

15th International Symposium on Metal-Hydrogen Systems

Program



Timetable Talks

08 August 2016

Room 1

- 09:00-10:00 **Dynamics and thermodynamics of hydrogen in metals**
Björgvin Hjörvarsson
- 10:20-11:00 **Computational Design of Materials for Hydrogen Storage, Batteries and Electrocatalysis**
Tejs Vegge
- 11:00-11:20 **Effect of nanointerfaces on hydrogen storage properties of complex metal hydrides**
Vitalie Stavila
- 11:20-11:40 **M₂B₁₀H₁₀ + MH (M = Li and Na) composite under hydrogen pressure**
Steffen R. H. Jensen
- 11:40-12:00 **Desorption of ScH₂ combined with M(BH₄)_n (M = Li, Mg, Ca; n = 1,2) with varying hydrogen back pressures**
Anna-Lisa Chaudhary
- 13:20-14:00 **Property changes of nano-M-H materials upon structural coherency transitions**
Astrid Pundt
- 14:00-14:20 **Improving the hydrogenation's speed of an hydride by a coolant gas.**
Denis Mazerolles
- 14:20-14:40 **Metal Hydride for CO₂ Reduction**
Shunsuke Kato
- 14:40-15:00 **Enhanced reversibility of the Li conversion reaction in MgH₂-TiH₂ nanocomposites**
Nicola Berti
- 15:40-16:00 **Vegard's Law for the solid hydrogen solutions in Pd and Pd-Au alloys resulting from high-temperature high-pressure hydrogenation**
Vladimir Antonov
- 16:00-16:20 **Crystal structure and reversible deuterium loading of Li-Mg-N-D composites synthesized by reactive ball milling**
Zhinian Li

Room 1

- 16:20-16:40 **KNH₂-KH: a metal amide – hydride solid solution**
Antonio Santoru
- 16:40-17:00 **In-situ X-ray diffraction of LaNi₂Co₃ using time-resolved measurements**
Yumiko Nakamura

Room 2

- 10:20-11:00 **Limited resources at Unlimited Capabilities – HKP Nanomaterials/Nanostructures in Clean- Green- and Hightech**
Henning Zoz
- 11:00-11:20 **Ternary Transition Metals Amides for Hydrogen Storage: Cases Study with Alkali Metal Amidozincates**
Hujun Cao
- 11:20-11:40 **H₂ adsorption in a new metal-organic framework with two gas binding sites per metal center: A combined experimental and theoretical study**
Wei Zhou
- 11:40-12:00 **Density adsorbed hydrogen at low temperatures in mesoporous materials**
Rafael Balderas-Xicohténcatl
- 13:20-14:00 **Liquid-phase materials for hydrogen storage and delivery**
Zhenguo Huang
- 14:00-14:20 **Synthesis and evolutionary search of Zr₃Fe hydride**
Wei Liu
- 14:20-14:40 **Structural and hydrogen absorption-desorption properties of La_{2-x-y}Sm_xMg_yNi₇ compounds**
Junxian Zhang
- 14:40-15:00 **HYDRIDING PROPERTIES OF AMORPHOUS AND NANOCRYSTALLINE MgNi BASED ALLOYS PRODUCED AT DIFFERENT MILLING CONDITIONS**
Tony Spassov
- 15:40-16:00 **The Taming of the Shrew: Stabilizing of Al(BH₄)₃ in M[Al(BH₄)₄] (M = Li⁺, Na⁺, K⁺, NH₄⁺, Rb⁺, Cs⁺) Family**
Iurii Dovgaliuk

Room 2

- 16:00-16:20 **Effect of CO₂ on hydrogen absorption in Ti-Zr-Mn-Cr based AB₂ type alloys**
Nobuko Hanada
- 16:20-16:40 **Experimental and theoretical study of compositional inhomogeneities in LaNi₅D_x owing to temperature gradients and pressure hysteresis**
Shahrzad Mohammadshahi
- 16:40-17:00 **Accelerating Hydrogen Storage Materials Development through National Laboratory-led Collaborations**
Zeric Hulvey

