

REVIEWERS OF THE PAPERS SUBMITTED TO THE 8TH CONFERENCE OF YOUNG SCIENTISTS ON ENERGY ISSUES 2011

1. VANDENILIS IR KURO ELEMENTAI HYDROGEN AND FUEL CELLS		
Official reviewer	Young reviewer	
L. Pranevičius (VDU) l.pranevicius@gmf.vdu.lt	M. Televičiūtė Maryte.Televiciute@fc.vdu.lt	D. G. Ignatenko, V. N. Mironov, O. G. Penyazkov (A.V. Luikov Heat and Mass Transfer Institute, Belarus). Self-ignition of a high-pressure hydrogen jet outflowing into the encumbered space.
G. Laukaitis (KTU) giedrius.laukaitis@ktu.lt	M. Urbonavičius Marius.Urbonavicius@fc.vdu.lt	M. Lelis, D. Milčius, S. Tučkutė (Lithuanian Energy Institute, Lithuania), M. Lelis, S. Tučkutė (Vytautas Magnus University, Lithuania). Substrate effects on formation and hydrogenation of Mg-Ni films.
D. Milčius (LEI) milcius@mail.lei.lt	D. G. Ignatenko IgnatenkoDG@gmail.com	L. Pranevicius, M. Urbonavicius (Vytautas Magnus University, Lithuania). Experimental study of Ti films hydrogenation using magnetron water vapour plasma.
G. Laukaitis (KTU) giedrius.laukaitis@ktu.lt	M. Lelis Martynas@hydrogen.lt	A. Švaikovskij, M. Televičiūtė (Vytautas Magnus University, Lithuania). Modeling of implantation of ionized water molecules.
2. ATSINAUJINANČIŲ ENERGIJOS IŠTEKLIŲ RESURSAI IR JŲ NAUDOJIMAS RENEWABLE ENERGY SOURCES AND THEIR USE		
V. Kveselis (LEI) vk@mail.lei.lt	M. Marčiukaitis mantas@mail.lei.lt	A. V. Epik, S. M. Chaplygin, E. N. Oleynik (Institute of Engineering Thermophysics of National Academy of Sciences of Ukraine, Ukraine). Economical and ecological aspects of bioenergy projects in Ukraine.
J. Savickas (LEI) biosav@mail.lei.lt	K. Zakarauskas zakarauskas@mail.lei.lt	C. H. Lay, C. W. Lee, K. Gopalakrishnan C.Y. Lin, S. Y. Kuo (Feng Chia University, Taiwan), J. J. Chang (Academia Sinica, Taiwan), C. C. Chen (Chungchou Institute of Technology, Taiwan). Continuous biohydrogen production from sweet potato fermentation using mixed anaerobic bacteria.
N. Striūgas (LEI) striugas@mail.lei.lt	T. Vonžodas vonzodast@mail.lei.lt	Y. C. Li, C. Y. Chu, S. Y. Wu, C. Y. Lin, C. C. Wu, S. R. Huang (Feng Chia University, Taiwan). Potential of Biological Hydrogen Production from Beverage Wastewater.
I. Kliopova (KTU) irina.kliopova@ktu.lt	A. Snegirjovs shipkovs@edi.lv	M. Marčiukaitis (Lithuanian Energy Institute, Lithuania). Wind farms power prediction in Lithuania.
K. Venslauskas (LŽŪU) Kestutis.Venslauskas@lzuu.lt	C. H. Lay cylin@fcu.edu.tw	S. Ofverstrom, I. Sapkaitė, R. Dauknys (Vilnius Gediminas Technical University, Lithuania). Iron and aluminium as inhibitors of anaerobic digestion of primary-waste activated sludge mixture.
I. Kliopova (KTU) irina.kliopova@ktu.lt	D. Jakimavičius Darius.j@mail.lei.lt	D. Sankauskas (Lithuanian Energy Institute, Lithuania). Wind energy parameter variation regularities in Lithuanian coastal zone.
E. Perednis (LEI) saule@mail.lei.lt	D. Sankauskas d.sankauskas@mail.lei.lt	P. Shipkovs, A. Snegirjovs, M. Vanags (Institute of Physical Energetics, Latvia), L. Migla (Riga Technical University, Latvia). Determination of cost-effective pipelines

