

XII International Forum on Industrial Bioprocesses

Forum Braga, Portugal; September 9-12, 2026

SCIENTIFIC PROGRAM

<u>9th September 2026- Forum Braga</u>			
1700-1900h	Registration and Welcome		
<u>10th September 2026</u>			
0830-0900	Opening session		
0900-1030h	Session IA: Advanced Bioprocessing	Session IB: Sustainable Environmental Processes	Session IC: Thermochemical Processing of Biomass/Waste
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India
	Chairs: Apostolis Koutinas, Greece & Lucilia Domingues, Portugal	Chairs: Christian Larroche, France & You Kwan Oh, Republic of Korea	Chairs: Athanasios A. Koutinas, Greece & Michele Michelin, Portugal
0900-0925	PL 01: Industrial Bioprocessing of Circular Agro-Residues into Hybrid Plant–Mycelium Meat Analogues using Filamentous Fungi, Mohammad Taherzadeh, Millow AB, Sweden	PL 02: Carbon Topological Defects for Promoting Electron-Shuttling Regime, Daniel Tsang, Hong Kong University of Science and Technology, Hong Kong	PL 03: Impact of the carbon source on the pyrolysis and combustion behaviors of oleaginous yeast, Alain Brillard, Université de Haute-Alsace, Mulhouse, France
0925-0950	PL 04: Metabolic engineering for sustainable bioprocesses: by production of aromatics and carotenoids by <i>Corynebacterium glutamicum</i> , Volker F Wendisch, Bielefeld University, Bielefeld, Germany	PL 05: An Innovative Two-Phase Anaerobic Digestion System with Gas Diversion for Food Waste: Enhanced Hydrolysis and Carbon Conversion, Jonathan WC Wong, Dongguan University of Technology, China	PL 06: Co-Hydrothermal Liquefaction of Dairy Wastewater Grown Microalgae and Dairy Sludge towards Sustainable Bio-oil Production, Kaustubha Mohanty, Indian Institute of Technology Guwahati, India
0950-1010	IL 01: From Biomass to Bioplastics: Bioprocess Strategies for Polyhydroxyalkanoates and Bio-Based Composites, Luciana Vandenberghe,	IL 02: Life Cycle Costing of Biological Recycling of PHB-Based Packaging Waste for Circular PHB Production, Dimitrios C Ladakis, National and	IL 03: Accelerating Biomass Deconstruction: THF-Water Pretreatments Under Microwave Heating for Dual-Product Biorefineries, Pradeep Verma, Central University of Rajasthan,

	Federal University of Parana, Curitiba, Brazil	Kapodistrian University of Athens, Athens, Greece	Kishangarh, Ajmer, Rajasthan, India
1010-1030	IL 04: Technoeconomic analysis of production of biodegradable mulches from chicken feathers, Mark R Wilkins, Kansas State University, Manhattan, USA	IL 05: Biodegradable packaging for food industries utilising agricultural residues, Poonam Singh Nigam, University of Ulster, Northern Ireland, UK	IL 06: Advancing Biorefinery Efficiency Through Benign-Solvent-Enabled Biomass Fractionation and Valorization, Armando JD Silvestre, University of Aveiro, Portugal
1030-1100h	TEA/COFFEE		
1100-1200h	Session IIA: Advanced Bioprocessing	Session IIB: Sustainable Environmental Processes	Session IIC: Contributory Oral Presentations
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India
	Chairs: Volker F Wendisch, Germany & Rui Oliveira, Portugal	Chairs: Cristobal N Aguilar, Mexico & Clarisse Gonçalves, Portugal	Chairs: Kaustubha Mohanty, India & Suzana Ferreira-Dias, Portugal
1100-1120	IL 07: Diatoms as Living Nano-Factories: Advances in Bio-Inspired Nanomaterials, Archana Tiwari, Amity University, Noida, India	IL 08: Applied biotechnology for the recovery of metals from mining waste, Sara Magdouli, University of Ottawa, Canada	OP 01: Selective Extraction of High-Value Chemical Compounds from <i>Eucalyptus globulus</i> Pyrolysis Bio-Oil, Paulo Victor Borret Bonjour Nascimento, University of Coimbra, Coimbra, Portugal OP 02: Integrated Ultrasound-Enzymatic approach for efficient extraction of polyphenols from kodo millet (<i>Paspalum scrobiculatum</i>) bran: Optimization, antioxidant activity and functional characterization, Parmjit S. Panesar, Sant Longowal Institute of Engineering and Technology, Longowal, Punjab, India OP 03: From Extraction to Advanced Functional Materials: An Overview of Lignin Valorization Strategies within Lignocellulosic Biorefineries, Michele Michelin, University of Minho, Braga, Portugal OP 04: Alginate production using <i>Azotobacter vinelandii</i> and apple waste as carbon source, Rubén Ruiz Simón,
1120-1140	IL 09: Innovative Microalgae Bioprocess for Carbon Capture and High-Value Carotenoid Production: A Sustainable Solution to Climate Change Mitigation, Anil Kumar Patel, Atal Bihari Vajpayee University, Bilaspur, India	IL 10: Recovery of Polyphenols from Olive Pomace and Their Stabilization through Enzymatic Modification, Francisco J Plou, Instituto de Catálisis y Petroleoquímica, CSIC, Madrid, Spain	
1140-1200	IL 11: Microalgae as sustainable biofactories for a circular and greener future, Thilini U Ariyadasa, University of Moratuwa, Sri Lanka	IL 12: Biodegradation of gas-phase styrene using fungal and bacterial cultures in different bioreactor configurations, Eldon Raj, IHE-Institute of Water Education, Delft, Netherlands	

