



# TEXTILE & CHEMISTRY EVOLUTION

New  
Generation  
of Textiles  
and  
Processes


XXV<sup>th</sup> IFATCC  
INTERNATIONAL CONGRESS

**27-29**

APRIL 2021

ENSAIT-FRANCE





IFATCC (International Federation of Associations of Textile Chemists and Colourists) International congresses concern Chemistry applied to textiles: fibre spinning, dyeing and finishing, and manufacturing of multi-functional textiles, for both conventional and high-performance textiles.

Environmental planetary Challenges require Innovation in Chemistry and Textile. It is becoming essential to reconsider the design and manufacturing of textiles. Eco designing is indeed required for textile functionalisation to limit environmental impacts.

This [R]evolution is radically shaking up production methods and defining new technical and technological limits.

Many companies have innovative solutions to offer in response to these expectations. Studies carried out in research labs are also essential in anticipating these changes, particularly in the field of clothing.

For this reason over a three-day period, companies, experts, technical centres and research laboratories will discuss the evolution of textile chemistry to generate new fibres, innovative fabrics and sustainable processes, for revolutionising the textile businesses and the apparel market.

## ORGANISATION

National Organisation Committee: ACIT (Association of Textile Industry Chemists), France

Scientific Committee: Coordination








Prof. Anne PERWUELZ and Dr. Nemeshwaree MASSIKA BEHARY, ENSAIT / GEMTEX, France

## PRACTICAL INFORMATION & REGISTRATION

[www.ifatcc2021-roubaix-acit.fr](http://www.ifatcc2021-roubaix-acit.fr)

# CONFERENCES SCHEDULE




## TUESDAY 27<sup>TH</sup> APRIL 2021: MORNING

09:00 to 09:20:	Introduction	
09:20 to 09:55:	Plenary conference Collaborative innovation for future textile	 Louis VOVELLE, Elkem, Techtera (France)
09:55 to 10:20:	Improvement of the flame retardancy of cork by phosphorylation – Application to artificial turf structures	 Angeline PATUREL, Lille University (France)
10:20 to 10:45:	Monitoring and strain sensing of bio-based fabrics with conductive sisal yarns	 Ahmed ABED, ENSAIT, Gemtex (France)
10:45 to 11:10:	Production and evaluation of antibacterial microcapsules impregnated to different fabrics	 Arianne LOPEZ, INTEXTER UPC (Spain)
11:10 to 11:30:	Break	
11:30 to 11:55:	The Archroma Way "Color Source": An infinite flow of colors engineered to bring your inspiration to life into achievable and sustainable designs & collections	 Christophe MAESTRIPIERI, Archroma (Switzerland)
11:55 to 12:20:	Eco-dyeing by cationization – The challenging way towards the sustainable fashion	 Jan MAREK, InoTEX (Czech Republic)
12:20 to 12:45:	Natural antimicrobials for functionalizing polyester textiles: methods and toxicological comparison	 Nemeshwaree MASSIKA BEHARY, ENSAIT, Gemtex (France)
12:45 to 13:00:	Research project pitches	









## TUESDAY 27<sup>TH</sup> APRIL 2021: AFTERNOON

14:00 to 14:35:	Plenary conference Circular economy for fashion and textiles	 Chiara CATGIU, Ellen MacArthur Foundation (UK)
14:35 to 15:00:	Building bridges between circular economy and bio-based economy	 Mattia COMOTTO, Aquafil (Italy)
15:00 to 15:25:	Sustainability of resources and readiness to follow circular economy - The existencial tasks of TC	 Jan MAREK, InoTEX (Czech Republic)
15:25 to 15:50:	A novel and sustainable technology for development of durable and flexible smart textiles: 3D printing onto textiles	 Prisca EUTIONNAT-DIFFO, ENSAIT, Gemtex (France)
15:50 to 16:10:	Break	
16:10 to 16:35:	Smart Chemistry with Character - From the vision of a sustainable future to specific products and processes	 Andreas TROSCHT, CHT Germany GmbH (Germany)
16:35 to 17:00:	Studies on denim washing with enzyme	 Arun PATRA, Uttar Pradesh Textile Technology Institute (India)
17:00 to 17:25:	A facile approach to elaboration of multifunctional highly hydrophobic textile fabric: synthesis, characterization and application	 Ghizlane ACHAGRI, Faculty of Sciences and Techniques of Mohammedia (Morocco)
17:25 to 17:50:	Impact of melt spinning parameters on the physical properties of an immiscible PLA/PCL bioresorbable textile scaffold	 Vivien BARRAL, ENSAIT, Gemtex (France)






### CONFERENCE TOPICS LEGEND:

-  "High Performance Textiles for Technical Applications" conferences
-  "Green Chemistry and Biotechnology" conferences
-  "Sustainability and Circularity" conferences

