



9<sup>TH</sup> INTERNATIONAL CONFERENCE OF YOUNG  
SCIENTISTS ON ENERGY ISSUES

CYSENI 2012

May 24-25, 2012  
Kaunas, Lithuania



General sponsor:



Lithuanian Energy Institute

Cooperation:



Sponsors:

A Member of  
The Linde Group



**MORNING SESSION (24<sup>th</sup> May, 2012)**

(Main Hall) Chairman: dr. Diana Meilutytė-Barauskienė	
8.30-9.00	Registration
9.00-9.20	Welcome
9.20-9.40	<b>Dr. Rimantas Levinskas (Lithuanian Energy Institute, Lithuania).</b> Lithuanian Energy Institute – Future energy Technology Science Centre in SANTAKA Valley.
9.40-10.00	<b>Dr. Audrius Žvikas (Research Council of Lithuania, Lithuania).</b> COST programme – pathway to international research networking.
10.00-10.20	<b>Dr. Gintautas Klevinskas (Visaginas Nuclear Power plant, Lithuania).</b> Visaginas Nuclear Power Plant Project progress.

10.20-11.20 Coffee break

**SECTION A (24<sup>th</sup> May, 2012)**

2. ATSINAUJINANČIŲ ENERGIJOS IŠTEKLIŲ RESURSAI IR JŲ NAUDOJIMAS RENEWABLE ENERGY SOURCES AND THEIR USE Section A1 (Main hall) Chairman: dr. Diana Meilutytė-Barauskienė	
11.20-11.40	<b>Chueh-Cheng Wu, Hong-Tai Chen, Sy-Ruen Huang, Gung-Ching Li, Chen-Yeon Chu (Feng Chia University, Taichung, Taiwan).</b> Human kinetic energy harvesting linear generator. Official reviewer: Dr. A. Jonaitis (KTU)
11.40-12.00	<b>P. Vilkinis, A. Kanapickas (Vytautas Magnus University, Lithuania).</b> Long term variations of solar and radiation. Official reviewer: Dr. J. Kažys (VU)
12.00-12.20	<b>S. N. A. F. Rahma (Gadjah Mada University, Indonesia), A. Saputra (University of Aveiro, Portugal).</b> Study on technology implementation concept of algae cultivation as an alternative energy for community. Official reviewer: Dr. A. Jasinskas (ASU)
12.20-12.40	<b>Kuo-Hsin Lin, Alex C.C. Chang, Chen-Yeon Chu, Chiu-Yue Lin (Feng Chia University, Taichung, Taiwan).</b> Methanol synthesis from bio-hydrogen. Official reviewer: Dr. N. Striūgas (LEI)

12.40-13.40 Lunch

4. ENERGIJOS VARTOJIMO EFEKTYVUMAS IR TAUPYMAS ENERGY EFFICIENCY AND SAVINGS Section A2 (Main hall) Chairman: dr. Diana Meilutytė-Barauskienė	
13.40-14.00	<b>E. S. Quintal, H. S. Bernardo (Institute for Systems Engineering and Computers at Coimbra, Portugal), L. P. Neves (Polytechnic Institute of Leiria, Portugal).</b> Energy audit approach to a Portuguese university campus. Official reviewer: Dr. A. Lisauskas (LEI)
14.00-14.20	<b>P. Bruzgevičius, A. Burlingis, V. Stankevičius (Kaunas University of Technology, Lithuania).</b> The construction of Lithuanian hourly meteorological data for building energy simulation. Official reviewer: Dr. E. Jaraminienė (VGTU)
14.20-14.40	<b>G. Frīdenbergs, A. Lešinskis (Riga Technical University, Latvia).</b> Supply air temperature and humidity interaction on thermal performance of indirect evaporative air cooling. Official reviewer: Dr. J. Karbauskaitė (KTU)
14.40-15.00	<b>T. Iešmantas, R. Alzbutas (Lithuanian Energy Institute, Lithuania).</b> Designing of energy efficient system considering power consumption and reliability. Official reviewer: Dr. N. Listopadskis (KTU)

