



AGENDA

XXVII INTERNATIONAL SCIENTIFIC-PRACTICAL ONLINE CONFERENCE

"RENEWABLE ENERGY AND ENERGY EFFICIENCY OF THE XXIST CENTURY"

20–22 MAY 2026



PAN | Kyiv
Representative Office
Polish Academy of Sciences



Politechnika
Warszawska



ДЕРЖАВНЕ АГЕНТСТВО З ЕНЕРГОЕФЕКТИВНОСТІ
ТА ЕНЕРГОЗБЕРЕЖЕННЯ УКРАЇНИ

KYIV – 2026

ORGANIZERS

- Institute of Renewable Energy of the National Academy of Sciences of Ukraine
- National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"
- Representative Office of the Polish Academy of Sciences in Kyiv
- Warsaw Polytechnic
- Junior Academy of Sciences of Ukraine
- Energy Association UKRAINIAN HYDROGEN COUNCIL
- UNESCO Chair of Igor Sikorsky Kyiv Polytechnic Institute "Higher Technical Education, Applied Systems Analysis and Informatics"
- Institute of General Energy of the National Academy of Sciences of Ukraine
- Institute of Engineering Thermophysics of the National Academy of Sciences of Ukraine
- Ukrainian National Committee on Heat and Mass Transfer

UNDER SUPPORT OF:

- National Academy of Sciences of Ukraine
- Energy Association UKRAINIAN HYDROGEN COUNCIL
- Hydrogen Europe
- Representative Office of the Polish Academy of Sciences in Kyiv
- Scientific Council "Scientific Bases of Electric Power Industry", NAS of Ukraine
- State Agency on Energy Efficiency and Energy Saving of Ukraine
- Faculty of Electrical Engineering and Automation, