

ANQUE – ICCE – CIBIQ 2019



Santander, SPAIN
June 19-21, 2019



EFCE Event No.757

ANQUE-ICCE 3
3rd International
Congress of
Chemical
Engineering

"Building bridges in Chemical Engineering"



Santander, ESPAÑA
Junio 19-21, 2019

CIBIQ
1^{er} Congreso
Iberoamericano de
Ingeniería Química



Santander, SPAIN
June 17-18, 2019

ANQUE-ICCE 3
Student
Conference

CIBIQ

1st IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING

FINAL SCIENTIFIC PROGRAM (12/06/2019)

Patrocinadores/ Sponsors:

Oro/Gold



Tu mundo, más eficiente.



TECNICAS REUNIDAS

Plata/Silver



Con el apoyo de /Supported by



EXPOQUIMIA
Encuentro Internacional
de la Química



QUIMICA y SOCIEDAD
WWW.quimicaysociedad.org
Año Internacional de la Tercera Periodica de las Naciones Unidas



Federación Empresarial de la
Industria Química Española



EL SEGURO DE LOS
PROFESIONALES DEL
SECTOR QUÍMICO

Media partners



PROCESOS INDUSTRIALES



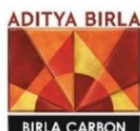
INGENIERÍAS
PROYECTOS ENERGÉTICOS
MEDIO AMBIENTE
SEGURIDAD INDUSTRIAL
INDUSTRIA QUÍMICA



Colaboradores/Collaborators



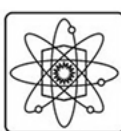
SOLVAY
asking more from chemistry™



Organizado por/Organised by



AQUÍQUÁN
Asociación de Química e
Ingeniería Química
de Cantabria
ANQUE



PROGRAM AT A GLANCE CIBIQ

Tuesday 18th June

Venue: School of Industrial and Telecommunication Engineering. University of Cantabria

17:00-20:00 h

Registration

Wednesday 19th June

Morning venue: School of Industrial and Telecommunication Engineering. University of Cantabria

8:00 h	Registration				
8:30 h	AUDITORIUM. Opening Ceremony				
9:00 h	AUDITORIUM. Plenary Lecture Catalyst-based Emerging Technologies for the Abatement of Water Pollutants Prof. Juan José Rodríguez Jiménez-Universidad Autónoma de Madrid, Spain				
10:00 h	Coffee Break				
10:30 h	Parallel Sessions 1				
	ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07
	IS1.1	IS6.1	IS8.1	IS9.1	IW2.1
12:00 h	Brunch + Poster Session 1 (ICCE: ROOM E4; CIBIQ: ROOM 17)				
13:00 h	Parallel Sessions 2				
	IS1.2	IS6.2	IS8.2	IS9.2	IW2.2
Evening venue: Paraninfo University of Cantabria					
17:00 h	PARANINFO. Round Table Construyendo Puentes de Cooperación en Ciencia y Tecnología en Iberoamérica				
18:00 h	PARANINFO. Plenary Lecture Efectividad del Biopolímero Quitosano Proveniente de Desechos de la Industria Pesquera para el Tratamiento de Aguas Contaminadas. Prof. Noemi Zaritzky-Universidad Nacional de la Plata, Argentina				
19:00 h	Welcome Cocktail				

Thursday 20th June

Morning venue: School of Industrial and Telecommunication Engineering. University of Cantabria

8:30 h	Parallel Sessions 3				
	ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07
	IS3.1	IS4.1	IS8.3	IS9.3	IA6
10:00 h	Coffee Break				
10:30 h	Parallel Sessions 4				
	IS3.2	IS2	IS10	IS9.4	IS5
12:00 h	Brunch + Poster Session 2 (ICCE: ROOM E4; CIBIQ: ROOM 17)				
13:00 h	Parallel Sessions 5				
	IS3.3	IS4.2		IS7.1	IA4
Evening venue: Paraninfo University of Cantabria					
17:00 h	PARANINFO. Round Table Innovation and Future, IYPT/FQ&S				
18:00 h	PARANINFO. Plenary Lecture La Química en CEPESA Mr. Pedro Miró Roig-Vice Chairman and Chief Executive Officer, CEPESA				
21:00 h	Gala Cocktail Dinner (Gran Casino Sardinero)				

Friday 21st June

Morning venue: School of Industrial and Telecommunication Engineering. University of Cantabria

8:30 h	Parallel Sessions 6				
	ROOM 03	ROOM 04	ROOM 05	ROOM 06	AUDITORIUM. Plenary Lecture Education in Chemical Engineering Prof. D. Bogle, EFCE, UK Prof. G. Calleja and R. Ibañez, Spain
	IA7.1	IA2	IA5	IS7.2	
10:00 h	Coffee Break				
10:30 h	Parallel Sessions 7				
	ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07
	IA7.2		IA1	IS7.3	Flash I1
12:00 h	Brunch + Poster Session 3 (ICCE: ROOM E4; CIBIQ: ROOM 17)				
13:00 h	AUDITORIUM. Plenary Lecture Modeling and Computational Challenges in the Optimization of Chemical Process Systems Prof. Ignacio E. Grossmann-Carnegie Mellon University, USA				
14:00 h	Closing Ceremony				

ANQUE – ICCE – CIBIQ 2019



Santander, SPAIN
June 19-21, 2019



EFCE Event No.757

ANQUE-ICCE 3
3rd International
Congress of
Chemical
Engineering

"Building bridges in Chemical Engineering"



Santander, ESPAÑA
Junio 19-21, 2019

CIBIQ
1^{er} Congreso
Iberoamericano de
Ingeniería Química



Santander, SPAIN
June 17-18, 2019

ANQUE-ICCE 3
Student
Conference

CIBIQ ORAL AND FLASH PRESENTATIONS

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ

FINAL SCIENTIFIC PROGRAM



Morning venue: School of Industrial and Telecommunication Engineering. University of Cantabria

08:00h	Registration				
08:30h	AUDITORIUM. Opening Ceremony				
09:00h	AUDITORIUM. Plenary Lecture Catalyst-based Emerging Technologies for the Abatement of Water Pollutants Prof. Juan José Rodríguez Jiménez-Universidad Autónoma de Madrid, Spain				
10:00h	Coffee Break				
10:30-12:00h	Parallel Sessions 1				
	ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07
	IS1.1. Iberoamerican Symposium on Bioenergy and Biorefineries Chair: Ana I. Torres (Uruguay)	IS6.1. Iberoamerican Symposium on Supercritical and Other High-pressure Processes Chair: Lourdes Calvo (Spain)	IS8.1. Iberoamerican Symposium on Materials by Design: From the Nano-scale to Engineered Materials Chairs:L.Vega-EAU;D.Mainardi-USA	IS9.1. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Darío Cortés (Spain)	IW2.1. Sustainable Production and Industrial Symbiosis Chair: Ángeles Blanco (Spain)
	IS1.KN.923510 Biorrefinerías basadas en la biomasa del olivar. Materias primas, procesos y productos. <u>E. Castro</u> . Universidad de Jaén	IS6.KN.347683 Grashof numbers and mixing expansivities in supercritical-fluid applications based on the Peng-Robinson EoS. <u>L.A. Estévez</u> . University of Puerto Rico	IS8.KN.828240 Ce-La-xCu catalysts: Cost efficient catalysts for hydrogen production via the glycerol steam reforming reaction <u>K. Polychronopoulou</u> . Khalifa University	IS9.KN.197004 Implementación de políticas públicas del hidrógeno en México. <u>R. González</u> . Instituto Politécnico Nacional	IW2.KN.765352 Sustainable production and industrial symbiosis in Madrid community RETO-PROSOST-CM (S2013/MAE-2907) y (P2018/EMT4459). <u>A. Blanco Suárez</u> . Universidad Complutense de Madrid
	IS1.O.406435 Sinergia diseño de proceso-experimentación en tecnologías BtL: Conversión de residuos en hidrocarburos vía gasificación y síntesis de Fischer-Tropsch. <u>N. Estefan</u> . Facultad de Ingeniería	IS6.O.798675 Supercritical extraction of essential oil from ecuadorian ishpingo (ocotea quixos): Operating conditions and biological activity. <u>M.B. Iñiguez Sarango</u> . Escuela Politécnica Nacional	IS8.O.534480 Nanomaterials for sulfur cathodes. <u>P. Balbuena</u> . Texas A&M University	IS9.O.985469 ¿Hidrógeno o Baterías? Una visión general hacia el almacenamiento de energía renovable marina. <u>J. Olmedo-González</u> . Instituto Politécnico Nacional	IW2.KN.214307 Biocatalysts with glycosidase activity for its application in valorization of residues in sustainable processes. <u>A. Prieto</u> . Centro de Investigaciones Biológicas-CSIC
	IS1.O.361351 Digestión anaeróbica de aguas residuales rojas del proceso de beneficio bovino. <u>A.K. Archila Menco</u> . Universidad Industrial de Santander	IS6.O.770516 A simple EOS model for the solubility of thermolabile solids in supercritical fluids. <u>F. Colpas Castillo</u> . Universidad de Cartagena	IS8.O.681053 Catalysis by Design: Predicting materials with Fischer-Tropsch catalytic activity. <u>D. Mainardi</u> . Louisiana Tech University	IS9.O.231135 H2PORTS Desarrollo de hidrogena en el puerto marítimo de Valencia. <u>B. Nieto-Calderón</u> . Centro Nacional del Hidrógeno	IW2.KN.344120 Potential of pyrolysis for waste management in a circular economy integrated approach. <u>J.M. Sánchez Hervás</u> . CIEMAT