Room 3

- 10:20-11:00 **Tuning the de/hydriding of Mg based alloys by altering reaction routes**
ZHU Min
- 11:00-11:20 **Development of large MH tank system for renewable energy storage**
Kazuya Kubo
- 11:20-11:40 **Research, development and innovation in metal hydride materials and technologies at HySA Systems Competence Centre /South African Institute for Advanced Materials Chemistry**
Cordellia Sita
- 11:40-12:00 **Diffusion process in MgH₂ as hydrogen and electrochemical energy storage material**
Efi Hadjixenophontos
- 13:20-14:00 **How oxygen additions to hydride batteries prolong cyclelife**
Dag Noréus
- 14:00-14:20 **Development of High Capacity Ti-V-Cr-Ni Alloy Negative Electrodes for Nickel-Metal Hydride Batteries**
Hiroshi Inoue
- 14:20-14:40 **Metal Hydride in Non-alkaline Electrolyte**
Kwo-hsiung Young
- 14:40-15:00 **Relationship between H₂ sorption properties and aqueous corrosion mechanisms in Y₂Ni₇ hydride forming alloy**
Judith MONNIER

Room 3

- 15:40-16:00 **Metal Amide Borohydride Complexes as Solid-State Ionic Conductors for Lithium and Magnesium Ion Batteries**
Elsa Roedern
- 16:00-16:20 **Fundamental Mechanisms Involved in Recharge Process and Cycle Degradation of the NaAlH₄ Anode for Lithium Batteries**
Wu Feilong
- 16:20-16:40 **Complex Hydrides as room-temperature solid electrolytes for rechargeable batteries**
Didier Blanchard
- 16:40-17:00 **Silver boranes, worth their weight in gold?**
Mark Paskevicius

Room 4

- 10:20-11:00 **New Advancements in the Formation of Alane for Hydrogen Storage**
Ragaiy Zidan
- 11:00-11:20 **First Direct Study of the Ammonolysis Reaction in the Most Common Alkaline and Alkaline Earth Metal Hydrides by In-Situ SR-PXD**
Pistidda Claudio
- 11:20-11:40 **Hydrogenation behavior of up-scale metal hydride tanks for hydrogen compression systems under effective heat management processes for green building applications**
EVANGELOS GKANAS
- 11:40-12:00 **Elevated temperature cycling effects on coated atomised magnesium spheres for thermal storage with concentrated solar power applications**
Priyen Mistry
- 13:20-14:00 **Hydroborates Design supported by Crystal Chemistry Concept**
Radovan Cerny
- 14:00-14:20 **In-situ characterization of hydrogen-induced defects in Palladium by positron annihilation and acoustic emission**
Jakub Cizek
- 14:20-14:40 **Interaction of ZrMo₂ with hydrogen at high pressure**
Stepan Lushnikov

Room 4

- 14:40-15:00 **A systematic first principle study of binary metal hydride systems**
Natacha Bourgeois
- 15:40-16:00 **Synthesis of Li₃AlFeH₈**
Hiroyuki Saitoh
- 16:00-16:20 **H₂ sorption properties of carbon supported Pd-based nanoalloys**
OUMELLAL Yassine
- 16:20-16:40 **Characterizations of polymorphism and corrosion rate in A₂Ni₇-type phases by mean of magnetic measurements**
Valérie Paul-Boncour
- 16:40-17:00 **Simultaneous Microwave Dielectric and Neutron Diffraction Studies of Metal-Organic Framework Mesoporous Systems**
Michael Barter

09 August 2016

Room 1

- 09:00-10:00 **An Increasing Diversity of Complex Hydride Research**
Shin-ichi ORIMO
- 10:20-11:00 **Chemical Conversion of Metal Borohydrides**
Yaroslav Filinchuk
- 11:00-11:20 **Formation of Mg₂Cu at low temperature in Mg/Cu super-laminate composites during initial hydrogenation**
Koji Tanaka
- 11:20-11:40 **Surface-controlled conversion of ammonia borane from boron nitride**
Tessui Nakagawa
- 11:40-12:00 **Reversible composite mixtures with rare earth borohydrides (RE=Er, Gd, La) and light metal borohydrides**
Michael Heere
- 13:20-14:00 **New Hydrogen Energy Supply System by using a Hydrogen Storage Alloy**
Kono Tatsuoki
- 14:00-14:20 **Synthesis of ruthenium hydride**
Marek Tkacz
- 14:20-14:40 **A Complex-Hydride Based on Lithium Borohydride/Imide System**
Anna Wolczyk
- 14:40-15:00 **Hydrogen absorption in Mg-Gd alloy**
Marian Vlcek
- 15:20-15:40 **Mg₂Fe(x)Si(1-x) – hydride: The interplay between defects, structure and magnetic properties**
Thu Trang Trinh
- 15:40-16:00 **Novel synthesis of LiBH₄/Al nanocomposites for hydrogen storage**
Maria Veronica Sofianos
- 16:00-16:20 **Synthesis, structure and properties of new bimetallic M-RE-BH₄ compounds, RE = La, M = Na, K.**
SeyedHosein Payandeh Gharibdoust
- 16:20-16:40 **Mechanism on Thermal Decomposition of Sodium Amide**
Shotaro Yamaguchi

