SGC2017 May 16th - 19th

May 16th - 19th, La Rochelle, France

The International Symposium on Green Chemistry



WELCOME

66

On the behalf of the organizing committee, we are honored to welcome you to the fourth edition of the International Symposium on Green Chemistry that will take place from May 16th to May 19th at La Rochelle, FRANCE.

In 2050, we will be more than 9 billion of Humans on our planet. This exponential increase of the population on Earth has a direct impact on chemistry which needs to produce always more with fossil resources that are concomitantly decreasing or more and more difficult to exploit. Furthermore, our growing awareness of the need to reduce our impact on the environment, including eco-systems, biodiversity and greenhouse gases, require scientists to adapt or to design cutting-edge technologies/processes less consuming in energy and atoms, eco-respectful and more secure for the Humanity.

The main objective of ISGC-2017 is to gather the most eminent scientists involved in the field of green chemistry to debate on the future challenges of Chemistry keeping in mind the problems of access to a sustainable energy, the management of resources (carbon, water, metals, minerals), Human development, global warming, impact on the environment and competitiveness of our Industry. To contribute to solve this complex equation, ISGC-2017 has been thought as a cross-disciplinary platform and should offer to public and private scientists an ideal platform for sharing fundamental knowledge with industrial research and development stakeholders.

On the continuation of the previous editions, ISGC-2017 will gather more than 700 attendees who will exchange on the most recent advances in the field of green chemistry through plenary lectures, keynotes, oral and flash communications and posters organized around multi-parallel sessions with 6 principal topics and industrial sessions. New in 2017 : To enable industrials to show their innovations, to meet industrial requirements, to facilitate public-private and private-private partnerships, to present new challenges in R&D, to facilitate exchanges between participants, ... ISGC creates the « Green Chemistry Challenge « : 1-to-1 meetings, exhibition area, innovation sessions and mentorship opportunities.

We hope you will enjoy this unique moment to share your vision about green chemistry with other countries and to contribute to the emergence of new and sustainable processes for a greener world.

Sincerely yours.

François JEROME CNRS research director, University of Poitiers Ecole Nationale Supérieure d'Ingénieurs de Poitiers Institut de Chimie des Milieux et Matériaux de Poitiers (IC2MP, UMR7285)



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CONFERENCE OVERVIEW

On-site registration

Espace ENCAN Quai louis Prunier - BP 3106 17033 La Rochelle (See Symposium Venue Map p 37)

> Sessions location

All the plenary lectures and innovation sessions are given at the Auditorium Michel Crépeau (ground floor). All the oral and flash communications (OC/FC) and keynotes are given in Auditorium and Rooms 1 to 5 (ground floor and first floor, see map p.38).

Badge policy

Name badges must be worn at all times during the conference. If you lose your name badge, please return to the conference registration desk.

Onference books

If you misplace your book or program, please refer to the website at www.isgc-symposium.com for the online conference program. Or ask for a program at the desk registration.

> Satellite events

The Network of Early-Career Sustainable Scientists and Engineers (NESSE) :

> Thursday May 18th, 11:00-12:30

L'Oréal session partnership > Wednesday May 17th, 15:00-16:30

SPONSORS



L'ORÉAL Research & Innovation























Merck

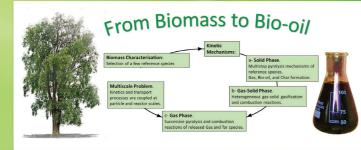


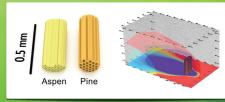






Computational Studies of Pyrolysis and Upgrading of Bio-oils







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D. Massiot (CNRS)

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TOPICS



RENEWABLE CARBON **BIOMASSE CONVERSION** VALORIZATION OF WASTE

This topic is related to the conversion of biomass, waste and CO2. It includes lignocellulosic biomass, polysaccharides, proteins, carbohydrates and derived molecules, fatty derivatives, extractible, glycerol, organic/mineral/liquid/gaseous waste, CO2, bio-base chemicals. etc.

SMART USE OF FOSSIL

This topic is related to novel technologies/ processes to convert fossil carbon in a more efficient and rational way not only for the production of fuels/energy but also for the production commodities and fine chemicals.

POLYMERS

This topic is related to clean polymerization methods, biosourced polymers, eco-design of polymers, recycled polymers, etc.

ENVIRONMENTAL IMPACT AND LIFE CYCLE ASSESSMENT

This topic is related to the impact of chemical products and processes on the environment and health, throughout their entire life cycle, from raw material extraction through transport, manufacturing, use and end of life.

MECHANISM

This topic is related to all characterization and predictive methods to optimize, to adapt or to design clean reactions/processes. It includes real time in situ characterizations, model reactions, kinetics, theoretical calculation, predictive methods, etc.

CATALYTIC SYSTEMS

This topic is related to atom-economic synthesis. It includes organocatalysis, dual catalysis, hybrid catalysis, tandem catalysis, organometallic, bifunctional catalysis, etc.

ALTERNATIVE SOLVENTS

This topic is related to recent advances in the field of alternative solvents for catalysis, organic chemistry and materials. It includes deep eutectic solvents, ionic liquids, biobased solvents, CO2-switchable solvent, etc.

BIOTECHNOLOGIES

This topic is related to recent developments of bioprocesses integrating natural or tailor-made biocatalysts (obtained by protein or metabolic engineering) for biomass conversion into valuable compounds. It also targets the conception of synthetic pathways comprising both chemical and biocatalytic transformations to produce bio-sourced derivatives.

