

Wednesday, 31 August

## NanoteC11

# Carbon Nanoscience and Nanotechnology

Institut des Matériaux Jean Rouxel (IMN), University of Nantes

### Afternoon programme

11.00-14.00 **Registration**

13.00-14.00 **Lunch**

#### SYNTHESIS 1

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14.10-14.50 **Pascal Ruffieux**  
Atomically precise bottom-up fabrication of graphene nanoribbons

14.50-15.10 **Pascal Pochet**  
Theoretical investigation of the synthesis pathways of alternative fullerene materials

15.10-15.30 **Hermann A. Wegner**  
No Strain - No Gain. An Organic Chemists Approach Towards Short Carbon Nanotubes

15.30-16.00 **Coffee and tea**

#### SYNTHESIS 2

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16.00-16.40 **Hyung Gyu Park**  
Low Temperature Graphene CVD on Copper

16.40-17.00 **Piran R. Kidambi**  
In-situ, high-pressure XPS and XRD study of graphene CVD

17.00-17.20 **Abdel Aziz El Mel**  
Hierarchical carbon nanostructures design: Ultra-long carbon nanofibers decorated with carbon nanotubes

17.20-17.40 **Jean-Luc Maurice**  
Iron catalysts for the growth of carbon nanofibres: Fe, Fe<sub>3</sub>C or both?

17.40-18.00 **Amine Achour**  
Nanocomposite nickel/carbon thin films for low temperature growth of vertically aligned multiwalled carbon nanotubes

18.00-22.00 **Drinks, Cold Buffet and Poster Session**

Thursday, 1 September

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### Morning programme

#### MODELLING 1

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- 09.00-09.40 **Irene Suarez-Martinez**  
Thermal Conductivity in Carbon Nanomaterials
- 09.40-10.00 **Jean-Joseph Adjizian**  
A new series of DFT calculations for Moiré Pattern on Graphite
- 10.00-10.20 **Viktoria Ivanovskaya**  
Low energy graphene edge termination via small diameter nanotube formation
- 10.20-10.50 **Coffee and tea**

#### MICROSCOPY

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- 10.50-11.30 **Ursel Bangert**  
Annular dark field microscopy in carbon characterisation
- 11.30-11.50 **Pascaline Pré**  
Morphological Analysis of Disordered Carbon Nanostructures
- 11.50-12.10 **Jeremy Sloan**  
Imaging the structure, symmetry and surface-inhibited rotation of polyoxometalate ions on graphene oxide
- 12.10-12.30 **Alberto Zobelli**  
Cross section of ejection, migration and bond rotation in graphene exposed to electron irradiation
- 12.30-14.00 **Lunch**

Thursday, 1 September

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### Afternoon programme

#### DISPERSION AND SELECTION

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- 14.00-14.20 **Neil R. Wilson**  
The real graphene oxide revealed: stripping the oxidative debris from the graphene-like sheets
- 14.20-14.40 **Syzon Los**  
Effect of Ultrasounds Irradiation on Graphite Crystals Dimension
- 14.40-15.00 **Aravind Vijayarahaven**  
Voltage-contrast Scanning Electron Microscopy for the electronic characterization of carbon nanotube devices
- 15.00-15.20 **Siân Fogden**  
Separation and Purification of SWNTs. A Scalable and Non Destructive Approach.
- 15.20-15.40 **Olivier Chauvet**  
Optical properties of carbon nanotubes/ polysaccharides dispersions and composites
- 15.40-16.10 **Coffee and tea**

#### HYBRID SYSTEMS

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- 16.10-16.30 **Nikolaos Karousis**  
Visualization of Conformational Adaptations of C<sub>60</sub>-Fullerene Moieties Covalently Attached onto Aryl Functionalized Carbon Nanohorns
- 16.30-16.50 **Eric Faulques**  
Modelling the Encapsulation of Crystals in Carbon Nanotubes
- 16.50-17.10 **Florian Massuyeau**  
Improving Photoconductivity of Nanotubular Composites by Alignment of SWNT and Polymer Chains
- 17.10-18.10 **Debate : Future of Carbon Nanoscience**
- 19.30 **Wine Tasting: Lieu Unique**
- 20.00 **Conference Dinner: Lieu Unique**

