

Wednesday 22nd

Connection by: Facebook Live@CICYoficial

9:00-10:30	<p>Opening <i>Welcome to XXI SMH Congress</i> Dr. Guadalupe Ramos Sánchez President of the Mexican Hydrogen Society</p> <p><i>Congress inauguration</i> Dr. Pedro Iván González Chi General director of CICY</p> <p><i>Semblance in honor to Dr. Virginia Collins</i> Dr. Alejandro López Ortíz</p> <p><i>Photocatalytic hydrogen production</i> <i>From the development of novel materials to the reactor design by means of optical characterization</i> Dr. Virginia Collins Martínez</p>
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Bluejeans session 1

Chairman: Dr. Guadalupe Sánchez Ramos

11:00-12:00	Plenary Conference <i>Key advances on renewable hydrogen production</i> Prof. Ibrahim Dincer Ontario Tech University
12:00-13:00	Plenary Conference <i>Ammonia as a hydrogen carrier for energy storage</i> Dr. Agustín Valera Medina Cardiff University
13:00-13:05	Photo of Congress
13:05-14:00	Lunch

Bluejeans session 1	
Session 1. Hydrogen production, Storage and Applications Chairman: Dr. Luis Carlos Ordóñez López	
14:00-14:30	Invited Talk <i>Renewable Hydrogen Production and its Role in Long-Duration Energy Storage and Decarbonizing Fuels, Heat, Chemicals and Agriculture</i> Dr. Kevin Harrison NREL

14:30-15:00	<p>Invited talk <i>Alkaline AEM Fuel Cell R&D at INEEL</i> Dra. Tatiana Romero INEEL</p>
15:00-15:20	<p>ID138 <i>Assessment of massive solar hydrogen production in Mexican urban areas</i> V. Juárez Casildo, I. Cervantes Camacho, R. de G. González Huerta</p>
15:20-15:40	<p>ID129 <i>Green hydrogen in combined cycles to generate electrical energy</i> Rosa de Guadalupe González-Huerta, Valeria Juárez Casildo, Ernesto Antonio Hernández Medel, Juan Manuel Sandoval Pineda</p>
15:40-16:00	Break
16:00-16:20	<p>ID135 <i>On the reactions between $LiAlH_4$ and $LiBH_4$ with $FeCl_2$ by their mixing in cryogenic conditions</i> Juan Rogelio Tena García, Karina Suárez Alcántara</p>
16:20-16:40	<p>ID127 <i>Hybrid system sizing with hydrogen production for off-grid rural communities</i> M. Sánchez, S. Contreras, M. A. Escalante Soberanis</p>
16:40-17:00	<p>ID113 <i>Towards the Hydrogen Economy in Paraguay: estimation of the green hydrogen production potential</i> Michel O. Galeano, César E. Baranda, David R. Franco, Fausto R. Posso, Juan C. Zambrano</p>
17:00-17:20	<p>Sponsors 17:00-17:10 Consultoría Sustentable G2H S.A.S. de C.V. Guillermo Gómez Herrera, Héctor Arturo Salmerón Álvarez, Guillermo Alejandro Sánchez Guillén 17:00-17:15 Instrumentación y Servicio en Analítica, SA de CV Patricia Solís , Luis Zaldívar</p>



