Friday, July 13

OPENING CEREMONY
10:00 - 12:00

Chairman’s Welcome Message, M. Oktay Alniak

Hydrogen Documentary by O. Oktay Yucesan

Muzaffer Avci

Stanford Ovshinsky

Engin Ture

12:00-13:30 **Lunch**

Plenary Session 1

13:30 - 16:00

Werner F. Schnurnberger

Tapan Bose

Stanislav P. Malyshenko

Byeong Soo Oh

Milan Jaksic

16:15 - 16:30 **Coffee Break**

Plenary Session 2

16:30 - 19:00

Ernest Balogh

Gibril S. Eljrushi

Alfredo Fernandez

Guiseppe Spazzafumo

Elvin Yuzugullu

Saturday, July 14

PARALLEL SESSIONS
09:00-10:45

SatA1: Hydrogen Storage

Keynote Speaker: Eden Mamut

Thermodynamic Modeling and Kinetics of Hydrogen Absorption Associated with Phase Transition
Germain Gondor and Christian Lexcellent

Hydrogen Storage in Nanocatalyzed $Zn(BH_4)_2$
Sesha Srinivasan, Diego Escobar, Michael Jurczyk, Pabitra Choudhury, Matthew Smith, Yogi Goswami, Elias Stefanakos

Nanomaterials for Hydrogen Storage Combining Structural and Analytical Investigations
S. B. Kayiran, F. D. Lamari, B. Weinberger and S. Farhat

Possibilities of Creation of the Underground Hydrogen Storages
K. S. Basniev, I. V. Vyrodova

Ab Initio Characterization of Mg Alloys for Hydrogen Storage
Deniz Keçik and M. Kadri Aydınol

SatA2: Hydrogen Production

Keynote Speaker: Duncan Macleod

Water Electrolysis - Unconvential Aspects
Martins Vanags, Peteris Shipkovs, Janis Kleperis, Gunars Bajars, Andrejs Lusis

Impact of High Temperature Steam Electrolysis Detailed Flow-Sheets on Massive Hydrogen Production Strategic Choices
A. Le Duigou, P. Lovera, D. Haubensack, T. Gilardi, J. Paul-Joseph, G. Rodriguez

Nuclear Hydrogen Production With Molten Salt Reactors
Sümer Şahin, Şenay Yalçin, H. Mehmet Şahin, Necmettin Şahin, and Adem Acir

Application of Activated Aluminum Powder for Generation of Hydrogen from Water
Valery Rosenband and Alon Gany

Solar Driven Electrochemical Generation of Molecular Hydrogen Using BiOx-TiO2 Coated Titanium Anodes and Stainless Steel Cathodes
Michael R. Hoffmann, Hyunwoong Park, Chad. D. Vecitis, Wonyong Choi, Oleh Weres, and Tai Kyu Lee

SatA3: Fuel Cell: PEM

Keynote Speaker: Frano Barbir

Optimizing the Power Performance of Small Polymer Electrolyte Fuel Cells
Kohei Nakashima, Hikaru Kagetoshi, Takuya Ishikawa, Yukio Hayashi , Soichi Ishihara and Yoshio Murakami

Fuel Cell Propulsion of Submarines
Stefan Krummrich, Dr. Albert E. Hammerschmidt

Evaluation of Silver Anode for Direct $NaBH_4/H_2O_2$ Fuel Cell
Elif Sanli,B. Zühtü Uysal, Hüseyin Çelikkan, M. Levent Aksu

Innovative Applications of Hydrogen Fuel Cells
Firouz Shahrokhi, Ahad Nasab and Rocco Guarnaccia

Influence of the Supporting Material on the Performance of Synthesized Pt-V Nanopowders in PEM Water Electrolysis
G. Topalov, E. Lefterova, E. Slavcheva

SatA4: Hydrogen Utilization

Keynote Speaker : Da-Yung Wang

Design and Process Study of Pd Membrane Reactors

SilvanoTosti, Angelo Basile, Livio Bettinali, Fabio Borgognoni, Fausto Gallucci, Claudio Rizzello