Room 1

- 16:40-17:00 **NANOPOROUS COBALT CATALYST FOR DIRECT AMMONIA BORANE FUEL CELLS**
Alberto Moreira Jorge Junior

Room 2

- 10:20-11:00 **Mg(BH₄)₂ - reaction pathways and effect of additives**
Bjørn C. Hauback
- 11:00-11:20 **Influence of nanoscaffolds on the superionic conductivity of nanoconfined LiBH₄**
Sander Lambregts
- 11:20-11:40 **Anion Packing and Cation Mobility in Potential Solid Electrolytes Na₂B₁₂H₁₂-xI_x and (A₁A₂)B₁₂H₁₂(A₁ = Li, Na, A₂ = Li, Na, K, Cs)**
Yolanda Sadikin
- 11:40-12:00 **Structural Morphology Effects on the Electrochemical Cycling of MgH₂ Anode for Lithium Ion Batteries**
Abdelouahab El-Kharbachi
- 13:20-14:00 **Materials design, synthesis, characterization, and applications of complex metal hydrides composites**
Young Whan Cho
- 14:00-14:20 **A Computational Study of the Spectroscopic properties of boron-hydrogen compounds: from borane (BH₃) to closo-borane (B₁₂H₁₂-)**
Daniel Sethio
- 14:20-14:40 **Lanthanide Emission and Photoluminescence Quantum Efficiency of Perovskite and Garnet-Type Metal Borohydrides**
Brighi Matteo
- 14:40-15:00 **Interatomic Potentials Generated by Machine Learning**
Kazutoshi Miwa
- 15:20-15:40 **A multitude of metal borohydrides; facile synthesis from the elements**
Bo Richter
- 15:40-16:00 **Ab Initio Modeling of Quasielastic Neutron Scattering: Hydrogen Pipe Diffusion in Palladium**
SCHIAVONE Emily

Room 2

- 16:00-16:20 **Multiscale simulation of helium behavior in titanium**
Li Liang
- 16:20-16:40 **Simulation of behavior hydrogen in titanium hydrogen systems TiHx**
Aleksandr Rokhmanenkov
- 16:40-17:00 **Systematic studies on metal hydride anode for all solid state lithium ion batteries**
Takayuki Ichikawa

Room 3

- 10:20-11:00 **New boron and nitrogen based metal hydrides**
Torben R. Jensen
- 11:00-11:20 **Structure and dynamics of bulk graphane synthesized under high hydrogen pressure**
Alexander Kolesnikov
- 11:20-11:40 **New approaches using Ammonia Borane as a Solid State H₂ Storage Material for Portable Power Applications**
Laura Bravo Diaz
- 11:40-12:00 **HYDROGEN STORAGE IN ALKALI CLUSTERS INTERCALATED FULLERIDES**
Chiara Milanese
- 13:20-14:00 **Characterization of Reaction Mechanisms and Improving the Performances of Novel Light Weight Materials and Systems for Hydrogen Storage**
Martin Dornheim
- 14:00-14:20 **Supported Nanoparticles for Catalytic Hydrogenation of N-Heterocycles**
Teng HE
- 14:20-14:40 **Coordination compounds of LiBH₄ with bridging nitrogen-based ligands**
Fabrice Morelle
- 14:40-15:00 **Synthesis of Magnesium Borohydride Hexaammoniate Nanoparticles towards Improved Dehydrogenation Properties**
You Li

Room 3

- 15:20-15:40 **Decomposition Mechanism of a Eutectic Lithium and Sodium Borohydride Mixture**
YINZHE LIU
- 15:40-16:00 **Dielectric function of Pd capped Zr thin films as a function of absorbed hydrogen concentration**
Daniel E. Azofeifa
- 16:00-16:20 **Destabilisation of LiBH₄ using Nickel**
Oliver Deavin
- 16:20-16:40 **Preparation of Vanadium-based hydrogen storage alloy by sintering method and its hydrogen storage Performance**
Wu Chaoling
- 16:40-17:00 **Physics of Cold fusion**
Sveinn Ólafsson