NON-THERMAL ACTIVATION **METHODS**

This topic is related to all works related to microwaves, plasma, ultrasound, electrochemistry, photochemistry, mechanochemistry, etc

NETWORKING AND **EDUCATION**

()





Prof Roger Sheldon

Delft University, Netherlands

Future with Green Chemistry and

Prof Peter Wasserscheid

Friedrich-Alexander-University,

Novel, selective catalytic routes

to organic acids from biomass

Engineering a Sustainable

PLENARY LECTURES

Catalysis

Germany



Xiamen University, China

Catalytic Transformation of Cellulose into Organic Acids



Dr François Monnet Solvay Exec VP, R&I Renewable Chemistry Platform Director,

Belgium

What green is the colour of? An industrial look about some achievements and challenges of



Prof John Hartwig Berkeley University, USA

Selective Functionalizations with Small and Large Catalysts

Prof Thibault Cantat

CEA - Saclay, France

Reductive Transformations of CO2 and Lignin Using Molecular Catalysts



Prof Oliver Kappe University of Graz, Austria

Organic Synthesis goes Flow





Prof Richard Alan Gross

Rensselaer Polytechnic Institute, USA

Biocatalysis Enables New Options in Polymer Science

KEYNOTES



Prof Chris Hardacre Queen's University, Belfast -Ireland

CO2 capture and utilisation using ionic liquids



Dr Boris Estrine ARD. France

Dr Edith Norrant

UCB Pharma, England

From laboratory to manufactu-

ring plant: Innovative industrial

cases using physical activation...

Surfactants and emulsifiers from renewable raw materials





Prof Karen Wilson Aston University, England Designing heterogeneous cata-



logies

Prof Tom Welton Imperial College, England

Dr Serge Rebouillat

DUPONT, Switzerland

Ionic Liquids for Sustainable Chemistry



Prof Dirk De Vos K.U.Leuven, Belgium

lysts for biorefining

Catalytic transformations of amino acids to amines, nitriles or dicarboxylates, and of diols to dienes





The challenges of corporate citizenship: From Good Intentions to Concrete Deployment Focus on odor management and reduction

Prof Michael Meier

Karlsruhe Institute of Technology, Germany

Sustainable approaches to monomers and polymers from renewable resources

Prof Rafael Luque University of Cordoba, Spain

Benign-by-design methodologies for a more sustainable future: from nanomaterials to heterogeneous (photo)catalysis and biomass/waste valorisation

INNOVATION & "ECOTROPISM©"

Biotech and Advanced Techno-



IFPEN, France

Tony Phan

Mane, France

From biomass to bio-based polymers: general routes and catalytic design



Jerome Guibot SEPPIC, France

Bio-sourced innovation, a challenge but an opportunity !



Prof. Shu Kobayashi The University of Tokyo

Flow Fine Synthesis for Green Sustainable



Palladium- and Nickel Catalyzed synthesis of Sodium Acrylate from CO2 and Ethylene

Dr. Julien Hitce



Innovation from Renewable Resources at L'Oréal: Expanding the Chemist's Toolbox



From Biomass to COSMETIC Sustainable multifunctional Ingredients and Solutions.





Amandine Cabiac

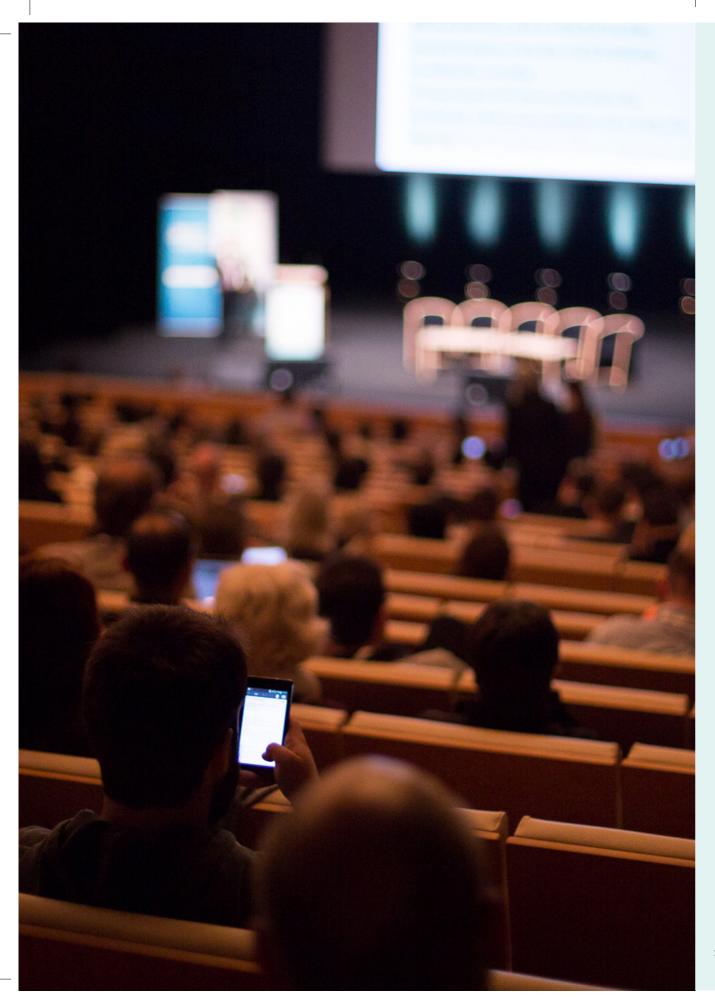
A solution to design greener

chemicals. Applications to Fla-

KEYNOTES

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PROGRAM AT-A-GLANCE

SATELLITE EVENTS

KN Keynote PL Plenary lecture

(10 min questions at the end of the session)

