### Wednesday 22\textsuperscript{nd}

Bluejeans session 1

**Chairman: Dr. Guadalupe Sánchez Ramos**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>9:00-10:00</td>
<td>Opening</td>
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<tr>
<td>10:00-11:00</td>
<td>Dr. Virginia Collins Martínez</td>
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</tbody>
</table>
| 11:00-12:00 | Plenary Conference  
*Key advances on renewable hydrogen production*  
*Prof. Ibrahim Dincer*  
*Ontario Tech University*  |
| 12:00-13:00 | Plenary Conference  
*Ammonia as a hydrogen carrier for energy storage*  
*Dr. Agustín Valera Medina*  
*Cardiff University*  |
| 13:00-14:00 | Lunch                                       |

Bluejeans session 1

**Session 1. Hydrogen production, Storage and Applications**

**Chairman: Dr. Luis Carlos Ordóñez López**

<table>
<thead>
<tr>
<th>Time</th>
<th>Invited Talk</th>
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</table>
| 14:00-14:30 | **Invited Talk**  
*Renewable Hydrogen Production and its Role in Long-Duration Energy Storage and Decarbonizing Fuels, Heat, Chemicals and Agriculture*  
*Dr. Kevin Harrison*  
*NREL*  |
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 14:30-15:00  | Invited talk
Alkaline AEM Fuel Cell R&D at INEEL
Dra. Tatiana Romero
INEEL          |
| 15:00-15:20  | ID138
Assessment of massive solar hydrogen production in Mexican urban areas
V. Juárez Casildo, I. Cervantes Camacho, R. de G. González Huerta |
| 15:20-15:40  | ID129
Green hydrogen in combined cycles to generate electrical energy
Rosa de Guadalupe González-Huerta, Valeria Juárez Casildo, Ernesto Antonio Hernández Medel, Juan Manuel Sandoval Pineda |
| 15:40-16:00  | Break                                                                   |
| 16:00-16:20  | ID135
On the reactions between LiAlH₄ and LiBH₄ with FeCl₂ by their mixing in cryogenic conditions
Juan Rogelio Tena García, Karina Suárez Alcántara |
| 16:20-16:40  | ID127
Hybrid system sizing with hydrogen production for off-grid rural communities
M. Sánchez, S. Contreras, M. A. Escalante Soberanis |
| 16:40-17:00  | ID113
Towards the Hydrogen Economy in Paraguay: estimation of the green hydrogen production potential
Michel O. Galeano, César E. Baranda, David R. Franco, Fausto R. Posso, Juan C. Zambrano |
<p>| 17:00-17:20  | Sponsor                                                                  |</p>
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<tr>
<th>Time</th>
<th>ID</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>14:00-14:30</td>
<td></td>
<td><strong>Invited talk</strong></td>
<td><strong>Development of 2D semiconductors by green synthesis for energy conversion system applications</strong></td>
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<td><strong>Dr. Sergio Gamboa Sánchez</strong></td>
<td><strong>UNAM</strong></td>
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<tr>
<td>14:30-15:00</td>
<td></td>
<td><strong>Invited talk</strong></td>
<td><strong>TiO₂ as a co-catalyst or support of Pt-based catalyst for methanol oxidation reaction in acid media</strong></td>
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<td><strong>Dra. Ana Lilia Ocampo Flores</strong></td>
<td><strong>UNAM</strong></td>
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<tr>
<td>15:00-15:20</td>
<td></td>
<td><strong>ID400</strong></td>
<td><strong>Mixed iron oxides as materials for redox reactions at high temperature: thermochemical cycles studies</strong></td>
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<tr>
<td></td>
<td></td>
<td><strong>Lorenzo Antonio Cruz Santiago, Ana Lidia Martínez Salazar, Benjamín Portales Martínez, Ana Adela Lemus Santana, Edilso Francisco Reguera Ruiz</strong></td>
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<tr>
<td>15:20-15:40</td>
<td></td>
<td><strong>ID405</strong></td>
<td><strong>Catalytic activity determination for the Oxygen Reduction Reaction of Sulphur doped biochar obtained from Sargassum sp</strong></td>
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<td><strong>David Rosas M., Javier Rodriguez V., Beatriz Escobar M.</strong></td>
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<tr>
<td>15:40-16:00</td>
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<td><strong>Break</strong></td>
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<tr>
<td>16:00-16:20</td>
<td></td>
<td><strong>ID407</strong></td>
<td><strong>Synthesis, Structural Characterization and Electrocatalytic Properties of PdPd Bimetallic Nanoparticles for Ethanol Electro-oxidation</strong></td>
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<td><strong>América Libertad Higareda Alvear, Ramiro Pérez Campos, Gerardo Antonio Rosas Trejo, Rodrigo Esparza</strong></td>
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<tr>
<td>16:20-16:40</td>
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<td><strong>ID210</strong></td>
<td><strong>Un-supported PdCo aerogel electrocatalyst to ethanol electroxidation reaction</strong></td>
</tr>
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<td></td>
<td></td>
<td><strong>A. Martínez-Lázaro, A.P. Mendoza, J. Ledesma-García, A. Arenillas and L.G. Arriaga</strong></td>
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</tr>
<tr>
<td>16:40-17:00</td>
<td></td>
<td><strong>ID422</strong></td>
<td><strong>LTL-Ti zeolite-modified electrodes for the ethanol oxidation in acid media: effect of different carbonaceous species</strong></td>
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<td><strong>Miguel Villicaña Aguilera, Beatriz Ruiz Camacho, Adriana Medina Ramírez</strong></td>
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<td>17:00-17:20</td>
<td></td>
<td><strong>Sponsor</strong></td>
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Thursday 23rd