	<p>17:15-17:20 MMM AUTOPARTS AMERICAS S.A. DE C.V.</p>
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Bluejeans session 2	
Session 2. Materials Chairman: Dr. Francisco Javier Rodríguez Varela	
14:00-14:30	<p>Invited talk <i>Development of 2D semiconductors by green synthesis for energy conversion system applications</i> Dr. Sergio Gamboa Sánchez UNAM</p>
14:30-15:00	<p>Invited talk <i>TiO₂ as a co-catalyst or support of Pt-based catalyst for methanol oxidation reaction in acid media</i> Dra. Ana Lilia Ocampo Flores UNAM</p>
15:00-15:20	<p>ID400 <i>Mixed iron oxides as materials for redox reactions at high temperature: thermochemical cycles studies</i> Lorenzo Antonio Cruz Santiago, Ana Lidia Martínez Salazar, Benjamín Portales Martínez, Ana Adela Lemus Santana, Edilso Francisco Reguera Ruíz</p>
15:20-15:40	<p>ID405 <i>Catalytic activity determination for the Oxygen Reduction Reaction of Sulphur doped biochar obtained from Sargassum sp</i> David Rosas M., Javier Rodriguez V., Beatriz Escobar M.</p>
15:40-16:00	Break
16:00-16:20	<p>ID407 <i>Synthesis, Structural Characterization and Electrocatalytic Properties of PtPd Bimetallic Nanoparticles for Ethanol Electro-oxidation</i> América Libertad Higuera Alvear, Ramiro Pérez Campos, Gerardo Antonio Rosas Trejo, Rodrigo Esparza</p>
16:20-16:40	<p>ID210 <i>Un-supported PdCo aerogel electrocatalyst to ethanol electrooxidation reaction</i> A. Martínez-Lázaro, A.P. Mendoza, J. Ledesma-García, A. Arenillas and L.G. Arriaga</p>

16:40-17:00	<p>ID422 <i>LTL-Ti zeolite-modified electrodes for the ethanol oxidation in acid media: effect of different carbonaceous species</i> Miguel Villicaña Aguilera, Beatriz Ruíz Camacho, Adriana Medina Ramírez</p>
17:00-17:20	<p style="text-align: center;">Sponsors 17:00-17:10 KRAFTPOWERCON DE MEXICO SA DE CV Enrique García Lomelí, Alberto Medina Fuentes, Andrés Rosiles Cadeza 17:00-17:15 Estudios Metalúrgicos S.A. Alfonso Navarro</p>

Thursday 23rd

Bluejeans session 1

Chairman: Dr. Daniella Pacheco Catalán

9:00-10:00	<p>Plenary Conference <i>New developments in life cycle sustainability assessment of hydrogen systems</i> Dr. Javier Dufour Andía IMDEA Energy Institute</p>
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Bluejeans session 1	
	<p>Session 1. Hydrogen production, Storage and Applications Chairman: Dr. Daniella Pacheco Catalán</p>
10:00-10:30	<p>Invited Talk <i>Will biological hydrogen production be able to compete in the context of an industrial green hydrogen electrolysis based scenario?</i> Dr. Alessandro Carmona CIRCE</p>
10:30-11:00	<p>Invited Talk <i>Biohydrogen production from organic solid waste</i> Dr. Iván Moreno Andrade UNAM</p>
11:00-11:20	Break

11:20-11:40	<p>ID119 <i>Improving the hydrogen production from the anaerobic digestion of waste activated sludge: effects of cobalt and iron zero valent nanoparticles</i> A. Córdova-Lizama, C. Carrera-Figueiras, A. Palacios, P.M. Castro-Olivera, J. Ruiz-Espinoza</p>
11:40-12:00	<p>ID115 <i>Dark fermentative biohydrogen production using Opuntia spp</i> K. Carrillo-Verástegui, C. Escamilla-Alvarado, C. Escárcega-González, J. Cano-Gómez, D. Paniagua-Vega, J. Hernández-Duque</p>
12:00-12:20	<p>ID136 <i>The current status of hydrogen storage as MgH₂</i> J. G. Cabañas Moreno</p>
12:20-12:40	<p>ID100 <i>Effect of nickel concentration on the biohydrogen production from organic solid waste</i> Karina J. Salazar-Batres, Iván Moreno-Andrade</p>
12:40-13:00	<p>ID118 <i>Dry reforming of methane with Ni/Al₂O₃-MgO catalyst: Effect of MgO content</i> Montserrat Castro Gutiérrez, Fernando Morales Anzures, Pastora Salinas Hernández, Albina Gutiérrez Martínez, Gilberto Mondragón-Galicia, Yanet Piña Pérez, Octavio Martínez, Francisco Javier Tzompantzi Morales y Raúl Pérez Hernández.</p>
13:00-13:20	<p>ID104 <i>IrRu/SnO₂:Sb a high-active and low-Ir OER catalyst in acidic media</i> Martínez-Séptimo Abissaid, González-Huerta Rosa de Guadalupe</p>
13:20-15:00	Lunch
6 Bluejeans sessions	
15:00-17:30	POSTER SESSION Please consult the poster program