8:00 AM REGISTRATION 8:30 AM PL-4: P. WASSERSCHEID 9:00 AM **OPENING REMARK** 9:30 AM OC-3-1. OC-3-2. OC-3-3. OC-3-4. PL-1: R. SHELDON OC-3-5. OC-3-6 10:30 AM COFFEE 11:00 AM PL-2: F. MONNET KN-2-1. KN-2-2. KN-2-3. KN-2-4. KN-2-5. KN-2-6 11:30 AM OC-1-1. OC-1-2. OC-1-3. OC-1-4. FC-3-1 . FC-3-2 . FC-3-3 . FC-3-4 . 12:00 AM OC-1-5. OC-1-6 FC-3-5 . FC-3-6 12:30 AM LUNCH / STAND AREA LUNCH / STAND AREA 2:00 PM 2:30 PM PL-5: T. CANTAT PL-3: J. HARTWIG 3:00 PM KN-1-1. KN-1-2. KN-1-3. KN-1-4. KN-1-5. KN-1-6 L'ORÉAL LECTURESHIP 3:30 PM 4:00 PM 4:30 PM 5:00 PM 5:30 PM 6:00 PM 7:00 PM

PROGRAM - AT A GLANCE

TUESDAY, MAY 16th

		E ONEAE EEOTORESTII	3:
	FC-1-1 . FC-1-2 . FC1-3 . FC-1-4 . FC-1-5 . FC-1-6	L'ORÉAL SESSION FC-6-1 . FC-6-2 . FC-6-3 . FC-6-4 . FC-6-5 . FC-64-6	4:0
	COFFEE	COFFEE	5:
	OC-2-1 . OC-2-2 . OC-2-3 . OC-2-4 . OC-2-5 . OC-2-6	FC-4-1 . FC-4-2 . FC-4-3 . FC-4-4 . FC-4-5 . FC-4-6	5:
	FC-2-1 . FC-2-2 . FC-2-3 . FC-2-4 . FC-2-5 . FC-2-6	OC-4-1 . OC-4-2 . OC-4-3 . OC-4-4 . OC-4-5 . OC-4-6	7:
	POSTER SESSION & GREEN CHEMISTRY CHALLENGE : INNOVATION SESSIONS, EXHIBITION & 1TO1	G2C2 PRIZE	. 07
			8:0
			8:

WEDNESDAY, MAY 17th

WELCOME RECEPTION

8:00 AM	THURSDAY, MAY 18th	FRIDAY, MAY 19th	
8:30 AM	REGISTRATION		
9:00 AM 9:30 AM	PL-6: R. A. GROSS	PL-7: YE WANG	
9.907 an	OC-5-1 . OC-5-2 . OC-5-3 . OC-5-4 . OC-5-5 . OC-5-6	OC-6-1. OC-6-2. OC-6-3. OC-6-4. OC-6-5. OC-6-6	
10:30 AM	COFFEE	COFFEE	
11:00 AM			
11:30 AM	POSTER SESSION &	INDUSTRIAL SESSION	
12:00 AM	GREEN CHEMISTRY CHALLENGE : INNOVATION SESSIONS, EXHIBITION & 1TO1	INCREASE	
12:30 AM			
	LUNCH / STAND AREA	LUNCH / STAND AREA	
2:00 PM	KN-3-1 . KN-3-2 . KN-3-3 . KN-3-4 . KN-3-5 . KN-3-6		
2:30 PM	144.9 7 144.9 7 144.9 9 144.9 4 144.9 9 144.9 0	OC-7-1 . OC-7-2 . OC-7-3 . OC-7-4 . OC-7-5 . OC-7-6	
3:00 PM	FC-5-1 . FC5-2 . FC5-3 . FC5-4 . FC-5-5 . FC5-6	PL-8: O. KAPPE	
4:00 PM		CONCL. REMARKS & POSTER PRIZE	
4:30 PM			
5:00 PM			
5:30 PM	FREE TIME OPTIONAL EXCURSION		
6:00 PM			
7:00 PM			
07:30 PM			
8:00 PM			
8:30 PM	GALA DINER		

07:30 PM 8:00 PM 8:30 PM

SATELLITE EVENTS

THE NETWORK OF EARLY-CAREER SUSTAINABLE SCIENTISTS AND ENGINEERS (NESSE)



Thriving careers and sustainability: a panel discussion

Thursday May 18th, 11:00-12:30 AM

Academia and industry are common career paths for the new generation of individuals working in stem. Both provide a unique approach and contribution to economic progress, and demand a particular set of skills. What factors are relevant for career advancement in each sector? How does the partnership between them play a role in social development? What professional opportunities in the context of sustainability are currently out there? The speakers at isgc-2017 will come together and bring their expertise to discuss answers to these and other questions pertaining to professional growth.

- > Panelists
- > Prof. Rafael luque (university of cordoba)
- > Dr. Edith norrant (ucb pharma)
- > Prof. Peter wasserscheid (friedrich-alexander university)
- > Nesse networking social

NESSE Networking Social

Thursday May 18th, 04:00 - 06:00 PM

The Network of Early-Career Sustainable Scientists and Engineers (NESSE) will hold a casual networking social on Thursday, May 18th. Join NESSE for a get-together at a local bar, where you will get the chance to connect with our members and other like-minded professionals in the field of sustainable science. La Cav' A' So'. 29 Quai du Gabut, 17000 La Rochelle, France.

