

## Programme JED 2017

# JED 2017

## 3ème Journée de l'Ecole Doctorale 2MIB

17/10/2017 ENS Paris-Saclay

### CONFERENCE PLENIERE

**Régis Réau**

Directeur de la recherche Air liquide

### CONFERENCIERS INVITES

**Dario Bassani** ISM Bordeaux

**Laurent Micouin** Université Paris Descartes

**Clotilde Policar** ENS Paris

### Informations, contacts, inscriptions

COB : [julie.febvay@cnrs.fr](mailto:julie.febvay@cnrs.fr)

CPBA : [hanh.nguyen@ens-cachan.fr](mailto:hanh.nguyen@ens-cachan.fr) CIM : [sebastien.preaud@u-psud.fr](mailto:sebastien.preaud@u-psud.fr)

[secretariat\\_2mib@universite-paris-saclay.fr](mailto:secretariat_2mib@universite-paris-saclay.fr)

## PROGRAMME DE LA JOURNEE

8h00-9h00	<b>Accueil des participants, installation des posters</b>		
9h00-9h30	<b>Présentation d'Introduction à la JED</b> par Christophe Colbeau-Justin, Keitaro Nakatani. <b>Parole aux sponsors, Amphi Marie Curie</b>		
9h30-10h15	<b>Conférence plénière</b> , Régis Réau, Directeur de la recherche Air Liquide, <b>Amphi Marie Curie</b> O <sub>2</sub> , H <sub>2</sub> , CO <sub>2</sub> des petites molécules essentielles pour la vie, la matière et l'énergie		
10h15-11h00	Pause café / <b>posters, Hall Villon</b>		
	<b>Communications orales</b>		
	<b>Pôle CPBA, Amphi Marie Curie</b> Modérateur : Eric Gloaguen	<b>Pôle COB, Salle Condorcet</b> Modérateur : Emmanuelle Schultz	<b>Pôle CIM, Amphi Tocqueville</b> Modérateur : Pierre Mialane
11h00-11h15	Arthur Viodé	Junjun Ma	Kevin Dedecker
11h15-11h30	Teseer Bahry	Yann Bourne-Branchu	Jing Tian
11h30-11h45	Simone Pezzotti	Sabrina Bernard	Alicia Aloisi
11h45-12h00	Coralie Ruel	Chaoqi Lin	Antoine Bohn
12h00-12h15	Marlène Rasschaert	Poster Flash	Poster Flash
12h15-14h00	Pause déjeuner / <b>posters, Hall Villon</b>		
14h00-14h30	<b>Conférences invitées</b>		
	<b>Pôle CPBA, Amphi Marie Curie</b>	<b>Pôle COB, Salle Condorcet</b>	<b>Pôle CIM, Amphi Tocqueville</b>
	Dario Bassani <b>Supramolecular Photochemistry : from concept to device</b>	Laurent Micouin <b>Organoaluminum reagents as synthetic tools: preparation and reactivity</b>	Clotilde Policar <b>Controlling inorganic complexes properties for bio-applications</b>
	Modératrice : Rachel Meallet-Renault	Modérateur : Joanne Xie	Modérateur : Jean-Claude Berthet
	<b>Communications orales</b>		
14h30-14h45	Hélène Cazier	Yufeng Zhang	Timothé Godou
14h45-15h00	Cédric Crosnier De Lassichère	Augustin Peneau	Arnaud Imberdis
15h00-15h15	Louis Potier	Louis Monsigny	Sébastien Préaud
15h15-15h30	Feriel Ben Nasr	Chenxiao Qi	Quentin De Ponfilly
15h30-15h45	Xiaojing Wu	Lucile Marin	Lucile Fétiveau
15h45-16h30	Pause café / <b>posters, Hall Villon</b>		
	<b>Communications orales</b>		
	<b>Pôle CPBA, Amphi Marie Curie</b>	<b>Pôle COB, Salle Condorcet</b>	<b>Pôle CIM, Amphi Tocqueville</b>
	Modératrice : Isabelle Leray	Modérateur : Emmanuel Magnier	Modérateur : Frédéric Banse
16h30-16h45	Yayang Tian	Julien Lavie	Tawfiq Nasr Allah
16h45-17h00	Christelle Dubois	Chang Zong	Florian Lebon
17h00-17h15	Minh Thang Le	Margaux Riomet	Linh Trinh
17h15-17h30	Jérémy Mathurin	Mohamad Maaz	Josiane Djuide-Dzugam
17h30-17h45	Leo Albert Sala	Lucie Jarrige	Xin-yang Wang
18h00-18h30	<b>Clôture, remise des prix, Amphi Curie</b>		

### Comité d'organisation :

Anne-Laure Barthelemy, Julie Febvay, Jan Bohl, Linh Nguyen, Sébastien Préaud, Aicha Bouraoui, Quentin De Ponfilly (doctorants organisateurs), Christophe Colbeau-Justin (Directeur de l'ED), Joanne Xie (Coprésidente du comité), Isabelle Leray (Présidente du comité, Directrice-adjointe International correspondante ENS-Paris-Saclay de l'ED), Corine Simonnet (Directrice-adjointe - pôle CIM), Corinne Ruello (administratrice).