		insulation of solar thermal system.
N. Striūgas (LEI) striugas@mail.lei.lt	A. V. Epik epik@biomass.kiev.ua	A. Grigula, T. Vonžodas (Lithuanian Energy Institute, Lithuania). Investigation of the effectiveness and pollution of low capacity boiler fired with biofuel.
A. Jasinskas (LŽŪU) algirdas.jasinskas@lzuu.lt	Y. C. Li sywu@fcu.edu.tw	K. Zakarauskas, N. Striūgas, G. Stravinskas (Lithuanian Energy Institute, Lithuania). Thermal decomposition of biomass and analysis of resin destruction.
3. ŠIUOLAIKINIAI ENERGIJOS TINKLAI SMART ENERGY NETWORKS		
R. Alzbutas (LEI) robertas@mail.lei.lt	M. Turcik turcik.mario@gmail.com	A. Lvoys, A. Mutule (Riga Technical University, Latvia). Optimal reliability level estimation for distribution network considering different types of load.
V. Miškinis (LEI) miskinis@mail.lei.lt	A. Lvovs aleksandrs.lvovs@inbox.lv	O. Kochukov, A. Mutule, Z. Krishans, I. Oleinikova (Institute of Physical Energetics, Latvia). Model for evaluation of large-scale power system interconnection costs and benefits.
		B. Jokšas, J. Augutis (Lithuanian Energy Institute, Lithuania). Mathematical modelling of the disturbance distribution in the network of energy.
R. Alzbutas (LEI) robertas@mail.lei.lt	T. Iešmantas tomas.iesmantas@gmail.com	M. Turcik (Institute of Physical Energetics, Latvia). Power Plants Sustainable Development Optimization in Liberalized Market Conditions
N. Listopadskis (KTU) narimantas.listopadskis@ktu.lt	A. Obusevs A.Obusev@gmail.com	T. Iešmantas, R. Alzbutas (Lithuania Energy Institute, Lithuania). Age-dependent probabilistic analysis of failures in gas pipeline networks.
R. Alzbutas (LEI) robertas@mail.lei.lt	T. Kaliatka tadas@mail.lei.lt	A. Obusevs, I. Oleinikova, Z. Krishans (Institute of Physical Energetics, Latvia). Analysis of methods of power flows calculation under optimization of power system development.
4. ENERGIJOS VARTOJIMO EFEKTYVUMAS IR TAUPYMAS ENERGY EFFICIENCY AND SAVINGS		
E. Jaraminienė (VGTU) egle.jaraminiene@vgtu.lt	G. Stankevica galina.stankevica@rtu.lv	K. Biekša, A. Klevienė (Lithuanian Energy Institute, Lithuania). Regional energy economy development scenarios in Lithuania from the ecological footprint perspective.
J. Karbauskaitė (KTU) jurate.karbauskaite@ktu.lt	V. V. Lypnytskyy lipkav@ukr.net	A. Brahmanis, U. Pelīte, A. Lešinskis, D. Kona, T. Bui Kon (Riga Technical University, Latvia). Extract air energy utilization using heat pump in buildings with indoor swimming pools.
V. Kveselis (LEI) vk@v@mail.lei.lt	A. Brahmanis Arturs.Brahmanis@rtu.lv	S. M. Danilova-Tretiak, V. L. Dragun, V. G. Leschenko, T. E. Schelak (A. V. Luikov Heat&Mass Transfer Institute of NAS of Belarus, Belarus). Active thermal nondestructive testing of building energy efficiency.
R. Škėma (LEI) skema@mail.lei.lt	A. Bertašienė agne@mail.lei.lt	G. Stankevica, A. Lesinskis (Riga Technical University, Latvia). Effect of facade insulation on heating energy consumption, indoor air quality and thermal comfort: case study in selected Latvian daycare centers.
Ž. Nakutis (KTU) zilvinas.nakutis@ktu.lt	S. M. Danilova-Tretiak danilova_@tut.by	V. V. Lypnytskyy (Tallinn University of Technology, Estonia), T. V. Kushnir, Y. V. Lypnytskyy (Ternopil Ivan Pul'uy National Technical University, Ukraine). Linearization performance of optical transducers.