Bluejeans session 1
Chairman: Dr. Daniella Pacheco Catalán

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Description</th>
<th>Speaker/Institution</th>
</tr>
</thead>
</table>
| 9:00-10:00 | **Plenary Conference**
New developments in life cycle sustainability assessment of hydrogen systems
Dr. Javier Dufour Andía
IMDEA Energy Institute |  

| 10:00-10:30 | Invited Talk
Will biological hydrogen production be able to compete in the context of an industrial green hydrogen electrolysis based scenario?
Dr. Alessandro Carmona
CIRCE |  

| 10:30-11:00 | Invited Talk
Biohydrogen production from organic solid waste
Dr. Iván Moreno Andrade
UNAM |  

<p>| 11:00-11:20 | Break |</p>
<table>
<thead>
<tr>
<th>Time</th>
<th>ID</th>
<th>Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>12:00-12:20</td>
<td>ID136</td>
<td>The current status of hydrogen storage as MgH₂</td>
<td>J. G. Cabañas Moreno</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>ID100</td>
<td>Effect of nickel concentration on the biohydrogen production from organic solid waste</td>
<td>Karina J. Salazar-Batres, Iván Moreno-Andrade</td>
</tr>
<tr>
<td>12:40-13:00</td>
<td>ID104</td>
<td>IrRu/SnO₂:Sb a high-active and low-Ir OER catalyst in acidic media</td>
<td>Martinez-Séptimo Abissaid, González-Huerta Rosa de Guadalupe</td>
</tr>
<tr>
<td>13:00-14:00</td>
<td></td>
<td>Lunch</td>
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</tbody>
</table>

6 Bluejeans sessions

14:00-17:30 | POSTER SESSION | Please consult the poster program |
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:30</td>
<td>Invited Talk&lt;br&gt;Boosting the hydrogen evolution reaction by the superficial modification of TiO$_2$</td>
<td>Dr. Rodolfo Zanella, UNAM</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Invited Talk&lt;br&gt;Nitrogen-Doped Carbon Materials for Metal-Free and Electrocatalysts Support</td>
<td>Dra. Diana Morales Acosta, CIQA</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>Break</td>
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<tr>
<td>11:20-11:40</td>
<td>ID423 Good electrocatalytic activity of N-CNT for the oxygen reduction reaction in acid medium</td>
<td>Isaías Zeferino González, Ana María Valenzuela Muñiz, Raynald Gauvin, Mario Miki Yoshida, Ysmael Verde Gómez</td>
</tr>
<tr>
<td>11:40-12:00</td>
<td>ID304 NiFe layered double hydroxides with high surface area and defected surface as bifunctional electrocatalysts for zinc-air batteries</td>
<td>Oscar Ambriz Peláez, Minerva Guerra-Balcázar, Lorena Álvarez-Conteras, Noé Arjona</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>ID504 Photodegradation catalytic of 2, 4-Dichlorophenoxyacetic acid with g-Al$_2$O$_3$-TiO$_2$ materials</td>
<td>Claudia Martinez Gómez, Gloria del Ángel, Francisco Tzompantzi, Araceli Jacobo Azuara, Beatriz Ruiz, Esmeralda Vidal Robles</td>
</tr>
<tr>
<td>12:00-12:20</td>
<td>ID429 Pt/d-CNT Electrocatalysts Systems with Low Metal Loading</td>
<td>M. Zi-Chi, I. Zeferino González, G. Rosado Ortiz, Y. Verde-Gómez, A. M. Valenzuela-Muñiz</td>
</tr>
<tr>
<td>12:20-12:40</td>
<td>ID132 CdS/C3N4 heterojunction by In Situ formation, with improved photocatalytic activity for hydrogen production</td>
<td>Karen Valencia García, Agileo Henández-Gordillo, Sandra Rodil</td>
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<td>Time</td>
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</tbody>
</table>
| 12:40-13:00  | **ID131** Effects of photoexfoliation of ZnS(en) films for the H₂ production  
**Cerezo Durán Lorena**, Hernández-Gordillo Agileo, Rodil Posada Sandra, Bizarro Sordo Monserrat. |
| 13:00-14:00  | **Lunch**                                                               |
| 14:00-17:30  | **POSTER SESSION**                                                      
Please consult the poster program |
### Friday 24th