About the Combustion for a New Type of Gaseous Fuel Based on Hydrogen

Lucian Paunescu, Gheorghe Surugiu, Paul Dan Stanescu, Horia Necula, Corneliu Dica, Gheorghe Iorga

Tri-generation System Based on Solid Oxide Fuel Cell Module for Office Buildings

Jaroslaw Milewski, Krzysztof Badyda, Andrzej Miller

Combined Effects of Hydrogen Addition and Dilution in A Spark-ignition Engine

F. Halter, F. Foucher, B. Moreau, C. Mounaïm-Rousselle

A Fuel Cell Micro Cogeneration System

Fehmi Akgün, Asli Sayar Kaytaz, Nilüfer Ilhan, Murat Baranak, Göktuğ N. Özyönüm, Ceylan Akiş, Atilla Ersöz and Alper Sarioğlan

10:45-11:00 Coffee Break

PARALLEL SESSIONS
11:00-12:45

SatB1: Hydrogen Storage

Keynote Speaker : Rosario Macario

Catalytic Hydrogen Storage in $CeM_ZNi_XO_Y$ Oxyhydrides
(M = Zr or Al, z = 0 or 0.5, $0 \leq x \leq 3$)
Louise Jalowiecki-Duhamel, Sylvanie Debeusscher, Hanan Zarrou, Anne Ponchel, Alain D'Huysser, Hervé Jobic and Edmond Payen

The Production of Sodium Borohydride by a Novel Electrolysis Method
Berceste Beyribey, Hüseyin Afşar, Seyfettin Erturan and Zehra Altın*

Colemanite Mineral: As a Starting Material for Sodium Borohydride Production
Ü.Banu Sarıalioğlu, Aysel Kantürk, Müge Sarı, Sabriye Pişkin

Numerical Modeling of Heat and Mass Transfer during the Hydrogen Charging Process in Metal Hydrides Solid Tank
Billur Sakintuna, Gelareh Momen, Guillaume Hermosilla-lara, Armelle Michau, Bilal Dogan and Khaled Hassouni

Effect of Cathodic Hydrogen Charging on Mechanical Properties of Welded Low Alloy Steel in Sea Water
Fathi M. Abusaa, Abobaker Meteeg

SatB2: Hydrogen Production

Keynote Speaker : Kenneth R. Schultz

Dual Role of Fuel Cells in a Hydrogen Based Energy Concept
Scepan S. Miljanic

Co-current and Counter-current Modes for Ethanol Steam Reforming in a Dense Pd-Ag Membrane Reactor
F. Gallucci, M. De Falco, S. Tosti, L. Marrelli, A. Basile

Fuel Reformation Using Alkaline Enhancement
Benjamin Reichman, William Mays, Jim Strebe and Michael Fetcenko

Thermal Sprayed Electrodes for Hydrogen Evolution in Alkaline Electrolysers
Trine Tønnessen, Sissel Jørgensen and Spyros Diplas and Hugh Middleton

Dynamically Electrical Modelling of Electrolyser and Hydrogen Production Regulation
Lebbal M., Zhao T., François.B. and Lecoeuche S.

SatB3: Fuel Cell: DMFC

Keynote Speaker : Singiresu S. Rao

DMFC for Portable Applications: Modelling of the Anode Flow Fields to Enhance Cell Performance

Ugo A. Icardi, Stefania Specchia, Gianpiero J.R. Fontana, Vito Specchia and Guido Saracco

Synthesis and Characterisation of Polyvinylalcohol-Mordenite Membranes and Their Applications in Direct Methanol Fuel Cells

Fehmi Görkem Üçtug, Stuart Holmes, Edward P.L. Roberts, Xiao Li, Chaiwat Yoonoo, Levent Yılmaz, Halil Kalıpçılar

Preparation via Supercritical Fluid Route of Pd-impregnated Nafion® Membranes that Exhibit Reduced Methanol Crossover for Direct Methanol Fuel Cells