Le comité d'organisation souhaite la bienvenue aux 220 participants de la 3<sup>ème</sup> Journée de l'Ecole Doctorale 2MIB (JED 2017) et remercie très sincèrement les organismes suivants pour leur contribution financière :

Le LabEx CHARM<sub>3</sub>AT, la Fédération de Chimie Physique de Paris-Saclay (CPPS), la Société Chimique de France (SCF) via sa section régionale Ile de France et la société CST.



## Communications orales CPBA

Arthur Viodé, **Top-down and bottom-up mass spectrometry approaches for alphasynucleinanalysis in biological fluids**, CEA-LEMM

Teseer Bahry, **Radiation-induced synthesis of conducting polymers in dichloromethane**, LCP-UPSUD

Simone Pezzotti, **SFG spectroscopy at charged solid/liquid and air/liquid interfaces: new concepts of BIL/DL layers for unraveling spectral signatures**, LAMBE-UEVE

Coralie Ruel, **Identification of a novel class of disease biomarkers due to glycosylation abnormalities**, Institut Galien-UPSUD

Marlène Rasschaert, **In-depth characterization of rat cerebellar gadolinium deposition by electron microscopy, and X-Ray fluorescence following Gd-based chelates administration**, Institut Curie / Guerbet

Hélène Cazier, **Development of a dual imaging strategy combining radio- and mass spectrometry - imaging to study the biodistribution of <sup>14</sup>C-graphene oxide**, CEA, SPI, LEMM

Cédric Crosnier De Lassichère, **On-line preconcentration in capillary electrophoresis: how to improve molecular diagnosis of Alzheimer's disease?** Institut Galien-UPSUD

Louis Potier, **Characterisation of the alpha-Al<sub>2</sub>O<sub>3</sub>/liquid water interface by DFT-MD simulations for heterogeneous catalysis**, LAMBE-UEVE

Feriel Ben Nasr, **Laser spectroscopy study of cyclic stereoisomers dipeptides in supersonic jet**, ISMO-UPSUD

Xiaojing Wu, **Amoeba polarizable force field parameters of the heme cofactor in its ferrous and ferric states**, LCP-UPSUD

Yayang Tian, **"Click"-Based LbL self-assembled films for selective bacteria detection**, PPSM-ENS-Paris-Saclay

Christelle Dubois, **Confirmation of sepsis pronostic biomarkers and development of rapid tests**, CEA SPI LEMM&LERI / Bertin Technologies

Thang Le Minh, **Development of an analytical strategy to detect therapeutic monoclonal antibodies aggregates**, Institut Galien-UPSUD

Jérémie Mathurin, **IR nanospectroscopy as a label-free imaging technique to characterize new antibiotics carriers**, LCP-UPSud

Leo Albert Sala, **Grafting unsaturated carbon groups on hydrogenated diamond under low-energy electron irradiation**, ISMO-UPSUD

## Communications orales COB

Junjun Ma, **Preparation of synthetic heparan sulfates mimetics for the pharmacomodulation of cytokines**, ICMMO-UPSUD

Yann Bourne-Branchu, **Cobalt-catalyzed esterification of amide derivatives**, LCM-X

Sabrina Bernard, **Mesoionics: new tools for click chemistry**, CEA-SCBM

Chaoqi Lin, **Synthesis and stimuli-responsive self-assembling of photoswitchable carbohydrate-based macrocycle**, PPSM-ENS-Paris-Saclay

Yu-Feng Zhang, **Electrocatalytic reduction of nitroarenes, sulfoxides and phthalimides mediated by Sm<sup>II</sup>** ICMMO-UPSUD

Augustin Peneau, **Rhodium(III)-catalyzed synthesis of spirocyclic heterocycles**, ICSN-CNRS

Louis Monsigny, **Reductive depolymerization of waste plastics and lignin using molecular catalysts**, CEA-NIMBE

Chenxiao Qi, **Calcium(II)-catalyzed alkenylation of N-acyliminiums and related ions with vinylboronic acids**, ICMMO-UPSUD