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



	Parallel Sessions 1 (CONT.)				
	ROOM 03 (Cont.)	ROOM 04 (Cont.)	ROOM 05 (Cont.)	ROOM 06 (Cont.)	ROOM 07 (Cont.)
	IS1.1. Iberoamerican Symposium on Bioenergy and Biorefineries Chair: Ana I. Torres (Uruguay)	IS6.1. Iberoamerican Symposium on Supercritical and Other High-pressure Processes Chair: Lourdes Calvo (Spain)	IS8.1. Iberoamerican Symposium on Materials by Design: From the Nano-scale to Engineered Materials Chairs:L.Vega-EAU; D.Mainardi-USA	IS9.1. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Darío Cortés (Spain)	IW2.1. Sustainable Production and Industrial Symbiosis Chair: Ángeles Blanco (Spain)
	IS1.O.763086 Techno-economic analysis comparison of anaerobic-based biorefineries. <u>J.R. Bastidas-Oyanedel</u> , University of Southern Denmark	IS6.O.341693 Extracción supercrítica de compuestos bioactivos a partir de matrices vegetales y su encapsulación con técnicas avanzadas supercríticas. <u>D.F. Tirado</u> , Universidad Complutense de Madrid	IS8.O.240741 Removal of Cu (II) Ions using LTA zeolite with different stages of crystallization. <u>J.G.P. Vicente</u> , University Center Facens	IS9.O.411108 Planning the penetration of hydrogen vehicles in Spain: Potential greenhouse gas emission savings. <u>Z. Navas-Anguita</u> , IMDEA Energy	
	IS1.O.414060 Pirólisis catalítica de neumáticos sobre Me/SiO ₂ : Efecto de la temperatura y la naturaleza de la fase activa en la formación de d,l-Limoneno. <u>T. Menares</u> , Universidad del Bío-Bío			IS9.O.628107 Harmonisedlife-cycle indicators of non-renewable hydrogen. <u>J. Dufour</u> , IMDEA Energy	
12:00h	Brunch + Poster Session				
	Parallel Sessions 2				
	ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07
	IS1.2. Iberoamerican Symposium on Bioenergy and Biorefineries Chair: Ana I. Torres (Uruguay)	IS6.2. Iberoamerican Symposium on Supercritical and Other High-pressure Processes Chair: Antonio Estévez (Puerto Rico)	IS8.2. Iberoamerican Symposium on Materials by Design: From the Nano-scale to Engineered Materials Chair: Daniela Mainardi (USA)	IS9.2. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Rosa G. González (México)	IW2.2. Sustainable Production and Industrial Symbiosis Chair: José M. Sánchez (Spain)
13:00h	IS1.KN.223685 Waterfinery: Green conversion of biomass to biopolymers and biomolecules using water-based solvents. <u>P. Fardim</u> , KU LEuven	IS6.KN.185356 Materiales estériles mediante CO ₂ supercrítico. <u>L. Calvo</u> , Universidad Complutense de Madrid	IS8.KN.514481 Ab Initio study of the interface of the solid-state electrolyte with a li-metal electrode for a design based on nanobatteries. <u>J. Seminario</u> , Texas A&M University	IS9.KN.725701 Fuel Cells & Hydrogen Research in Europe <u>J. Dufour</u> , Instituto IMDEA Energía / Universidad Rey Juan Carlos	IW2.O.173427 Reaction of formaldehyde with nitric acid to treat industrial wastewater. <u>N. Merayo</u> , Universidad Politécnica de Madrid
	IS1.O.970030 Estimación directa de la dimensión fractal de flóculos de microalgas por reflexión de haz enfocado y aprendizaje automático. <u>P. López Expósito</u> , Complutense University of Madrid	IS6.O.668232 CO ₂ reduction to formic acid using biomass and biomass derivatives in hydrothermal media. <u>D. Bermejo</u> , Universidad de Valladolid	IS8.O.703631 Silk fibroin nanoparticles as a platform for controlled drugs release. <u>G. Carissimi</u> , University of Murcia	IS9.O.947011 Diseño de un modelo de negocios para la comercialización de reactores oxhidrógeno-oxhidrog®. <u>Rosa G. González</u> , Instituto Politécnico Nacional, Sepi Esime Azcapotzalco	IW2.O.586328 In situ production of bacterial cellulose with recycled fibers <u>C. Campano Tiedra</u> , Complutense University of Madrid

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



Parallel Sessions 2 (CONT.)					
ROOM 03 (Cont.)		ROOM 04 (Cont.)		ROOM 05 (Cont.)	
IS1.2. Iberoamerican Symposium on Bioenergy and Biorefineries Chair: Ana I. Torres (Uruguay)		IS6.2. Iberoamerican Symposium on Supercritical and Other High-pressure Processes Chair: Antonio Estévez (Puerto Rico)		IS8.2. Iberoamerican Symposium on Materials by Design: From the Nano-scale to Engineered Materials Chair: Daniela Mainardi (USA)	
IS1.O.621190 Pretratamiento hidrotérmico de la paja de arroz para su uso en la producción de biobutanol. <u>M. García-Puchol</u> . Universitat de València		IS6.O.123039 Ultrasound supercritical extraction as an innovative method to remediate soils. <u>P.A. Augusto</u> . University of Salamanca.		IS8.O.965625 Evaluation of the solubility of expanded polystyrene, using D-Limonene as green solvent. <u>J. Leon</u> . Universidad EAN	
IS1.O.192025 Bioconversión de biomasa residual de ñame en azúcares reductores mediante pretratamiento organosolv catalizado con H ₂ SO ₄ y nanopartículas de TiO ₂ -Fe ₃ O ₄ <u>K. Ojeda</u> . Universidad de Cartagena		IS6.O.155411 A comparison of ammonia-CO ₂ absorption derivatives as starting materials for the catalytic production of formic acid in hydrothermal media. <u>J.I. del Rio Blandón</u> . Universidad de Valladolid.		IS8.O.382476 Interaction of peptides with 2D materials, potential application to 3D printing. <u>P. Derosa</u> . Louisiana Tech University.	
				IS8.O.726333 Fluorinated ionic liquids: Novel materials by design. <u>A.B. Pereiro</u> . Faculdade de Ciências e Tecnologia, FCT/UNL.	
				IS9.O.895255 Análisis de ciclo de vida de un caso real de producción aislada de hidrógeno verde: Proyecto ELY4OFF. <u>D. Cortés</u> . Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón	
				IS9.O.477652 Enhanced water sorption of the methanation reaction. <u>C. Dhondt</u> . UPV/EHU.	
				IS9.F.562282 Inyección de hidrógeno renovable en la red de gas natural. <u>C. Arié</u> . Fundación para el Desarrollo de las Nuevas Tecnologías del Hidrógeno en Aragón	
				IW2.O.844305 A green and sustainable approach to the use of waste streams as cost-effective raw materials: biotransformations catalyzed by fungal lipases. <u>M. Molina Gutiérrez</u> . Centro de Investigaciones Biológicas-CSIC	
				IW2.O.437284 Reuse of paper sludge in building materials under the goals of circular economy. <u>R. Miranda</u> . Universidad Complutense de Madrid.	
				IW2.O.973119 Valorization of secondary raw materials through thermochemical transformation within the framework of the RETOPROSOST-2-CM Program. <u>J.M. Sánchez Hervás</u> . CIEMAT	