Ruichun Jiang, Ying Zhang, Steven Swier, Xuezheng Wei, Can Erkey, H. Russell Kunz, James M. Fenton, and Betul Cangul

Development and Testing of Direct Methanol and Ethanol Proton Exchange Membrane Fuel Cell Prototypes

Jorge L. Gavillon, Vicente M. Canalli, Marçal Pires, Carla M.N. Azevedo, José W. M. Kaehler

Preparation and Proton Conductivity of Acid-doped Azole Functional Poly (glycidyl methacrylate)

Sevim Ünügür Çelik, Ayhan Bozkurt

SatB4: Hydrogen Storage

Keynote Speaker : Onkar Nath Srivastava

Thermodynamics of Gaseous and Liquid Hydrogen Storage
Manfred Klell, Harald Kindermann, Christian Jogl

Thermal Analysis and Optimum Design of a Liquid Hydrogen Tank
Tolga Çimen, Gülru Babaç, Altuğ Şişman

Development of Hydrogen Storage Tanks
Fikret Şenel, Emel Billur and Prof.Dr.M.Oktay Alniak

Geothermal Energy Use in Hydrogen Liquefaction
Mehmet Kanoglu, Ibrahim Dincer and Marc A. Rosen

New Materials for High Pressurized Hydrogen Storage
Prof. Dr. M. Oktay Alnıak, Yüksel Palacı and İbrahim Güneş

12:45 - 13:30 Lunch

PARALLEL SESSIONS
13:30-15:45

SatC1: Fuel Cell: SOFC

Keynote Speaker : Michaela Kendall

Hydrogen Consummation in IT-SOFC: Zero and One Dimensional Electro-dynamic Numerical Study Hydrogen Consummation in IT-SOFC: Zero and One Dimensional Electro-Dynamic Study

Bariza Zitouni, Hocine Ben Moussa, Philippe Mandin, Kafia Oulmi

Ceramic Solutions for Integrated Biogas/SOFC Energy Systems – Level of Maturity and Application Potential

Michael Stelter, Mihails Kusnezoff, Matthias Jahn, Sena Kavurucu

Solid Oxide Fuel Cell with Nanostructured Fuel Electrode

Zeynep Ilhan and Syed Asif Ansar

Synthesis and Characterization of $Fe_xMe_{1-x}CeO_3$ (Me = Ni, Co, Cu) Anode Materials for Low Temperature SOFC

Ö. Yıldız, M. Akel, A. M. Soydan, A. Ata

Numerical Study of Heat Transfer in IT-SOFC Design

Bariza Zitouni, Hocine Ben Moussa, Kafia Oulmi, Philippe Mandin, Slimen Saigh

The Effect of CO_2 on BSCF Perovskite-Type Cathode for Hydrogen-Fed SOFCs Operated at Low and Intermediate Temperatures

Vasiliki Maragou, George Andreadis, Aiyu Yan, Mojie Cheng, Antonino Arico and Panagiotis Tsiakaras

Heat Sources Effects in Fuel Cells Type SOFC

Bariza Zitouni, Hocine Ben Moussa, Kafia Oulmi, Slimen Saigh

SatC2: Hydrogen Production

Keynote Speaker : Hirohisa Uchida

Hydrogen Production via Autothermal or Allothermal Processes
Patrick Lovera, Alain Le Duigou and Philippe Carles

Hydrogen Production at Low Temperature from Methane on Cerium and Nickel Based Mixed Oxides
Louise Jalowiecki-Duhamel, Hanan Zarrou, and Alain D'Huysser

Hydrogen Production from Coal-Current Situation
M. Zeki Doğan and Güven Önal

Russian Activity on IPHE project Reversible Solid State Storage for Fuel Cell Power Supply System
V.I. Borzenko

Hydrogen Production from Geothermal Sources
Füsun S. Tut Haklıdır, Mehmet Haklıdır

The CO Adsorption And Selective CO Oxidation In H_2 Rich Stream Over Ag_2O/Co_3O_4 And Co_3O_4/CeO_2 Catalysts
Filiz Balikçi and Çiğdem Güldür