NESSE exhibition booth N°13

Tuesday May 16th, 07:00 PM

Looking to connect with early-career scientists seeking to be part of a sustainable future? Meet us at the exhibition area all week to learn what NESSE is all about, our career-development activities at ISGC, what projects we are currently working on, and how you can get involved with our community.

L'ORÉAL SESSION

L'ORÉAL Research & Innovation

L'Oréal organises a special session on «innovation in green process for a sustainable chemistry»

Wednesday May 17th, 03:00 - 04:30 PM

> Invited Speakers

- > 03:00 03:30 PM : Pr. H. Cramail University of Bordeaux
- > Glycolipids: from synthesis and self-assembly studies to the design of original bio-based polymers.
- > Selected flash communications

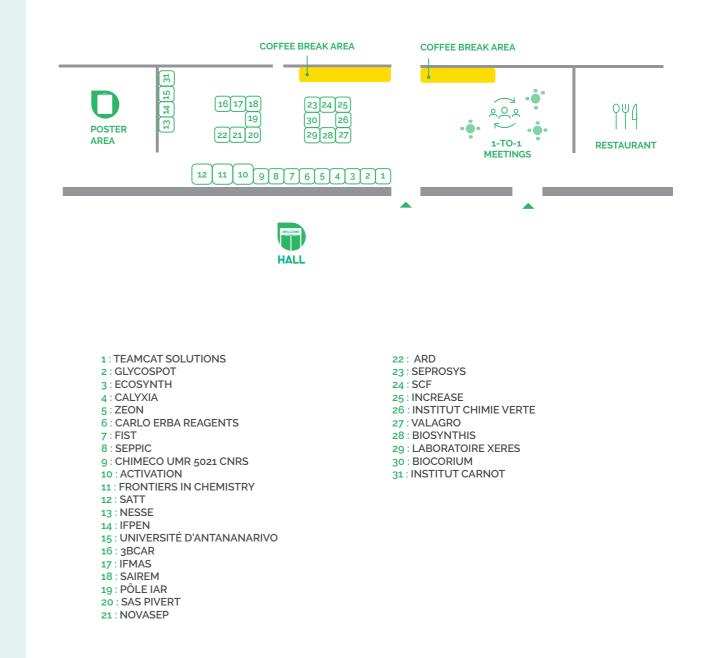
See Scientific Program, May 17th (03:30 - 04:30 PM)

GREEN CHEMISTRY CHALLENGE &

EXHIBITION

EXHIBITION

Exhibition opening: Tuesday 16th May 2017 at 12:30









Teamcat Solutions (TS) is a French research intensive SME, active since May 2015. TS's core-business is the design of scientific equipment for high-throughput experiments in the fields of chemistry and catalysis. It aims to provide expertise to private and public research teams to enhance their innovation and discovery potential by reducing the most energy and time consuming of their R&D effort. Therefore, TS develops a large range of highthroughput devices for the synthesis, the characterisation and the testing of catalysts. Our flagship product, the Multi-R®, a device with parallel reactors for high-throughput gas phase heterogeneous catalysis, presents the best performance/price ratio of the market

- TS capabilities include:
- Design of scientific equipment
- High-throughput technologies
- Chemical engineering
- Catalysis

GLYCOSPOT

ECOSYNTH

- Technology transfer to the market
- TS is member of the French competitiveness cluster Industries & Aaro-Ressources.

Booth n[°]4



CALYXIA

One innovative approach in formulation chemistry that is being explored by consumer product manufacturers is microencapsulation. These microencapsulation technologies present performance benefits due to protection and the controlled delivery of an encapsulated ingredient, however offer no clear sustainability benefits

In front of this CALYXIA is a new technology start-up (launched in 2015, Paris) which has developed an environmentally sustainable and high performance encapsulation platform.

This new encapsulation platform technology advances the formulation frontier and enables the creation of a new world of disruptive products with fewer ingredients, lower environmental impact and expanded performance capabilities "Beyond Chemistry".

ZEON

ZEON Corporation has been firmly establishing itself as a global chemical manufacturer that can meet the social needs of the new era by developing various products to comprehensively and effectively use C5 fractions and also by commercialising these products.

Cyclopentyl methyl ether (CPME) is a novel hydrophobic ether solvent, which was established out of ZEON's unique synthetic technology and C5 raw materials.

Unlike other common ether solvents, CPME has unique excellent properties and is widely applicable as a replacement for Tetrahydrofuran (THF), Methyl Tert-Butyl Ether (MTBE), Dioxane and other existing ether solvents.



Booth n°7



CARLO ERBA REAGENTS

Carlo Erba Reagents combines the know-how from over a century in the chemical industry with the flexibility of a modern company. Our wide array of products includes high purity solvents and salts for the most demanding requirements. We strive to minimize the ecological impact of chemistry by not only offering a wide array of green solvents but also services such as returnable containers and shuttle services. Our 2 sites in France allows us fast delivery time and outstanding customer service.

FIST

FIST S.A. (France Innovation Scientifique et Transfert) is a subsidiary of the CNRS and BPI France. Since 1992, FIST SA is specialised in the transfer of innovative technologies from the CNRS laboratories to international industries. This activity in bio-sourced chemistry is characterised by two Strategic Focus Transfer Axes: Valorization of lignocellulosic biomass and CO2 as carbon source.

