

# Scientific Program

## International Conference on Biopolymers and Bioplastics

**Monday**  
**June 21, 2021**

Day 1 - June 21, 2021 | 10:00 - 18:30 BST

10:00 - 10:10 Introduction

### Keynote Presentation

10:10 - 10:40 Public local participation in regional sustainable energy transition to 100% renewable energy

**Joaquim Corominas**, Association Energy Congress of Catalonia, Spain

### Oral Presentations

10:40 - 11:05 Harnessing Power: Making On-Site Renewables Work for Commercial Buildings

**Yariv Edery**, The Building Excellence Group Ltd, New Zealand

### Keynote Presentations

11:05 - 11:35 Proactive Power Management of PV-powered Nanogrids

**Dongsoo Har**, Korea Advanced Institute of Science and Technology, South Korea

11:35 - 12:05 Regulatory analysis on the increasing value of buildings through a quality process of energy performance certification in Albania

**Atty. Lorenc Gordani**, Tirana Business University (TBU), Albania

12:05 - 12:35 Advanced BIObased polyurethanes and fibres for the autoMOTIVE industry with increased environmental sustainability

**Agnieszka Sitarz and Witold Slomkowski**, Greennovention, Poland

### Oral Presentations

12:35 - 13:00 Computational Design of Novel Biochemical Pathways for Bio-Based Commodity Chemicals

**Ahsan Islam**, Loughborough University, United Kingdom

### Lunch (13:00 - 13:30)

13:30 - 13:55 Cellulose-collagen materials crosslinked with chemical and enzymatic agents

**Agata Sommer**, Gdansk University of Technology, Poland

13:55 - 14:20 Nonwoven fibrous materials with antibacterial properties based on poly-3-hydroxybutyrate biopolymer for medicine

**Tyubaeva Polina Mickhailovna**, Russian University of Economics, Russia

14:20 - 14:45 Highly efficient Hydrogen storage in LOHC and efficient Systems

**Eberhard Schlücker**, University of Erlangen-Nuremberg, Germany

14:45 - 15:10 Techniques to evaluate and increase plastic waste biodegradability

**Giovanni Gadaleta**, Polytechnic University of Bari, Italy

15:10 - 15:35 A performance evaluation of a silica-gel/water adsorption chiller fueled by biomass energy

**Riad Benelmir**, University of Lorraine, France

15:35 - 16:00 Biopolymer-modified electrodes for electrochemical determination of pollutants

**Anastasiya Svirepa**, Kurt-Schwabe-Institut für Mess- und Sensortechnik Meinsberg e.V., Germany

16:00 - 16:25 Influence of climate and Clay thermal characteristics on fossil energy and global warming power by life cycle analysis

**André Donnot**, University of Lorraine, France

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16:25 - 16:50	A promising biobased polyester, the poly(ethylene 2,5-furandicarboxylate) (PEF) <b>Nicolas Sbirrazzuoli</b> , Université Côte d'Azur, France
16:50 - 17:15	Bacterial PHA from LCB biomass: the potential use of fruit residues as sustainable feedstock <b>Rodrigo Andler</b> , Universidad Católica del Maule, Chile
17:15 - 17:40	A novel method to remove CO <sub>2</sub> from sea water <b>Arturo Solís Herrera</b> , Human Photosynthesis® Research Center, México
17:40 - 18:05	Design of Bio-Polymers by Mining the PHA Chemical Space <b>Karteek K. Bejagam</b> , Los Alamos National Laboratory, USA
18:05 - 18:30	Development of eco-friendly bacterial cellulose membranes filters for the microplastics removal from contaminated water <b>César Cunha</b> , University of Madeira, Portugal

End of Day 1 Sessions

**Tuesday**  
**June 22, 2021**

Day 2 - June 22, 2021 | 10:00 - 18:00 BST

### Keynote Presentation

10:00 - 10:30	Sardinian Microalgae: a sustainable and renewable feedstock for technological applications and value-added products <b>Giacomo Cao</b> , University of Cagliari, Italy
10:30 - 11:00	Bio-based transformation pathways in the chemical sector: Global assessment in a dynamic perspective <b>Duy Nong</b> , University of Bonn, Germany