Lucile Marin, **Synthesis of cyclopenta[b]pyrroles through an aza-Piancatelli cyclization**, ICMMO-UPSUD

Julien Lavie, **Synthesis and optical properties of graphene quantum dots**, LICSEN-CEA

Chang Zong, **The bicyclo[3.2.0]heptane skeleton: a powerful photoadduct intermediate for functionalized four-membered ring compounds**, ICMMO-UPSUD

Margaux Riomet, **Antibody-antibiotic conjugates, new tools for the treatment of multiresistant bacteria**, CEA-SCBM

Mohamad Maaz, **Surface initiated controlled radical polymerization of 4-vinylpyridine**, ICMMO-UPSUD

Lucie Jarrige, **Br nsted acid-catalyzed enantioselective intramolecular cycloaddition**, ICSN - CNRS

## Communications orales CIM

Kevin Dedecker, **Selective capture of Volatile Organic Compounds with Metal-Organic Framework nanoparticles**, ILV - UVSQ

Jing Tian, **Study of writing laser polarization dependence of femtosecond laser induced circular optical properties in silica glass**, ICMMO-UPSUD

Alicia Aloisi, **H<sub>2</sub> Activation at Copper[1] for the Synthesis of Hydride Complexes**, CEA-IRAMIS-NIMBE

Antoine Bohn, **Electrochemical approach of the reductive activation of O<sub>2</sub> by iron based molecular complexes**, ICMMO-UPSUD

Timothé Godou, **Silylation of O–H Bonds by Catalytic Dehydrogenative and Decarboxylative Coupling of Alcohols with Silyl Formates**, CEA Saclay-LCME

Arnaud Imberdis, **Metal-free and alkali metal catalysts for** CEA Saclay-LCME

Sébastien Préaud, **Thermoelectricity generalities and the particular role of oxydes**, ICMMO-UPSUD

Quentin De Ponfilly, **Multifunctional inorganic clusters: synthesis, characterizations and electrochemical properties for further electro(photo)catalytic applications**, ILV - UVSQ

Lucile Fétiveau, **Coordination-based nanoparticles for theranostics**, ICMMO-UPSUD

Tawfiq Nasr Allah, **A journey into amide and alkylamine synthesis from CO**, LCMCE-CEA

Florian Lebon, **Electrical characterization of three organic electrografted layers in vertical metal-molecule-metal junctions**, LICSEN - CEA

Linh Trinh, **Switchable Core-Shell Photomagnetic Nanosensors**, ICMMO-UPSUD

Josiane Djuidje-Dzugam, **Synthesis and damage behavior of zirconia layers on Zy-4 substrate**, ICMMO-UPSUD

Xin-Yang Wang, **Conjugated polymers/carbon nanotubes hybrides for water sensing**, LPICM-X

## Numéros d'affiches

CPBA	COB	CIM
1-A. Perez Mellor	21-K. Kariyawasam	43-M. Le Goas
2-B. Langerome	22-X. Han	44-X. Yang
3-K. Kemel	23-J. Febvay	45-L. Zhang
4-P. Gotico	24-C. Caron	46-J. Al Cheikh
5-Ch. Yin	25-E. Elisée	47-G. Barral
6-Q. Pham	26-A-L. Barthelemy	48-P. Picot
7-C. Chipeaux	27-M. Jarret	49-L. Mazaud
8-A. Bouraoui	28-M. Lafosse	50-S. Keykhosravi
9-J. Bohl	29-Z. Li	51-C. Tran
10-T. Texier Bonniot	30-T. P. T. Nguyen	52-A. Boulmier
11-X. Yuan	31-A. Palazzolo	53- Q. Lin
12-F. Siro Brigiano	32-M. D. Hoang	54- N T. Vo
13-L. Polacchi	33-N. Glinsky	55-S. Préaud
14-A. Rigal	34-Y. Chevalier	56- M. Pellen
15-G. Moran	35-L. Peilleron	57- P. Clérico
16-A. Morin	36-V. Pfeifer	58-Y. Qu
17-Y. Peperstraete	37-G. Levitre	59-Y. Wang
18-Y. Ro	38-Y-P. Liu	
19-F. Creazzo	39-S. Bazzi	
20-D. Dessaux	40-M. Carlier	
	41- B. Large	
	42- A-S. Marques	