13:00h

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



Parallel Sessions 2 (CONT.)					
	ROOM 03 (Cont.)	ROOM 04 (Cont.)	ROOM 05 (Cont.)	ROOM 06 (Cont.)	ROOM 07 (Cont.)
	IS1.2. Iberoamerican Symposium on Bioenergy and Biorefineries Chair: Ana I. Torres (Uruguay)	IS6.2. Iberoamerican Symposium on Supercritical and Other High-pressure Processes Chair: Antonio Estévez (Puerto Rico)	IS8.2. Iberoamerican Symposium on Materials by Design: From the Nano-scale to Engineered Materials Chair: Daniela Mainardi (USA)	IS9.2. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Rosa G. González (México)	IW2.2. Sustainable Production and Industrial Symbiosis Chair: José M. Sánchez (Spain)
13:00h				IS9.F.751147 Influencia del gas oxidante en el funcionamiento de una monocelda PEM con carga ultra-baja de platino. <u>L. González-Rodríguez</u> . Centro Nacional del Hidrógeno	IW2.O.750378 Improving the circularity of paper products by means of cellulose nanofibers addition. <u>M. Delgado-Aguilar</u> . University of Girona
				IS9.F.565007 Diseño, manufactura y caracterización de un quemador de gas oxihidrógeno. <u>R. Moreno-Soriano</u> . Instituto Politécnico Nacional	

Evening venue: Paraninfo University of Cantabria

17:00h	PARANINFO. Round Table Construyendo Puentes de Cooperación en Ciencia y Tecnología en Iberoamérica Moderator: Angeles Blanco, UCM, Spain Panel: José Luis García, CYTED, Coordinador Promoción del Desarrollo Industrial, Spain Manuel Falcón, Iberoeka, Centro para el Desarrollo Tecnológico Industrial, Spain Baltazar Nicolas Caceres Huambo, Rector Univ Nacional de San Antonio Abad del Cusco, Perú José M^a Zabala, Presidente y Fundador de Zabala Innovation Consulting, Spain Fabio López, Presidente ACIQ y DG Conagram, Colombia
18:00h	PARANINFO. Plenary Lecture Efectividad del Biopolímero Quitosano Proveniente de Desechos de la Industria Pesquera para el Tratamiento de Aguas Contaminadas Prof. Noemi Zaritzky-Universidad Nacional de la Plata, Argentina
19:00h	Welcome Cocktail

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



Morning venue: School of Industrial and Telecommunication Engineering. University of Cantabria

Parallel Sessions 3					
ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07	
IS3.1. Iberoamerican Symposium on Ionic Liquids Chair: Ana Soto (Spain)	IS4.1. Iberoamerican Symposium on Waste Valorization of Agri-food industry Chair: Carmen Cartagena (Spain)	IS8.3. Iberoamerican Symposium on Materials by Design: From the Nano-scale to Engineered Materials Chair: Lourdes Vega (EAU)	IS9.3. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Javier Dufour (Spain)	IA6. Applied Biotechnology Chair: Graça Rasteiro (Portugal)	
IS3.KN.691623 Evaluation of ionic liquid solvent performance at process scale: Surprises and contributions of process simulation to fundamental research. <u>J. Palomar</u> . Universidad Autónoma de Madrid	IS4.O.470051 Pellets cerámicos funcionalizados con quitosano reticulado para la adsorción de colorantes azoicos. <u>N.E. Zaritky</u> . Centro de Investigación y Desarrollo en Criotecología de Alimentos	IS8.O.127585 New materials from computational simulations. <u>P. Gamallo Belmonte</u> . Universitat de Barcelona	IS9.KN.714431 Synthetic natural gas production: polytropic reactor performance. <u>J.A. Peña</u> . Universidad de Zaragoza	IA6.KN.730463 Diseño y evaluación de fotobiorreactores con elementos biomiméticos para la producción de biomasa y metabolitos de <i>Scenedesmus obliquus</i> . <u>Y. Piñeros Castro</u> . Universidad de Bogotá Jorge Tadeo Lozano	
IS3.O.888286 Aromatic separation from commercial grade aliphatic streams using ionic liquids in liquid-liquid membrane contactors. <u>D. Barros</u> . Universidade de Aveiro	IS4.O.117534 Producción de bioetanol a partir de residuos de la industria de la piña y el banano, utilizando tratamiento enzimático y fermentación. <u>A. Hernández-Peñaranda</u> . Universidad de Costa Rica	IS8.O.360498 Hierarchical porous carbon-zeolite composites materials for the adsorption of contaminants of emerging concern from water. <u>B. Fernández-Reyes</u> . University of Puerto Rico Mayaguez Campus	IS9.O.237422 Reduction of premature aging for Fuel Cell – Battery systems by implementing an advanced Hybrid Control System based on double PID, Neural Network load predicting algorithm and automatically sizing of the battery system <u>V. Ortisi</u> . University of Highlands and Islands/Pure Energy Centre	IA6.KN.337348 Improved recycled paper properties by cellulose nanofibers. <u>A. Balea</u> . Complutense University of Madrid	
IS3.O.104228 Permeation of CO ₂ /CH ₄ mixture through membranes of PVA + ethanolamine based ionic liquids. <u>S. Mattedi</u> . Federal University of Bahia.	IS4.O.588419 Estudio sinérgico de la codigestión de mezclas de aguas residuales y estiércol provenientes de una planta de beneficio bovino. <u>Z. Sánchez Castro</u> . Universidad Industrial de Santander	IS8.O.952347 Interactions of nanocelluloses with cement suspensions. <u>E. de la Fuente González</u> . Universidad Complutense de Madrid	IS9.O.100146 Estudio de la influencia del contenido Nafion/C en el funcionamiento electroquímico de monoceldas PEM con carga ultrabaja de platino. <u>L. González-Rodríguez</u> . Centro Nacional del Hidrógeno.	IA6.O.716338 Modelación y simulación de un proceso continuo de carbonización hidrotérmica y gasificación de biomasa lignocelulósicas. <u>J. Gómez</u> . University of Santiago-Chile	