			Complutense University of Madrid, Spain
1200-1300h	LUNCH		
1200-1400h	POSTER SESSION I: PP 001- PP 042		
1400-1530h	Session IIIA: Advanced Bioprocessing	Session IIIB: Sustainable Environmental Processes	Session IIIC: Contributory Oral Presentations
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India
	Chairs: Mohammad Taherzadeh, Sweden & Philippe Michaud, France	Chairs: Daniel Tsang, Hong Kong & Vanete Thomaz Soccol, Brazil	Chairs: Alain Brillard, France & Poonam Singh Nigam, UK
1400-1420	IL 13: Bioprocesses impact on climate change and circular economy, Christian Larroche, Université Clermont Auvergne, Clermont Ferrand, France	IL 14: Development of a biological recycling process using post-consumer bioplastic-based packaging waste for circular production of poly(3-hydroxy-butyrate, Apostolis Koutinas, Athens Agricultural University, Greece	OP 05: Omics-Guided Next-Generation (NxG) Microbial Bioprocessing and Novel Stable Formulation of a <i>Trichoderma</i> Consortium for Sustainable Tomato Protection and Yield Enhancement, Vimala Prakash, IPL Biologicals Limited, Gurugram, Haryana, India
1420-1440	IL 15: Preliminary Study for Probiotic Salt Production through of <i>L. casei</i> Resistance and Technoeconomic Analysis, Athanasios A. Koutinas, University of Patras, Patras, Greece	IL 16: Energetic Electrons: Transforming the Future of Food, Biotechnology and Waste Valorization, Suresh D Pillai, Texas A&M University, College Station, Texas, USA	OP 06: Pigment and fatty acid profiling of <i>Dunaliella</i> strains isolated from Greek salterns, Oxynoudi Chrysafenia, Aristotle University of Thessaloniki, Thessaloniki, Greece OP 07: Sustainable Valorization of Composite Agricultural Residues for the Rapid Cultivation of <i>Pleurotus ostreatus</i> Mycelium Bioleather, Mohana Priya Shankar, Indian Institute of Technology, Telangana, India
1440-1500	IL 17: Aqueous Two-Phase Systems as Key Tools for Developing Circular Bioprocesses, Jorge FB Pereira, University of Coimbra, Coimbra, Portugal	IL 18: Valorisation of agri-food residues through enzymatic hydrolysis: unlocking bioactive and functional ingredients, Manuela Pintado, Universidade Católica Portuguesa, Porto, Portugal	OP 08: Acetic Acid Production via Mixotrophic CO ₂ Bioconversion by <i>Moorella thermoacetica</i> , E Georgiadou, Agricultural University of Athens, Athens, Greece OP 09: Advances in the production of ellagic acid via solid-state fermentation in column reactors, Juan A Ascacio Valdés, Autonomous University
1500-1520	IL 19: From Agrofood Side-streams to Functional Biomaterials: Advances in Bacterial Cellulose Production and Modification, Argyro Bekatorou, University of Patras, Patras, Greece	IL 20: Integrated Enhancement of Astaxanthin Production and Extractability in <i>Haematococcus</i> -based Algal Biorefinery, You Kwan Oh, Pusan National University, Pusan, South Korea	
1520-1535	OP 11: Biological Recycling of Thermoplastic Starch via Algal-Microbial Co-Cultures	OP 12: From Vineyard to Biomaterials: Upcycling Grape Stems into	