## WEDNESDAY 28<sup>TH</sup> APRIL 2021: MORNING

9.00 to 9.35:	Plenary conference Green shades of wool	 Crisan POPESCU, DWI (Germany)
9.35 to 10.00:	Development of reactive dyes for sustainable textiles through ERC solution	 Wen-Jang CHEN, Everlight (Taiwan, China)
10.00 to 10.25:	Present situation of supercritical fluid dyeing and finishing	 Teruo HORI, University of Fukui (Japan)
10.25 to 10.50:	Sustainability in a textile dyehouse	 Utku VAROL, Ekoten (Turkey)
10.50 to 11.10:	Break	
11.10 to 11.20:	Research project pitches	
11.20 to 11.45:	Capture and pilotage of drops on a fiber	 David QUERE, ESPCI & Ecole Polytechnique (France)
11.45 to 12.10:	Novel flexible aerogel fiber constructed from p-aramid nano fibrils	 Kazumasa HIROGAKI, University of Fukui (Japan)
12.10 to 12.35:	Investigating ionic liquid-based click-ionogels by thiol-ene photopolymerisation onto textile yarns/fibres	 Claude HUNIADE, University of Borås (Sweden)
12.35 to 13.00:	In-situ one bath dyeing and reduction of graphene oxide on knitted (cotton/lycra) fabrics - Towards highly stretchable self-powered washable e-textiles	 Nazakat KHOSO, Balochistan University of Information Technology-, Engineering and Management Sciences (Pakistan)

## WEDNESDAY 28<sup>TH</sup> APRIL 2021: AFTERNOON

14.00 to 14.35:	Plenary conference Traceability: the enabler of sustainable fashion	 Stéphane POPESCU, COSE361 (France)
14.35 to 15.00:	Wool Up – The Sustainable re-wool-ution	 Begoña GARCIA, Jeanologia (Spain)
15.00 to 15.25:	Sustainable dyeing of PLA fibres using natural colourants	 Naveen Kumar BALAKRISHNAN, Maastricht University (Netherlands)
15.25 to 15.50:	Thermal and hydric characterization of innovative insulation material from recycled textile	 Oly VOLOLONIRINA, Junia HEI Lille (France)
15.50 to 16.10:	Break	
16.10 to 16.35:	Fashion show	Márcia de CARVALHO, Chaussettes Orphelines (France)
16.35 to 17.00:	Tackling the formaldehyde challenge: new latex binder innovation for technical textiles	 Daniele ZIMMERMANN, Synthomer (Germany)
17.00 to 17.25:	Functional finishing of cotton fabric by water-based formulations of sol-gel premodified polysaccharides	 Lenka MARTINKOVA, InoTEX (Czech Republic)
17.25 to 17.50:	Valve-jet printing of redox enzyme on polyester textile: a sustainable enzyme immobilization approach	 Mohammad Neaz MORSHED, ENSAIT, Gemtex (France)

### CONFERENCE TOPICS LEGEND:



"High Performance Textiles for Technical Applications" conferences











"Green Chemistry and Biotechnology" conferences



"Sustainability and Circularity" conferences

## THURSDAY 29<sup>TH</sup> APRIL 2021: MORNING

9.00 to 9.35:	Plenary conference Roadmap to Zero	 Frank MICHEL, ZHDC (Netherlands)
9.35 to 10.00:	Sustainability assessment of biobased colorants in the textile value chain	 Matilde DELLA FONTANA, Maastricht University (Netherlands)
10.00 to 10.25:	Sustainable recovery process orange peel-based for disperse dyes of textile industry effluents	 Marta RIBA-MOLINER, INTEXTER UPC (Spain)
10.25 to 10.50:	Dyeing of cellulosic fibres by dyes obtained from biosources	 Gabriela MIJAS, INTEXTER UPC (Spain)
10.50 to 11.10:	Break	
11.10 to 11.35:	Electrochemistry for clean industrial productions in textile industry	 David CRETENAND, RedElec Technologie SA (Switzerland)
11.35 to 12.00:	Melt spinning of multifilament filled with nanoparticles for textile reflecting human body infra-red	 Joseph LEJEUNE, ENSAIT, Gemtex (France)
12.00 to 12.25:	Graft-copolymerization of vinyl monomers for intumescent flame retardant cellulose fabrics	 Giuseppe ROSACE, University of Bergamo (Italy)
12.25 to 12.50:	Interest of carbon fibers as electrochemical biosensors	 Natalie PERRAULT, CEA LETI DTBS, Grenoble (France)
12.50 to 13.00:	Conclusion	

Following the uncertainty regarding the evolution of Covid 19, the IFATCC Congress 2021 is planned both in form of Webinars and in Live Conference at ENSAIT, in Roubaix, France.

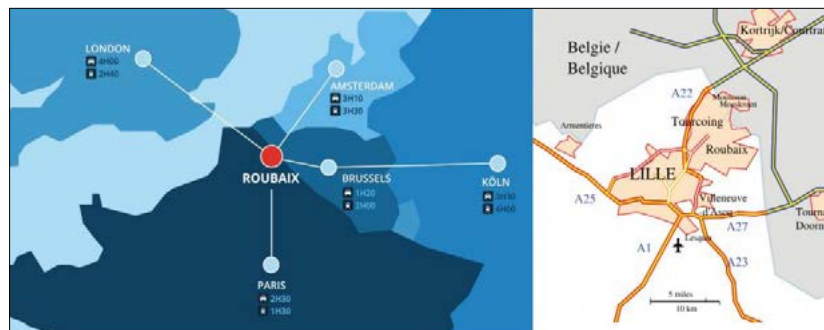
All lectures will be broadcast in Webinars.

If the pandemic prevents physical meetings, the Live Conference option will be abandoned.




### LOCATION

ENSAIT - 2 Allée Louise et Victor Champier - 59056 Roubaix – France

Roubaix is situated in the Lille Metropole (MEL) in the North of France.



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