08:30-10:00h

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



Parallel Sessions 3 (CONT.)				
ROOM 03 (Cont.)	ROOM 04 (Cont.)	ROOM 05 (Cont.)	ROOM 06 (Cont.)	ROOM 07 (Cont.)
IS3.1. Iberoamerican Symposium on Ionic Liquids Chair: Ana Soto (Spain)	IS4.1. Iberoamerican Symposium on Waste Valorization of Agri-food industry Chair: Carmen Cartagena (Spain)	IS8.3. Iberoamerican Symposium on Materials by Design: From the Nano-scale to Engineered Materials Chair: Lourdes Vega (EAU)	IS9.3. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Javier Dufour (Spain)	IA6. Applied Biotechnology Chair: Graça Rasteiro (Portugal)
IS3.O.975103 Ionic liquids as greener solvents for CO ₂ capture? <u>P.J. Carvalho</u> . CICECO - Aveiro Institute of Materials, University of Aveiro	IS4.O.947395 Determinación de las relaciones de equilibrio para la extracción de compuestos fenólicos del orujo de uva tannat usando mezclas etanol-agua. <u>R. de Mattos</u> . Universidad de la República	IS8.O.263174 CO ₂ capture on activated carbons: From experiments to simulations. <u>D. Bahamon Garcia</u> . Khalifa University	IS9.O.267003 Electrocatalizadores de Au@Pd/C para la reacción de reducción de oxígeno en celdas de combustible tipo PEM. <u>E.Y. Cervantes-Aspeitia</u> . Instituto Politécnico Nacional	
IS3.O.667519 SILP performance in fixed bed for CO ₂ capture: Highlighting the role of the particle size. <u>R. Santiago</u> . Universidad Autónoma de Madrid		IS8.KN.460173 Molecular simulations as a tool to design carbon-based materials for sustainable processes. <u>L. Vega</u> . Khalifa University of Science and Technology	IS9.O.564647 Graphene oxide as support for methane production from renewables. <u>T. Claes</u> . Escuela de Ingeniería de Bilbao	

10:00h

Coffee Break

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ

FINAL SCIENTIFIC PROGRAM



Parallel Sessions 4					
ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07	
IS3.2. Iberoamerican Symposium on Ionic Liquids Chair: Silvana Mattedi (Brazil)	IS2. Iberoamerican Symposium on Chemical Engineering and Mining: Innovation and Sustainability Chair: Víctor Ramírez (Perú)	IS10. Iberoamerican symposium CFD in Chemical Engineering Chair: Roberto Nunhez (Brazil)	IS9.4. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Leandro González (Spain)	IS5. Iberoamerican Symposium on Materials and Processes for the Energy of the Future Chair: Jaqueline Saavedra (Colombia)	
IS3.KN.555437 Aqueous biphasic systems as integrative platforms for the downstream processing of complex biomolecules: green fluorescent protein as a case of study. <u>J.F. Brandão Pereira</u> . School of Pharmaceutical Sciences / São Paulo State University (UNESP)	IS2.O.263337 Obtención de concentrados de tierras raras ETR a partir de un mineral de Davidita: Aspectos operacionales y ambientales. <u>F. Cubillos</u> . Universidad de Santiago de Chile	IS10.O.246535 Utilização da fluidodinâmica computacional para avaliar a influência dos parâmetros geométricos do hidrociclone na recuperação primária de hidratos de CO₂ e CH₄ produzidos em um reator NETmix®. <u>M. Pereira Caixeta</u> . Universidade Estadual de Campinas - UNICAMP	IS9.KN.101742 Nanofibered alumina promoted with Ni and Ce as efficient catalyst for dry reforming of biogas. <u>A. Chica</u> . Universitat Politècnica de València	IS5.O.170461 Neumáticos fuera de uso como precursor de electrodos para supercondensadores. <u>S.N. Herrera</u> . Universidad Pontificia Bolivariana	
IS3.O.844639 Functionalized ionic liquids and deep eutectic solvents: enhancing the bioavailability of ibuprofen. <u>J.C. Bastos</u> . LAQV-REQUIMTE, FCT-UNL	IS2.O.503405 Study of bicontinuous microemulsions electrochemistry behavior by cyclic voltammetry. <u>D. Jaimes</u> . Universidad Industrial de Santander	IS10.O.708187 Improved simulation of radiation transport with discrete ordinate method of photoreactors based on sunlight and LEDs sources. <u>J. Moreno</u> . Rey Juan Carlos University	IS9.O.181281 Development of Fe/Ce oxide reticulated porous ceramic foams for H₂ production by thermochemical water splitting inside the cavity of solar reactors. <u>M. Linares</u> . Universidad Rey Juan Carlos	IS5.O.759459 Efecto de las condiciones de tratamiento térmico sobre las propiedades físicas, morfológicas y electroquímicas de óxidos de grafeno. <u>S.N. Herrera</u> . Universidad Pontificia Bolivariana	
IS3.O.589387 Ionic liquids removal by sequential photocatalytic and biological oxidation. <u>E. Gomez-Herrero</u> . Universidad Autónoma de Madrid	IS2.O.853171 Uso de agua de mar y energía solar en procesos de lixiviación y cristalización para contribuir a una pequeña minería sustentable en Chile. <u>M.E. Taboada</u> . Universidad de Antofagasta	IS10.O.619425 The 3D modeling of gas clathrate hydrate formation with process intensification. <u>A. Ferreira de Mattos Silveiras</u> . São Paulo University	IS9.O.151350 Evaluation of La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_{3-δ} perovskite macroporous foams for H₂ production by solar driven thermochemical water splitting. <u>M. Linares</u> . Universidad Rey Juan Carlos	IS5.O.985152 Advanced novel copper MOF for CO₂ conversion. <u>J. Tapiador Cebrián</u> . Rey Juan Carlos University	
IS3.O.851234 Functional DNA in ionic liquids for bioseparation and biosensing. <u>B. Olave</u> . POLYMAT, University of the Basque Country	IS2.O.956040 Magnetic classification in chemical engineering. <u>P.A. Augusto</u> . University of Salamanca	IS10.O.965499 Comparing the force due to the Lennard-Jones potential and the coulomb force during the study of the lid-driven cavity. <u>D. Barbosa</u> . Instituto Federal de Educação da Bahia – Ilhéus, Bahia	IS9.O.687280 Synthetic natural gas production (P2G): Comparison of catalysts and alternative reactor configurations. <u>A. Sanz-Martínez</u> . University of Zaragoza		

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



Parallel Sessions 4 (CONT.)				
ROOM 03 (Cont.)	ROOM 04 (Cont.)	ROOM 05 (Cont.)	ROOM 06 (Cont.)	ROOM 07 (Cont.)
IS3.2. Iberoamerican Symposium on Ionic Liquids Chair: Silvana Mattedi (Brazil)	IS2. Iberoamerican Symposium on Chemical Engineering and Mining: Innovation and Sustainability Chair: Víctor Ramírez (Perú)	IS10. Iberoamerican symposium CFD in Chemical Engineering Chair: Roberto Nunhez (Brazil)	IS9.4. Iberoamerican Symposium on Hydrogen: Building the zero emissions society Chair: Leandro González (Spain)	IS5. Iberoamerican Symposium on Materials and Processes for the Energy of the Future Chair: Jaqueline Saavedra (Colombia)
IS3.O.886111 Extraction of hormones using aqueous two-phase system based on double protic ionic liquid + acetonitrile. <u>A. Silva Lima</u> . Tiradentes University	IS2.O.236170 Cristalización de carbonato de litio en presencia de sales sulfatadas. <u>T. Graber</u> . Universidad de Antofagasta	IS10.F.558046 Evaluation of the supersonic separation process in the removal of heavy hydrocarbons of colombian natural gas using Computational Fluid Dynamics. <u>S.A. Pérez Fuentes</u> . Universidad Industrial de Santander	IS9.O.532005 Effect of epitaxial growth of bimetallic nanocrystals on the activity of electrocatalysts in the oxygen reduction reaction. <u>F.F. Tello-Casas</u> . Instituto Politécnico Nacional ESQIE	
	IS2.O.551478 Estudio del desarrollo profesional de la ingeniería química en Colombia en el período 2015-2017. <u>J. León Pulido</u> . Consejo Profesional de Ingeniería Química	IS10.F.836473 Otimização de um biofiltro de leito fluidizado para a aquicultura via CFD. <u>M.K.S. Sant Anna</u> . Universidade Federal do Maranhão		