## Communications par affiche

- 1 Ariel Francis Perez Mellor, **Bi-chromophoric chiral peptides studied by conformation-sensitive vibrational spectroscopy**, ISMO-UPSUD
- 2 Benjamin Langerome, **Spectroscopic evidence of a new scale for superconductivity in H3S**, Synchrotron SOLEIL
- 3 Kamilia Kemel, **ATR-FTIR and AFM-IR characterization of Janus nanoparticles: before and after cutaneous application**, Lip(Sys)<sup>2</sup>-UPSUD
- 4 Philipp Gotico, **In the real of artificial photosynthesis: development of photocatalysts for CO<sub>2</sub> reduction**, LMB, IBITECS
- 5 Chengying Yin, **Water radiolysis in Cement hydrates**, CEA Marcoule
- 6 Qui Pham, **Synthesis and characterization of novel fluorescent sensor for the detection of cesium in aqueous solution**, PPSM-ENS-Paris-Saclay
- 7 Caroline Chipeaux, **Quantification of four Gaucher disease biomarkers in plasma and red blood cells: Correlation with disease severity and response to therapeutic intervention**, LETIAM
- 8 Aicha Bouraoui, **Activity on Tumor Cell Lines**, LCP-UPSUD
- 9 Jan Bohl, **Investigation of the conformational dynamics of the human prion protein and its interaction with the A $\beta$  peptide by ion mobility mass spectrometry**, LCP-UPSUD
- 10 Tristan Texier Bonniot, **Selective suppression of the quadrupolar doublets of solvent in <sup>2</sup>H 2D-NMR experiments in lyotropic liquid crystals**, ICMMO-UPSUD
- 11 Xiaojiao Yuan, **Conducting polymer nanostructures for photocatalytic degradation and H<sub>2</sub> generation**, LCP-UPSud
- 12 Flavio Siro Brigiano, **Amorphous silica/water interfaces**, LAMBE-UEVE
- 13 Luca Polacchi, **Polydiacetylene-based materials as local stress probes**, PPSM-ENS-Paris-Saclay
- 14 Aline Rigal, **Skin aging: correlation between biometric measurements and Raman spectroscopy**, Lip(Sys)<sup>2</sup>-UPSUD
- 15 Gabriela Moran, **Luminescent nanoparticles for microdevices for early and sensitive detection of bacterial growth**, ISMO-UPSUD
- 16 Alan Morin, **Solid-state nanopores for bioanalysis and nanomedicine**, LAMBE-UEVE
- 17 Yoann Peperstraete, **Ab initio study of inorganic perovskites: towards the prediction of PbZr<sub>1-x</sub>Ti<sub>x</sub>O<sub>3</sub> (PZT) IR spectrum**, Synchrotron SOLEIL
- 18 Youngju Ro, **Study of the electro-oxidation of L-cysteine by polyoxometalates**, LCP-UPSud
- 19 Fabrizio Creazzo, **Electrocatalysis at Co<sub>3</sub>O<sub>4</sub> / liquid water interfaces for water splitting: the first Ab-Initio molecular dynamics study**, LAMBE-UEVE



- 20 Delphine Dessaux, **Coarse-grained molecular dynamics modeling of a protein nanopore: effect of the charges of the pore on the ionic flow**, LAMBE-UEVE
- 21 Kalani Kariyawasam, **Artificial copper enzymes for asymmetric Diels-Alder reactions**, ISMO-UPSUD
- 22 Xu Han, **Phosphine-catalyzed reactions by in situ phosphine oxide reduction: towards the development of a new olefination reaction**, ICSN-CNRS
- 23 Julie Febvay, **Phosphahelicenes with phosphinic acid, thiophosphinic acid and phosphinamide functions**, ICSN-CNRS
- 24 Coralie Caron, **Synthesis and biological studies of DNA abasic-site binders as inhibitors of DNA base excision repair**, Institut Curie-CNRS
- 25 Eddy Elisée, **Molecular dynamics studies of metallo- $\beta$ -lactamases: the "Zn challenge" in OPLS-AA force field**, ICSN-CNRS
- 26 Anne-Laure Barthelemy, **Perfluorinated sulfoximines – new synthesis of 1,2-benzothiazines and benzoisothiazoles**, ILV - UVSQ
- 27 Maxime Jarret, **Towards the total synthesis of pleiocarpamine** ICMMO-UPSUD
- 28 Marine Lafosse, **Nouvelles sondes pour des applications en imagerie multimodale et théranostique**, LCB- CEA Saclay
- 29 Zhilong Li, **Low-valent cationic gallium(I) complexes as  $\pi$ -acid catalysts**, ICMMO-UPSUD
- 30 Thi Phuong Thu Nguyen, **SARA-ATRP: a new handy approach to synthesize poly(pentafluorophenyl methacrylate)**, ICMMO-UPSUD
- 31 Alberto Palazzolo, **Development of new methods for deuterium and tritium labelling of bioactive compounds**, CEA-SCBM-LMT
- 32 Minh Duc Hoang, **Design and synthesis of nanometric polydiacetylenic micelles for efficient intracellular gene delivery**, CEA-SCBM
- 33 Nicolas Glinsky, **Gold(I)-catalyzed dearomatization reactions of N-propargyltetrahydro- $\beta$ - carbolines**, ICSN-CNRS
- 34 Yoan Chevalier, **Artificial flavoenzymes for radical chemistry and activation of dioxygen in water**, ICMMO-UPSUD
- 35 Laure Peilleron, **New synthetic approach towards avibactam analogues**, ICSN-CNRS
- 36 Viktor Pfeifer, **Deuterium and tritium labelling of bioactive molecules catalyzed by ruthenium nanoparticles**, CEA-SCBM
- 37 Guillaume Levitre, **Enantioselective  $\alpha$ -oxygenation of ketones by chiral hypervalent iodine(III)**, CNRS-ICSN
- 38 Yong-Peng Liu, **Toward the total synthesis of microsclerodermin**, ICMMO-UPSUD
- 39 Sakna Bazzi, **Electrochemical reduction of CO<sub>2</sub> mediated by SmII: application for the carboxylation of aromatic, benzylic and aliphatic halides**, ICMMO-UPSUD