15.00-15.20 Coffee break



**SECTION A** (24<sup>th</sup> May, 2012)

<b>4. ENERGIJOS VARTOJIMO EFEKTYVUMAS IR TAUPYMAS</b> <b>ENERGY EFFICIENCY AND SAVINGS</b> <b>Section A3 (Main hall)</b> Chairman: dr. Diana Meilutytė-Barauskienė	
15.20-15.40	<b>R. Savickas</b> (Vilnius Gediminas Technical University, Lithuania). Precise evaluation of heat energy for hot water for energy efficiency calculations. Official reviewer: Dr. V. Kveselis (LEI)
15.40-16.00	<b>S. Liepinš, A. Lešinskis, U. Iljins</b> (Latvia University of Agriculture, Latvia). Heat permeability measurement with Thermographic camera. Official reviewer: Dr. J. Karbauskaitė (KTU)
16.00-16.20	<b>G. Plavenieks, A. Lesinskis</b> (Riga Technical University, Latvia). Case study of energy efficiency in air handling units in Latvia schools. Official reviewer: Dr. R. Gatautis (LEI)
16.20-16.40	<b>J. Podervytė, R. Bliūdžius, K. Banionis</b> (Kaunas University of Technology, Lithuania). Microclimate parameters insurance in a air heated buildings. Official reviewer: Dr. R. Škėma (LEI)

16.40-17.00 Coffee break

<b>4. ENERGIJOS VARTOJIMO EFEKTYVUMAS IR TAUPYMAS</b> <b>ENERGY EFFICIENCY AND SAVINGS</b> <b>Section A4 (Main hall)</b> Chairman: dr. Diana Meilutytė-Barauskienė	
17.00-17.20	<b>R. Savickas</b> (Vilnius Gediminas Technical University, Lithuania). Influence of heat measurement method on consumed amount of heat in dwelling houses. Official reviewer: Dr. R. Bliūdžius (KTU)
17.20-17.40	<b>A. Klūga, R. Belinskis</b> (Riga Technical University, Latvia), <b>A. Krūmiņš</b> (Institute of Heat, Gas and Water Technology, Latvia). Room climate control systems research using PID controller parameters. Official reviewer: Dr. E. Jaraminienė (VGTU)
17.40-18.00	<b>G. Stankevica</b> (Riga Technical University, Latvia). Cooling degree days and hours for Latvia. Official reviewer: Dr. G. Šiupšinskas (VGTU)
18.00-18.20	<b>R. Valančius, A. Jurelionis</b> (Kaunas University of Technology, Lithuania). Influence of unsteady thermal state on energy performance and productivity in office buildings. Official reviewer: Dr. V. Kveselis (LEI)
18.20-18.40	<b>K. Grinbergs, P. Shipkovs</b> (Institute of Physical Energetics, Latvia), <b>P. Shipkovs</b> (Riga Technical University, Latvia). Pool as a cooling device. Official reviewer: Dr. A. Rogoža (VGTU)
18.40-19.00	<b>Ē. Krūmiņš</b> (Latvia University of Agriculture, Latvia), <b>I. Dimdiņa, A. Lešinskis</b> (Riga Technical University, Latvia). Energy consumption in day-care centre buildings. Official reviewer: Dr. E. S. Juodis (VGTU)

