and solar fuel production

10h30 – 10h50: **Jonathan Dervaux** (Université de Mons) Nanostructured thin films as photoanode by combining GLAD and magnetron sputtering: a joint experimental and modeling study

10h50 – 11h10: **Raja Venkata Ratan Kotipalli** (Université catholique de Louvain) Nanosized Local Rear Point Contacts and Passivation layers for high-efficiency thin film solar cells and their advanced electrical characterisation

11h10 – 11h30: **Lou Rocard** (Université de Namur) Colour ordering via orthogonal covalent bonds

11h30 – 11h50: Guoxing Chen (Université Libre de Bruxelles) Conversion of  $CO_2$  into value added chemicals by combining microwave plasma with nickel catalyst 11h50 – 12h10: **Caroline Toussaint** (Université de Liège) A combination of Mesoporosity and Ti-doping in Hematite Films for Water Splitting

12h10 – 13h30: Lunch and poster session - Forum 13h00 – 13h30: General assembly of NANOWAL - Salle des Conseils

13h30 – 14h15: **Catherine Henrist** (Université de Liège) Structuration of inorganic materials for new generation solar cells

14h15 – 14h35: Arnaud Krumpmann (Université de Mons) Anodized TiO<sub>2</sub> nanotubes for dye-sensitized solar cell photoanodes: impact of a compact TiO<sub>2</sub> underlayer

14h35 – 14h55: **Michaël Lobet** (Université de Namur) How can we make a perfect and broad light absorber?

14h55 – 15h15: **Nicolas Dardenne** (Université catholique de Louvain) Ab-initio simulation of new polymer-based electrodes for Li-ions batteries

15h15 – 15h45: Coffee break

15h45 – 16h30: **Alexandru Vlad** (Université catholique de Louvain) Exploring the potential of high power and high energy electrochemical systems by making use of hybrid materials and technologies

16h30-16h50: **Marco Digennaro** (Université de Liège) Pure spin thermocurrents in Permalloy at high Temperatures

16h50-17h10: **Joffrey Baneton** (Université Libre de Bruxelles) A new promising methodology to synthesize platinum nanoparticles on carbon electrodes using atmospheric plasma for fuel cell applications

17h10 – 17h20: Concluding remarks

# 17h20.... To celebrate the 50<sup>th</sup> anniversary of the Faculty of Science, all the participants are warmly invited to the 'drink+barbecue' party of 'Les Apéros Montois'

The meeting is open to all scientists (students, post-docs, staff members) from academia and industry. We strongly encourage all groups to present posters with their most recent work connected to the field of nanomaterials, nanosciences and nanotechnology (even if not directly related to the topic of the meeting).

There are no registration fees but registration is requested. Could you please visit the site http://www.nano.be and register before May 2

For further information, please contact Roberto Lazzaroni (Roberto.lazzaroni@umons.ac.be)

#### Campus de la Plaine de Nimy, Avenue Maistriau, Mons



Les 'Grands Amphithéâtres' is building 9 on the map.