Functionalized Carbon Aerogels for Deep Desulfurization of Diesel for Hydrogen Generation for PEM Fuel Cells
Can Erkey, Pınar Çetin, Ying Zhang

SatC3: Fuel Cell: Membrane

Keynote Speaker : Ayhan Bozkurt

Design and Characterization of Styrene-based Proton Exchange Membranes
Daniela Stoenescu, Irina Petreanu, Vasile Stanciu, Roxana Lazar, Laurentiu Patularu, Dumitru Mirica, Gabriel Rasoi, Ioan Stefanescu and Emilian Georgescu

Distributed Reforming of Natural Gas via Water Splitting Using Dense Ceramic Membranes
U. (Balu) Balachandran, T. H. Lee, and S. E. Dorris

Proton Exchange Membrane Fuel Cell Systems based on Aromatic Hydrocarbon and Partially Fluorınated Disulfonated Poly(arylene ether) Copolymers
Mehmet Sankir

Conductivity Properties of the Membranes based on Polystyrenesulfonic Acid and Heterocyclic Protogenic Solvents
F. Göktepe, S.T. Günday, A. Bozkurt

Development of Proton Exchange Membranes Based on Sulfonated Polyimides Prepared by Post-Sulfonation Method
Hüseyin Deligöz, Sibel Vatansever, Saadet Pabuccuoğlu, M.Ali Gürkaynak

Acid Doped Polybenzimidazole Membranes for High Temperature PEM Fuel Cells
Ahmet Özgür Yurdakul, İnci Eroğlu and Nurcan Baç

Aromatic Polymer Blend Membranes for PEM Fuel Cell Applications
R. Gültekin Akay, Hülya Erdener, Nurcan Baç and İnci Eroğlu

SatC4: Bio-Hydrogen

Keynote Speaker : Sabaratnam Vikineswary

Biomass – Biological Hydrogen and Electricity Generation Potential

Olga A. Bereketidou, and Maria A. Goula

Screening of N_2-fixing Cyanobacterial Strains Producing Photobiological H_2 from Korean Coasts

Jong W. Park, Jae M. Kim, Geumog Myung and Wonho Yih

Hydrogen Synthesis Pathways of Clostridium thermocellum ATCC 27405

Carlo R. Carere, Richard Sparling, and David Levin

Improved Hydrogen Production by Uptake Hydrogenase Mutant Strain of Rhodobacter sphaeroides O.U.001

Gökhan Kars, Ufuk Gündüz, Aslı Devrekanlı, Meral Yücel, Gabor Rakhely, Kornel L. Kovacs, İnci Eroğlu

Effect of Chemical Composition of Gases from Biomass Gasification on Solid Oxide Fuel Cell Performance

C. Ozgur Colpan, Ibrahim Dincer, Feridun Hamdullahpur

Direct Hydrogen Production from Cellulosic Waste Materials with a Single-Step Dark Fermentation Process

Lauren Magnusson, Rumana Islam, Nazim Cicek, Richard Sparling, David Levin

15:45 - 16:00 Coffe Break

PARALLEL SESSIONS
16:00-18:45

SatD1: Bio-Hydrogen

Keynote Speaker : Volodymyr Yartys

Batch Biohydrogen Production Using Cheese Whey Powder and Mesophilic Microflora
Gustavo Davila-Vazquez, Felipe Alatriste-Mondragon, Antonio De León-Rodríguez and Elías Razo-Flores

Comparative Evaluation of Bio-Hydrogen Production from Cheese Whey Wastewater under Thermophilic and Mesophilic Anaerobic Conditions
Nuri Azbar, F.Tuba Dokgöz, Tuğba Keskin, Rengin Eltem, Kemal S. Korkmaz, Yüksel Gezgin, Zeynep Akbal, Suphi Öncel, Meltem Conk Dalay, Cağdaş Gönen, Fatih Tutuk

Hydrogen Production by a Novel Cellulolytic Bacterium, Clostridium Termitidis Strain CT1112, Isolated from a Termite
Umesh Ramachandran, Nathan Wrana, Rumana Islam, Nazim Cicek, Richard Sparling, and David B. Levin