19.00 Conference dinner (canteen)



9<sup>TH</sup> INTERNATIONAL CONFERENCE OF YOUNG  
SCIENTISTS ON ENERGY ISSUES

CYSENI 2012

May 24-25, 2012  
Kaunas, Lithuania



**SECTION B (24<sup>th</sup> May, 2012)**

11. BRANDUOLINĖ ENERGETIKA IR RADIACINĖ SAUGA NUCLEAR FISSION AND RADIATION PROTECTION Section B1 (Room AK-202) Chairman: Mantas Valantinavičius	
11.20-11.40	<b>D. Justinavičius (Lithuanian Energy Institute, Lithuania)</b> . Modelling of two-phase flow of hydrogen gas in the disposal cell of repository for high level radioactive waste. Official reviewer: Dr. T. Sabonis (VU)
11.40-12.00	<b>T. Kaliačka (Lithuanian Energy Institute, Lithuania)</b> . Modelling of Quench experiment using RELAP/SCDAPSIM code. Official reviewer: Dr. A. Narkūnienė (LEI)
12.00-12.20	<b>A. Slavickas (Lithuanian Energy Institute, Lithuania)</b> . Neutronic and safety parameters variations in innovative BWR assembly with enhanced moderation.
12.20-12.40	<b>M. Povilaitis (Lithuanian Energy Institute, Lithuania)</b> . Sensitivity and uncertainty analysis of M5 experiment simulations.

12.40-13.40 Lunch

11. BRANDUOLINĖ ENERGETIKA IR RADIACINĖ SAUGA/NUCLEAR FISSION AND RADIATION PROTECTION 2. ATSINAUJINANČIŲ ENERGIJOS IŠTEKLIŲ RESURSŲ IR JŲ NAUDOJIMAS/RENEWABLE ENERGY SOURCES AND THEIR USE Section B2 (Room AK-202) Chairman: Vladimir V. Leschevich	
13.40-14.00	<b>A. Kontautas, E. Urbonavičius (Lithuanian Energy Institute, Lithuania)</b> . Analysis of aerosol, fission product and iodine behaviour in phebus containment. Official reviewer: Dr. T. Sabonis (VU)
14.00-14.20	<b>D. Sankauskas, V. Katinas (Lithuanian Energy Institute, Lithuania)</b> . Investigation of wind power plant generation efficiency. Official reviewer: Dr. A. Gulbinas (ASU)
14.20-14.40	<b>K. Zakarauskas, N. Striūgas, G. Stravinskas (Lithuanian Energy Institute, Lithuania)</b> . Investigation of thermal cracking of syngas tar from biomass gasification by catalytic steam reforming. Official reviewer: Dr. Habil. V. A. Katinas (LEI)
14.40-15.00	<b>M. Zalewski, A. G. Chmielewski, J. Palige, O. K. Roubinek (Institute of Nuclear Chemistry and Technology, Poland)</b> . Management of vegetable and food waste for biogas production. Official reviewer: Dr. K. Venslauskas (ASU)

15.00-15.20 Coffee break

2. ATSINAUJINANČIŲ ENERGIJOS IŠTEKLIŲ RESURSŲ IR JŲ NAUDOJIMAS RENEWABLE ENERGY SOURCES AND THEIR USE Section B3 (Room AK-202) Chairman: Darius Justinavičius	
15.20-15.40	<b>G. Nkwusi, I. Leinemann, M. Grossberg, M. Altosaar, D. Meissner, R. Traksmas, T. Kaljuvee (Tallinn University of Technology, Estonia)</b> . Formation of copper zinc tin sulfide in cadmium iodide for monograin membrane solar cells. Official reviewer: Dr. J. Baltrušaitis (Iowa University, USA)
15.40-16.00	<b>V. Tilvikienė, L. Šarūnaitė, L. Pocienė, Ž. Kadžiulienė (Lithuanian Research Centre for Agriculture and Forestry, Lithuania)</b> . Biomass potential of perennial energy grasses. Official reviewer: Dr. A. Jasinskas (ASU)
16.00-16.20	<b>P. Shipkovs, A. Snegirjovs, L. Migla (Institute of Physical Energetics and Riga Technical University, Latvia)</b> . Heat losses influence on solar thermal systems. Official reviewer: Dr. E. Perednis (LEI)
16.20-16.40	<b>K. Vagoliņš, G. Frīdenbergs, P. Šipkovs (Riga Technical University, Latvia)</b> . Using straw for high efficiency heating in farming. Official reviewer: Dr. N. Pedišius (LEI)