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

I. Konstantinavičiūtė (LEI) inga@mail.lei.lt	V. Matuziene vaida@mail.lei.lt	E. F. Dzenajavičienė, A. Lisauskas (Lithuanian Energy Institute, Lithuania), D. Dzenajavičius (Kaunas University of Technology, Lithuania). Modelling of regional sustainable energy development opportunities: Kaunas region case.
E. Vaiginienė (VU) erika.vaiginiene@ef.vu.lt	U. Roßegger u.rossegger@tu-bs.de	V. Lekavičius (Lithuanian Energy Institute, Lithuania). Input-output analysis of relationships between energy and other branches of Lithuanian economy.
E. Norvaiša (LEI) norvaisa@mail.lei.lt	J. Pubule jelena.pubule@rtu.lv	L. Martišauskas, J. Augutis (Lithuanian Energy Institute, Lithuania), J. Augutis (Vytautas Magnus University, Lithuania). The influence of energy supply disturbances to energy system.
A. Katinas (LEI) res@mail.lei.lt	E. F. Dzenajavičienė farida@mail.lei.lt	J. Pubule, D. Blumberga (Riga Technical University, Latvia). Analysis of Environmental impact assessment of energy projects in Latvia.
		N. Radziukynienė, V. Radziukynas, A. Klementavičius (Lithuanian Energy Institute, Lithuania). Support systems of wind power generation.
V. Miškinis (LEI) miskinis@mail.lei.lt	L. Martišauskas linasm@mail.lei.lt	U. Roßegger (Brunswick University of Technology, Germany). Lithuania's new strategy in energy policy.

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

S. Šinkūnas (KTU) stasys.sinkunas@mail.lei.lt	A. A. Brin brin@hmti.ac.by	A. Bertašienė, A. Tonkonogovas (Lithuanian Energy Institute, Lithuania). Inertial properties of the tachometric air velocity meter and their influence on meter's dynamic error in pulsing flow.
J. Gudzinskas (KTU) Juozas.gudzinskas@ktu.lt	A. Tonkonogovas andriust@mail.lei.lt	A. A. Brin, A. I. Petruchik (A. V. Luikov Heat and Mass Transfer Institute, Belarus). Thermal efficiency of forced draft cooling tower with full cone nozzles.
V. Janušas (LEI) janusas@mail.lei.lt	M. Kulokas kulokas@mail.lei.lt	R. Jonynas (Kaunas University of Technology, Lithuania). Heat exchange between plane surface and two phase foam flow investigation.
B. Čėsna (LEI) benas@mail.lei.lt	K. Norvaišienė kristina.tiuksaite@stud.ktu.lt	M. Kulokas, E. Maslauskas (Lithuanian Energy Institute, Lithuania). Research of viscosity influence on the density measurements.
S. Šinkūnas (KTU) stasys.sinkunas@ktu.lt	R. Jonynas rolandas.jonynas@gmail.com	D. Laurinavičius (Lithuania Energy Institute, Lithuania). Methodology for measurement of water temperature profiles.
J. Tonkonogij (LEI) jurij@mail.lei.lt	D. Laurinavičius darius@mail.lei.lt	K. Norvaišienė, G. Miliauskas (Kaunas University of Technology, Lithuania). Influence of radiative source to thermal state and phase transformations of water droplets.
M. Šeporaitis (LEI) marijus@mail.lei.lt	A. Bertašienė agne@mail.lei.lt	I. N. Shatan (A. V. Luikov Heat and Mass Transfer Institute of National Academy of Sciences of Belarus, Belarus). Measurements of methane concentration in an axially symmetrical turbulent methane flow using a Talbot interferometer method.
B. Čėsna (LEI) benas@mail.lei.lt	I. N. Shatan inShatan@gmail.com	A. Tonkonogovas, A. Stankevičius (Lithuanian Energy Institute, Lithuania). The influence of gas flow pulsing on performance of thermal power plant.

7. NANOMOKSLAI IR NANOTECHNOLOGIJOS, DAUGIAFUNKCINIŲ MEDŽIAGŲ TYRIMAI

NANOSCIENCES AND NANOTECHNOLOGIES, INVESTIGATIONS ON MULTIFUNCTION MATERIALS

V. Girdauskas (VDU) v.girdauskas@gmf.vdu.lt	I. Leinemann ingaklav@inbox.lv	P. Danilevičius, E. Balčiūnas, M. Malinauskas (Vilnius University, Lithuania). Laser 3D fabrication of polymeric micro/nanostructures for biomedical applications.
L. Marcinauskas (LEI) liutauras@mail.lei.lt	A. Žukauskas albertaszukauskas@gmail.com	I. Leinemann, J. Raudoja, M. Altosaar, D. Meissner, R. Traksmas, T. Kaljuvee (Tallinn University of Technology, Estonia). Comparison of CZTSe ($\text{Cu}_2\text{ZnSnSe}_4$) formation in different flux materials.
L. Pranevičius (LEI) liudas.pranevicius@ktu.lt	P. Danilevičius paulius.danilevicius@ff.stud.vu.lt	A. Zarins, G. Kizane, B. Lescinskis, L. Avotina, A. Berzins (University of Latvia, Latvia), I. Steins (Riga Technical University, Latvia). Changes of stoichiometric and nonstoichiometric nanopowders of lithium orthosilicate under thermal treatment and action of moisture.
G. Račiukaitis (FTMC) graciukaitis@ar.fi.lt	A. Zarins arturs.zarins@delfi.lv	A. Žukauskas, M. Rutkauskas, M. Malinauskas (Vilnius University, Lithuania). Femtosecond laser direct writing of microoptical and photonic structures from novel hybrid photopolymers.