FIST S.A. has also an expertise in business intelligence through patents and scientific publications mapping studies of as well as technoscouting studies. These studies may be part of a competi-

Booth n°2



GlycoSpot produces high-throughput enzyme screening kits making reliable analysis guick and easy. With our 3-step procedure and easy-to-read colourimetric results, you can simultaneously screen activity of carbohydrate and protein degrading enzymes. These enzymes are important in many different industries, ranging from the juice and baking industries to feed and biomass conversion. GlycoSpot technology is a game-changer in biomass conversion optimization by replacing outdated empirical methods and facilitating substantial savings in time and costs in production. Our core competence lies within providing our customers with tailor-made solutions, so challenge us: we can make substrates out of almost anything!

Booth n°3



EcoSynth is a chemical contract research company which provides chemical solutions for a wide range of industrial challenges within different industries (life sciences, chemical, food, consumer, energy,...). The company operates from a new state-of-the-art lab infrastructure and our service activities include synthesis of organic molecules (up to 1 kg), process development (early phase) and chemical stability assessment of products and formulations. These activities are supported by our unique expertise in catalysis of industrially important reactions (using non-toxic metals), flow chemistry (using external activation) and (scalable) photochemistry.



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Booth n°6

Booth n°5

ZEON

Booth n°9

Seppic

SEPPIC

SEPPIC in few words

SEPPIC is a subsidiary of Air Liquide Healthcare. SEPPIC designs and markets specialty ingredients for health and beauty through sustainable innovation. SEPPIC inspires its customers worldwide with a unique combi-

nation of scientific expertise in the fields of chemistry, formulation and objectification. This covers polymers, surfactants and emulsion technologies, biology, immunology, transformation of natural products.

CHIMECO UMR 5021 CNRS

ChimEco lab : Bio-inspired Chemistry and Ecological Innovations Ecocatalysis, a new vision of Green Chemistry Ecological restoration of industrial sites, eco-innovation, bio-inspired catalysis: Scientific goals of ChimEco are closely related to

> an interdisciplinary approach able to participate in the development of bioeconomy and sustainable development. Biodiversity being used as raw material for environmental remediation, the challenge is to develop effective solutions to develop chemistry of the future and for the future.

> ChimEco focuses on an unusual combination of phytotechnologies and the use of these processes by a bio-inspired green catalysis, the Ecocatalysis. This new concept contributes to the development of current economic and environmental priorities, the use of biomass and the transition from non-renewable to renewable resources.

Booth n°10

ACTIVATION

Activation is an independent company, specialized in process research and development of innovative technologies for maximizing industrial process performances. Our core expertises are process research, continuous flow reaction, trickle bed reactors, hydrogenation, hydroformylation, heterogeneous catalysts (selection, design and shaping); UV LED photochemistry and more recently polymers productions (namely functionalized polyethylene, polyethoxylates). Our experimental methodology relies on a deep understanding of chemical transformation through continuous monitoring and analysis of reaction to identify critical parameters. This is a key factor to design the most efficient technology for industrial production while reducing capex and opex. Cost estimates and intellectual property are our guidelines to devise new cost effective and clean processes.

Booth n°11

FRONTIERS IN CHEMISTRY

frontiers in Chemistry

Activation

Frontiers is a leading open-access academic publisher, with prestigious and well respected editorial boards. We provide rigorous peer review and fast publication. Our goal is to increase the visibility of research articles and their authors...

Booth n°12



SATT Grand Centre (a Société d'Accélération du Transfert de Technologie or «Technology Transfer Company»), is a simplified joint stock company founded on May 15, 2013 as part of the Future Investments Programme (the Programme Investissements d'Avenir or «PIA»).

The head office is in Clermont-Ferrand and the six branches are located at : Clermont-Ferrand, La Rochelle, Limoges, Orléans, Poitiers, Tours.

In France, 14 SATTs operate throughout the country and have the task of simplifying, accelerating and facilitating technology transfers from public research to companies, regardless of their size or business sector.

They facilitate the creation of added value, of companies or of new activities and therefore jobs, based on the results of academic research



NESSE

\X/ho\X/e Are The Network of Early-Career Sustainable Scientists and Engineers (NESSE) is a global movement of academic researchers and young professionals at the beginning of their careers working on or interested in solutions to today's most pressing sustainability challenges. Our Vision We envision a prosperous and sustainable future for all, facilitated by collaborative and sustainable approaches to science. Our Mission To inspire and mobilize a new generation of interdisciplinary scientists and engineers who strive to achieve a more sustainable future. Our Strategic Priorities Our six strategic priorities are to: 1. Build Community Connect scientists and engineers across disciplines to share resources and forge collaborations. Enable Sustainable Research 2. Promote greener, cross-disciplinary research practices. Shape Education 3. Support the incorporation of sustainable science and engineering into graduate and undergraduate curricula. Share Ideas 4. Communicate inspiring sustainable science and engineering stories to researchers and professionals, as well as the general public. Train Leaders 5. Foster the development of confident and able leaders for sustai-

nable science communities. 6. Promote Advocacy Educate and encourage sustainable scientists and engineers to

engage with decision-makers.

Booth n°13



SATT

IFPEN



IFP Energies nouvelles (IFPEN) is a major research and training player in the fields of energy, transport and the environment. From research to industry, technological innovation is central to all its activities, structured around three strategic priorities: sustainable mobility, new energies and responsible oil and gas.