16.40-17.00 Coffee break

4. ENERGIJOS VARTOJIMO EFEKTYVUMAS IR TAUPYMAS ENERGY EFFICIENCY AND SAVINGS Section A4 (Main hall) Chairman: dr. Diana Meilutytė-Barauskienė	
17.00-19.00	

19.00 Conference dinner (canteen)



9<sup>TH</sup> INTERNATIONAL CONFERENCE OF YOUNG  
SCIENTISTS ON ENERGY ISSUES

CYSENI 2012

May 24-25, 2012  
Kaunas, Lithuania



**SECTION C (24<sup>th</sup> May, 2012)**

3. ŠIUOLAIKINIAI ENERGIJOS TINKLAI/SMART ENERGY NETWORKS 1. VANDENILIS IR KURO ELEMENTAI/HYDROGEN AND FUEL CELLS Section C1 (Library) Chairman: Darius Laurinavičius	
11.20-11.40	<b>O. Kochukov, A. Mutule (Institute of Physical Energetics, Latvia).</b> Modeling of large electrical power systems under energy market conditions. Official reviewer: Dr. R. Alzbutas (LEI)
11.40-12.00	<b>I. Priedīte-Razgale (Institute of Physical Energetics, Latvia), J. Rozenkrons, A. Ļvovs (Riga Technical University, Latvia).</b> Feasibility study of overhead lines replacement with underground cable lines in the mv distribution network. Official reviewer: Dr. A. Klementavičius (LEI)
12.00-12.20	<b>E. Petersons, N. Bogdanovs (Riga Technical University, Latvia).</b> Bandwidth calculation of short range communication vehicular network. Official reviewer: Dr. I. Stasiulaitienė (KTU)
12.20-12.40	<b>I. Dimanta, V. Nikolajeva, A. Gruduls, I. Muižnieks, J. Kleperis (University of Latvia, Latvia).</b> Bio-hydrogen production assessment using fermentative bacteria and crude glycerol as substrate. Official reviewer: Dr. N. Striūgas (LEI)

12.40-13.40 Lunch

1. VANDENILIS IR KURO ELEMENTAI/HYDROGEN AND FUEL CELLS 9. GLOBALŪS POKYČIAI IR EKOSISTEMOS/GLOBAL CHANGE AND ECOSYSTEMS Section C2 (Library) Chairman: Tadas Kaliatka	
13.40-14.00	<b>K. Gedvilas, L. Pranevičius (Vytautas Magnus University, Lithuania).</b> Study of surface topography effects initiated by treatment of thin Ti films in water plasma. Official reviewer: Dr. L. Marcinauskas (LEI)
14.00-14.20	<b>M. Urbonavičius, D. Girdzevičius, T. Rajackas, S. Tuckute, L. L. Pranevičius (Vytautas Magnus University, Lithuania).</b> On oxidation mechanism of TI films in water vapour plasma. Official reviewer: Dr. V. Grigaitienė (LEI)
14.20-14.40	<b>A. G. Chmielewski, K. Wawryniuk, J. Antczak (Institute of Nuclear Chemistry and Technology, Poland).</b> Separation of synthesis gas components using polymeric and metallic membranes. Official reviewer: Dr. D. Milčius (LEI)
14.40-15.00	<b>D. Laurinavičienė, A. Dėdelė, K. Dėdelienė (Vytautas Magnus University, Lithuania).</b> Distribution of benzene concentration in Kaunas city. Official reviewer: Dr. I. Radžiūnienė (KTU)