Impact of Carbon and Nitrogen Sources on Hydrogen Fermentation by a Newly Isolated Clostridium sp. W5
Xiaoyi Wang, Bo Jin and Christopher P. Saint

Optimization of Hydrogen Production by Clostridium thermocellum 27405 via Manipulation of Growth Conditions
Thomas Rydzak, David B. Levin, Nazim Cicek, and Richard Sparling

SatD2: Hydrogen Production

Keynote Speaker : Khalid Benhamou

The Hydrogen Production by Electrolysis of Water Using Electric Energy from Photovoltaic Solar Module

Alexandra Klenovcanova, Ivan Imris

A Study of Hydrogen Economy: The Development of Fuel Cell Scooter Industry in Taiwan

Chunto Tso, Philip Adams and Chihwei Wang

A Simultaneous Optimization Strategy for the Overall Integration of Refinery Planning and Hydrogen Management

I. Alhajri, A. Elkamel, and P. Douglas

Building Hydrogen Economy Based on Sand and Water

Prof. Dr. Firouz Shahrokhi, Prof. Dr. Ahad S. Nasab and Dr. Rocco Guarnaccia

Integrated Solutions of Membrane Units for a High Level Hydrogen Purification

G. Clarizia, G. Chiappetta and E. Drioli

SatD3: Fuel Cell: Catalyst

Keynote Speaker : Krishnan Rajeshwar

Synthesis of Nano-crystalline Zr-M (M=Ni, Co) Bilayer Films and Their Thermodynamics of Hydrogen Uptake by Resistance Measurement

Ankur Jain, R.K. Jain, Shivani Agarwal, V. Ganesan, I.P Jain

Promotional Effects on Co-Based Catalysts in Bio-ethanol Steam Reforming

Hua Song, Lingzhi Zhang and Umit S. Ozkan

Pt-based Electrocatalysts for Polymer Electrolyte Fuel Cells Prepared by Supercritical Deposition

Ayşe Bayrakçeken, Alevtina Smirnova, Usanee Kitkamthorn, Mark Aindow, Lemi Türker, İnci Eroğlu and Can Erkey

Partial Oxidation of Propane to Syngas over Ru-promoted Ni/Mg(Al)O Catalysts Prepared from Hydrotalcites

Katsuomi Takehira, Dalin Li, Tetsuya Shishido, Yasunori Oumi and Tsuneji Sano

Alloying Effect on Nanosized PEM Fuel Cell Catalysts

Evren Ogur , Furkan Dundar, Abdullah Kurtoğlu, Aylin Aytac, Ali Ata

High Concentration Preparation of Pt-Co/C Electrocatalysts for Direct Methanol Fuel Cell

Nazife Çalışkan, Tuba Gürkaynak, Ali Ata, Ismail Boz

SatD4: Hydrogen Production

Keynote Speaker : Debabrata Das

Design of an Industrial Methane Membrane Steam Reformer: Study of Efficiency Improvement

M. De Falco, L. Marrelli, A. Basile, F. Gallucci, A. Giaconia and L. Di Paola Recent

Photocatalytic Hydrogen Emission from Water Solution of Organophosphorous Compounds

Ekaterina A. Kozlova and Alexander V. Vorontsov

Recent Progress in EC Funded Project HYTHEC on Massive Scale Hydrogen Production via Thermochemical Cycles

Alain Le Duigou, Jean-Marc Borgard, Bruno Larousse, Denis Doizi, F. Werkoff, Ray Allen, Bruce C. Ewan, Geoff H. Priestman, Robin Devonshire, Rachael Elder, Manu Minocha, Giovanni Cerri, Coriolano Salvini, Claudio Corgnale, Ambra Giovannelli, Martin Roeb, Nathalie Monnerie, Mark Schmitz, Adam Noglik, Christian Sattler, Daniel de Lorenzo Manzano, Alfredo Orden Martinez, Jorge Cedillo Rojas, Stephane Dechelotte, Olivier Baudouin