As part of the public-interest mission with which it has been tasked by the public authorities, IFPEN focuses on:

 providing solutions to take up the challenges facing society in terms of energy and the climate, promoting the transition towards sustainable mobility and the emergence of a more diversified energy mix;

creating wealth and jobs by supporting French and European economic activity, and the competitiveness of related industrial sectors.

An integral part of IFPEN, its graduate engineering school – IFP School – prepares future generations to take up these challenges.

Booth n°15

UNIVERSITÉ D'ANTANANARIVO



Booth n°16



3BCAR

3BCAR Carnot institute gather a network of 18 research entities around shared issues of biomass valorization for applications in bioenergies, biobased molecules and materials. 3BCAR aims to support innovation and a sustainable bioeconomy emergence, by developing public-private partnership, in order to answer the R&D needs of companies. This network is labelled « Carnot institute » by the research ministry, which guarentee professionalism and scientific excellence to its partners.

3BCAR Carnot institute mobilizes two key levers for Bioeconomy emergence: Biotechnologies and Green chemistry; gathering multidisciplinary approaches from biomass production, biorefinery until functional properties. Circular economy is considered by waste and byproducts valorization, cascading uses and eco-design.

3BCAR represents a one-stop-shop for companies to the skills of more than 500 scientists. Our team support you in building your innovative projects and identifying the best scientists to offer you a transversal and relevant answer according to your needs. Booth n°17



IFMAS

IFMAS (Institut Français des Matériaux Agro-Sourcés) is a private R&D company set up in 2012, with expertise in biobased chemistry and materials. Based out of the Haute Borne Science Park (Villeneuve d'Ascq), IFMAS has a 2,400 sq.m research center with six technological platforms focused on synthesis, polymerization, plastics processing, analysis, structural characterization and formulation. IFMAS target applications cover all the sectors that use chemical intermediaries and materials, from packaging to transport, building and electronics, cosmetics and medical.

Communication : innovation session 1. IAR session Tuesday 16th, 07:00 PM - 08:00 PM (Auditorium)

Booth n°18



Communication : innovation session 1. IAR session Tuesday 16th, 07:00 PM - 08:00 PM (Auditorium)

Booth n°19

PÔLE IAR

SAIREM

THE FRENCH BIOECONOMY CLUSTER IAR is the French cluster dedicated to the Bioeconomy. It brings together more than 360 stakeholders from farmer cooperatives, research organisations and universities to VCs, start-ups, SMEs and large industries, including end-users, around a common goal: the optimal valorisation of renewable resources for food, feed, energetic and industrial applications. IAR's activities focus on supporting the development of the bioeconomy in France and more specifically in the regions of Hauts-de-France and Grand Est. IAR's ecosystem includes several innovation platforms dedicated to bio-based chemicals including B.R.I., an open biotech platform, offering services from lab-scale to demonstration and PIVERT aiming to develop a competitive bio-based chemistry sector based on oilseed croos.

To support its members, IAR developed several services supporting its members in all bio-based innovation development stages: IAR Projects - development of collaborative R&I projects; IAR Business Intelligence – monitoring, market and technological studies; IAR Invest – support in early stage funding; IAR Academy – getting access to the right competences; IAR International – developing business outside France and IAR Network – meeting with the bio-based community.

Chairman : IAR session Tuesday 16th, 07:00 PM - 08:00 PM (Auditorium)



SAS **PIVERT**

SAS PIVERT

At the interface between research and industry, SAS PIVERT guides you in your innovation process and provides its expertise in industrial development.

SAS PIVERT relies on BIOGIS Center, a multidisiplinary development plateform in plant-based chemistry, in order to industrialise future processes and products, while respecting sustainable development

Today, SAS PIVERT proposes two main offers :

Technological offer based on ours R&D programs. The SAS PIVERT's innovation projects range from the whole biomass life cycle, agricultural production to bioproduct transformation. This technological offer is based on an IP portfolio, tools and skills to develop innovative technological partnerships. Our products and processes are suited to market expectations.

Service offer based on BIOGIS Center facilities which design for the economic and sustainable development processes integrating biomass pretreatment and its chemical / biotechnological transformation. Our service offer is based on development of processes, sample production, pilot series, toll manufacturing...

Communication : innovation session 1. IAR session Tuesday 16th, 07:00 PM - 08:00 PM (Auditorium)

Booth n°21

NOVASEP

Novasep is a leading provider of services in the field of molecule production and purification for the life science and chemical industries, based on an unrivalled pool of specialized technologies. Our Industrial Biotech Business Unit is dedicated to the markets of food & functional ingredients, fermentation products and chemical commodities.

Novasep is specialist in solving purification challenges from process development to industrial installations and from laboratory equipment to turnkey plants. Our unique know-how in purification technologies includes membrane filtration, chromatography, ion exchange, adsorption, electrodialysis, evaporation, and crystallization. We use our proprietary computer modeling tools to speed up your process development and optimization. Such expertise enables Novasep to be the right partner for purification downstream process development in bio-based processes including sugars, organic acids, glycols, and other platform or intermediate molecule purification. Novasep's R&D and engineering capabilities in Europe, China, and the US provide worldwide support to their customers for biobased chemical related projects.

Communication innovation session 1. IAR session Tuesday 16th, 07:00 PM - 08:00 PM (Auditorium)





ARD

ARD is an R&D company located near Reims (France) located at the centre of the emblematic biorefinery site of Pomacle Bazancourt and member of the IAR cluster. Specialized in industrial biotech, plant extraction, purification and green chemistry, ARD offers internationally a wide ranges of services from process and product development, scale-up, industrial demonstration and custom manufacturing with 10m3, 180m3 fermentors and associated DSP.

