

*Catalysis Applied to Biomass
Toward Sustainable Processes and Chemicals*

CABi  **mass - 2016**
Catalysis Applied to Biomass

March 9-11, 2016

Compiègne, France

Organized by

Sorbonne Universités

Université de Technologie de Compiègne

and

Ecole Supérieure de Chimie Organique et Minérale



WELCOME

We are pleased to announce that the new edition of the “Catalysis applied to biomass – toward sustainable processes and chemicals” – CABiomass 2016 will be held in Compiègne, France. This event will provide a highly interactive platform for relevant experts from the French and international biomass and catalysis sectors to identify chemical and technological project ideas. This meeting also provides an excellent opportunity for experts to establish competitive consortia that can lead to collaborative projects, potential applications and innovation in the Biorefinery sector.

*The organizer, Conference Chairman,
Christophe LEN
Sorbonne Universités,
Université de Technologie de Compiègne*

SCIENTIFIC PROGRAM

The conference will focus on the following key areas:

- ✓ novel catalytic reactions (homogeneous, heterogeneous and enzymatic as well as their combinations) applied to bio-based compounds or using bio-based reagents, either in a sequential way or in a one-pot combined synthesis*
- ✓ novel catalytic reactions (homogeneous, heterogeneous and enzymatic as well as their combinations) using green solvents (eg. water, ionic liquids, deep eutectic, critical fluids...)*
- ✓ new ambitious technologies using flow chemistry, enzymes, microwaves, microreactors, nanocatalysts and more remarkably novel combinations between these technologies*

INVITED INTERNATIONAL SPEAKERS

R. LUQUE (*Cordoba, Spain*),
A. MOORES (*Montreal, Canada*),
V.S. PARMAR (*New York, USA*),
J. PEREZ-RAMIREZ (*Zurich, Switzerland*),
M. POLIAKOFF (*Nottingham, England*),
A. PRASAD (*Delhi, India*),
S. SHARMA (*Delhi, India*),
R. VARMA (*Cincinnati, USA*)

INVITED NATIONAL SPEAKERS

J.M. AUBRY (*Lille, France*),
N. GUIGO (*Nice, France*),
F. JEROME (*Poitiers, France*),
M. LEMAIRE (*Lyon, France*),
C. LEN (*Compiègne, France*)

NATIONAL SCIENTIFIC COMMITTEE

M. BILLAMBOZ (*Compiègne, France*); **G. HERVE** (*Compiègne, France*)
D. LUART (*Compiègne, France*)

LOCAL ORGANIZING COMMITTEE

C. CEBALLOS (*Compiègne, France*); **F. DELBECQ** (*Compiègne, France*)
G. ENDERLIN (*Compiègne, France*); **E. LEONARD** (*Compiègne, France*)
G. SANTINI (*Compiègne, France*); **C. VILLETTE** (*Compiègne, France*)

	9-Mar-16	10-Mar-16	11-Mar-16
09:00	Registrations	PL 7	PL 13
	Opening	OC 7-9	OC 13-15
10:00	PL 1		
	OC 1-2	PL 8	OC 16-18
		Coffee break / poster session	
11:00	Coffee break / poster session	PL 9	Coffee break / poster session
	PL 2	OC 10	PL 14
12:00	OC 3	FI 6-10	End of CABiomass-2016
	PL 3		
13:00	Lunch / poster session	Lunch / poster session	
14:00			
	PL 4	PL 10	
15:00	OC 4-6	OC 11-12	
	PL 5	PL 11	
16:00	PL 5	PL 12	
	Coffee break / poster session	Coffee break / poster session	
17:00	FI 1-5		
	PL 6		
18:00	End of the day		

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City Hall Reception
Gala dinner

- PL 1 Martyn POLIAKOFF** (*Nottingham, England*),
Catalysis for semi-synthesis.
- PL 2 Sunil SHARMA** (*Dehli, India*),
Chemo-enzymatic synthesis of oligoglycerol derivatives.
- PL 3 Natanael GUIGO** (*Nice, France*),
Furanic biobased materials from the biorefineries.
- PL 4 Audrey MOORES** (*Montreal, Canada*),
Atom economy in Nanoscience: Biomass as an avenues to access metal nanoparticles.
- PL 5 Rajender VARMA** (*Cincinnati, USA*),
Greener pathways: sustainable applications of magnetic nanocatalysts and modified graphitic carbon nitrides.
- PL 6 Javier PEREZ-RAMIREZ** (*Zurich, Switzerland*),
Catalyst and process design for glycerol valorization to commodities.
- PL 7 Ashok PRASAD** (*Dehli, India*),
Glucose to novel amphiphiles and [2]pseudorotaxanes.
- PL 8 Jean-Marie AUBRY** (*Lille, France*),
A "top-down" in silico approach for designing ad hoc bio-based solvents.
- PL 9 Marc LEMAIRE** (*Lyon, France*),
Use of renewable material in specialty chemicals: examples of use of fatty acids, glycerol, sugar and starch for the clean synthesis of surfactants, solvents and hydrotropes.
- PL 10 François ROPITAL** (*Solaize, France*),
Corrosion challenges for reliable biorefineries.
- PL 11 Rafael LUQUE** (*Cordoba, Spain*),
Chemistry and nano/biocatalysis: a partnership for the scaled-up valorisation of biomass to fuels and chemicals.
- PL 12 Christophe LEN** (*Compiègne, France*),
Green chemical synthesis and processing in water.
- PL 13 Virinder PARMAR** (*New-York, USA*),
Chemoenzymatic synthesis of value-added products from readily available biomass.
- PL 14 François JEROME** (*Poitiers, France*),
Catalytic conversion of cellulose to bioproducts: contribution of non-thermal activation technologies.