- 40 Mathieu Carlier, **Strategy for a bioorthogonal sequential dual labeling by glycans metabolic engineering**, ICSN-CNRS
- 41 Benjamin Large, **Pyridylmethylamine-Pd catalytic systems, a selective alternative in C-H arylation of indole**, ILV - UVSQ
- 42 Anne-Sophie Marques, **Synthesis of bridged spirooxindoles via tandem cycloisomerisation – cycloaddition reaction**, ILV - UVSQ
- 43 Marine Le Goas, **Hybrid metal-polymer nanoparticles as promising radiosensitizers for cancer treatment**, CEA-NIMBE
- 44 Xiaomin Yang, **Development of multimodal nanoplatforms to improve the performances of radiotherapies**, ISMO-UPSUD
- 45 Luqiong Zhang, **Investigation by X-Ray natural linear dichroism (XNLD) and X-ray magnetic circular dichroism (XMCD) towards magnetic properties of 6nm CsNiCr(CN)<sub>6</sub> Nanoparticles single layer assembled on graphite**, ICMMO-UPSUD
- 46 Joumada Al Cheikh, **Study of the electrochemical reduction of the proton using transition metal clathrochelates**, ICMMO-UPSUD
- 47 Geoffrey Barral, **Selective metallization of flexible substrates by inkjet printing with electroless copper plating**, CEA/Genes'ink
- 48 Pierre Picot, **Hybrid imogolite for trapping persistent organic pollutants**, LIONS-CEA
- 49 Louis Mazaud, **Pincer ligands containing iminophosphorane moiety**, LCM-X
- 50 Sanaz Keykhosravi, **Effect of fullerenes on cells involved in allergic diseases: basophiles**, Lip(Sys)<sup>2</sup>-UPSUD
- 51 Clarisse Tran, **Synthesis and study of functionalized nanoporous materials for specific trapping of volatile organic compounds: production of reference emissive standard materials**, CEA-NIMBE
- 52 Amandine Boulmier, **Polyoxometalate bisphosphonate complexes: synthesis, structure and activity on tumor cell lines**, ILV - UVSQ
- 53 Qiqiao Lin, **Luminescent hybrid materials for LED lighting**, LPICM-X
- 54 Nhat Tam Vo, **Synthesis and characterization of new complex iron**, ICMMO-UPSUD
- 55 Sébastien Préaud, **Synthesis and densification of InGaO<sub>3</sub>(ZnO)<sub>m</sub> compounds as thermoelectric materials with complex structures**, ICMMO-UPSUD
- 56 Marion Pellen, **Polar domains walls in CaTiO<sub>3</sub>, influence of an external electric field during the crystal growth**, ICMMO-UPSUD
- 57 Paul Clérico, **Elaboration of bimetallic tissues for electromagnetic shielding**, ICMMO-UPSUD
- 58 Yangyang Qu, **Novel benzonitrile compounds with mixed carbazoles and phenoxazine substituents exhibiting TADF and AIE**, ENS Paris-Saclay, PPSM
- 59 Yiting Wang, **Synthesis, crystal structures and magnetic properties of polynuclear molecule-based magnets**, ICMMO-UPSUD