### Oral Presentations

11:00 - 11:25	First principles calculations of electronic and thermoelectric transport properties of Pb <sub>2</sub> Bi <sub>2</sub> Te <sub>5</sub> with different atoms sequences <b>Weiliang MA</b> , Aix-Marseille Université, France
11:25 - 11:50	Pressure drop across randomly packed beds of ellipsoidal particles <b>Hoffmann Jaap</b> , Stellenbosch University, South Africa
11:50 - 12:15	Clean and safe nuclear power-emerging fusion technologies for near future <b>Luciano Ondir Freire</b> , University of São Paulo, Brazil
12:15 - 12:40	Double-skin ventilated glass façades; Design solutions for reducing the energy needs of buildings in hot climate <b>Silvia Brunoro</b> , University of Ferrara, Italy
12:40 - 13:05	Primary frequency regulation service by integrated PV-BESS systems <b>Francesco Conte</b> , Università degli studi di Genova, Italy
13:05 - 13:30	Purple non-sulfur bacteria as a source of bioplastics <b>Eleftherios Touloupakis</b> , National Research Council, Italy

Lunch (13:30 - 14:00)

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**Tuesday**  
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- 14:00 - 14:25 Nanocellulose coating to improve water absorption on polyester fibers  
**Maria Angeles Bonet Aracil**, Universitat Politècnica de València, Spain
- 14:25 - 14:50 Techno-economic analysis of catalytic pyrolysis of olive mill waste water sludge in fluidized bed reactor  
**Muhammad Shoaib Ahmed Khan**, Université de Lorraine, France
- 14:50 - 15:15 The Y factor for Climate Change Abatement – beyond the technological challenge  
**Emile J. L. Chappin**, Delft University of Technology, The Netherlands
- 15:15 - 15:40 IControllers guidance system of flat solar collector with thermosiphon circulation  
**Murat Kunelbayev**, Institute Information and Computational Technologies CS MES RK, Republic of Kazakhstan
- 15:40 - 16:05 Epistemocracy: The Biological Machine and Thermodynamic Efficiency  
**Mara Lamothe**, Universidad Autonoma Metropolitana, Mexico
- 16:05 - 16:30 A multiple approach in determination of biodegradability of melt-mixed PBAT/EVOH blends: Effect of EVOH on the biodegradability rate and microstructure  
**Mehdi Elhamnia**, University of Tehran, Iran
- 16:30 - 16:55 The Probabilistic Origin of the Second Law of Thermodynamics and the Implications in Renewable Energy  
**Nery Lamothe**, Universidad Autonoma Metropolitana, Mexico

### Poster Presentations

- 16:55 - 17:10 Novel composite films based on soy protein isolate and oilseed flours  
**Sabina Galus**, Warsaw University of Life Sciences (WULS-SGGW) Poland
- 17:10 - 17:25 Development and characterization of cellulose triacetate nano/micro-fiber produced by electrospinning technique  
**Jose Fernando Rubio-Valle**, ETSI University of Huelva, Spain
- 17:25 - 17:40 Identification and characterization of polyhydroxyoctanoate (PHO) depolymerase/lipase in *Stenotrophomonas maltophilia* K279a  
**Haben Tesfu**, University of Manitoba, Canada
- 17:40 - 17:55 Cyanobacteria producing exopolymers as potential biofloculant for plastic debris water removal  
**Marisa Faria**, University of Madeira, Portugal

### Oral Presentation

- 17:55 - 18:10 Production and study of bioplastics and their characteristics  
**Saurabh Surendran Nambiar, Emediong Peter Akpan, Vandana Sakhre**  
Dept. of Chemical Engineering, Manipal Academy of Higher Education, Dubai

### Video Presentation

- 18:10 - 18:35 Chitosan tailor-made biomembranes for sample preparation  
**C. Román-Hidalgo**, Universidad de Sevilla, Spain

### E-Poster

- E-Poster Study of hydrogen energy problems and their solution  
**Nikolay Efimovich Ga**, Don State Technical University, Russia

### End of Day 2 Sessions