8. DEGIMO IR PLAZMINIŲ PROCESŲ TYRIMAI INVESTIGATIONS OF COMBUSTION AND PLASMA PROCESSES

V. Valinčius (LEI) vytas@mail.lei.lt	M. Milieška milieska@mail.lei.lt	V. V. Leschevich, O. G. Penayzkov (Heat and Mass Transfer Institute, Belarus), J. Ch. Rostaing (Centre de Recherche Claude-Delorme, France). Auto-ignition and combustion behavior of iron micro powders in heated oxygen.
G. Laukaitis (KTU) giedrius.laukaitis@ktu.lt	V. Abromaitis vytautas.abromaitis@ktu.lt	M. Milieška, R. Kėželis, V. Mėčius, V. Grigaitienė (Lithuanian Energy Institute, Lithuania). Flow velocity dependence on plasma-chemical reactor outlet nozzle design and effect on obtained mineral fiber.
D. Milčius (LEI) milcius@mail.lei.lt	V. V. Leschevich V.Leschevich@dnf.itmo.by	A. Tamošiūnas, V. Grigaitienė, V. Valinčius (Lithuanian Energy Institute, Lithuania). Study of water vapour plasma composition by optical emission spectroscopy method.
V. Grigaitienė (LEI) vika@mail.lei.lt	A. Tamošiūnas tamosiunas@mail.lei.lt	V. Abromaitis, V. Ochmanaitė, G. Denafas, D. Martuzevicius (Kaunas University of Technology, Lithuania). LCA-based comparison of simultaneous SO_2 and NO_x removal from flue gas by plasma and “conventional” end-of-pipe methods.

9. GLOBALŲS POKYČIAI IR EKOSISTEMOS GLOBAL CHANGE AND ECOSYSTEMS

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D. Šarauskienė (LEI) eko@mail.lei.lt	I. A. Balogun iabalogun@futa.edu.ng	V. Česnulytė (Kaunas University of Technology, Lithuania), R. Alzbutas (Lithuanian Energy Institute, Lithuania). Extreme value distributions for probabilistic analysis of extreme snowfall.
J. Dvarionienė (KTU) jolanta.dvarioniene@ktu.lt	M. Uibu maiuiu@staff.ttu.ee	D. Laurinavičienė, A. Dėdelė (Vytautas Magnus University, Lithuania). Distribution of nitrogen dioxide concentration in Kaunas and Kaunas region.
		D. Jakimavičius (Lithuanian Energy Institute, Lithuania). Influence of the Klaipėda seaport development on the water balance of the Curonian Lagoon.

