



Date: 12-14 November 2024

Venue: Borås Kongress, Borås, Sweden

Organizer: University of Borås, Sweden

Detailed Conference Program

IFPB 2024 Conference program is composed of 4 keynote lectures, 27 oral presentations and 7 poster presentations involving 4 scientific sessions during November 13–14, 2024.

Day 1

November 12, 2024

Welcome Evening

Location: Borås Kongress, Borås, Sweden

Host: Vincent Nierstrasz

Professor, Department of Textile Technology, University of Borås, Sweden

Time (CET)	Description
17:00-20:00	Welcome Registration Networking Refreshment

Day 2

November 13, 2024

Conference Session 1

Location: Borås Kongress, Borås, Sweden

Session Chair: [Vincent Nierstrasz](#), Professor, Department of Textile Technology,
University of Borås, Sweden

Time (CET)	Description
08:00-08:50	Registration
09:00-09:30	<u>IFPB 2024 Opening Ceremony</u> Speech: Vincent Nierstrasz , Chairman of the IFPB 2024 Organizing Committee Speech: Kim Bolton , Pro-Vice Chancellor of the University of Borås Speech: Marjan Garmroudi , Vice President of the Regional Council of the Västra Götaland Region of Sweden Speech: Cecilia Nykvist , CEO at TEKO, the Swedish branch organization for textile and clothing industry
09:30-10:00	Keynote Lecture 1: Scaling up a consolidated bioprocess for enzymatic depolymerization of PET waste Speaker: Prof. dr. Cristiano Varrone , Aalborg University, Denmark
10:00-10:20	Coffee Break Hosted by Västra Götaland Region of Sweden
10:20-10:35	Application of bacterial lipases/esterases for removal of spin finishes from synthetic fiber textiles Presenter: Luís C. de Sousa , Universidade de Lisboa, Portugal.
10:40-10:55	Recycling and valorization of multilayer textile waste through enzymatic processes. Presenter: Belén Taroncher Ruiz , AIMPLAS - Plastic research Center. Biotechnology department, Valencia, Spain.
11:00-11:15	Multi-purpose glycerol oligoesters: synthesis and properties Presenter: Francesco Maria Raboni , Università di Genova, Italy
11:20-11:35	Microbial recycling of biodegradable biopolymers into volatile fatty acids Presenter: David Strik , Wageningen University, The Netherlands
11:40-11:55	Fungal cell factories convert food waste into biopolymers for textile applications Presenter: E. R. Kanishka B. Wijayarathna , University of Borås, Sweden
12:00-13:00	Lunch Location: Borås Kongress, Borås, Sweden

November 13, 2024

Conference Session 2

Location: Borås Kongress, Borås, Sweden

Session Chair: [Cristiano Varrone](#), Associate Professor, Department of Chemistry and Bioscience, Aalborg University, Denmark

Time (CET)	Description
13:00-13:30	Keynote Lecture 2: Closing the cycle for blended textiles using biotechnology Speaker: Prof. dr. Georg Gübitz , BOKU, Vienna, Austria
13:30-13:45	Lipase immobilization on magnetic nanoparticles and its application for polyesters synthesis Presenter: Francesco Papatola , Università di Genova, Italy
13:50-14:05	Comparative Analysis of Pure versus Commercial Cellulase in Cotton Fiber Digestion Presenter: Marilés BONET-ARACIL , Universitat Politècnica de València, Spain
14:10-14:25	Enzyme-mediated tuning of cellulose surface reactivity for innovative compounding purposes Presenter: Martina Dramis , University of Milano Bicocca, Italy
14:30-14:45	Enological Pectinase Immobilized on Polymer Microparticles as Efficient Biocatalysts for Wine Clarification. Presenter: Zlatan Zlatev Denchev , University of Minho, Portugal
14:50-15:20	Coffee Break + Poster Session
15:20-15:35	Enzymatic technique for improving biodegradability and sustainable decomposition of cellulose-based textile materials Presenter: Ainhoa Sánchez Martínez , Universitat Politècnica de València, Spain
15:40-15:55	Functionalization of Melt Spun Biodegradable Polycaprolactone Fibers with Microcapsules Presenter: Umit Halis Erdogan , Dokuz Eylul University, Turkey
16:00-16:15	Fibre fusion, functionalized bacterial cellulose through BslA. Presenter: Meng Zhang , Northumbria University, UK
16:20-16:35	Investigation and Development of Electrospun Bacterial Cellulose Fibres for its application in Functional Textiles. Presenter: Subhadeep Paul , Northumbria University, UK
16:40-16:55	Josef Ressel Center for Recycling Strategies for Textiles Presenter: Jeannie Egan , University of Applied Sciences Wiener Neustadt, Austria

November 13, 2024

Gala Dinner

Host: Vincent Nierstrasz

Professor, Department of Textile Technology, University of Borås, Sweden

Time (CET)	Description
18:00-22:00	Gala Dinner

Gala Dinner Location:

The Company, Skaraborgsvägen 3C, 506 30 Borås

(Inside the Textile Fashion Center Building of the University of Borås)