Bluejeans session 2	
	Session 2. Materials Chairman: Dra. Beatriz Escobar Morales
10:00-10:30	Invited Talk <i>Boosting the hydrogen evolution reaction by the superficial modification of TiO₂</i> Dr. Rodolfo Zanella UNAM
10:30-11:00	Invited Talk <i>Nitrogen-Doped Carbon Materials for Metal-Free and Electrocatalysts Support</i> Dra. Diana Morales Acosta CIQA
11:00-11:20	Break
11:20-11:40	ID423 <i>Good electrocatalytic activity of N-CNT for the oxygen reduction reaction in acid medium</i> Isaías Zeferino González , Ana María Valenzuela Muñiz, Raynald Gauvin, Mario Miki Yoshida, Ysmael Verde Gómez
11:40-12:00	ID304 <i>NiFe layered double hydroxides with high surface area and defected surface as bifunctional electrocatalysts for zinc-air batteries</i> Oscar Ambriz Peláez , Minerva Guerra-Balcázar, Lorena Álvarez-Conteras, Noé Arjona
12:00-12:20	ID409 <i>N-doped biocarbon from Eichhornia Crassipes as an Efficient Oxygen Reduction Electrocatalysts for Alkaline Fuel Cell</i> L. Morales S. , M. Ruiz Salazar, B. Escobar
12:20-12:40	ID429 <i>Pt/d-CNT Electrocatalysts Systems with Low Metal Loading</i> M. Zi-Chi , I. Zeferino González, G. Rosado Ortíz, Y. Verde-Gómez, A. M.

	Valenzuela-Muñiz
12:40-13:00	<p>ID132 <i>CdS/C3N4 heterojunction by In Situ formation, with improved photocatalytic activity for hydrogen production</i> Karen Valencia García, Agileo Henández-Gordillo, Sandra Rodil</p>
13:00-13:20	<p>ID131 <i>Effects of photoexfoliation of ZnS(en) films for the H₂ production</i> Cerezo Durán Lorena, Hernández-Gordillo Agileo, Rodil Posada Sandra, Bizarro Sordo Monserrat.</p>
13:20- 15:00	Lunch
6 bluejeans sessions	
15:00-17:30	<p>POSTER SESSION Please consult the poster program</p>

Friday 24th

Bluejeans session 1

Chairman: Dr. Ivonne Alonso Lemus

9:00-10:00	<p>Plenary Conference <i>Hacia un sistema de transporte con cero emisiones contaminantes</i> Dr. Salvador Aceves Saborío Technological Institute of Celaya</p>
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Bluejeans session 1	
	<p>Session 1. Fuel Cells Components & Stacks (Modeling & Design, Control and Power Conditioning) Chairman: Dr. Ivonne Alonso Lemus</p>
10:00-10:30	<p>Invited Talk <i>Use of blue and green hydrogen in gas turbines in the Mexican clean energy context</i> Dr. Pablo René Diaz UNAM</p>
10:30-11:00	<p>Invited Talk Hydrogen motion solutions beyond long-haul transportation for Mexican SME Dr. Michael Sikora H2Motion</p>
11:00-11:20	<p>Break</p>

11:20-12:20	<p>Plenary Conference <i>Hydrogen Research and Innovation: Effects of Policy and Success Stories</i> Dr. Omar Herrera CERC-UBC (Session 1 bluejeans)</p>
12:20-12:40	<p>ID203 <i>Analysis of Knudsen diffusion and its correlation effective diffusion on a synthetic catalytic layer of a PEMFC</i> C. Pacheco, B. Escobar, R. Barbosa</p>
12:40-13:00	<p>ID211 <i>Parameter estimation of DMFC mathematical model using estimation distribution algorithms</i> Luis Blanco-Cocom, Salvador Botello-Rionda, L.C. Ordoñez, S. Iwan Valdez</p>
13:00- 14:00	Lunch

