



BUENOS AIRES 2023

JUNE 4 - 8

WCCE11 - 11th WORLD CONGRESS OF CHEMICAL ENGINEERING

IACCHE - XXX INTERAMERICAN CONGRESS OF CHEMICAL ENGINEERING

CAIQ2023 - XI ARGENTINIAN CONGRESS OF CHEMICAL ENGINEERING

CIBIQ2023 - II IBEROAMERICAN CONGRESS OF CHEMICAL ENGINEERING

Buenos Aires - Argentina - June 4-8, 2023

"The global chemical engineering working for a better future world"

The V International Symposium on Lignocellulosic Materials - ISLCM 2023

Oral Presentation

Tuesday 06/06/2023 Session I - Room 10

Morning

09:00 - 09:30	Oral Presentation #1	Different ways to obtain nano-lignin from wheat straw.	Barriga,S. ; Labidi, J.	Spain	University of the Basque
	Oral Presentation #2	Structural characterization of acid DES-modified alkaline lignin and evaluation of antioxidant properties.	Li, P. H.; Lu, Y.; Long, G. F.; Li, S. X.; Jin Y.C.; Wu, W.J.	China	Nanjing Forestry University
09:30 - 10:30	Oral Presentation #3	Exploring how lignin structure influences the interaction between carbohydrate-binding module and lignin using AFM.	Chen, H.; Yuan, Y.; Zou, C.; Wu, W.; Jin, Y.	China	Nanjing Forestry University
	Oral Presentation #4	Valorisation of hemicelluloses from Eucalyptus wood residues.	Cabrerá M.N. ; Bariani M.; Rossi A.; Guibaud A.; D'Andrada C.; Guarino J.;	Uruguay	UdeLAR Universidad de la República
	Oral Presentation #5	Lignin from Acacias species: A potential source of antioxidants	Lourenço, A. ; Simões, R.; Gominho,J.	Portugal	Universidade de Lisboa
	Oral Presentation #6	Comparing chemical and enzymatic hydrolysates of lignocellulosic materials as substrates for 2,3-butanediol bioproduction by <i>B. subtilis</i> sp.	Ruszkowska, Z. ; Drewniak, Ł.	Poland	University of Warsaw
10:30 - 11:00	Coffee Break + Posters				
11:00 - 11:30	Keynote speaker: Hiroshi Kamitakahara	Etherification-triggered fractionation of lignocellulosic biomass to afford cellulose-, hemicellulose-, and lignin-based functional materials.		Japan	Division of Forest and Biomaterials Science, Graduate School of Agriculture, Kyoto University
11:30 - 12:30	Gral Congress Session Plenary				

