

**International Workshop**  
**„Hydrogen and Fuel Cells in Research and Applications: facing to Latvia”**  
**October 4-5, Hanza Hotel (Elijas iela 7), Riga, Latvia**

**PROGRAM**

**Thursday, October 4**

9:00-9:30	Registration with Coffee		
9:30-9:45	Opening (Institute of Solid State Physics, University of Latvia; Latvian Hydrogen Association – Līga Grīnberga, Jānis Kleperis)		
	<i>Lectures for Students and Specialists</i>		
9:45-10:25	Marieke Reijalt	European Hydrogen Association, EHA	Hydrogen and fuel cell vehicles demo projects in Europe
10:25-11:05	Dr. rer. nat. Johannes Töpler	Hochschule Esslingen; German Hydrogen and Fuel Cell Association	Why Hydrogen? - the reasons for its necessity and comparisons of alternative fuels
11:05-11:15	Short Water Break		
11:15-11:55	Gordon Watt	Business Development, Logan Energy Ltd (UK)	CO <sub>2</sub> neutral hydrogen technologies integrated with existing technologies – UK experience I
11:55-12:35	Dr. rer. nat. Johannes Töpler	Hochschule Esslingen; German Hydrogen and Fuel Cell Association	Hydrogen Storage Technologies - existing capabilities and safety relations I
12:35-13:30	Lunch		
13:30-14:10	Dr.chem. Guntars Vaivars	Faculty of Chemistry, University of Latvia (UL)	Alternative energy research in East Asia
14:10-14:50	Dr.phys. Pavel Fursikov	Laboratory of Hydrogen Storage Materials IPCP Russian Academy of Science	Jacob's Ladder for Metal Hydrides and Solid-State Hydrogen Storage
14:50-15:30	Dr.chem. Yuri Zhukovskii	Institute of Solid State Physics, UL	Catalysts on the surface of the oxide nanotubes - calculations from the first principles
15:30-16:00	Coffee Break		
16:00-18:00	Reports from Young Researchers (8 minutes each):		
	Ilze Dimanta	Faculty of Biology, UL	Biohydrogen production research in the University of Latvia I
	Ilze Dirnena	Faculty of BiologyUL	Integration of acidogenic and metanogenic processes for simultaneous hydrogen and methane obtaining from complex substrates
	Zane Rutkovska, Arturs Gruduls	Faculty of Biology, UL	Microbial fuel cells from local microorganisms
	Astrida Berzina, Peteris Lesnicenoks	Faculty of Materials Science and Applied Chemistry, RTU	Hydrogen storage in zeolites – Thermogravimetric method
	Krisjanis Jurgelis	Faculty of Chemistry, UL	Preparation, properties and use in fuel cell of modified poly(etheretherketone) polymer membranes
	Justs Dimants	Faculty of Economics and Management, UL	Public Acceptance Of Hydrogen Technology Implementation
	Ainars Knoks	Institute of Solid State Physics, UL	Spray-pyrolysis method to obtain thin films
	Andris Sivars	Institute of Solid State Physics, UL	Hydrogen storage in zeolites and metal hydride composites – Sievert method

Peteris Aizpurietis, Martins Vanags	Institute of Solid State Physics, UL	Water electrolysis with short inductive voltage pulses
Mara Gudakovska	Faculty of Geography and Earth Sciences, UL	Research plan starting MSc studies – Hydrogen as renewable energy carrier
Mihails Haļitovs	Institute of Chemical Physics, UL	Accumulation and release of fusion fuel from a Tokamak vacuum vessel protection materials
Līga Avotina	Institute of Chemical Physics, UL	Characterization of retention of hydrogen isotopes from fusion device materials
Sabine Didrihsone	Institute of Inorganic Chemistry, RTU	Photocatalytic properties of Bi <sub>2</sub> WO <sub>6</sub> nanopowders synthesis with molten salt method
Reinis Drunka	Institute of Inorganic Chemistry, RTU	Synthesis and photocatalytic properties of sulfur-modified TiO <sub>2</sub> nanotubes

**Friday, October 5**

9:00-9:30	Registration		
9:30-12:00	<b>Introducing themselves and speeches</b>		
	Dr.Hab.phys. Andris Sternbergs	Director of Institute of Solid State Physics, UL	Nanomaterials and Nanotechnologies in Research
	Dr.phys. Gunta Slihta	Vice Director of Institute of Physical Energetics	National Research program LATENERGY
	Dr.phys. Janis Kleperis	Head of Hydrogen energy materials Laboratory, ISST UL	Introduction to Latvian Hydrogen Association - Hydrogen related research/demonstration projects in Latvia
	Prof., Dr.oec. Biruta Sloka	Faculty of Economics and Management, University of Latvia	Challenges for public opinion analysis on hydrogen energy acceptance
	PhD Ilze Dimanta	Faculty of Biology, University of Latvia	Biohydrogen production research in the University of Latvia II
	Ilze Pruse	Director of Climate Policy and Technology Department, Ministry of Environmental Protection and Regional Development	Climate Change Finance Facility for CO <sub>2</sub> -saving technologies and e-mobility
	Baiba Neimane	Head of Renewable Energy and Energy Efficiency Division, Department of Energetics, Ministry of Economics	Governmental support to renewable energy technologies – policy and tools
	Dr.sci.ing. Maija Rubina	Riga Energy Agency, Riga City Council	Riga on the way to energy efficiency and electro-mobility
	Juris Golunovs	Riga Energy Agency, Riga City Council	
	Dr. rer. nat. Johannes Töpler	Hochschule Esslingen; German Hydrogen and Fuel Cell Association	Hydrogen Storage Technologies - existing capabilities and safety relations II
	Gordon Watt	Business Development, Logan Energy Ltd (UK)	CO <sub>2</sub> neutral hydrogen technologies integrated with existing technologies – UK experience II
	Dainis Tropins (SME)	Green Science Ltd.	Fast charging stations for electric vehicles (SGTE-Power)
	Aivars Starikovs (SME)	Representative from "Clean Technology Cluster"	Cleantech Latvia - cluster of clean future technologies inspired by nature

	PhD Anda Fridrihsone, Dr.chem. Uldis Stirna	Latvian State Institute of Wood Chemistry	Development of Cryogenic Insulation Material for Liquefied Hydrogen. Experience in Space Programs
	Aivars Rubenis	Latvian competence center for electromobility	Latvia on the way to electromobility
12:00- 13:00	Coffee Break		
13:00-...	<i>Discussions and negotiations on cooperation and future projects in Riga, Latvia; Closing of Workshop</i>		

**Local Organization Committee (Institute of Solid State Physics, University of Latvia; Kengaraga iela 8, Riga, Latvia):**

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***Workshop is supported by ERDF project „Support to international cooperation projects in Science and Technologies at ISSP UL: Atbalsts starptautiskās sadarbības projektiem zinātnē un tehnoloģijās LU CFI” No. 2010/0204/2DP/2.1.1.2.0/10/APIA/VIAA/010***