	for Value-Added Bioproduct Manufacture, Michalis Koutinas, Cyprus University of Technology, Limassol, Cyprus	Biocomposites via Autohydrolysis and Fungal Fermentation, Bianca Marques, University of Minho Braga, Portugal	of Coahuila, Saltillo, Coahuila, México OP 10: Construction of continuous directed evolution systems and efficient biomanufacturing of microbial protein, Yanfeng Liu, Jiangnan University, Wuxi, China
1535-1600	TEA/COFFEE		
1600-1645h	Session IVA: Advanced Bioprocessing	Session IVB: Sustainable Environmental Processes	Session IVC: Contributory Oral Presentations
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India
	Chairs: Long Liu, China & Armando Silvestre, Portugal	Chairs: Sang Jun Sim, Republic of Korea & Mengyue Gong, China	Chairs: Jonathan WC Wong, Hong Kong & Zhi Li, Singapore
1600-1625	PL 07: OCEANS: The planet's last frontier of natural resources - Potentialities and Challenges, Carlos Ricardo Soccol, Federal University of Paraná, Curitiba, Paraná, Brazil	PL 08: Circular Biovalorization of Oil Sands Tailings by <i>Rhodospiridium toruloides</i> , Satinder Kaur Brar, York University, Toronto, Canada	OP 13: Cyanobacteria cultivation in waste-based medium for sustainable carbon capture and waste valorization, Sheetal Kishor Parakh, National University of Singapore, Singapore OP 14: Illumination Modeling to Support Photobioreactor Design, Operation, and Scale-Up, Jiachen Sun, National University of Singapore, Singapore
1625-1645	IL 21: Integrated Valorisation of Hemp Seed Oil Pomace within a Lignocellulosic Biorefinery Concept, Marina Tisma, Josip Juraj Strossmayer University of Osijek, Croatia	IL 22: Microalgae-Based Circular Biovalorization of Dairy Wastewater: An Eco-Friendly Approach to New Dairy Products, Loulouda Bosnea, Institute of Technology of Agricultural Products, Ioannina, Greece	OP 15: Production of bacterial cellulose in see-saw bioreactor and its optimization, Rintu Banerjee, Indian Institute of Technology, Kharagpur, India
<u>11th September 2026</u>			
0900-1030h	Session VA: Advanced Bioprocessing- Co-organized by NEWPOWER*	Session VB: Sustainable Food and Environmental Processes	Session VC: Contributory Oral Presentations
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India
	Chairs: Yen Wah Tong, Singapore & Pedro Santos Portugal	Chairs: Eldon Rene, Netherlands & Manuela Pintado, Portugal	Chairs: EM Papamichael, Greece & Lorenzo Pastrana, Portugal

0900-0925	PL 09: Not All Strains Are Created Equal: Rethinking Host Choice for Metabolic Engineering and Bioprocess Performance, Lucilia Domingues, University of Minho, Braga, Portugal	PL 10: Future Food and Synthetic Biology: Opportunities and Challenges, Long Liu, Jiangnan University, Wuxi, China	OP 16: Natural Deep Eutectic Solvents (NADES) for sustainable extractions of bioactives with enhanced functionality, Paula Jauregi, Basque Research and Technology Alliance, Derio, Bizkaia, Spain
0925-0950	PL 11: Engineering cascade biotransformations for one-pot multiple-step syntheses of enantiopure fine chemicals from simple alkenes, Zhi Li, National University of Singapore, Singapore	PL 12: Toward Sustainable Carbon Circularity through a Hybrid CO ₂ Conversion Pathway Integrating Microalgal Utilization and Optoelectronic Device, Sang Jun Sim, Korea University, Seoul, Republic of Korea	OP 17: Therapeutic Valorization of Moroccan Pine Needles: Unlocking the Gastroprotective Potential of a Sustainable Forestry By-Product through Phenolic Bioactives, Widad Tbatou, Sidi Mohamed Ben Abdellah University, Fez, Morocco
0950-1010	IL 23: Marine-Derived Cellulases for Sustainable Biomass Conversion in Modern Biorefineries, Reeta Rani Singhania, National Kaohsiung University of Science and Technology, Kaohsiung City, Taiwan	IL 24: Advancing Degradation of Cyanotoxins in Water and Wastewater by Using Biochar as a Co-photocatalyst, Eakalak Khan, University of Nevada, Las Vegas, Nevada, USA	OP 18: Machine Learning-Driven Optimization of Fermentation Process for the Valorization of Proteins Extracted from Sunflower Meal, Buse Bıyıklı, Gebze Technical University, Kocaeli, Türkiye
1010-1030	IL 25: Agri-Food Bioresources as Industrial Platforms for Functional Ingredients in the Circular Bioeconomy, Lillian Barros, Polytechnic Institute of Bragança, Bragança, Portugal	IL 26: Solid-state fermentation as strategy technology for sustainable agroindustrial waste management under biorefinery concept, Cristobal N Aguilar, Universidad Autónoma de Coahuila, Saltillo, México	OP 19: Efficient use of persulfate-assisted alkaline treatment to obtain p-coumaric acid and biosorbent from maize cob lignin, Everaldo Silvino dos Santos, Federal University of Rio Grande do Norte, Brazil OP 20: Super-critical fluid extraction of phenolic and flavonoid compounds from <i>Litchi chinensis</i> kernel: bioactivity and antimicrobial study, Avinash Thakur, Sant Longowal Institute of Engineering and Technology, Longowal, Punjab, India OP 21: Enhancing Resource Efficiency Through Steam Distillation of Essential Oil from <i>Eucalyptus globulus</i> Residual Foliage, Ana C Jacinto, University of Aveiro, Aveiro, Portugal
1030-1100h	TEA/COFFEE		
1100-1200h	IBA AWARDS FUNCTION		