15.00-15.20 Coffee break

9. GLOBALŪS POKYČIAI IR EKOSISTEMOS GLOBAL CHANGE AND ECOSYSTEMS Section C3 (Library) Chairman: Mario Turcik	
15.20-15.40	<b>A. Moisejenkova, A. Girgždys (Vilnius Gediminas Technical University, Lithuania), N. Tarasiuk (Center for Physical Sciences and Technology, Lithuania).</b> Peculiarity of Radiocesium behaviour in lakes Tapeliai, Juodis and Raudonasis. Official reviewer: Dr. D. Grigaliūnienė (LEI)
15.40-16.00	<b>A. Jurgelėnaitė (Lithuanian Energy Institute, Lithuania).</b> Intra-annual thermal variability of Lithuanian rivers. Official reviewer: Dr. I. Radžiūnienė (KTU)
16.00-16.20	<b>J. Žaltauskaitė (Vytautas Magnus University, Lithuania).</b> Assessment of solid waste landfill leachate toxicity using aquatic microinvertebrates and plants. Official reviewer: Dr. I. Radžiūnienė (KTU)
16.20-16.40	<b>D. Jakimavičius (Lithuanian Energy Institute, Lithuania).</b> Global climate change scenarios adaptation for the prediction of the Nemunas runoff. Official reviewer: Dr. I. Stasiulaitienė (KTU)

16.40-17.00 Coffee break

4. ENERGIJOS VARTOJIMO EFEKTYVUMAS IR TAUPYMAS ENERGY EFFICIENCY AND SAVINGS Section A4 (Main hall)	
17.00-19.00	

19.00 Conference dinner (canteen)



9<sup>TH</sup> INTERNATIONAL CONFERENCE OF YOUNG  
SCIENTISTS ON ENERGY ISSUES

CYSENI 2012

May 24-25, 2012  
Kaunas, Lithuania



DAY 2 (25<sup>th</sup> May, 2012)

SECTION A

5. ŽINIOS ENERGETIKOS POLITIKAI FORMUOTI KNOWLEDGES FOR ENERGY POLICY MAKING Section A1 (Main Hall) Chairman: dr. Diana Meilutytė-Barauskienė	
9.00-9.20	<b>A. Beloborodko, M. Rošā, L. Ozolina (Riga Technical University, Latvia).</b> Advantages and obstacles for the development of industrial symbiosis in Latvia. Official reviewer: Dr. J. Dvarionienė (KTU)
9.20-9.40	<b>K. Čėsnaitytė (Vilnius University, Lithuania).</b> Regulation of Renewable Energy in European Union and Problems of Implementation in Lithuania. Official reviewer: Dr. D. Štreimikienė (LEI)
9.40-10.00	<b>A. Kazūkauskas, J. Jaraitė (Umeå University, Sweden).</b> The profitability of power generating firms and policies promoting renewable energy. Official reviewer: Dr. M. Eidukevičiūtė (KTU)
10.00-10.20	<b>A. Lvovs, A. Mutule (Riga Technical University, Latvia).</b> Estimation of power supply interruption related costs. methodology, survey questionnaire and received data normalization. Official reviewer: Dr. R. Alzbutas (LEI)
10.20-10.40	<b>L. Martišauskas (Lithuanian Energy Institute, Lithuania).</b> Osemosys model application for disturbed energy system modelling. Official reviewer: Dr. E. Norvaiša (LEI)