Modification of the Sulfur-Iodine Thermochemical Cycle using Metathesis Reactions with Insoluble Lead Salts as Recycle Reagents

Alberto Giaconia, Salvatore Sau, Giampaolo Caputo, Pietro Tarquini and Pier Paolo Prosini

Geothermal to Hydrogen on the Island of Hawaii

Elvin Yuzugullu

Sodium Borohydride Use at Nanosize Hydrogen Containing Materials Synthesis

Iovka Dragieva, Bekir Aktas, Ali Ata and Ventsislav Dimitrov

Sunday, July 15

PARALEL SESSIONS
9:00-10:45

SunA1: Water Electrolysis

Keynote Speaker : Victor Goltsov

Obtaining of Hydrogen and Oxygen from Water under the Pressure by Solar-photovoltaic Electrolysis Power Plant
Salamov Oktay, Mammadov Fuad, Samadova Ulviyya

Characterization of MWCNTs Produced by Molten Salt Electrolysis
Aleksandar T. Dimitrov, Perica Paunović, Dragan Slavkov and Svetomir Hadži Jordanov

Working Regime of Solar-photovoltaic Electrolysis Power Plant to Obtain Hydrogen and Oxygen from Water under the Pressure
Salamov Oktay, Mammadov Fuad, Samadova Ulviyya

Hydrogen Production by using Photovoltaic Module Powered PEM Electrolyzers at Izmir Institute of Technology
Can Aksakal, Erol Seker and Gulden Gokcen

SunA2: Hydrogen Storage

Keynote Speaker : Nazim Muradov

A New Quantitative Application of FT-IR/ATR: Sodium Borohydride Concentration in Discharged Borate Solution

Aysel Kantürk, Müge Sarı, H.Eren Figen, Sabriye Pişkin

Hydrogen Generation from $NaBH_4$ Using Nickel (II) Acetate Tetrahydrate Catalyst

Cinzia Cento, Beata Szczesna, Ilknur Kayacan, Paola Gislon, and Pier Paolo Prosini

Synthesis of Magnesium Borohydride from Its Elements and Its Usage in Hydrogen Recycle

Serda Kaya, Metin Gürü, İrfan Ar

Catalytic Hydrolysis of Alkaline $NaBH_4$ Solutions for Hydrogen Generation

Nafi Ö. Güldal, H. Eren Figen and Sema Z. Baykara

Analysis of Dissemination of FCVs in Japan under CO_2 Emissions Constraint by Energy System Model MARKAL

Endo Eiichi

SunA3: Hydrogen Technology

Keynote Speaker : Ibrahim Dincer

Development of High-Performance Advanced Reforming Technology Using Fluidized Catalyst and Membrane Separation

Yoshinori Shirasaki, Tatsuya Tsuneki, Isamu Yasuda, Tony Boy and John R. Grace

Determination of Microporous Material Selectivity for CH_4-N_2-CO_2-H_2 Mixture Separation Adsorption-based Process

S. Karayünlü, B. Weinberger, F. D. Lamari, S. B. Kayıran and Ü. Ay

Simulation of Hydrogen Production in a Multi-fuel Dense Pd-Ag Membrane Reactor

A. Basile, S. Tosti, M. De Falco, F. Gallucci

A Hydrogen Storage Method: MCH Dehydrogenation over Nickel Catalysts

Sevim Yolcular, Özden Olgun

Dynamic Simulation of a Pem Fuel Cell System

Zehra Ural, Muhsin Tunay Gençoğlu and Bilal Gümüş

SunA4: Hydrogen Storage

Keynote Speaker : Juan Carlos Bolcich

Synthesis of FeTi Hydrogen Storage Alloys for Stationary Applications
Serdar Tan, Taylan Örs, Hasan Akyıldız, A. Ferdi Kalcıoğlu and Tayfur Öztürk

Hydrogen Storage in Mg-Ti using Powder Processing and Severe Plastic Deformation; A Comparative Study
Gülhan Çakmak, Jean-Louis Bobet , Rabia Ölmez and Tayfur Öztürk