1200-1300h	LUNCH		
1200-1400h	POSTER SESSION II PP 043- PP 084		
1400-1530h	Session VIA: Advanced Bioprocessing- <i>Co-organized by NEWPOWER*</i>	Session VIB: Sustainable Environmental Processes	Session VIC: Contributory Oral Presentations
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India
	Chairs: Fransisco J Plou, Spain & Cristina Vicente, Portugal	Chairs: Marina Tisma, Croatia & Jorge FB Pereira, Portugal	Chairs: Thilini U Ariyadasa, Sri Lanka & Lillian Barros, Portugal
1400-1420	IL 27: Bioprocess Hybrid Modeling for Optimization and Control: Advancing Sustainability through Digitalization, Rui Oliveira, Universidade NOVA de Lisboa, Caparica, Portugal	IL 28: Effluent-based microalgal bioprocessing: Kinetic modelling, process optimization, and livestock feed applications, Ranjna Sirohi, Sri Karan Narendra Agriculture University, Jaipur, India	OP 22: Upcycling agro-industrial resources for alternative protein production, Susan Grace Karp, Federal University of Parana, Curitiba, Brazil OP 23: Computational and Experimental Profiling of Spanish <i>Salvia rosmarinus</i> Essential Oils: Geographic Variation, Chemotypes, and Bioactivity, Carlos Seiti H. Shiraishi, Instituto Politécnico de Bragança, Bragança, Portugal
1420-1440	IL 29: Enzymatic Hydrolysis with Papain and Bromelain: Physical Meaning of the K_m Parameter, EM Papamichael, University of Ioannina, Ioannina Greece	IL 30: From flask to photobioreactors scale-up: Understanding light and CO ₂ constraints, Yen Wah Tong, National University of Singapore, Singapore	OP 24: Sustainable Bioprocessing of Passion Fruit Waste into Functional Additives for Biodiesel Oxidation Stabilization and Corrosion Inhibition, Vaibhav V Goud, Indian Institute of Technology Guwahati, Assam, India
1440-1500	IL 31: Fruit Juice to Functional Beverage: Innovations in Lactic Acid Fermentation, Stavros Plessas, Democritus University of Thrace, Greece	IL 32: From Winery By-Products to Value-Added Ingredients and Biomaterials, Panagiotis Kandylis, Ionian University, Argostoli, Greece	
1500-1515	OP 25: From onion peel to clean-label preservation: Quercetin-rich extract application in mayonnaise, Tatiane CG de Oliveira, Instituto Politécnico de Bragança, Portugal	OP 26: Honey processing for protein-based authenticity rapid testing, Despina P Kalogianni, University of Patras, Patras, Greece	OP 27: Valorization of Waste Printed Circuit Board using Pyrolysis and Metal Extraction, Pankaj Tiwari, IIT Guwahati, Assam, India
1515-1530	OP 28: Nutritional Characterisation and Antioxidant Activity of Snacks Developed from Agro-Industrial By-Products: Oat Bran, Strawberry By-Product Flour, and Blackberry Seed Extract, Bárbara	OP 29: Decoding weak Human Serum Albumin interactions using Aqueous Two-Phase Systems, Nuno Ribeiro da Silva, University of Minho, Braga, Portugal	OP 30: Microbial recycling of poly(3-hydroxybutyrate) via nitric acid pretreatment and enzymatic hydrolysis – A circular concept for post-consumer bioplastics, Chrysanthi Argeiti, Agricultural