		A. Jurgelėnaitė (Lithuanian Energy Institute, Lithuania). The alternation of Lithuania rivers water temperature.
J. Kriaučiūnienė (LEI) hydro@mail.lei.lt	V. Česnulytė vaida.cesnulyte@ktu.lt	E. Kasiulis (Lithuanian University of Agriculture, Lithuania). Statistical analysis of the Baltic sea wave height data for evaluating energy potential.
D. Jankūnaitė (KTU) dalia.jankunaite@ktu.lt	A. Babarskaitė agnes.babarskaite@gmail.com	M. Uibu, O. Velts, R. Kuusik (Tallinn University of Technology, Estonia). Aqueous carbonation of oil shale wastes from Estonian power production for CO ₂ fixation and PCC production.
I. Konstantinavičiūtė (LEI) inga@mail.lei.lt	E. Kasiulis ukfanas@gmail.com	J. Žaltauskaitė, G. Sujetovienė, D. Laurinavičienė, I. Šliumpaitė, R. Juknys (Vytautas Magnus University, Lithuania). Evaluation of NO ₂ and NH ₃ concentration levels in Kaunas using two different passive sampling methods.
J. Kriaučiūnienė (LEI) hydro@mail.lei.lt	J. Žaltauskaitė j.zaltauskaite@gmf.vdu.lt	I. A. Balogun, A. A. Balogun, Z. D Adeyewa (Federal University of Technology, Nigeria). Urban heat island analysis effect for Akure, Nigeria.
10. TERMOBRANDUOLINĖS SINTEZĖS TYRIMAI FUSION ENERGY		
E. Urbonavičius (LEI) egis@mail.lei.lt	T. Kačegavičius tomas@mail.lei.lt	M. Halitovs, G. Kizane, A. Vitins, E. Pajuste, L. Avotina (University of Latvia, Latvia). Depth profiles of tritium accumulated in carbon fibre composite divertor materials of JET fusion.
M. Vaišnoras (LEI) minde@mail.lei.lt	A. Kadenko kadenkoartem@gmail.com	T. Kačegavičius, T. Kaliatka (Lithuanian Energy Institute, Lithuania). Integral analysis of the W7-X fusion experiment with ASTEC and RELAP5 codes.
D. Adlienė (KTU) diana.adliene@ktu.lt	M. Halitovs mihails_halitovs@inbox.lv	A. Kadenko, I. Kadenko (Taras Shevchenko National University of Kyiv, Ukraine), N. Dzysiuk (Legnaro National Laboratory (INFN), Italy). Measurement and analysis of (n, x) nuclear reaction cross sections with d-t neutrons on rare earth elements.
11. BRANDUOLINĖ ENERGETIKA IR RADIACINĖ SAUGA NUCLEAR FISSION AND RADIATION PROTECTION		
D. Adlienė (KTU) diana.adliene@ktu.lt	R. Voronov roman@mail.lei.lt	D. Justinavičius (Lithuanian Energy Institute, Lithuania). Thermal analysis of the engineered barriers of geological repository for RBMK-1500 spent nuclear fuel disposal in crystalline rocks.
R. Urbonas (LEI) rolandas@mail.lei.lt	D. Justinavičius justinavicius@mail.lei.lt	A. Kontautas (Lithuanian Energy Institute, Lithuania). Uncertainty and sensitivity analysis of aerosol behaviour in PHEBUS containment during FPT2 test.
L. Juodis (FTMC FI) laurynas@ar.fi.lt	A. Kontautas aurkon@mail.lei.lt	A. Narkuniene (Lithuanian Energy Institute, Lithuania). Uncertainty and sensitivity analysis of ¹²⁹ I release from the engineered barriers of the geologic repository for RBMK-1500 spent nuclear fuel disposal.
Ž. Rutkūnienė (KTU) zivile.rutkuniene@ktu.lt	V. Zubkovs vitaly.zubkov@gmail.com	M. Povilaitis (Lithuanian Energy Institute, Lithuania). Numerical analysis of experiments performed in the frame of SARNET2 project hydrogen deflagration benchmark.
A. Adomavičius (KTU) arvydas.adomavicius@ktu.lt	I. Herdzik-Koniecko i.herdzik@ichtj.waw.pl	A. Slavickas (Lithuanian Energy Institute, Lithuania). Void reactivity variation in innovative BWR assembly.

A. Adomavičius (KTU) arvydas.adomavicius@ktu.lt	B. Zielińska b.zielinska@ichtj.waw.pl	T. Kaliatka, M. Trepulis (Lithuanian Energy Institute, Lithuania). Analysis of processes in RBMK-1000 fuel rods during reactivity initiated accident using FEMAXI-6 code.
J. Gylys (KTU) jonas.gyllys@ktu.lt	A. Narkuniene asta@mail.lei.lt	R. Voronov (Lithuanian Energy Institute, Lithuania). Probabilistic analysis of multiple room area event considering spurious operation of Ignalina NPP fire extinguishing system.
R. Pabarčius (LEI) raimis@mail.lei.lt	A. Slavickas andriussl@mail.lei.lt	V. Zubkovs, E. Pajuste, G. Kizane, A. Vitins, A. Matiss (University of Latvia, Latvia). Tritium localization in the bulk of neutron irradiated beryllium pebbles.
V. Vaitkevičienė (LEI) violetav@mail.lei.lt	M. Povilaitis mantas@povilaitis.eu	G. Zakrzewska-Trznadel, K. Frąckiewicz, I. Herdzik-Koniecko, B. Zielińska, A. Miśkiewicz, K. Szczyglów, P. Bieluszka, Ł. Steczek, E. Chajduk (Institute of Nuclear Chemistry and Technology, Poland), S. Wołkiewicz (Polish Geological Institute, Poland). Separation of Uranium from post-leaching solutions by solvent extraction.
V. Vaitkevičienė (LEI) violetav@mail.lei.lt	T. Kaliatka tadas@mail.lei.lt	G. Zakrzewska-Trznadel, K. Frąckiewicz, I. Herdzik-Koniecko, B. Zielińska, A. Miśkiewicz, K. Szczyglów, P. Bieluszka, Ł. Steczek, E. Chajduk (Institute of Nuclear Chemistry and Technology, Poland), S. Wołkiewicz (Polish Geological Institute, Poland). Solid-liquid extraction of Uranium from polish ores.