Design and Assessment of Solid Hydrogen Storage Tank for Transport Applications
B. Dogan, B. Sakintuna, Z.X. Guo, M. Hirscher

Processing Of $Mg(BH_4)_2$ From Mg And B_2O_3 By Solid Phase Reaction And Its Usage As Hydrogen Carrier
Serda Kaya, Metin Gürü, İrfan Ar

Electronic Structure Analysis of Hydrogenated Nano Scale Boron Clusters: DFT Study of Anionic and Cationic Complexes of B_mH_n ($m=5\text{-}10$ and $n \leq m$)
Mustafa Böyükata and Cem Özdoğan and Ziya B. Güvenç

10:45 - 11:00 Coffee Break

SunB1: Hydrogen Application

Keynote Speaker : Svetlana Yu. Zaginaichenko

IEA-HIA Task 19: An International Collaboration in Hydrogen Safety
Nico H.A. Versloot, William Hoagland, Andrei V. Tchouvelev and Steven C. Weiner

Effect of Membrane Electrode Assembly Preparation Technique on the Performance of Polymer Electrolyte Membrane Fuel Cell
Erce Şengül, Serdar Erkan, İnci Eroğlu and Nurcan Baç

Modelling of the Heat Transfer in Tubular Solid Oxide Fuel Cells within Matlab/Simulink
N. Akhtar, P. Schumann, C. Graf

2D Modeling of a PEM Fuel Cell
Murat Aydın, Altuğ Şişman

Perspectives of A Renewable Based Hydrogen Economy
Ahmet Lokurlu

SunB2: Fuel Cell: Modelling

Keynote Speaker : Huseyin Hiziroglu

Development of an Electronic System for the Control and the Energy Management of a Hybrid R/C Truck Powered by a PEM Fuel Cell Stack and Supercapacitors
Rubén Beneito Ruiz, José Antonio Peral Soler and Joaquín Vilaplana Cerdá

A PEM Fuel Cell / Battery Hybrid Power System under Various Load Conditions
O. C. Onar, M. Uzunoglu, M. S. Alam, M. Y. El-Sharkh

Multy Modelisation Electrochemical in the Cathode of Fuel Cell PEMFC
Djamel Haddad, Hocine Benmoussa, Kafia Oulmi, Bariza Zitouni

Optimal Allocation of Hydrogen Fuel Cells on Radial Electrical Distribution Systems
Tuba Gozel, Abdulkadir Balikçi and M. Hakan Hocaoglu

Modeling and Simulation of Hydrogen Fed SOFC-GT Hybrid System
Ali Volkan Akkaya

SunB3: Hydrogen Technology

Keynote Speakers : Arno A. Evers and Jan-Nico Evers

Steady State Simulations of a Reforming Process with the Lower Molecular Hydrocarbon Fuels for Hydrogen Production

Dr. Atilla Ersoz

Infrastructure for Transition to Hydrogen Energy in Pakistan

Syed Zafar Ilyas

Adding Hydrogen into the CNG Tank to Increase Efficiency

Prof. Dr. M.Oktay Alniak, Dr. Muhammet Garip, Ibrahim Gunes, Ehad Karacam, Cuneyt Bolcan

A Parametric Study on Energetic Stability and Sustainability of Hydrogen Energy Utilization

Adnan Midilli and Ibrahim Dincer

Development and Test of Hydrogen Proton Exchange Membrane Fuel Cell Prototypes

Henrique M.B. Simonetto, Vicente M. Canalli, Marçal Pires, Carla M.N. Azevedo, José W. M. Kaehler

SunB4: Fuel Cell

Keynote Speaker : John Sheffield

A New Type of Gas Diffusion Layer for PEM Fuel Cells
M.S. Yazici, F. Frate, R. Wayne

Theoretical and Experimental Investigation Two Phase Flow in Direct Methanol Fuel Cells
Mahmut D. Mat, Yuksel Kaplan, Selahattin Çelik, Aytekin Öztorul