Room 4

- 10:20-11:00 **Hydrogen Storage in Nano-materials**
Hiroshi Kitagawa
- 11:00-11:20 **Hydrogen effect on creep of the ultrafine-grained zirconium alloy of Zr-Nb system**
Ekaterina Stepanova
- 11:20-11:40 **Hydrogen permeation behavior of V-Ni alloy membranes: Computational and experimental studies**
Jae-Hyeok Shim
- 11:40-12:00 **Stress effect on the Swelling / Shrinking behavior of an AB₂ alloy during hydrogenation cycles**
Andres R. Galvis E.
- 13:20-14:00 **Anion Dynamical Behaviors in Super-Cationic-Conducting Hydro-closo-borate Salts of Lithium and Sodium Studied via Quasielastic Neutron Scattering**
Terrence Udovic
- 14:00-14:20 **Characterization of hydrogen-induced defects in metals by positron annihilation spectroscopy**
Masanori Fujinami

Room 4

- 14:20-14:40 **Dynamical Properties of Mixed-Anion Hydroborates $K_3(BH_4)(B_{12}H_{12})$ and $Na_3(BH_4)(B_{12}H_{12})$: Nuclear Magnetic Resonance Studies**
Alexander Skripov
- 14:40-15:00 **Mg₂FeH₆: a comparison of different methods of synthesis.**
Annalisa Paolone
- 15:20-15:40 **Structure determination of aminoalanes and their thermolytic dehydrocoupling**
Morten Brix Ley
- 15:40-16:00 **Relation between the structural, morphological and thermolytic properties of ammonia borane: A study in presence of zirconia support material**
Pratibha Sharma
- 16:00-16:20 **Photochromism in metal-oxy-hydride materials**
Steffen Cornelius
- 16:20-16:40 **In-situ characterization of metal hydride composites and deduced design criteria for storage systems**
Felix Heubner
- 16:40-17:00 **From NaBH₄ to higher borane clusters, a cheap synthetic path for solid electrolyte**
Romain Moury

10 August 2016

Room 1

- 09:00-10:00 **Hydrogen and Rare Earth Magnets: Towards a Carbon Free Environment**
Rex Harris
- 10:20-11:00 **Quaternary Mg-based Transition-Metal Complex Hydrides Produced by Reactive Milling**
Stefano Deledda
- 11:00-11:40 **Effects of Ti/Zr content and La addition on the structure and electrochemical performances of Ti-Zr based AB₂ alloys for high power metal hydride batteries**
Volodymyr A. Yartys
- 11:40-12:00 **Carbon Supported Lithium Hydride Nanoparticles: Impact of Preparation Conditions on Particle Size and Hydrogen Sorption**
Bramwell Peter

Room 2

- 10:20-11:00 **Metal hydride thin film applications**
Bernard Dam
- 11:00-11:20 **Alloy Design of V-based Hydrogen Permeable Membrane under Given Temperature and Pressure Condition**
Asuka Suzuki
- 11:20-11:40 **Crystallisation of Zr-based amorphous thin films as potential hydrogen purification membranes**
Shahrouz Nayeboosadri
- 11:40-12:00 **One second interval measurements of structural changes in Nb-TiNi hydrogen permeation alloys using synchrotron radiation light source**
Kazuhiro ISHIKAWA

Room 3

- 10:20-11:00 **Separation of hydrogen isotopes by MOFs**
Michael Hirscher

Room 3

- 11:00-11:20 **In situ neutron diffraction finds a new intermediate hydride phase when cycling an iron battery electrode.**
Mylad Chamoun
- 11:20-11:40 **Correlation of the hydrogen adsorption and porosity in commercial activated carbons**
Minuto Francesco Demetrio
- 11:40-12:00 **Round Robin Results Highlighting Potential Issues of Volumetric Capacities Reported for Hydrogen Storage Materials**
Jesse Adams

Room 4

- 10:20-11:00 **Vibrational spectroscopic properties of light hydrogen containing species**
Hans Hagemann
- 11:00-11:20 **Promising hydrogen storage properties of La-Y-Mg-Ca-Ni AB₃-type alloys**
Xin Gongbiao
- 11:20-11:40 **PdAu Alloy Nanoparticles as Hysteresis-Free Optical Hydrogen Sensors**
Ferry Nugroho
- 11:40-12:00 **First Principles studies of the thermodynamic properties of hydrogenated nanotubes and graphene**
Ian Morrison