- OC 1 Etienne GRAU** (Bordeaux, France),
Hop for Green Polymer Materials.
- OC 2 Florent ALLAIS** (Reims, France),
Chemo-enzymatic synthesis and polymerizations of bio-based bisphenols derived from lignin: an access to novel 100% renewable alternating aromatic/aliphatic polymers.
- OC 3 Jérôme Le NOTRE** (Compiègne, France),
SAS PIVERT : Toward the oilseed biorefinery of the future.
- OC 4 Bingyu YANG** (Lille, France),
Catalytic pickering emulsions: green systems for biodiesel production.
- OC 5 Erwann GUENIN** (Paris, France),
Development of magnetic nanocatalysts for C-C coupling reactions.
- OC 6 Cédric FISCHMEISTER** (Rennes, France),
Olefin metathesis, a versatile tool for the synthesis of bio-sourced chemicals from renewable.
- OC 7 Maha AMMOURY** (Lille, France),
Ethanol dehydration into ethylene over modified SAPO-34.
- OC 8 Francesco PUZZO** (Bologna, Italy),
A new process for maleic anhydride synthesis from a renewable building-block: the gaz phase oxidehydration of 1-butanol.
- OC 9 François-Xavier FELPIN** (Nantes, France),
Graphene-promoted acetalization of biomass-derived compounds under acid-free conditions.
- OC 10 Giacomo LARI** (Zurich, Switzerland),
Glycerol oxidation to dihydroxyacetone over iron zeolites: catalyst scale up and process assessment.
- OC 11 Jakob ALBERT** (Erlangen, Germany),
Straightforward biomass oxidation to formic acid using polyoxometalate catalysts (OxFA process) in an integrated biphasic liquid-liquid reaction media.
- OC 12 Gunthard SCHOLZ** (Scheßlitz, Germany),
Production of formic acid from red algae, oil palm empty fruit bunches and digestate in the homogeneous catalyzed OxFA-process.
- OC 13 Noémie BALISTRERI** (Paris, France),
Toward a greener epoxidation route using Glucose Oxidase for in situ H₂O₂ production.
- OC 14 Mehdi OMRI** (Amiens, France),
Selective oxidation of free carbohydrates using hybrid and inorganic nano-catalysts.
- OC 15 Sébastien TILLOY** (Lens, France),
Solvents based on cyclodextrin derivatives and N,N'-dimethylurea for sustainable organometallic catalytic processes.
- OC 16 Ruyi ZHONG** (Heverlee, Belgium),
Scalable design of acidic mesostructured silica-carbon nano-composite catalysts for biofuels synthesis from sugars in alcoholic solutions.
- OC 17 Amandine FLOURAT** (Reims, France),
Chemo-enzymatic synthesis of key intermediates (S)- γ -hydroxymethyl- α,β -butenolide and (S)- γ -hydroxymethyl- γ -butyrolactone via lipase-mediated Baeyer-Villiger oxidation of levoglucosenone.
- OC 18 ND**

FI 1-5

Achraf BLOUT (Paris, France),
Development of a new generation of electrodes for enzymatic fuel cells working by direct electron transfer.

Nadia EL MOURAILLE (Agadir, Morocco),
Heterogeneous photocatalysis degradation of Pyrimethanil.

Ayoub HASSINE (Cabablanca, Morocco),
Natural phosphate-supported palladium as heterogeneous catalyst for selective hydration of nitriles to amides in water by microwave.

Estelle ILLOUS (Lille, France),
Amphiphilic properties and salt-tolerance of isomeric hydrotropes derived from dialkyl glycerol.

Guillaume BOUSREZ (Paris, France),
Catalytic deoxygenation of alcohols and ketones promoted by a new scandium / hydrosilane system.

FI 6-10

Thomas MARIE (Reims, France),
Enzymatic modification of resveratrol: green strategies for glycosylation and esterification.

Dounia ARCENS (Bordeaux, France),
Enzyme Candida Antarctica B as an efficient catalyst for a greener production of biosurfactants.

Théodore VANBESIEN (Lens, France),
Cyclodextrins-assisted oil-in-water emulsion for hydroformylation of unsaturated triglycerides in aqueous medium.

Lorenzo GRAZIA (Bologna, Italy),
Gas-phase cascade upgrading of furfural to 2-methylfuran using methanol as H-transfer reactant and MgO based catalysts.

Abdus Samad JAUFURALLY (Reims, France),
Chemo-enzymatic synthesis and functionalization of a renewable lignin-derived bisphenol: promising biobased antiradical additive and phenolic monomers.

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