#### Bluejeans session 1

**Chairman:** Dr. Ivonne Alonso Lemus

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
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</table>
| 9:00-10:00 | **Plenary Conference**  
*Hacia un sistema de transporte con cero emisiones contaminantes*  
**Dr. Salvador Aceves Saborío**  
Technological Institute of Celaya |
| 10:00-10:30| **Invited Talk**  
*Use of blue and green hydrogen in gas turbines in the Mexican clean energy context*  
**Dr. Pablo René Diaz**  
UNAM |
| 10:30-11:00| **Invited Talk**  
Hydrogen motion solutions beyond long-haul transportation for Mexican SME  
**Dr. Michael Sikora**  
H2Motion |
| 11:00-11:20| **Break**                                                             |
| 11:20-12:20| **Plenary Conference**  
*Hydrogen Research and Innovation: Effects of Policy and Success Stories*  
**Dr. Omar Herrera**  
CERC-UBC  
(Session 1 bluejeans) |
| 12:20-12:40| **ID203**  
*Analysis of Knudsen diffusion and its correlation effective diffusion on a synthetic catalytic layer of a PEMFC*  
**C. Pacheco, B. Escobar, R. Barbosa** |
<table>
<thead>
<tr>
<th>Time</th>
<th>ID</th>
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<th>Authors</th>
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<tbody>
<tr>
<td>13:00-14:00</td>
<td></td>
<td>Lunch</td>
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<td>14:00-14:20</td>
<td>ID200</td>
<td>Sulfonated terpolymer of styrene-co-acrylonitrile-co-butyl acrylate as a potential polyelectrolyte for PEMFC</td>
<td>L.G. Delgado Interial, R. Benavides, L. Da Silva, D. Morales-Acosta, L. Francisco Vieira</td>
</tr>
<tr>
<td>15:00-15:20</td>
<td>ID410</td>
<td>Synthesis and characterization of the polystyrene-co-N-alkyl vinyl tetrazole copolymer: Development of solid polymeric electrolyte for fuel cells</td>
<td>Luciano Da Silva, Diana Morales Acosta, Roberto Benavides Cantú</td>
</tr>
<tr>
<td>15:20-15:30</td>
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<td>Break</td>
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<td>Time</td>
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</tbody>
</table>
| 10:00-10:30  | **Invited Talk**  
*On the conquest of solar hydrogen: Advances, Trends, Perspectives & Challenges*  
Dr. Victor Ramos Sánchez  
UACh |
| 10:30-11:00  | **Invited Talk**  
*Hidrógeno Verde – Puente entre Alemania y México*  
Msc. William Jensen-Diaz  
GIZ |
| 11:00-11:20  | Break |
| 11:20-12:20  | **Plenary Conference**  
*Hydrogen Research and Innovation: Effects of Policy and Success Stories*  
Dr. Omar Herrera  
CERC-UBC  
(In session 1 bluejeans) |
| 12:20-12:40  | **ID300**  
*Effect of synthesis parameters on ZnO as photocatalysts for dye sensitized solar cell*  
R. García-Molina, José A. Rodriguez-Garcia, P. C. Melendez-Gonzalez,  
L.C. Ordóñez, W. J. Pech-Rodríguez |
| 12:40-13:00  | **ID303**  
*Comparative Study of Co-Sensitizer in Dye-Sensitized Solar Cells: Effects of a New Co-Adsorbent on Different Dyes*  
L. da Silva, R. Benavides, D. Morales-Acosta, M. Sanches, H. S. Freeman |
| 13:00-14:00  | Lunch |
### Bluejeans session 2

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<tr>
<th>Time</th>
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<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00-14:20</td>
<td>ID308</td>
<td>Factors affecting the performance of Microbial Fuel Cells towards its applicability in full scale</td>
<td>M. G. Salinas-Juárez</td>
</tr>
<tr>
<td>14:40-15:00</td>
<td>ID120</td>
<td>Hydrogen Production in Mexico: State of the Art, Future Perspectives, Challenges and Opportunities</td>
<td>A. Palacios, A. Córdova-Lizama, P. M. Castro-Olivera</td>
</tr>
<tr>
<td>15:00-15:20</td>
<td>ID503</td>
<td>Envisioning a Hydrogen Roadmap for Mexico. Identifying potential best practices and projects compatible with the National Development Goals of the 4T</td>
<td>R. Xhemalce, N. J Pérez-Viramontes, J. P Rivas</td>
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<tr>
<td>15:20-15:30</td>
<td></td>
<td>Break</td>
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### Bluejeans session 1

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<tr>
<td>15:30-17:00</td>
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<td>SMH Assembly</td>
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<tr>
<td>17:00</td>
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<td>Congress Closure</td>
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