

28-30 SEPTEMBER 2015
JOINT WORKSHOPS UPMC-SU & NTU



MONDAY 28

CHEMISTRY OF MATERIALS
& INTERFACES



TUESDAY 29

CHEMISTRY, PHYSICS
& ENERGY
@ UPMC-SU & NTU

WEDNESDAY 30

Venue: Université Pierre & Marie Curie, 4 place Jussieu, 75252, Paris Cedex05

WORKSHOP PROGRAM	
DAY 1 - MONDAY 28 SEPTEMBER	
<p><u>Morning Session:</u> Amphi Charpak 9.00-10.30: Welcome coffee and registration 10.30-11.00: Workshop Introduction 11.00-12.00: Plenary talks:</p> <ul style="list-style-type: none"> - 11.00-11.30: Paul Indelicato (UPMC-SU) - 11.30-12.00: Subbu Venkatraman (NTU) Material Science and Engineering 	
<p>Lunch break with poster session: Caves Esclangon 12.00-14.00 Posters session 1: Tools for collaboration, possibilities of joint fundings, general presentations</p>	
<p><u>Afternoon Session:</u> Amphi Charpak 14.00-15.45: Short presentations session, topics 1&2 (CMI) Bio-inspired materials/biomimetic & Sensing/diagnostic</p> <ul style="list-style-type: none"> - 14.00-14.15 Atul Parikh (NTU), Lessons from Nature: Adaptive Interfaces and Dynamic Self-Assembly 	

- 14.15-14.30 Gervaise Mosser (UPMC-SU), **Collagen-based biomimetic materials for tissue repair**
- 14.30-14.45 Sierin Lim (NTU)
- 14.45-15.00 Souhir Boujday (UPMC-SU), **Surface functionalization for Biosensors**
- 15.00-15.15 Bo Liedberg (NTU), **Sensing and diagnostics at NTU**
- 15.15-15.30 Denis Fichou (UPMC-SU)

15.30-16.00: Coffee Break

16.00-17.00 Short presentations session, topics 4 (CMI)

Characterization of Materials:

- 16.00-16.15 Guylène Costentin (UPMC-SU), **Advanced characterizations of hydroxyapatites: bulk and surface discrimination to rationalize the surface reactivity**
- 16.15-16.30 Yeng Ming Lam (NTU), **Understanding nanostructure development using electron microscopy and X-ray techniques**
- 16.30-16.45 Claude Jolivald (UPMC-SU), **The use of electrospray device under UHV: applications to biointerfaces functionalization and to heterogeneous catalysis on model flat surfaces.**
- 16.45-17.00 Dong Zhili (NTU), **Synchrotron Structural Characterization of Cathode Materials for Lithium ion batteries**

End of Day 1

DAY 2 - TUESDAY 29 SEPTEMBER

Morning Session: Amphi Charpak

9.00-9.30: Plenary talk:

- 9.00-9.30: Florence Babonneau (UPMC-SU) Excellence Initiative : MATISSE (MATerials Interfaces Surfaces Environment)

9.30-10.30: Short presentations session, topics 3 (CMI)

Catalytic Materials

- 9.30-9.45 Chen Hongyu (NTU), **Au Nanowire Forest for Catalysis**
- 9.45-10.00 Catherine Louis (UPMC-SU), **Controlled design of metallic nanoparticles supported on oxides for catalysis applications**
- 10.00-10.15 Zhao Yanli (NTU), **Catalytic Center-Incorporated Porous Silica for Heterogeneous Catalysis**
- 10.15-10.30 Sophie Cassaignon (UPMC-SU)

10.30-11.00: Coffee Break

11.00-12.45: Short presentations session, topics 5&6 (CMI&CPE)

Plasmonics/Quantum dots and quantum properties of materials & 2D Materials

- 11.00-11.15 Gao Weibo (NTU), **Coherent manipulation, measurement and entanglement of quantum dot spins using optical fields**
- 11.15-11.30 Olivier Pluchery (UPMC-SU), **Single charge electronics with gold nanoparticles and organic monolayers**
- 11.30-11.45 Zhang Qichun (NTU)
- 11.45-12.00 Benoit Dubertret (UPMC-SU), **Colloidal chalcogenide nanoplatelets, a 2D material beyond graphene, and different from TMC.**
- 12.00-12.15 Hua Zhang (NTU), **Synthesis and Applications of Novel Two-Dimensional Nanomaterials**
- 12.15-12.30 Abhay Shukla (UPMC-SU),
- 12.30-12.45 Yu Ting (NTU), **Tuning Electronic and Valley Structures of Two-dimensional Semiconductors by Applying Electrical and Magnetic potentials**

Lunch break with poster session: Caves Esclangon

12.45-14.30

Posters session 2: Scientific presentations.