ARD has also developed its own capacity to develop proprietary businesses, such as Soliance created inb 1994 sold to Givaudan in 2014, and most recently Wheatoleo (2010), producing bio-sourced surfactants from pentose and vegetable fatty alcohol called Alkyl Poly Pentosides. Sold mostly in Europe , its wide range of biodegradable products offer key performances for detergents, cosmetics , phyto pharmacy and various industrial applications. Developed at ARD premises for Whetoleo, Biotech surfactants are now enlarging Weatoleo's offer with a newly launched Sophorose Lipid.

Wheatoleo headquarters. production and R&D are located at ARD site

Booth n°23



Booth n°24



Booth n°25



HE GREEN CHEMISTRY VALLE

SEPROSYS

SEPROSYS offers consulting services, audits, training and development of patents in the field of liquid-liquid separation techniques and develops new applications in its laboratory.

SCF

La Société chimique de France (SCF) est une association (Loi 1901) à but non lucratif, reconnue d'utilité publique. Elle a pour mission de mettre en réseau les chimistes quels que soit leur secteur d'activité (informations, collogues, prix et distinctions, aide à la recherche d'emploi...), de représenter leurs intérêts et de promouvoir la Chimie.

INCREASE

The International Consortium on Eco-conception and renewable resources (INCREASE)

A public/private research network hosted by the CNRS (FR CNRS 3707) where academic and industrial partners work together to tackle scientific hurdles and to jointly create an intellectual property roadmap. This public/private partnership should accelerate the commercialization of sustainable and safe chemicals to satisfy the need of our Society to limit its impact on the Planet.

The gathering of public laboratories with cross-disciplinary expertise located in the western part of France, R&D centers and industrial companies involved in the field of green chemistry is also a great opportunity for members of INCREASE to gain visibility on the international scene. In this context, INCREASE has recently become a member of the Global Network of Green Chemistry Centres and is now well positioned to develop collaborative and innovative researches in the context of an international competitiveness and growth.

INSTITUT CHIMIE VERTE



Booth n°27



Booth n°28

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The Green Chemistry Institute's mission is to support regional projects of creation or mutation that reached the necessary technological readiness level. Those projects focus on the emergency of a sustainable industrial chemistry. In this context, all regional core competencies are mobilized, especially from the "Pole Eco-Industries", the technology platform VALAGRO, Technological Resources Centers (CRITT) and more broadly from all public and private regional stakeholders in order to:

> Support small and medium size companies in their projects to enhance industrial processes eco-efficiency (process intensification, raw materials savings, water and energy savings...). > Support small and medium size companies in the transition to

- use renewable or recycled materials. > Support innovative projects in the sector of recycling che-
- mistry (metals, plastics, textiles...).

> Develop the integration of green chemistry in the downstream sectors (plastics processing, cosmetics, phytosanitary products, coatings, adhesives, lubricants, resins, inks...).

VALAGRO

VALAGRO is a R&D center dedicated to the valorization of biomass, byproducts and industrial waste. Our mission is to support industrial innovation with processes

based on green and sustainable chemistry:

- > Substitution of petrochemical components with bio-based molecules,
- > Industrial waste and byproducts valorization, > Eco-designed processes.
- Our offer: R&D,
 - > Experimental production and toll manufacturing, > Technological transfer.
- Our expertise:
 - Oleochemistry,
 - > Lignocellulosic chemistry, >Bio-based polymers and materials,
 - > Process engineering.
- Our strength:
 - > A 15-people multidisciplinary team, specialized in industrial chemistry and process engineering,
 - > Over 60 patents developed for our clients,
 - > A 25-year experience in green chemistry,
 - > Strong partnerships with universities, public research and industrial R&D centers.

Communication : innovation session 2. Thursday 18th, 11:00 AM - 12:00 AM (Auditorium)

BIOSYNTHIS

Biosynthis is a French company created in 2001 and specialized in green oleochemicals for cosmetics including bio-based emollients, thickenners and innovative technological aids.

Communication : innovation session 2. Thursday 18th, 11:00 AM - 10:00 AM (Auditorium)

Booth n°29















LABORATOIRE XERES

Laboratoires Xérès is a French company funded in 2014 and specialized in aerosol-therapy. Vectorization technologies are based on the use of aerolizable biosolvents as carriers of APIs. These biobased solvents are validated in terms of safety, stability and are able to increase API's bioavailability.

BIOCORIUM

Fermented food and plants have been used for many thousands of years to improve well-being and good health. BioCorium proposes a prebiotic strategy for new skin cares from fermented products: increasing bioavalaibility of actives, providing essential nutrients and rebalancing cutaneous microbiote. Its technology is able to convert vegetal totum in extracts containing naturally synergistic and efficient compounds. Come and experience our different formulations, from creams to amazing masks. From plants, fruits, vegetables or by-products of cosmetic or agri-food channels BioCorium can give you the essence of life!