Day 3

November 14, 2024 Conference Session 3 Location: Borås Kongress, Borås, Sweden Session Chair: Georg Gübitz , Professor, Institute of Environmental Biotechnology, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria	
Time (CET)	Description
09:00-09:30	Keynote Lecture 3: Hair and Cosmetics Speaker: Dr. Kenzo Koike , Kao Corporation, Japan
09:30-09:45	Next generation bio-hair-cosmetics Presenter: Artur Cavaco-Paulo , Solfarcos, Portugal
09:50-10:05	Biomodification of Keratin Fibers Presenter: Ana Tinoco , Solfarcos, Portugal
10:10-10:25	From lab to market: Odorant Binding Proteins in cosmetics Presenter: Filipa Goncalves , Solfarcos, Portugal
10:30-10:50	Coffee Break
10:50-11:05	Antimicrobial materials by chimeric adhesive proteins Presenter: Alessandra Piscitelli , University of Naples Federico II, Italy
11:10-11:25	Durable Antimicrobial Cotton Textiles by Sono-enzymatically-Embedded Silver-Phenolated Lignin Nanoparticles Presenter: Garima Rathee , Universitat Politècnica de Catalunya, Spain
11:30-11:45	Multifunctional hydrogel based on a customized polyurethane enzymatically conjugated with polyphenolic lignin, reducing inflammation in chronic wounds. Presenter: Clara Mattu , Politecnico di Torino, Italy
11:50-12:05	Textile Engineering Nano-Innovations: Changing Fibers for Superior Performance. Presenter: Preeti Singh , Indian Institute of Technology, Delhi and Institute of Chemical Technology, Mumbai
12:10-13:30	Lunch Location: Borås Kongress, Borås, Sweden

November 14, 2024

Conference Session 4

Location: Borås Kongress, Borås, Sweden

Session Chair: Mohammad Neaz Morshed, Researcher, Department of Textile Technology, University of Borås, Sweden

Time (CET)	Description
13:30-14:00	Keynote Lecture 4: Engineering Pseudomonas to use polyamides as carbon source for biotechnology Speaker: Prof. dr. Nick Wierckx , Forschungszentrum Jülich, Germany
14:00-14:15	Reduction of air-pollution by PES thermofixation and processing of recycled PES textiles using enzymes Presenter: Jan Marek , InoTEX Ltd., Czech republic
14:20-14:35	Development of enzyme-based bioprocesses for recycling and reuse of wool blended fabrics to support textiles industry transition to a circular system Presenter: Jinsong Shen , De Montfort University, UK
14:40-14:55	Harnessing hydrolysis, novel nylonases and engineered bacteria towards an integrated upcycling approach for polyamides Presenter: Stephan Thies , Forschungszentrum Jülich, Jülich, Germany
15:00-15:15	Comparison of enzyme-based depolymerization of amorphous and crystalline poly(lactic acid) produced with green plasticizer based on levulinic acid. Presenter: Chiara Siracusa , BOKU, Vienna, Austria
15:20-15:35	Recalcitrant feedstocks upcycling and de-coupling of polyhydroxyalkanoates production from nutrient limitation in Pseudomonas putida. Presenter: Maria-Tsampika Manolj , Spanish National Research Council (SusPlast-CSIC), Biological Research Center Margarita Salas (CIB-CSIC), Spain
15:40-15:55	Bio-upcycling of various textile blends. Presenter: Felice Quartinello , BOKU, Vienna, Austria
16:00-16:30	IFPB 2024 Closing Ceremony + Swedish Fika

List of Posters

Poster No.	Description
1	Tailored biorefinery approaches for the obtainment of lignin and polyhydroxyalkanoates Authors: Simona Varriale , Elisabetta Borselleca , Luca Livio Levorato , Cinzia Pezzella
2	Detailed activity characterization and kinetic analysis of cutinase for polymer degradation and functionalization Authors: Asja Feruglio , Demi Vattovaz , Maria Antonietta Sbordone , Lucia Gardossi , Fioretta Asaro , Rita De Zorzi
3	Immobilized Enzyme Cascade for the Synthesis of Polyaniline Authors: Nadya Vasileva Dencheva , Sofia da Silva Guimarães , Joana Barros Braz , Zlatan Zlatev Denchev
4	Using Enzymes in Solvents: Simple Concepts and Ambitious Solutions for Polyester Synthesis Authors: Lena Graf , Klara M. Saller , Clemens Schwarzingler
5	Fabrication of antibacterial textiles through digital printing of functional chitosan ink. Authors: Media Haghi , Mohammad Neaz Morshed , Junchun Yu , Vincent Nierstrasz
6	Immobilizing redox enzymes on synthetic textile through hydraulic spray atomizing system Authors: Mohamamd Neaz Morshed , Hugo Matusalem , Sina Seipel , Vincent Nierstrasz
7	Functionalization of cotton fabric by fungal adhesive proteins Authors: Rossana Pitocchi , Giulia Fichera , Paola Cicatiello , Alessandra Piscitelli , Paola Giardina
8	Comparative Analysis of Pretreatment and Hydrolysis Techniques for Textile Waste Valorization: Efficiency and Environmental Impact Authors: Francesca Stella , Nicola Cavallini , Francesca Demichelis , Silvia Fraterrigo , Fabio Deorsola