12:00h

Brunch + Poster Session

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ

FINAL SCIENTIFIC PROGRAM



Parallel Sessions 5					
ROOM 03		ROOM 04		ROOM 05	
ROOM 06		ROOM 07			
IS3.3. Iberoamerican Symposium on Ionic Liquids Chair: Pedro Carvalho (Portugal)		IS4.2. Iberoamerican Symposium on Waste Valorization of Agri-food industry Chair: Carmen Lobo (Spain)		IS7.1. Iberoamerican Symposium on Advanced Oxidation Processes for environmental applications Chair: Carolina Belver (Spain)	
IS3.O.250679 Alternative aqueous biphasic systems for biomolecule purification: Variations in quaternary ammonium molten salts. <u>S.F. Carvalho</u> . Universidade Nova de Lisboa		IS4.O.547590 Xylooligosaccharides (XOs) obtained from coffee parchment: thermochemical extraction and enzymatic hydrolysis. <u>D. Nabarlatz</u> . Universidad Industrial de Santander		IS7.O.974492 Cutting-oil/water emulsions treatment by microwave-assisted catalytic wet peroxide oxidation. <u>J.A. Casas de Pedro</u> . Universidad Autónoma de Madrid	
IS3.O.527520 Cancholium chloride form eutectic solvents with organic chloride-based salts? <u>D. Abranches</u> . CICECO – Aveiro Institute of Materials, University of Aveiro		IS4.O.601325 Anaerobic Digestion of slaughterhouse green wastewater in plastic tubular reactor. <u>I.R. Gomez Osorio</u> . Universidad Industrial de Santander		IS7.O.304487 Photodegradation of acetaminophen using doped-based Bi ₂ O ₃ with gadolinium and cerium. <u>D. de la Cruz Romero</u> . Universidad Juárez Autónoma de Tabasco	
IS3.O.317649 Modelling of phosphonium-based ILs for gas separation from the combination of the soft-SAFT equation of state and COSMO-RS techniques. <u>J. Llorell</u> . IQS School of Engineering. Universitat Ramon Llull		IS4.O.748211 Aplicación de nanocelulosa a partir de paja de trigo para packaging alimentario. <u>E. Espinosa</u> . Universidad de Córdoba		IS7.O.331410 Different photocatalytic (UV-Vis) dopants in a new generation of NF-MFC in antifouling membranes. <u>R. Bahamonde</u> . Université Catholique de Louvain	
IS3.O.517536 Effective CO ₂ valorization to carbonates using ionic liquids with aprotic heterocyclic anions. <u>V. Sabater Sánchez</u> . Universidad Autónoma de Madrid		IS4.F.996551 Bioprospección de microalgas de interés biotecnológico en un complejo ambiental. Selección de cepas oleaginosas con potencial aplicación en la síntesis de biodiesel. <u>A. Beccaria</u> . Universidad Nacional del Litoral		IS7.O.869327 Photocatalytic degradation of p-cresol using TiO ₂ -based nanomaterials with Light Emitting Diodes illumination. <u>C.J. Escudero Santiago</u> . Universidad Autónoma de Guadalajara	
				IA4.O.251518 Proyecto SILIFE: Desarrollo de metodologías para la reducción de la toxicidad asociada a la sílice cristalina respirable. <u>E. Monfort Gimeno</u> . Instituto de Tecnología Cerámica - Universitat Jaume I	
				IA4.O.254483 Influencia de las curvas de producción de petróleo en el sobredimensionamiento de instalaciones tempranas. <u>J. Vargas</u> . Universidad Nacional de Colombia	
				IA4.O.778442 Optimización del proceso de producción de ácido acrílico. <u>J. Thibault</u> . University of Ottawa	
				IA4.O.156192 Modelado cinético y fluidodinámico de los procesos CWPO con catalizadores monolíticos Fe/SiC fabricados mediante impresión 3D. <u>A. Quintanilla</u> . Universidad Autónoma de Madrid	

13:00h

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



Parallel Sessions 5 (CONT.)					
ROOM 03 (Cont.)		ROOM 04 (Cont.)		ROOM 05 (Cont.)	
IS3.3. Iberoamerican Symposium on Ionic Liquids Chair: Pedro Carvalho (Portugal)		IS4.2. Iberoamerican Symposium on Waste Valorization of Agri-food industry Chair: Carmen Lobo (Spain)		IS7.1. Iberoamerican Symposium on Advanced Oxidation Processes for environmental applications Chair: Carolina Belver (Spain)	
IS3.O.236530 CO ₂ solubility on ionic liquid + tetraglyme mixtures. <u>J. Lemus</u> . Universidad Autónoma de Madrid		IS4.F.237105 Desarrollo de una tecnología de producción de ácido docosahexaenoico. <u>A. Beccaria</u> . Universidad Nacional del Litoral		IS7.O.598289 Improved degradation of carbon tetrachloride by alkaline activation of persulfate using methanol. <u>A. Santos</u> . Universidad Complutense de Madrid	
IS3.F.460102 Amino-acid-based ionic liquids for CO ₂ capture and its application on gas-liquid membrane contactor separation unit. <u>L. Silva</u> . University of Aveiro				IS7.F.433068 Effective Radiation Field Model (ERFM) for quantification of OVRPA in heterogeneous photocatalytic solar reactors. <u>M.A. Mueses</u> . Universidad de Cartagena	
IS3.F.504015 An integrated platform using protic ionic liquids for the extraction and recovery of intracellular carotenoids from yeast <i>Rhodotorula glutinis</i> . <u>J.F. Brandão Pereira</u> . São Paulo State University (UNESP)				IS7.F.124048 Efecto del reactivo Fenton combinado con luz UV y ondas de ultrasonidos en la oxidación de cafeína. <u>C. Ferreira</u> . University of the Basque Country UPV/EHU	
IS3.F.681560 An overview process analysis of the aromatic-aliphatic separation by liquid-liquid extraction with ionic liquids. <u>P. Navarro</u> . Autónoma University of Madrid				IS7.F.486290 Kinetics of dichloromethane degradation with alkali activated persulfate. <u>A. Santos</u> . Universidad Complutense de Madrid	

13:00h

THURSDAY 20th JUNE

**1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM**



Evening venue: Paraninfo University of Cantabria

17:00h	PARANINFO. Round Table Innovation and Future, IYPT/FQ & S Moderator: Angela López, FQ&S Panel: Juan Labat, Chief Executive Feique, Spain Jon Prichard, Chief Executive, IChemE, UK Ignacio Grossman, Canegie Mellon Univ, USA Juan Carlos Ruiz Dorado, Ex Executive Director Repsol Química, Spain
18:00h	PARANINFO. Plenary Lecture La Química en CEPESA Mr. Pedro Miró Roig-Vice Chairman and Chief Executive Officer, CEPESA
21:00h	Gala Cocktail-Dinner (Gran Casino Sardinero)

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ

FINAL SCIENTIFIC PROGRAM



Morning venue: School of Industrial and Telecommunication Engineering. University of Cantabria