Communication innovation session 2. Thursday 18th, 11:00 AM - 12:00 AM (Auditorium)

INSTITUT CARNOT

Institut Carnot Chimie Balard Cirimat, l'excellence en Chimie et Matériaux au service de la R&D. L'institut Carnot Chimie Balard Cirimat génère de l'innovation pour les entreprises en science chimique et ingénierie, de la molécule au matériau Il propose des partenariats de recherche dans 5 domaines d'application :

- > Energie
- > Santé et cosmétique
- > Chimie et procédés durables
- > Matériaux pour le transport
- Matériaux haute performance

Dans le domaine de la chimie et des procédés durables, nos compétences et savoir-faire s'organisent autour de 5 axes :

- > Ressources renouvelables et nouvelles propriétés
- > Substances alternatives et écocompatibles
- > Intensification des Procédés
- > Ecoconception et mise en forme de matériaux
- > Traitement et valorisation des déchets et effluents

Nos équipes d'experts accompagnent les entreprises depuis l'analyse de leurs besoins de recherche jusqu'au développement de solutions intégrées. Le succès de nos partenariats R&D s'appuie sur l'expertise scientifique de chercheurs reconnus : des plateformes et équipements technologiques de pointe adaptés aux besoins des entreprises : le réseau d'excellence des Instituts Carnot ; l'apport de la pluridisciplinarité. Compétitivité. Innovation. Confiance. Développons ensemble la chimie et les matériaux de demain

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Providing industrial projects for Sustainable Chemistry

The Green Chemistry Institute's mission is to support regional projects of creation or mutation that reached the necessary technological readiness level. Those projects focus on the emergency of a sustainable industrial chemistry. In this context, all regional core competencies are mobilized, especially from the "Pole Eco-Industries", the technology platform VALAGRO, Technological Resources Centers (CRITT) and more broadly from all public and private regional stakeholders in order to:

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Support small and medium size companies in the transition to use renewable or recycled materials.

 Develop the integration of green chemistry in the downstream sectors (plastics processing, cosmetics, phytosanitary products, coatings, adhesives, lubricants, resins, inks...).

> Jacques BARBIER Président de l'Institut de la Chimie Verte

PRACTICAL INFORMATION

SYMPOSIUM VENUE MAP

AUDITORIUM & ROOMS LOCATION MAP

Institut Chimie Verte

INSTITUT DE LA CHIMIE VERTE

3, rue Raoul Follereau - CS 20058 - 86002 Poitiers cedex Tél. : 05 49 44 64 96 - Fax : 05 49 37 41 44

NOUVELLE AQUITAINE





PRACTICAL INFORMATION

Taxi

Abeilles Taxis

Phone: +33 5 46 41 55 55 Phone: +33 5 46 41 22 22 www.taxi-la-rochelle.com

> Travel

Train Station:

Place Pierre Semard, 17000 La Rochelle More information (Practical information, schedules...) : Phone: 36 35 Website : www.voyages-sncf.com

Airport La Rochelle – Ile de Ré:

17000 La Rochelle Phone: +33 5 46 42 30 26 Website: www.larochelle.aeroport.fr

> Tourism office

2 Quai Georges Simenon 17000 La Rochelle Phone: +33 5 46 41 14 68 Website: www.larochelle-tourisme.com

> Restaurants

A list is available at the information desk

> Pharmacy

Drapeau Germain 10 Quai de la Georgette, 17000 La Rochelle Phone: +33 5 46 41 97 90

Pharmacie des Amériques 49 Avenue des Amériques, 17000 La Rochelle Phone: +33 5 46 41 17 50h



A6 Rue Hôtel de Ville, 17000 La Rochelle Phone: 3631 Website: www.laposte.fr

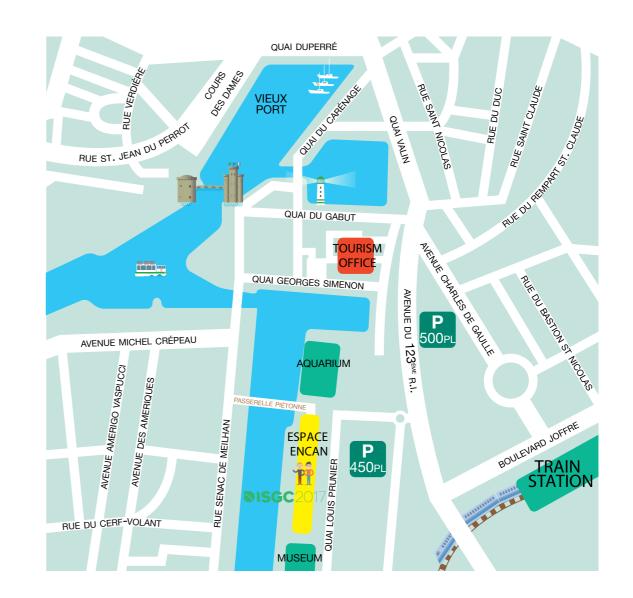
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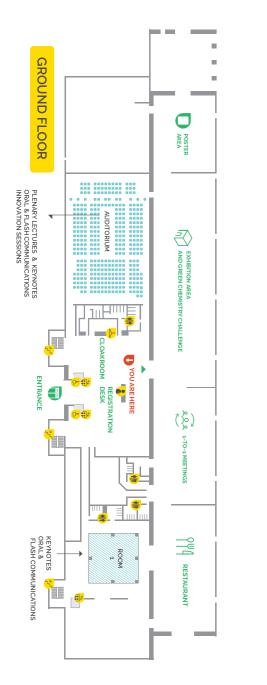
Crédit Agricole Charente-Maritime Deux-Sèvres 16 Avenue Albert Einstein, 17030 La Rochelle Phone: +33 9 74 75 76 77 Website: www.ca-cmds.fr

BNP Paribas - La Rochelle Minimes

39 Rue de la Scierie, 17000 La Rochelle Phone: +33 8 20 82 00 01 Website: www.bnpparibas.net

SYMPOSIUM VENUE MAP







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