10.40-11.00 Coffee break

5. ŽINIOS ENERGETIKOS POLITIKAI FORMUOTI KNOWLEDGES FOR ENERGY POLICY MAKING Section A2 (Main Hall) Chairman: dr. Diana Meilutytė-Barauskienė	
11.00-11.20	<b>L. Murauskaitė (Lithuanian Energy Institute, Lithuania).</b> Impact of legal regulation to use renewable energy in district heating. Official reviewer: Dr. S. Milčiuvienė (VDU)
11.20-11.40	<b>A. Obusevs, I. Oleinikova (Institute of Physical Energetic, Latvia).</b> Modeling of zonal prices with application in long-term development planning strategies. Official reviewer: Dr. A. Pažeraitė (LEI)
11.40-12.00	<b>T. Odineca (Riga Technical University, Latvia).</b> Methods used for stimulation of “green” CHP development in Latvia. Official reviewer: A. Rogoža (VGTU)
12.00-12.20	<b>U. Roßegger (Technical University of Braunschweig, Germany).</b> Nuclear waste management programmes within Sweden and in the United Kingdom. Official reviewer: Dr. V. Ragaišis (LEI)
12.20-12.40	<b>A. Saputra, E. Fonseca, Y. Dias (University of Aveiro, Portugal).</b> Comparison of fuel consumption, emission, and economic consideration in goods delivery process from Portugal to Brasil between airbus A340 and CSAV rungue: a case study. Official reviewer: Dr. I. Konstantinavičiūtė (LEI)
12.40-13.00	<b>M. Turcik, I. Oleinikova (Institute of Physical Energetics, Latvia).</b> Analysis of electricity market price formation factors. Official reviewer: Dr. Habil. V. Miškinis (LEI)

13.00-13.20 Coffee break

Section A3 (Main hall) Chairman: dr. Diana Meilutytė-Barauskienė Final discussion and closure	
13.20-14.20	



9<sup>TH</sup> INTERNATIONAL CONFERENCE OF YOUNG  
SCIENTISTS ON ENERGY ISSUES

CYSENI 2012

May 24-25, 2012  
Kaunas, Lithuania



DAY 2 (25<sup>th</sup> May, 2012)

SECTION B

6. ŠILUMINĖS FIZIKOS, SKYSČIŲ BEI DUJŲ MECHANIKOS IR METROLOGIJOS SRIČIŲ TYRIMAI  
INVESTIGATIONS IN THE FIELDS OF THERMAL PHYSICS, FLUID MECHANICS AND METROLOGY

Section B1 (Room AK-202)

Chairman: Darius Justinavičius

9.00-9.20	<b>A. A. Brin, A. I. Petruchik</b> (A. V. Luikov Heat and Mass Transfer Institute, Belarus). Influence of cooling tower on thermal parameters of circulating water systems. Official reviewer: Dr. A. Adomavičius (KTU)
9.20-9.40	<b>E. Maslauskas, M. Kulokas</b> (Lithuanian Energy Institute, Lithuania). Research of viscosity influence to Coriolis mass flowmeters flow rate measurement accuracy. Official reviewer: Dr. M. Jakubčionis (KTU)
9.40-10.00	<b>D. Laurinavičius, M. Šeporaitis</b> (Lithuanian Energy Institute, Lithuania). Peculiarities of water temperature field measurement using infrared camera.
10.00-10.20	<b>K. Norvaišienė, G. Miliauskas</b> (Kaunas University of Technology, Lithuania). The method of systematical evaluation of thermal radiant influence on the interaction of unsteady heat and mass transfer processes of evaporating droplet. Official reviewer: Dr. Habil. B. Čėsna (LEI)
10.20-10.40	<b>V. I. Saverchenko, J. A. Khodyko</b> (A. V. Luikov Heat and Mass Transfer Institute, Belarus). Low pressure evaporation of binary picoliter droplet on substrate. Official reviewer: Dr. Habil. A. Šlančiauskas (LEI)

10.40-11.00 Coffee break

6. ŠILUMINĖS FIZIKOS, SKYSČIŲ BEI DUJŲ MECHANIKOS IR METROLOGIJOS SRIČIŲ TYRIMAI/INVESTIGATIONS IN THE FIELDS OF THERMAL  
PHYSICS, FLUID MECHANICS AND METROLOGY

5. ŽINIOS ENERGETIKOS POLITIKAI FORMUOTI/KNOWLEDGES FOR ENERGY POLICY MAKING

Section B2 (Room AK-202)