Friday, 2 September

## NanoteC11

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#### Morning programme

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#### TRANSPORT AND SPIN

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- 09.00-09.40 **Vojislav Krstić**  
Superstructuring of graphene: transport in superlattices
- 09.40-10.00 **Wojciech Kempinski**  
Dipolar Effect in ACF Electronic Transport
- 10.00-10.20 **Mauro Ferreira**  
Dynamic RKKY in graphene
- 10.20-10.50 **Coffee and tea**

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#### COMPOSITES

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- 10.50-11.30 **Ian A. Kinloch**  
Understanding the behaviour of nanocarbons at interfaces
- 11.30-11.50 **Manuela Cano**  
Graphene-Oxide-PVA functionalization via diisocyanate linkage and esterification reaction
- 11.50-12.10 **Izabela Jurewicz**  
Photonic crystals based on ordered networks of graphene and nanotubes
- 12.10-12.30 **Christina Vallés**  
Flexible Conductive Highly Reduced Graphene Oxide Papers by Direct and Gentle Thermal Graphitization.
- 12.30-14.00 **Lunch**

Friday, 2 September

## NanoteC11

### Carbon Nanoscience and Nanotechnology

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#### Afternoon programme

##### FIBRES AND DEVICES

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- 14.00-14.40 **Cecile Zakri**  
Carbon nanotube composite fibers: processing, millifluidic characterisations and properties
- 14.40-15.00 **Ibtissem Oueriemi**  
Nonlinear Electrical behavior of Multiwalled Carbon Nanotubes network
- 15.00-15.20 **Mu Zhang**  
Hydrothermal synthesis of carbon spheres with nanopores as anode materials for Li-ion battery
- 15.20-15.40 **Gennadii V. Kamarchuk**  
Point Contact Carbon Nanotubes Based Sensors
- 15.40-16.10 **Coffee and tea**

##### METAL - CARBON INTERACTION

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- 16.10-16.30 **Priyanka A. Pandey**  
Pd-on-graphene: a sensitive, selective H<sub>2</sub> gas sensor.
- 16.30-16.50 **Giuseppe Lamanna**  
Silver nanoparticles on functionalized carbon nanotubes for catalytic oxidations
- 16.50-17.10 **Victor Le Nader**  
Raman spectroscopy of carbon nanomaterials
- 17.10-17.30 **Frank Dillon**  
Tuning magnetic properties of Fe-filled carbon nanotubes
- 17.30-17.50 **Erwan Paineau**  
Biotransformation of iron-based nanoparticles attached to carbon nanotubes inside cells
- 18.30- **Free evening in Nantes**

Saturday, 3 September

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### Morning programme

#### OTHER CARBON FORMS

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- 09.00-09.40 **Toru Maekawa**  
Utilisation of critical fluids for the formation of carbon nanostructures
- 09.40-10.00 **Michel Devel**  
Optical identification of carbonaceous nanoparticles
- 10.00-10.20 **Hugo Pinto**  
Ab initio studies of different surface terminations on the electronic properties of NV<sup>-</sup> in diamond
- 10.20-10.50 **Coffee and tea**

#### SYNTHESIS 3 and MODELLING 2

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- 10.50-11.40 **Martine Mayne-L'Hermite**  
Scale up of aligned nanotube carpet growth and applications
- 11.40-12.00 **Mohsin Ali Raza**  
Improved thermal conductivity of highly compliant graphite nanoplatelet/silicone composites produced by three-roll mill for thermal interface applications
- 12.00-12.20 **Malcolm Heggie**  
A binocular, physical and chemical, view of the intergraphene force.
- 12.20-12.40 **Francisco J. Martin-Martinez**  
Aromaticity patterns of graphene nanoribbons and carbon nanotubes
- 12.40-13.00 **Alexander Markevich**  
Effects of adsorbates on electronic and structural properties of fluorographene
- 13.00- **Packed Lunch**  
**Departure**