Parallel Sessions 6					
ROOM 03	ROOM 04	ROOM 05	ROOM 06	AUDITORIUM	
IA7.1. Environmental & Sustainable Chemical Engineering Chair: Casta Ceceña (Guatemala)	IA2. Unit Operations & Separation Processes Chair: Jeffrey Leon Pulido (Colombia)	IA5. Product Engineering & Advanced Materials Chair: Patricio López (Spain)	IS7.2. Iberoamerican Symposium on Advanced Oxidation Processes for Environmental Applications Chair: M. Ángel Mueses (Colombia)	Plenary Lecture. Education in Chemical Engineering Prof. David Bogle (UCL), EFCE Scientific Vice President, UK Prof. Guillermo Calleja (URJC) and Prof. Raquel Ibañez (UC), Spain	
IA7.KN.803426 Ozone treatment applied to industrial wastewaters: From the lab to the industry. <u>N. Merayo</u> . Universidad Politécnica de Madrid	IA2.KN.535057 Simulación numérica y validación experimental de problemas de transferencia de energía en ingeniería de alimentos. <u>N.E. Zaritzky</u> . Centro de Investigación y Desarrollo en Criotecnología de Alimentos (CIDCA -CONICET- UNLP)	IA5.KN.605436 Preparation of PES ultrafiltration membranes modified with polysaccharides. <u>J.M. Arsuaga</u> . Universidad Rey Juan Carlos	IS7.O.206200 Critical role of the light spectrum on the simulation of solar photocatalytic reactors. <u>C. Casado Merino</u> . Universidad Rey Juan Carlos		
IA7.O.109093 Modification of wood wastes for textile industry effluent treatment. <u>M.G. Rasteiro</u> . University of Coimbra	IA2.O.151420 Estudio del fenómeno de los dos tiempos de transición para mezclas de Cu(II) y Ni(II) a través de membranas de intercambio catiónico. <u>E.R. Cirilo Mel</u> . Universidad Nacional de Ingeniería	IA5.KN.405606 Escalado de la producción de nanomateriales para su uso como electrodos en supercondensadores. <u>M. Seara-Martínez</u> . Gnanomat	IS7.O.643112 Degradación de almidón mediante fotocatalisis heterogénea con nitrato de carbono grafítico puro y en compuesto, para su aplicación en aguas sintéticas del rallado de yuca (Manihot esculenta Crantz). <u>K. Terán Benalcázar</u> . Escuela Politécnica Nacional		
IA7.O.607160 Efecto combinado de fármacos sobre la biomasa de reactores anaerobios. <u>A.K. Boltes Espinola</u> . University of Alcala.	IA2.O.989072 Cinética de secado de gotas individuales de mieles de caña panelera. <u>V.D. Benalcázar Realpe</u> . Universidad Nacional de Colombia	IA5.O.991343 Yute fibers as semi-reinforcement filler in natural rubber composite footwear soles. <u>G. Barrera</u> . Instituto Tecnológico Metropolitano - ITM	IS7.O.936087 Optimization by response surface methodology, kinetics, mechanism of naproxen removal using magnetite/multi-walled. <u>Y. Huacalco Aguilar</u> . Complutense University of Madrid		
IA7.O.597593 Centros experimentales: lugares de encuentro para la investigación, divulgación, formación y validación en tratamiento de aguas residuales. <u>C.A. Aragón Cruz</u> . Fundación CENTA.	IA2.O.825710 Preparation of loaded trans-Resveratrol highly concentrated double emulsions. <u>M. Matos</u> . University of Oviedo	IA5.O.422341 Efecto de la incorporación de aditivos funcionales sobre las propiedades de mezclas de empaques laminados y polipropileno. <u>R. Tabares</u> . Servicio Nacional de Aprendizaje - SENA	IS7.O.218077 Carbon-Heterostructures for emerging contaminants photodegradation under solar light. <u>M. Peñas-Garzón</u> . Universidad Autónoma de Madrid		

Page 13 | 21

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ

FINAL SCIENTIFIC PROGRAM



Parallel Sessions 7				
ROOM 03	ROOM 04	ROOM 05	ROOM 06	ROOM 07
IA7.2. Environmental & Sustainable Chemical Engineering Chair: Antonio Rodríguez (México)		IA1. Knowledge, Education & Training Chair: Ana Balea (Spain)	IS7.3. Iberoamerican Symposium on Advanced Oxidation Processes for environmental applications Chair: Daphne Hermosilla (Spain)	Flash I1
IA7.O.878065 La cachaza, un residuo agroindustrial del sector panelero: sustrato de rápida biodegradabilidad y alto potencial energético. O. Mendieta. Universidad Industrial de Santander		IA1.KN.830094 A virtual platform for chemical engineering education. M.G. Rasteiro. University of Coimbra	IS7.O.995069 Treatment of the washing water of printing rollers from local lithographic industry using a novel prototype Offset-Multi Tubular Solar Photoreactor (OMTP). M.A. Mueses. Universidad de Cartagena	
IA7.O.914648 Waste materials utilization for calcium-Looping CO ₂ capture for the production of eco-cements. M.F. Ribein. Instituto Superior Técnico da Universidade de Lisboa.		IA1.O.277456 Puesta en marcha de la sección de estudiantes de la ISA-International Society of Automation, en la Escuela Técnica Superior de Ingeniería y Diseño Industrial de la Universidad Politécnica de Madrid. E. Atanes Sánchez. Universidad Politécnica de Madrid	IS7.O.357075 Modelling of municipal wastewater treatment by ozone-based processes for water reuse. C. Sans Mazón. University of Barcelona	
IA7.O.646496 Eliminación de ácido peracético para la regeneración de efluentes industriales. B. Garrido Arias. UCM, UPM, Grupo Técnico Calcat S.L.		IA1.O.539277 Las prácticas de laboratorio como estrategia didáctica para mejorar la destreza en inglés de los alumnos de ingeniería química (AICLE). M.M. Mesa Díaz. Universidad de Cádiz	IS7.O.977049 Análisis de la eficiencia y rutas de degradación a través de un modelo trifásico de ozonización TiO ₂ /GAC para la eliminación de anilina de aguas residuales. C. Ferreiro. University of the Basque Country UPV/EHU	
IA7.O.865731 Comparison of the adsorption of Cadmium and lead present industrial wastewater through filtration with different activated carbon. F.C. Castillo. Univesidad de Cartagena		IA1.O.322265 Retos y experiencias de la enseñanza de simulación y optimización de procesos en el grado de ingeniería química en la Universidad de Sevilla. A. Villanueva Perales. University of Seville	IS7.O.797353 Degradación de la carga contaminante presente en aguas residuales producidas por el rallado de yuca (Manihot esculenta crantz) mediante UV/H ₂ O ₂ previa clarificación. B. Vargas. Escuela Politécnica Nacional	

1ST IBERO-AMERICAN CONGRESS OF CHEMICAL ENGINEERING- CIBIQ
FINAL SCIENTIFIC PROGRAM



Parallel Sessions 7 (CONT.)					
	ROOM 03 (Cont.)	ROOM 04 (Cont.)	ROOM 05 (Cont.)	ROOM 06 (Cont.)	ROOM 07 (Cont.)
10:30-12:00h	IA7.2. Environmental & Sustainable Chemical Engineering Chair: Antonio Rodríguez (México)		IA1. Knowledge, Education & Training Chair: Ana Balea (Spain)	IS7.3. Iberoamerican Symposium on Advanced Oxidation Processes for environmental applications Chair: Daphne Hermosilla (Spain)	Flash I1
	IA7.O.431032 Análisis socio-ambiental de un sistema energético. <u>Y. Morales Montes</u> , Universidad Autónoma del Estado de Morelos.		IA1.F.423193 Diseño e Implantación de un Small Private Online Course (SPOC) sobre simuladores de procesos comerciales como curso cero para asignaturas del Máster Universitario en Ingeniería Química por la UAM y la URJC. <u>J. Palomar</u> , Universidad Autónoma de Madrid	IS7.O.400310 Removal of contaminants of emerging concern (CECs) from wastewater by photocatalysis with a highly ordered TiO ₂ nanotubular array catalyst. <u>E. Atanes Sánchez</u> , Universidad Politécnica de Madrid	
	IA7.O.156477 La sustentabilidad energética del sistema eléctrico mexicano considerando las estrategias nacionales de cambio climático y calidad del aire. <u>Y. Aguilar</u> , Universidad Autónoma del Estado de Morelos.		IA1.F.878451 Comparación de mallas curriculares de la carrera de ingeniería química de Iberoamérica. <u>W. Alvarez-Mejía</u> , Universidad de San Carlos de Guatemala	IS7.O.345114 Disinfection and simultaneous micropollutants removal from a synthetic and a real wastewater using TiO ₂ coatings in ceramic macroporous reticulated foams. <u>M. Martín Sómer</u> , Universidad Rey Juan Carlos	
	IA7.F.325576 Environmental applications of nanocellulose. <u>B. Ojembarrena</u> , University Complutense of Madrid		IA1.F.147690 Interacción profesional para motivar y fomentar el emprendimiento en estudiantes de ingeniería. <u>M.L. Martínez Cartas</u> , University of Jaen		
12:00h	Brunch + Poster Session				
13:00h	AUDITORIUM. Plenary Lecture Modelling and Computational Challenges in the Optimization of Chemical Process Systems Prof. Ignacio E. Grossmann-Carnegie Mellon University, USA				
14:00h	Closing Ceremony				

ROOM 07

Flash Sessions I1

Chair: Jeffrey Leon Pulido (Colombia)

IA3.F.705246

Ethanol catalytic conversion in a single-step gas-phase reaction over fluorapatite catalyst.

J.J. Lovón-Quintana, Universidade Estadual de Campinas - UNICAMP

IA3.F.216658

Analytical equation for the effectiveness factor of reversible reactions.

I. Portugal, University of Aveiro

IA4.F.921668

Study of cellulose swelling on the production of nitrocellulose

J. Vargas Adames, Complutense University of Madrid

IA5.F.216344

Structural and thermal characterization of composites of natural rubber with yute fibers with and without alkali treatment.

G. Barrera, Instituto Tecnológico Metropolitano - ITM

IA6.F.996229

Fuente de compuestos fenólicos y taninos: Corteza de Pinus Taeda de Uruguay.

B. Zecchi, Universidad de la República

IA6.F.345177

Immobilization of α -amylase on different supports for enhance cleaning of starchy soils.

J.M. Vicaria, University of Granada

IA6.F.304464

Evaluación de diferentes sistemas de iluminación LED en reactores de placa plana para la producción de biomasa de *Scenedesmus obliquus*.

Y. Piñeros Castro, Universidad de Bogotá Jorge Tadeo Lozano

IA7.F.944616

Recuperación de cromo por extracción ácida de lodos residuales de curtiembres.

C. Montero, Central University of Ecuador

IA6.F.950550

Biotechnological production of xylitol from whole slurry corn cob: optimization of SSF process.

A. Román Pérez, University of Minho

IA6.F.197462

Biomass as biofuel in thermoelectric: Chemical and physical chemical properties comparison of sugarcane bagasse, sugar cane straw and wood pellets.

K.L. de Palma, UNICAMP

IA6.F.160460

Aprovechamiento de tall oil mediante reacciones de esterificación.

A. Martínez, Universidad de la Sabana

IA6.F.327719

Strategies to increase sugar yield to ferment mead from coffee mucilage in a pilot plant of bioethanol.

L.M. Flórez Pardo, Universidad Autónoma de Occidente

IA7.F.671674

Sustainable approaches for the preparation and application of ionic liquids as lubricants.

M. Donato, Universidade Nova de Lisboa

ANQUE – ICCE – CIBIQ 2019



Santander, SPAIN
June 19-21, 2019



EFCE Event No.757

ANQUE-ICCE 3
3rd International
Congress of
Chemical
Engineering

"Building bridges in Chemical Engineering"



Santander, ESPAÑA
Junio 19-21, 2019

CIBIQ
1^{er} Congreso
Iberoamericano de
Ingeniería Química



Santander, SPAIN
June 17-18, 2019

ANQUE-ICCE 3
Student
Conference

CIBIQ POSTER PRESENTATIONS

FINAL PROGRAM CIBIQ

POSTERS-Wednesday 19th June



TOPICS

IS1

IS6

IS9

IW2

IA7

IA2

IA3

12:00 h Brunch + Poster Session

IS1: Iberoamerican Symposium on Bioenergy and Biorefineries

ID	Author	Title
IP1.790628	I. Ballesteros Perdices	Study of optimal mixture of commercial enzymes required to achieve effective hydrolysis of steam explosion pretreated green urban waste
IP2.613548	A. Romaní Pérez	Importance of pathway selection in recombinant xylose-consuming <i>Saccharomyces cerevisiae</i> to improve fermentation from hemicellulosic hydrolysates
IP3.185357	M.J. Negro	Aprovechamiento de residuos hortofrutícolas como fuente de azúcares fermentables para la producción de aceites microbianos
IP4.896221	M. Capilla Lloris	Fermentación ABE (Acetona-Butanol-Etanol): comparación de especies de <i>Clostridium solventogénicas</i>
IP5.804329	R.L. Acorsi	Fundamentação matemática da fermentação alcoólica usando rotas metabólicas da <i>Saccharomyces cerevisiae</i> : uma modelagem simplificada da glicólise
IP6.839055	K. Tobon	Optimization based on superstructures to obtain bioethanol from the use of African palm kernel shells

IS6: Iberoamerican Symposium on Supercritical and Other High Pressure Processes

ID	Author	Title
IP7.764202	L. Quintana Gómez	Integrated process for CO ₂ capture and hydrothermal conversion with amines
IP8.948308	L. Casas Cardoso	Extraction from <i>Annona cherimola</i> as a potential source of bioactive alkaloids using supercritical fluid extraction
IP9.138104	I. García-Casas	Deposición coprecipitados de mangiferina y quercetina sobre micropartículas de sílice usando CO ₂ supercrítico

IS9: Iberoamerican Symposium on Hydrogen: Building the Zero Emissions Society

ID	Author	Title
IP10.219322	G. Calleja	Selective Ni-carboxylate-MOF materials for hydrogen adsorption
IP11.563688	A. Chica	Sustainable production of hydrogen via steam reforming of furfural (SRF) with co-catalyst supported on natural sepiolite.

IW2: Sustainable Production and Industrial Symbiosis

ID	Author	Title
IP12.804578	P. Vergara Alarcon	Fractionation of <i>Eucalyptus globulus</i> wood by combination of steam explosion and ethanol-water delignification
IP13.484556	A. Tijero	Synthesis of butanamide derivatives of cellulose and alkaline films thereof
IP14.260354	J.L. Sanchez-Salvador	Closing the circle: Cellulose nanofibers from recycled fibers to improve the mechanical properties of recycled paper.
IP15.698315	V. Pérez López	Industrial symbiosis based on co-gasification of municipal solid waste and forestry residue

PROGRAMA FINAL CIBIQ

POSTERS-Wednesday 19th June (Cont.)