Chairman: Andrius Slavickas

11.00-11.20	<b>O. G. Penayzkov, A.V. Skilandz</b> (A. V. Luikov Heat and Mass Transfer Institute, Belarus). Oblique shock wave evolution with distance from endwall in argon and air. Official reviewer: Dr. M. Šeporaitis (LEI)
11.20-11.40	<b>J. Talubinskas, G. Miliauskas</b> (Kaunas University of Technology, Lithuania). Liquid hydrocarbons droplet heating and evaporating process numerical research. Official reviewer: Dr. R. Pabarčius (LEI)
11.40-12.00	<b>A. Tonkonogovas, A. Stankevičius</b> (Lithuanian Energy Institute, Lithuania). A new approach to evaluating response of the turbine gas meters. Official reviewer: Dr. Habil. S. Šinkūnas (KTU)
12.00-12.20	<b>J. Urbanavičius</b> (Vilnius University, Lithuania). Why EU environmental law is relevant for the energy specialists? Official reviewer: Dr. I. Konstantinavičiūtė (LEI)
12.20-12.40	<b>B. Jokšas</b> (Lithuanian Energy Institute, Lithuania), <b>I. Žutautaitė</b> (Vytautas Magnus University, Lithuania). Energy critical infrastructure assessment methods. Official reviewer: Dr. N. Listopadskis (KTU)
12.40-13.00	<b>J. L. Konstantinavičienė</b> (Kaunas University of Technology, Lithuania). Issues related to an extensive use of renewable energy sources in Lithuania. Official reviewer: Dr. A. Pažėraitė (LEI)

13.00-13.20 Coffee break

Section A3 (Main hall)

13.20-14.20

Chairman: dr. Diana Meilutytė-Barauskienė

Final discussion and closure



DAY 2 (25<sup>th</sup> May, 2012)

SECTION C

<b>8. DEGIMO IR PLAZMINIŲ PROCESŲ TYRIMAI</b> <b>INVESTIGATIONS OF COMBUSTION AND PLASMA PROCESSES</b> <b>Section C1 (Library)</b> Chairman: Tadas Kaliaška	
9.00-9.20	<b>M. Valantinavičius, T. Vonžodas (Lithuanian Energy Institute, Lithuania).</b> Proximate and elemental analysis of Solid biofuel and their influence to combustion process. Official reviewer: Dr. I. Kliopova (KTU)
9.20-9.40	<b>A. G. Chmielewski, S. Witman, A. Pawelec (Institute of Nuclear Chemistry and Technology, Poland).</b> Radiation induced plasma technology in environmental protection. Official reviewer: Dr. V. Grigaitienė (LEI)
9.40-10.00	<b>R. K. Vafin, K. N. Ramazanov (Ufa State Aircraft Engineering University, Russia).</b> Effect of crossed electric and magnetic fields on ion nitriding in a glow discharge. Official reviewer: Dr. D. Milčius (LEI)
10.00-10.20	<b>V. I. Ignatenko, S.I. Shabunja, V. V. Martynenko (A. V. Luikov Heat and Mass Transfer Institute, Belarus).</b> Development of algorithms for simulation of diffusion combustion of steel, and recovery of the diffusion coefficient of oxygen in the iron oxide layer. Official reviewer: Dr. R. Navakas (LEI)
10.20-10.40	<b>V. V. Leschevich, O. G. Penayzkov (A. V. Luikov Heat and Mass Transfer Institute, Belarus).</b> Auto-ignition delay time measurements of hydrogen-air mixtures at intermediate temperatures in rapid compression machine.