Bluejeans session 1	
	<p>Session 1. Fuel Cells Components & Stacks (Modeling & Design, Control and Power Conditioning) Chairman: Dra. Ana María Valenzuela</p>
14:00-14:20	<p>ID200 <i>Sulfonated terpolymer of styrene-co-acrylonitrile-co-butyl acrylate as a potential polyelectrolyte for PEMFC</i> L.G. Delgado Interrial, R. Benavides, L. Da Silva, D. Morales-Acosta, L. Francisco Vieira</p>
14:20-14:40	<p>ID209 <i>Performance of a mono-block-layer-built type SOFC with an embedding porous pipe considering a variable porosity</i></p>

	A.D. Ramírez-Minguela , J.J. Ramírez-Minguela, B. Ruiz-Camacho, J.A. Alfaro-Ayala, J.L. Rodríguez Muñoz, V. Pérez García
14:40-15:00	ID215 <i>Parameter estimation of empirical and semi-empirical mathematical models for a DEFC</i> Luis Blanco-Cocom , L.C. Ordoñez, S. Ivvan Valdez, Salvador Botello-Rionda
15:00-15:20	ID410 <i>Synthesis and characterization of the polystyrene-co-N-alkyl vinyl tetrazole copolymer: Development of solid polymeric electrolyte for fuel cells</i> Luciano Da Silva , Diana Morales Acosta, Roberto Benavides Cantú
15:20-15:30	Break

Bluejeans session 2	
	Section 2 Renewable Energy Systems and Regulation (Policies, Market, Codes, Environmental aspects) Chairman: Dr. Ysmael Verde Gómez
10:00-10:30	Invited Talk <i>On the conquest of solar hydrogen: Advances, Trends, Perspectives & Challenges</i> Dr. Víctor Ramos Sánchez UACH
10:30-11:00	Invited Talk <i>Hidrógeno Verde – Puente entre Alemania y México</i> Msc. William Jensen-Diaz GIZ
11:00-11:20	Break

11:20-12:20	<p>Plenary Conference <i>Hydrogen Research and Innovation: Effects of Policy and Success Stories</i> Dr. Omar Herrera CERC-UBC (In session 1 bluejeans)</p>
12:20-12:40	<p>ID300 <i>Effect of synthesis parameters on ZnO as photocatalysts for dye sensitized solar cell</i> R. García-Molina, José A. Rodríguez-García, P. C. Melendez-Gonzalez, L.C. Ordóñez, W. J. Pech-Rodríguez</p>
12:40-13:00	<p>ID303 <i>Comparative Study of Co-Sensitizer in Dye-Sensitized Solar Cells: Effects of a New Co-Adsorbent on Different Dyes</i> L. da Silva, R. Benavides, D. Morales-Acosta, M. Sanches, H. S. Freeman</p>
13:00- 14:00	Lunch

Bluejeans session 2	
	<p>Section 2 Renewable Energy Systems and Regulation (Policies, Market, Codes, Environmental aspects) Chairman: M.C. David Rosas Medellín"</p>
14:00-14:20	<p>ID308 <i>Factors affecting the performance of Microbial Fuel Cells towards its applicability in full scale</i></p>

	<u>M. G. Salinas-Juárez</u>
14:20-14:40	ID505 <i>Analysis and Perspective of Renewable Energy Companies in the Yucatan Peninsula</i> <u>D. Sánchez Estrada</u> , K. Y. Landa Acosta, A. Gatica Santamaría, L. E. Abreu Rangel, D. I. Torrealba Tinoco, Y. Verde Gómez, A. M. Valenzuela-Muñiz
14:40-15:00	ID120 <i>Hydrogen Production in Mexico: State of the Art, Future Perspectives, Challenges and Opportunities</i> <u>A. Palacios</u> , A. Córdova-Lizama, P. M. Castro-Olivera
15:00-15:20	ID503 <i>Envisioning a Hydrogen Roadmap for Mexico. Identifying potential best practices and projects compatible with the National Development Goals of the 4T</i> <u>R. Xhemalce</u> , N. J Pérez-Viramontes, J. P Rivas
15:20-15:30	Break

Bluejeans session 1	
15:30-17:00	POSTER AND VIDEO AWARDS SMH Assembly
17:00	Congress Closure

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