11 August 2016

Room 1

- 09:00-10:00 **High Capacity Hydrogen Cycling between Magnesium Borohydride and Magnesium Boranes under Moderate Conditions**
Craig Jensen
- 10:20-11:00 **Crystal structure and hydrogen occupation sites of Ti-V-Cr hydrogen absorbing alloys**
Etsuo Akiba
- 11:00-11:20 **Local structural study on degradation in Vanadium based BCC Alloys**
Kouji SAKAKI
- 11:20-11:40 **Precursor state for formation of a complex hydride**
Toyoto Sato
- 11:40-12:00 **Enthalpy-Entropy compensation in Ti-V-Cr BCC alloys**
Jacques Huot
- 13:20-14:00 **Study on the ternary systems Al-RE-H (RE = Y, La, Er)**
Michel LATROCHE
- 14:00-14:20 **Experimental and numerical investigation of micro and macro-structural modifications during hydride breathing**
Salque Bruno
- 14:20-14:40 **Preparation of crack-free bulk TiH₂ by limiting hydrogen absorption rate.**
Long Li
- 14:40-15:00 **Cycling behaviour of hydrogen storage material developed under SSH2S project.**
Marek Bielewski
- 15:20-15:40 **Opportunities for hydrides in electrochemical applications: solid state electrolytes and high capacity conversion anodes**
Joseph Teproovich
- 15:40-16:00 **The dehydrogenation and rehydrogenation properties of borohydrides by the addition of NiFe metal nanoparticles**
Daniel Reed
- 16:00-16:20 **Study on the thermal decomposition of NaBH₄ catalyzed by ZrCl₄**
SANJAY Kumar

Room 1

- 16:20-16:40 **Ammonia Suppression during decomposition of Sodium Amide by the addition of metal hydride**
Ankur Jain

Room 2

- 10:20-11:00 **Designer metal nanoclusters and what they do with hydrogen**
Petra Szilagyí
- 11:00-11:20 **Thermodynamic Difference Rules Applied to Complex Hydrides**
Drew Sheppard
- 11:20-11:40 **Material Designing of Metal Boranes for Energy Storage**
Hai-Wen Li
- 11:40-12:00 **IMPROVEMENT PROPERTIES IN THE COMPOSITE MAGNESIUM BOROHYDRIDE INFILTRATED IN SILICA AEROGEL**
Miriam Rueda
- 13:20-14:00 **Crystal structure analysis and in situ diffraction studies of new complex aluminum hydrides**
Claudia Weidenthaler
- 14:00-14:20 **Activation for Low-coordinated Ammine Complex Formation of Magnesium Chloride**
Hiroki Miyaoka
- 14:20-14:40 **Recycling of Spent Ammonia Borane and Ammonia Alazane Related Compounds**
Florian Mertens
- 14:40-15:00 **Hydrogen production from ammonia using lithium-calcium imide**
Joshua Makepeace
- 15:20-15:40 **Using Li-intercalation in carbon to destabilize and alter the decomposition pathway of Li-based complex hydrides**
Peter Ngene
- 15:40-16:00 **Study on reversible hydrogen sorption in NaBH₄ based composites**
JIANXIN ZOU
- 16:00-16:20 **Fluoride substituted metal hydrides for thermal energy storage applications**
Terry Humphries

Room 2

- 16:20-16:40 **Synthesis of metastable Na[Al(NH₂BH₃)₄] by solid and solution methods: Structural characterization and hydrogen desorption properties**
Yuki Nakagawa
- 16:40-17:00 **Recent Investigations on Complex closo-Borane Materials as Fast Ionic-Conductors**
Wan Si TANG