	Menezes, Instituto Politécnico de Bragança, Bragança, Portugal		University of Athens, Athens, Greece
1530-1600h	TEA/COFFEE		
1600-1645h	Session VIIA: Advanced Bioprocessing	Session VIIB: Sustainable Environmental Processes	Session VIIC: Contributory Oral Presentations
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India
	Chairs: Raj Boopathy, USA & Luciana Vandenberghe, Brazil	Chairs: Duu Jong Lee, Hong Kong & Pradeep Verma, India	Chairs: Norma Paola Melendez Renteriy, Mexico & Suresh Pillai, USA
1600-1620	IL 33: Designing the new Food System through Nanobiotechnology, Lorenzo Pastrana, International Iberian Nanotechnology Laboratory, Braga, Portugal	IL 34: From Atlantic Macroalgae to Functional Ingredients: An Integrated and Sustainable Bioprocess Approach, Suzana Ferreira-Dias, Universidade de Lisboa, Lisboa, Portugal	OP 31: Decoupling the Roles of Oxygen-Containing Functional Groups and Aromatic Carbon Clusters on Pyrogenic Carbon for Electrochemical Dehalogenation Process, Zibo Xu, The Hong Kong University of Science and Technology, Hong Kong, China OP 32: Modified Biochar as an Immobilization Carrier for Fungal Enzymes and Cells in Starch Hydrolysis and Thermoplastic Starch Biodegradation, Rena Konstantinou, Cyprus University of Technology, Limassol, Cyprus OP 33: A biomolecules crystallization framework for enhanced sustainability in biopharmaceuticals manufacturing, Filipa Castro, University of Minho, Braga, Portugal
1620-1640	IL 35: Innovating Low-Intervention Winemaking Through Native Microbial and Plant Resources, Norma Paola Melendez Renteriy University of Coahuila, Mexico	IL 36: Modeling plant transpiration in space using parabolic flights, Jean Pierre Fontaine, Universsite Clermont Auvergne, Clermont Ferrand, France	
12 th September 2026			
0900-1010h	Session VIIIA: Advanced Bioprocessing	Session VIIIB: Sustainable Environmental Processes	Session VIIIC: Contributory Oral Presentations
	Coordinator: Archana Tiwari, AU, Noida, India	Coordinator: Reeta Rani Singhaania, NKUST, Taiwan	Coordinator: Vivekanand, MNIT, Jaipur, India

	Chairs: Mark Wilkins, USA & Stavoras Plessas, Greece	Chairs: Jean Pierre Fontaine, France & Nuno Silva, Portugal	Chairs: Arun Goyal, India & Susan Karp, Brazil
0900-0925	PL 13: Practical challenge in implementing the circular bioeconomy, Duu-Jong Lee, City University of Hong Kong, Hong Kong	PL 14: Phycoremediation of Olive Mill Wastewater Through the Use of <i>Chlorella</i> sp., Philippe Michaud, Universsite Clermont Auvergne, Clermont Ferrand, France	OP 34: Microbiome-Targeted Nutrition Integrating Functional Foods, Advanced In Vitro Models and Clinical Research, Clarisse Nobre, University of Minho, Braga, Portugal OP 35: Sustainable Extraction and Fractionation Strategies for the Recovery of Value-Added Ingredients from Algae Biomass, Cristina MR Rocha, University of Minho, Braga, Portugal
0925-0950	PL 15: Structure and functional insights of a bifunctional α -L-arabinofuranosidase from <i>Bacteroides ovatus</i> and its application in fruit juice clarification, Arun Goyal, Indian Institute of Technology Guwahati, Guwahati, India	PL 16: Co-Digestion of Agricultural Wastes for Methane Production, Raj Boopathy, Nicholls University, USA	OP 36: Enzyme engineering for improving lactone production, Paulo César Silva, University of Minho, Braga, Portugal OP 37: Precision Immunodiagnostics and Computational Biotechnology for Early Alzheimer's Disease Detection Through AI-Guided Biomarker Discovery, Rafael Sanchez Loureiro, Federal University of Parana, Curitiba, Brazil
0950-1010	IL 37: Machine learning applications in the livestock sector: Successes, failures and lessons learned, Ayon Tarafdar, ICAR-Indian Veterinary Research Institute, Izatnagar, India	IL 38: Microwave Torrefaction of Sugarcane Bagasse–Groundnut Shell Blends for Optimized Solid Biofuel Production and Urban Renewable Energy Integration, Vivekanand, Malaviya National Institute of Technology Jaipur, India	
1010-1040h	TEA/COFFEE		
1045-1130h	CLOSING SESSION BEST PAPER AWARDS Declaration for venue and hosts of XIII IBA-2028 & IBA Subject conference-2027		

*Session Co-organized by NEWPOWER

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