12:30 - 14:00 LUNCH

Oral Presentation

Tuesday 06/06/2023 Session II - Room 10

Afternoon

14:00 - 14:30	Oral Presentation #1	Cereal bran biorefinery to obtain high value-added products. Fractionation and catalytic dehydration.	Retamar, L. E.; Piovano, F. A.; Aspromonte, S. G.; Boix, A. V.	Argentina	UNL Universidad Nacional del Litoral - Santa Fé
	Oral Presentation #2	Development of bio-based hydrogels from sulfated xylan and chitosan. Use of a deep eutectic solvent in the sulfation process.	Solier, Y.N.; Sznajder, F.; Navarro, D.A.; Mocchiutti, P.; Inalbon, M.C.	Argentina	UNL Universidad Nacional del Litoral - Santa Fé / Universidad de Buenos Aires
14:30 - 15:30	Keynote speaker: Thomas Rosenau	Oxidation of celluloses and other polysaccharides: mechanisms, side reactions, cautionary notes and analytical aspects.	Rosenau, T.; Simon, J.; Beaumont, M.; Summerskii, I.; Sulaeva, I.; Hettegger, H.; Potthast, A.	Austria	Institute of Chemistry of Renewable Resources, Depart. of Chemistry, University of Natural Resources and Life Sciences, Vienna (BOKU University).
	Oral Presentation #3	Multifunctional eco-friendly adsorbent cryogels based on xylan derived from coffee residues.	Quintero, L.V.; Osmá, J.F.; Salokhe, S.; <u>Azimov, U.</u> ; <u>Nabarlatz, D.A.</u>	Colombia / United Kingdom	Universidad Industrial de Santander (CO) / Innovation and Technology (CO) / Northumbria University (UK)
	Oral Presentation #4	Evaluation of the effect Adaptive Laboratory Evolution (ALE) in <i>Rhodospiridium toruloides</i> : increasing resistance to growth inhibitors and improving sugars consumption.	<u>Almeida, S.G.C.</u> ; Souza, J.P.; Franca, B.V.; Dussán, K.J.	Brazil	UNESP São Paulo State University
15:30 - 16:00	Oral Presentation #5	Lactic Acid Production by <i>Bacillus coagulans</i> DSM2314 Using Hydrolysates Derived from Steam-exploded Sugarcane Bagasse.	Alves, W.R.; Silva, Thiago. A.; Corazza, M.L.; <u>Ramos, L.P.</u>	Brazil	UFPR Federal University of Paraná
	Oral Presentation #6	Influence of natural polyelectrolyte complexes on the flocculation and rheological behaviors of cellulose micro/nanofibers.	Bastida, G.A. ; Bono, N. ; Zanuttini, M.A.; <u>Galván, M.V.</u>	Argentina	UNL Universidad Nacional del Litoral - Santa Fé
16:00 - 16:30	Coffee Break + Posters				
16:30- 17:30	Oral Presentation #7	Polyelectrolyte complexes of xylan and chitosan with micro/nano fibrillated cellulose as coating agent.	<u>Schnell, C.N.</u> ; Sharma, M.; Pedrosa J.F.S.; Zanuttini, M.A.; Mocchiutti, P.; Ferreira, P.J.T.	Argentina / Portugal	UNL Universidad Nacional del Litoral - Santa Fé / University of Coimbra
	Rapid-fire #1	Lignin-Phenol-Formaldehyde Resol for High Pressure Decorative Laminates: Evaluation of Lignin Levels on Final Properties.	Peralta, M.B.; <u>Nicolau, V.V.</u>	Argentina	Universidad Tecnológica Nacional - Facultad Regional San Francisco
	Rapid-fire #1	Enhancing xylan/chitosan film properties by the addition of micro/nano fibrillated cellulose.	<u>Schnell, C.N.</u> ; Inalbon, M.C.; Fernández, J. L.; Mocchiutti, P.	Argentina	UNL Universidad Nacional del Litoral - Santa Fé
	Rapid-fire #2	La Obtención de Ácido Levulínico a partir de diferentes residuos lignocelulósicos de origen agro-forestal-industrial.	<u>Ruiz, C.R.</u> ; Sequeira, A.F.; Dagnino, E.P.	Argentina	IMIT Instituto de Modelado e Innovación Tecnológica