Afternoon Session: Amphi Charpak

14.30-15.00: Plenary talk: Christian Miniatura (Majulab, NTU-NUS-CNRS)

15.00-16.45: Short presentations session, topics 10&11 (CPE)

Modeling/simulation & Fluids and Statistical mechanics

- 15.00-15.15 Mathieu Salanne (UPMC-SU), **Modeling materials for electrochemical energy storage**
- 15.15-15.30 Shuzhou Li (NTU), **Numerical Investigations on Optical Properties of Metallic Nanoparticle)**
- 15.30-15.45 Pietrucci (UPMC-SU), **Ab initio simulations of materials: structural transformations, properties and design**
- 14.45-15.00 David Wilkowski (NTU), **Non-equilibrium phase transition with gravitational-like interaction in a cloud of cold atoms**
- 15.00-15.15 Pascal Viot (UPMC-SU)
- 15.15-15.30 Silvestre Roberto Gonzalez Avila (NTU), **Droplet fragmentation through cavitation**
- 15.30-15.45 Stephane Zaleski (UPMC-SU), **Simulations of small scale vapor-liquid flows**
- 15.45-16.15 Massimo Pica Ciamarra (NTU), **Bubbles, drops and grains**

17.30: Social Aperitif at Tour Zamansky

Morning Session: Amphi Charpak

9.00-9.30: Plenary talk: Corinne Aubert (UPMC-SU) Excellence Initiative: MiChem (Multiscale integrated Chemistry)

9.30-10.15: Short presentations session, topics 9&12 (CPE)

Bio-organometallic & Synthetic organic chemistry and catalysis

- 9.30-9.45 Anne Vessières (UPMC-SU), **Bioorganometallic Chemistry: synthesis and study of the mechanism of action of osmium-based tamoxifen derivatives.**
- 9.45-10.00 Shunsuke Chiba (NTU), **Molecular Transformation with Vinyl Azides**
- 10.00-10.15 Serge Thorimbert (UPMC-SU), **Preparation and Reactivity of Original (Aromatic) Heterocycles**
- 10.15-10.30 David Lou (NTU)

10.30-11.00: Coffee Break

11.00-12.00: Short presentations session, topics 12& 8 (CPE)

Synthetic organic chemistry and catalysis & Electronic and magnetic properties/devices

- 11.00-11.15 Roderick Bates (NTU), **The Synthesis of Organic Molecules, with and without Collaboration**
- 11.15-11.30 Marc Petit (UPMC-SU), **Well-defined Cobalt Catalysts**
- 11.30-11.45 Chen Xiaodong (NTU)
- 11.45-12.00 André-Jean Attias (UPMC-SU), **Self-organized (macro)molecular semiconductors towards ambipolar devices**

Lunch break: Tour Zamanski

12.00-13.30

Afternoon Session: Amphi Charpak

13.30-14.00: Plenary talk: Subbodh Mhaisalkar (Erion, NTU)

14.00-15.00: Short presentations session, topics 7 (CPE)

Material for energy: storage, conversion

- 14.00-14.15 Sum Tze Chien (NTU), **The Photophysics of Halide Perovskite Solar Cells**
- 14.15-14.30 Ozlem Sel (UPMC-SU), **“Ion Dynamics in Nanostructured Materials Investigated by Multi-Scale Coupled *Electrochemical Methods*”**
- 14.30-14.45 Damien Dambournet (UPMC-SU), **Inducing Defects in Transition Metal Oxyfluoride Electrodes to Improve Energy Storage**

15.00-15.30: Discussion, concluding remarks

Organizing committee

- Souhir Boujday (Souhir.boujday@upmc.fr)
- Bo Liedberg (bliedberg@ntu.edu.sg)
- Paul Indelicato (paul.indelicato@upmc.fr)
- Cornelia Marin (cornelia.marin@sorbonne-universites.fr)
- Guylène Costentin (guylene.costentin@upmc.fr)
- David Wilkowski (david.wilkowski@ntu.edu.sg)
- Christel Laberty (christel.laberty@upmc.fr)

Topics and contacts

	Topic	Workshop	Contact UPMC-SU	Contact NTU
1	Bio-inspired Materials/Biomimetics	CMI	Thibault Coradin	Atul Parikh
2	Sensing/Diagnostic	CMI	Souhir Boujday	Bo Liedberg
3	Catalytic Materials	CMI	Guylène Costentin	Yanli Zhao
4	Characterization of Materials	CMI	Vincent Humblot	Tim White
5	Plasmonics/Quantum dots and quantum properties of materials	CMI	Olivier Pluchery	Zhang Qichun
6	2D materials	CMI+CPE	Abhay Shukla	Hua Zhang
7	Material for energy: storage, conversion	CPE	Christelle Laberty	Claude Guet
8	Electronic and magnetic properties/devices	CPE	Anna Proust	Xiaodong Chen
9	Bio-organometallic	CPE	Michèle Salmain	Leong Weng Kee
10	Modeling/Simulation	CPE	Marco Saitta	Li Shuzhou
11	Fluids and Statistical mechanics	CPE	Pascal Viot	David Wilkowski
12	synthetic organic chemistry and catalysis	CPE	Serge Thorimbert	Chiba Shunsuke