Room 3

- 10:20-11:00 **Innovative ball mill setup for in situ X-ray diffraction**
Voraksmy Ban
- 11:00-11:20 **Structure and magnetocaloric properties of Gadolinium borohydrides**
Emilie Didelot
- 11:20-11:40 **Thermal Applications for Metal Hydrides in vehicles**
Inga Bürger
- 11:40-12:00 **Electrochemical reduction of CO₂ with H₂ to hydrocarbons**
Mariana Spodaryk
- 13:20-14:00 **Metal Hydride Stores for Stationary Applications**
Gavin Walker
- 14:00-14:20 **Pressure Influence on Metal Borohydride Formation from Aluminium Boride and Metal Hydrides**
Kasper Møller
- 14:20-14:40 **Ageing effects in β -palladium tritide**
John Knowles
- 14:40-15:00 **Hydrogen storage properties of high-pressure-torsion compacted micro and ultrafine Mg powders**
Subrata Panda
- 15:20-15:40 **Hydrogen absorption in ultra-small metal nanoparticles**
Claudia Zlotea
- 15:40-16:00 **NANOSIZE, INTERFACES, AND DOPING IN MAGNESIUM: A HYDROGEN SORPTION PERSPECTIVE**
Luca Pasquini
- 16:00-16:20 **Cycling behaviour of the Mg(NH₂)₂-2LiH-xKH system**
Gokhan Gizer

Room 3

- 16:20-16:40 **Corrosion of Lithium Hydride by Water Vapor**
George Powell
- 16:40-17:00 **METAL HYDRIDES FOR HYDROGEN AND THERMAL ENERGY STORAGE FROM ENERGY BALANCE VIEWPOINT**
Serge Nyallang Nyamsi

Room 4

- 10:20-11:00 **Hydrogen production via hydrolysis of Mg-oxide composites**
Ouyang Liuzhang
- 11:00-11:20 **Formation of Mg₂FeH₆ by hydrogenation of ball-milled nano-crystalline powder mixtures of Fe and Mg**
Julien Fadonougbo
- 11:20-11:40 **Metal hydrides: bridge linking hydrogen storage with Li-ion batteries technologies**
LIWU HUANG
- 11:40-12:00 **PROCESSING OF MAGNESIUM HYDRIDE BY COLD ROLLING UNDER PROTECTIVE ATMOSPHERE**
Tomaz Toshimi Ishikawa
- 13:20-14:00 **Characteristics of low-enthalpy metal hydrides favorable for high-pressure hydrogen storage applications**
Ned Stetson
- 14:00-14:20 **Performance analysis of low cost metal hydride based thermal energy storage systems for power plants**
Claudio Corgnale
- 14:20-14:40 **Design and development of hydrogen storage system for stationary applications**
David Grant
- 14:40-15:00 **Functionalizing the metal hydrides for hydrogen cartridges**
Vasile Iosub
- 15:20-15:40 **Hydrogen Storage Performance of Mg-Zr Phases Synthesized by High-Pressure Torsion (HPT)**
Edalati Kaveh
- 15:40-16:00 **Investigation of Li, Na and H dynamics in Na_xLi_{6-x}C₆₀**
Nicola Sarzi Amadè

Room 4

- 16:00-16:20 **MICROWAVE FOR H₂ RELEASE FROM ETHANE 1,2-DIAMINOBORANE INFILTRATED IN C/SiO₂ AEROGEL**
Luis Miguel Sanz-Moral
- 16:20-16:40 **New directions for higher metal boranes**
Bjarne R. S. Hansen
- 16:40-17:00 **Crystal Engineering and Synthesis of Novel Silicon- and Carbon-Based Intermetallic Clathrates for Reversible Hydrogen Storage Near Room Temperature**
Michael Miller

12 August 2016

Room 1

- 09:00-10:00 **Hydrogen in Palladium Nanocubes and Nanoparticles for Active Plasmonics**
Ronald Griessen
- 10:20-11:00 **Ionic Conductivity of Metal Dodecaborates – Theoretical Insight**
Zbigniew Lodziana
- 11:00-11:20 **Highly efficient and fast synthesis of LiBH₄ from LiH + MgB₂ and corresponding kinetics study**
Huaqin Kou
- 11:20-11:40 **HYDROGEN STORAGE IN THE Mg-Co SYSTEM**
Daniel Rodrigo Leiva
- 11:40-12:00 **Effect of the addition of cobalt on the hydrogenation properties of TiFe_{0.8}Mn_{0.2} alloy**
Haiyan Leng

Room 2

- 10:20-11:00 **Conventional superconductivity in palladium hydride and deuteride at 55–60 kelvin**
Evan Gray
- 11:00-11:20 **Rubidium and caesium amidoboranes**
Rafal Owarzany
- 11:20-11:40 **Hydrogen Desorption Properties and Reaction Mechanisms of the LiBH₄-AlH₃ Composite**
Haizhen Liu
- 11:40-12:00 **EFFECTS OF DIFFERENT FABRICATION ROUTES ON HYDROGEN ABSORPTION/DESORPTION PROPERTIES OF BETA Ti_{0.6}Nb_{0.4} ALLOY**
Ricardo Mendes Leal Neto