Characterisation of YSZ Nanocrystallites Prepared by Reverse Microemulsion Method
S.N Koc, F.Oksuzomer, S.Vatansever, M.A.Gurkaynak

Investigation of Heat and Mass Transfer in Intermadiate Temperature Solid Oxide Fuel Cells (IT-SOFC)
Bora Timurkutluk, Mahmut D. Mat and Yuksel Kaplan

Oxygen Reduction Reaction of Microfabricated Platinum Electrodes
Supported on YSZ
S. Naci Koc, Gerardo la O', Theodore Golfinopoulos, and Yang Shao-Horn

12:45-13:30 Lunch

PARALLEL SESSIONS
13:30-15:45

SunC1: Hydrogen Application

Improved Gas Diffusion Layer for PEM Fuel Cell
Ersan, K., Ar, I., Bulut,S

Hydrogen-Oxygen Metal Hydride Torch
Dmitry V. Schur, Svetlana Yu. Zaginaichenko, Viacheslav A. Bogolepov, Aleksander F. Savenko, Konstantin A. Meleshevich, Vasiliy I. Tkachuk, Anatoliy P. Pomytkin and Zinaida A. Matysina

Design Considerations of Fuel Cell Powered UPS Systems
Sinan Pravadalıoğlu

Trends in the Market Growth for Proton Exchange Membrane Fuel Cells (PEMFC): A Review of the Market Dynamics
Cihat Polat and Nurcan Kılınç

Hydrogen Generated from Water as Additional Fuel in Internal Combustion Engines without Being Stored
Fazlı Eroğlu

Effect of Blacksea Morphology for Hydrogen Sulphure Concentration
Güler Alkan, Barboros Gonencgil, Cuma Bayat, Güngör Tuncer, Osman Aşkın Bak

SunC2: Hydrogen Technology

Analysis of Hydrogen Penetration in a Developing Market such as India for use as an Alternative Fuel

Stacey L. Hirsh, Dr. Mathew Abraham and Jasbir Singh

An Excellency Center on Hydrogen Technologies - HYPROSTORE FP6 Project

Atilla Ersöz, Alper Sarioğlan, Nilüfer Ilhan, Aslı Sayar Kaytaz, Göktuğ N. Özyönüm, Ceylan Akiş, Murat Baranak

The Role of Defense Industry in Hydrogen Technologies Evolution

Cenk Cumhur Kiykim, Serhat Gençoğlu and Doç.Dr.Elife Ünal

HYDEPARK - A Standalone Renewable Hydrogen Demonstration Park in Turkey

Dr. Atilla Ersoz, Alper Sarıoğlan, Nilüfer İlhan, Göktuğ Nezihi Özyönüm, Mete Çubukçu, Aslı Sayar Kaytaz, Cem Kaypmaz, Alptekin Yağmur

Integration of Industrial Fuel Cells in Technical Applications demonstrated on the NEXA® Training System

Claus Fischer and Ralph Schanz

The Image of Natural Gas Industry in Iran

Hedayat Omidvar

SunC3: Fuel Cell: Simulation

New electrochemical approach for screening and optimization of MEAs for Electrochemical Hydrogen Energy Converters
Ivan D. Radev, Evelina Slavcheva and Evgeni Budevski

PVA Based Composite Membrane Synthesis for PEM Fuel Cells
Muzaffer Balbasi, Alpay Sahin, , Kemal Erşan, İrfan Ar

Modeling of An APU System Based on MC-FC
Gianpiero J.R. Fontana, Stefania Specchia, Guido Saracco and Vito Specchia

Impedance Source Converter for Fuel Cell Backup Power Applications
Betül Erdör, Haluk Görgün and Fatih Genç

PEM Fuel Cells Development within ICIT-Rm. Valcea
Laurentiu Patularu, Daniela Stoenescu, Mihai Culcer, Dumitru Mirica, Gabriel Rasoi, Adrian Enache, Roxana Lazar, Vasile Stanciu, Ioan Stefanescu

Development of a DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station using LabView™ PDS v8.20
Recayi "Reg" Pecen, Faruk Yildiz, Kenan Baltaci