Oral Presentation

Wednesday 07/06/2023 Session (III) - Room 10

09:00 - 09:30	Oral Presentation #1	Improvement of recycled fiber with nanocellulose for oil and water-proof paper.	Kai Yi, <u>Shiyu Fu</u> , Yi Kong, Zede Yi, Xuedi Yang, <u>Xingyu Lan</u>	China	South China University of Technology
	Oral Presentation #2	Nanocellulose obtained from orange tree prunings as a reinforcing agent in paper industry.	<u>Rodríguez, A.</u> ; Espinosa, E.; Morcillo, R.; Lucena, A.; Haro, J. de; Santos, I.	Spain	Universidad de Córdoba
09:30 - 10:30	Oral Presentation #3	Multi-product cascading biorefinery of by-products from the processing food industry: Orange peel for circular valorization for active packaging production.	<u>Espinosa, E.</u> ; Rincón, E.; Morcillo-Martín, R.; Rabasco-Vílchez, L.; Lucena, A.; Rodríguez, A.	Spain	Universidad de Córdoba
	Oral Presentation #4	Microwave-assisted catalytic pyrolysis of LignoForce™ lignins.	Suota, M.J.; Bi, X.; Ghazani, M.S.; Ramos, L.P.	Brazil / Canada	UFPR Federal University of Paraná / University of British Columbia
	Oral Presentation #5	Pyrolysis of urban pruning waste as a technological strategy to obtain valuable biomolecules	Musci, J. J.; Latorre D. C.; Chiosso M. E.; Gil, F.; Navone, M.; Casella, M.; Lick, I. D.	Argentina	UNNOBA Unoversidad del Noroeste de la Provincia de Buenos Aires // CICIPBA
	Oral Presentation #6	Obtaining condensable tannins from forest biomass in the Legal Amazon.	Da Silva, N.M.; Dos Santos, P.S.B.	Brazil	UFPA Universidade Federal do Pará / UFPEL Federal University of Pelotas
10:30 - 11:00	Coffee Break + Posters				
11:00 - 11:30	Oral Presentation #7	Biorefinery development of spent coffee grounds using dielectric barrier discharge air plasma for the production of microbial oil and value-added co-products.	<u>Giannakis, N.</u> ; Stylianou, E.; Filippi, K.; Titiri, E.; Ioannidou, S.M.; Koutinas, A.	Greece	Agricultural University of Athens
	Rapid Fire #1	Chemical and Process Inherent Safety Assessment of an Avocado Biorefinery in North-Colombia.	Herrera-Rodríguez, T.C.; Parejo-Palacio, V.R.; <u>González-Delgado, Á.D.</u>	Colombia	University of Cartagena
	Rapid Fire #2	Main factors affecting the sensitivity analysis of a biorefinery from lignocellulosic raw material.	<u>Cardozo, R.E.</u> ; Clauser, N.M.; Vallejos, M.E.	Argentina	UNaM Universidad Nacional de Misiones
11:30 - 12:30	Keynote speaker	An Overview on Catalytic Conversion of Lignocellulosic Biomass	Song Won Park	Brazil	Polytechnic School, University of São Paulo. Brazil
12:30 - 14:00	LUNCH				
Wednesday 07/06/2023 Session IV - Room 10			Afternoon		
14:00 - 14:30	Oral Presentation #1	Comparative study of urea production integrated to lignocellulosic processes.	<u>Lopes, D.L.</u> , <u>Domingos, M.E.G.R.</u> , Dos Santos, M.T.	Brazil / Switzerland	USP Polytechnic School / École Polytechnique Fédérale de Lausanne
	Oral Presentation #2	Fermentation performance of a Brazilian strain <i>Spathaspora girioi</i> in detoxified and non-detoxified sugarcane biomass hydrolysate for ethanol and xylitol production.	<u>Souza, J. P.</u> ; Almeida, S.G.C.; Santos, B.C.S.; Silva, D.D.V.; Dussán, K.J.	Brazil	UNESP São Paulo State University
14:30 - 15:30	Oral Presentation #3	Imidazole-pretreated cocoa pod husks as new alternative in second generation ethanol production	Valladares-Diestra, K. K.; <u>Vandenberghe, L. P. S.</u> ; Nishida, V. S.; Silva, T. A.; <u>Socol, C. R.</u>	Brazil	UFPR Federal University of Paraná

	Oral Presentation #4	Straw-based multiproduct biorefinery.	Sillero, L.; <u>Erdocia, X.</u> ; Fernández-Marín, R.; Hernández-Ramos, F.; Dávila, I.; Morales, A.; Labidi, J.	Spain	University of the Basque
15:30 - 16:00	Keynote speaker: Luiz Pereira Ramos	The Role of Biorrefineries in the Transition to a Low Carbon Bioeconomy		Brazil	Graduate Program in Chemistry, Department of Chemistry and Graduate
16:00 - 16:30	Coffee Break + Posters				
16:30- 17:30	Oral Presentation #5	Supercritical extraction of triterpenoids from Acacia dealbata Link. Biomass.	Rodrigues, V.H.; <u>Portugal, I.</u> ; Silva, C.M.	Portugal	University of Aveiro
	Oral Presentation #6	Utilización de redes neuronales y análisis de imágenes para la determinación de distribución de diámetros de nanofibras en imágenes TEM.	Méndez-Miranda, A.; Henríquez-Gallegos, S.; Albornoz-Palma, G.; Pereira, M.	Chile	Universidad de Concepción
CLOSURE					

POSTER

POSTER		POSTER			
POSTER	Understanding the effect of lignin on the morphological and rheological characteristics of lignocellulose nanofibrils.	<u>Albornoz-Palma, G.</u> ; Pereira, M. A.	Chile	Universidad de Concepción	
POSTER	The Bio-ethylene Formation by Catalytic Dehydration of Bioethanol for a Pine Sawdust Biorefinery.	<u>Mendieta, C.M.</u> ; Santori, G.; Felissia, F. E.; Area, M. C.	Argentina	UNaM Universidad Nacional de Misiones / Universidad Nacional de La Plata	
POSTER	Valorization of sugarcane bagasse as a potential substrate in the production of bioemulsifier by Aureobasidium pullulans LB83.	Rubio-Ribeaux, D.; Mata da Costa, R. A.; Marcelino, P. R. F.; Santos, J. C.; <u>Silva, S.</u>	Brazil	USP Engineering School of Lorena	
POSTER		POSTER			