TOPICS

IS1

IS6

IS9

IW2

IA7

IA2

IA3

12:00 h Brunch + Poster Session

IA7: Environmental & Sustainable Chemical Engineering

ID	Author	Title
IP16.146559	J.L. Gómez Carrasco	Degradación de amarantho mediante dos lámparas de tecnología excimer
IP17.462418	A.E. Sorichetti	Modelos matemáticos de optimización aplicados a la planificación de la Gestión Integral de Envases Vacíos de Fitosanitarios en el Sudoeste de la Provincia de Buenos Aires, Argentina
IP18.260730	F. Silva	Removal of cytostatics resorting to supported ionic liquids: a way to prevent environmental contamination
IP19.806727	V. Pinos Vélez	Procesos de Oxidación Avanzada e Hidrogenación de Fenol usando Reactores Catalíticos de Membrana con Paladio (RCM)

IA2: Unit Operations & Separation Processes

ID	Author	Title
IP20.636726	F.C. Castillo	Calculation of thermodynamic properties of carbonaceous materials by differential scanning calorimetry (DSC)

IA3: Chemical Reaction Engineering

ID	Author	Title
IP21.404528	E. Gómez Gómez	Estudio cinético de la síntesis enzimática de acetato de bencilo
IP22.534503	J.L. Gómez Carrasco	Determinación de parámetros cinéticos en la síntesis del Acetato de α -Metilbencilo
IP23.597071	G. Tonetto	Estabilidad catalítica del monolito Pt/Al ₂ O ₃ /Al en la reacción de hidrogenación de aceite de girasol
IP24.501349	J.C. Vargas	Descomposición de peróxido de hidrógeno sobre un óxido mixto Sn-Ti

PROGRAMA FINAL CIBIQ

POSTERS- Thursday 20th June



TOPICS

IS3

IS2+IS4

IS10

IS7

IA6+IS5

12:00 h Brunch + Poster Session

IS3: Iberoamerican Symposium on Ionic Liquids

ID	Author	Title
IP1.857642	A. Soto	Tetrabutylphosphonium acetate, and its combination with tetrabutylphosphonium chloride, as solvent for carbon dioxide absorption
IP2.635515	D. Hospital-Benito	Ionic liquids for CO ₂ capture by chemical absorption: Aspen Plus supported analysis of the influence of pressure conditions
IP3.454457	S. Mattedi	Bioanodes based on the catalase enzyme immobilized by clea using graphite or pentaethylene hexammonium acetate
IP4.677313	J.F. Brandão Pereira	Cholinium-based ionic liquids as biocatalysis enhancers
IP5.789249	P. Navarro	Association models to describe extractive distillation for hydrocarbon mixtures using ionic liquids as mass agents
IP6.749188	J.F. Brandão Pereira	Determination and characterization of a novel aqueous biphasic systems composed of ammonium-based ionic liquids
IP7.196165	E. Rodil	Vapor-liquid equilibria for systems with linalool, limonene and [C2mim][OAc] at reduced pressure of 5 kPa
IP8.266162	A. Soto	Is it worth synthesizing ionic liquids for surfactant enhanced oil recovery?
IP9.533036	L. Silva	Sustainable Hydrophobic Terpene-Terpene Eutectic Mixtures
IP10.461471	A.K. Carvalho Lima Lobato	Study of the use of IL-treated coconut fiber residues in the adsorption of petroleum in marine environments
IP11.396235	G. Deiró	Study of the surfactant properties of ionic liquids to be applied in enhanced oil recovery

IS2: Iberoamerican Symposium on Chemical Engineering and Mining: Innovation and Sustainability

ID	Author	Title
IP12.638579	J.G. Pereira Vicente	Study of embryos of Ita zeolite as a basic catalyst in knoevenagel condensation
IP13.663371	S. Alvarez-Torrellas	Sustainable adsorption of BPA in fixed-bed column using carbon green adsorbents: Breakthrough curve modelling and regeneration
IP14.316367	T. Suaiden Klein	Metodologia para projeto de trocadores de calor casco e tubo considerando fator de deposição dinâmico no lado do casco
IP15.396257	P. Beuzón	Obtención de biocombustible a partir de residuos de la industria del aceite de oliva mediante licuefacción hidrotérmica
IP16.995012	I. Trujillo	Diseño, manufactura y validación de un reactor de oxihidrógeno para su aplicación en un motor ciclo diésel

PROGRAMA FINAL CIBIQ

POSTERS- Thursday 20th June (Cont.)



TOPICS				
IS3	IS2+IS4	IS10	IS7	IA6+IS5

12:00 h Brunch + Poster Session

IS4: Iberoamerican Symposium on Waste Valorization of Agri-food industry		
ID	Author	Title
IP17.903291	M.C. Cartagena Causapé	Optimización de la fertilización orgánica en zonas vulnerables: Evaluación agronómica y ambiental
IP18.917501	L. Pereira Ramos	Biofuels and biorefinery R&D at the Department of Chemistry of UFPR
IP19.866287	M.C. Cartagena Causapé	Efecto residual de la aplicación de fertilizantes minerales y orgánicos en el suelo. Variabilidad espacial

IS10: Iberoamerican Symposium CFD in Chemical Engineering		
ID	Author	Title
IP20.244153	R. Medronho	Modeling a cyclic steam injection system with alternating production with water seal for oil recovery using CFD

IS7: Iberoamerican Symposium on Advanced Oxidation Processes for Environmental Applications		
ID	Author	Title
IP21.176429	Merayo	Ozone treatment applied to industrial wastewater containing formaldehyde
IP22.479326	Serra Pérez	Ruthenium supported on carbon nanospheres as efficient catalyst for naproxen removal
IP23.504301	Rancaño Vázquez	Performance of reduced graphene oxide in TiO ₂ -based photocatalysts in the oxidation of metolachlor.
IP24.374098	Marco Buj	Reduction of dye effluent pollution at natural pH by photo-Fenton process
IP25.536097	Marco Buj	Chelating agents comparison for photo-Fenton at neutral pH using UV-A LEDs in urban wastewaters: disinfection and micropollutants abatement
IP26.866076	Sans Mazón	Commercial pesticides removal from pucara river water by solar driven advanced oxidation processes
IP27.559074	Durán Segovia	Photocatalytic degradation of aniline by Solar/TiO ₂ System in the Presence of the Electron Acceptors Na ₂ S ₂ O ₈ and H ₂ O ₂
IP28.385073	Durán Segovia	Degradation of furaltadone with activated persulfate
IP29.659062	Bahamonde	Photo-mechanism of phenolic pollutants: effect of salts
IP30.170713	Rivero	Comparative Performance of TiO ₂ -rGO Composites on the Photocatalytic Degradation of Halogenated Organic Compounds

PROGRAMA FINAL CIBIQ

POSTERS- Thursday 20th June (Cont.)



TOPICS

IS3

IS2+IS4

IS10

IS7

IA6+IS5

12:00 h Brunch + Poster Session

IA6: Applied Biotechnology

ID	Author	Title
IP32.582555	A. Tijero	Phaeophyceae waste as a new natural source of cellulose
IP33.677691	M.L. Martínez Cartas	Incrementando la extracción de lípidos en <i>Chlorella pyrenoidosa</i> mediante disrupción celular
IP34.137655	G. Tonetto	Síntesis enzimática de timil caprilato: un éster con efecto dual
IP35.155630	G. Villora	Chitosan enhance silk fibroin nanoparticles uptake in gilthead seabream (<i>Sparus aurata</i>) head-kidney leucocytes
IP36.428526	E. Gómez Gómez	Síntesis enzimática de acetato de bencilo con una lipasa inmovilizada comercial
IP37.989397	J.J. Bou	Caracterización de celulosas y nanocelulosas de biosíntesis
IP38.438321	M.Y. Gritzenco De Giovanni	Estudo do processo de produção de ácido cítrico por <i>Aspergillus</i> Sp. utilizando rotas metabólicas
IP39.899178	J.M. Vicaria	Evaluation of bacteria Inoculants as microbial-based cleaning products over fat-soiled stainless steel surfaces
IP40.871694	T.E. Guerrero Vejarano	Obtaining biodiesel from domestic residual oil

IS5: Iberoamerican Symposium on Materials and Processes for the Energy of the Future

ID	Author	Title
IP41.210175	S. Morales de la Rosa	Influence of the bimetallic character on the performance of MoCoP and MoFeP catalysts for methyl laurate hydrotreating compared with monometallic catalysts