Postersession Tuesday

- Nr. 1 **Surface Modification in Electron Irradiation on Hydriding Property of Hydrogen Storage Alloy**
ABE Hiroshi
- Nr. 2 **Effect of Ti Substitution on Electrochemical Properties of ZrNi Alloy Electrode for Use in Nickel-Metal Hydride Batteries**
Akihiro Matsuyama
- Nr. 3 **Influence of hydrogen pressure on the thermal conductivity of metal hydride systems for heat storage applications**
Albert Rene
- Nr. 4 **NH₃BH₃ as an internal hydrogen source for high pressure experiments**
Antonov Vladimir
- Nr. 6 **NMR Study of Reorientational Motion of BH₄ Groups in Bimetallic Borohydrides A[Al(BH₄)₄] (A = Na, K, Rb, and Cs)**
Babanova Olga
- Nr. 7 **An atomic force microscope device developed to study metal hydrogen reactions up to 5 bar of pressure**
BERLU Lilian
- Nr. 8 **Comparison of the material degradation rate measurements using different approaches on example of Li-Mg-N-H system**
Bielewski Marek
- Nr. 9 **Modeling and measuring metal hydrides using VirtuES**
Campbell Stuart
- Nr. 11 **Experimental device optimization for measuring P_cT curves at low temperatures with the Pd-HDT systems**
Challet Sylvain
- Nr. 48 **Carbon wrapped transition metal nanoparticles toward high-catalytic enhancement of Li-Mg-B-H system for reversible hydrogen storage**
Chen Lixin
- Nr. 14 **Transition metal based optical hydrogen sensors spanning a large pressure range**
Dam Bernard
- Nr. 16 **Dilatometry measurements of LaNi₅ compacted powder**
de Rango Patricia
- Nr. 17 **Experimental and theoretical modeling of thermodynamic properties of LiBH₄-NaBH₄-KBH₄ system**
Dematteis Erika Michela

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- Nr. 18 **Fundamental Analysis of Body Posture during Up-down Operation of a Hydraulic Jack Lever Aimed at Development of New Jack Lever by Use of Metal Hydride Actuator**
Doi Kouki
- Nr. 23 **Proximity effects in single-crystal superlattices revealed by neutron reflectivity and enabled by a new sample environment: The case of Fe/VHx and Cr/VHx**
Droulias Sotirios
- Nr. 24 **Thermodynamic and Structural Investigation of the Mg-Li-B-H System for Energy Storage**
El-kharbachi Abdel
- Nr. 25 **High flexibility and thermal stability of thin porous Ni metal support prepared by electrodeposition for Pd alloy membrane**
ENDO Naruki
- Nr. 26 **C-P-T and in-situ neutron diffraction study of deuterium absorption by HoMn2**
Figiel Henryk
- Nr. 55 **Investigation of the capacity degradation mechanism of rare earth-based AB3-type alloy**
Gongbiao Xin
- Nr. 28 **Hydrogen Ab/Desorption properties of MH at 80MPa**
Goshome Kiyotaka
- Nr. 29 **TiFe-based alloys for stationary hydrogen storage**
Greenwood Carmel
- Nr. 30 **Diffusion process in materials used in hydrogen storage: MgH₂, TiH₂**
Hadjixenophontos Efi
- Nr. 31 **Hydrogen Grain Boundary Diffusion Measurements in nano-crystalline Magnesium**
Hamm Magnus
- Nr. 32 **Characterisation of defects created in titanium by hydrogen charging**
Hruska Petr
- Nr. 33 **Stability of hydrogen storage capacity of nanoconfined MgH₂**
Huen Priscilla
- Nr. 10 **Synthesis of NaAlH₄/Al nanocomposites and their properties as hydrogen storage materials**
Ianni Enrico
- Nr. 35 **Structural study during the disproportionation process of NaAlH₄-TiCl₃ by quantum multi-probe techniques**
IKEDA Kazutaka

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- Nr. 36 **Development of LaNi₅ Hybrid Paper and Its Application in a Metal Hydride Actuator**
Ino Shuichi
- Nr. 37 **Hydrogenation properties of supported metal nanoparticles on graphene**
ISOBE SHIGEHITO
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