10.40-11.00 Coffee break

<b>8. DEGIMO IR PLAZMINIŲ PROCESŲ TYRIMAI/INVESTIGATIONS OF COMBUSTION AND PLASMA PROCESSES</b> <b>7. NANOMOKSLAI IR NANOTECHNOLOGIJOS, DAUGIAFUNKCINIŲ MEDŽIAGŲ TYRIMAI/NANOSCIENCES AND NANOTECHNOLOGIES,</b> <b>INVESTIGATIONS ON MULTIFUNCTION MATERIALS</b> <b>Section C2 (Library)</b> Chairman: Darius Laurinavičius	
11.00-11.20	<b>A. Y. Maturana, J. D. Pagliuso (University of Sao Paulo, Brazil).</b> Swirl burner for crude and technical glycerines and other unconventional fuels. Official reviewer: Dr. N. Striūgas (LEI)
11.20-11.40	<b>M. Milieška, R. Kėželis, V. Valinčius (Lithuanian Energy Institute, Lithuania).</b> Heat transfer in the plasma-chemical reactor designed for ceramic materials conversion into fibre. Official reviewer: Dr. B. Abakevičienė (KTU)
11.40-12.00	<b>A. Tamošiūnas, P. Valatkevičius, V. Grigaitienė, V. Valinčius (Lithuanian Energy Institute, Lithuania).</b> Conversion of propane using atmospheric thermal water vapour plasma. Official reviewer: Dr. D. Martuzevičius (KTU)
12.00-12.20	<b>A. Saliamonas, N. Striūgas (Lithuanian Energy Institute, Lithuania).</b> Review of current technologies and achievements in industrial gasification field. Official reviewer: Dr. V. Grigaitienė (LEI)
12.20-12.40	<b>V. Gurskienė, A. Šlančiauskas (Lithuanian Energy Institute, Lithuania).</b> Analysis of thermal destruction of charcoal by CO <sub>2</sub> gas. Official reviewer: Dr. V. Grigaitienė (LEI)
12.40-13.00	<b>A. Sutka, G. Mezinis (Riga Technical University, Latvia).</b> Gas sensitivity of excess-iron Ni-Zn ferrite. Official reviewer: Dr. L. Marcinauskas (LEI)

13.00-13.20 Coffee break

<b>Section A3 (Main hall)</b> Chairman: dr. Diana Meilutytė-Barauskienė <b>Final discussion and closure</b>	
13.20-14.20	



DAY 2 (25<sup>th</sup> May, 2012)

**SECTION D**

**7. NANOMOKSLAI IR NANOTECHNOLOGIJOS, DAUGIAFUNKCINIŲ MEDŽIAGŲ TYRIMAI  
NANOSCIENCES AND NANOTECHNOLOGIES, INVESTIGATIONS ON MULTIFUNCTION MATERIALS**

**Section D (Museum)**

Chairman: Mantas Povilaitis

9.00-9.20	<b>A. Brokāns</b> (Latvia University of Agriculture, Latvia). Research of dol effects in timber elements in bending. Official reviewer: Dr. K. Ukvalbergienė (KTU)
9.20-9.40	<b>S. M. Danilova-Tretiak, V. L. Dragun, L. E. Evseeva, V. G. Leschenko</b> (A. V. Luikov Heat and Mass Transfer Institute, Belarus). Investigation of composite thermal insulating materials like “microspheres – binding component”. Official reviewer: Dr. V. Kveselis (LEI)
9.40-10.00	<b>A. Linarts, J. Zavickis, M. Knite</b> (Institute of Technical Physics, Latvia). Entirely hyperelastic pressure sensor system. Official reviewer: Dr. R. Levinskas (LEI)
10.00-10.20	<b>D. Petrulionis, T. Žukauskas</b> (Vilnius University, Lithuania). Broadband impedance spectroscopy of $\text{Li}_{2.2}\text{Ti}_{1.7}(\text{PO}_4)_3$ $\text{Li}^+$ ion conducting ceramic. Official reviewer: Dr. B. Abakevičienė (KTU)
10.20-10.40	<b>A. Putnina, S. Kukle</b> (Riga Technical University, Latvia), <b>J. Gravitis</b> (Latvian State Institute of Wood Chemistry, Latvia). Morphological and structural characterisation of steam-exploded hemp fibres. Official reviewer: Dr. R. Kalpokaitė-Dičkuvienė (LEI)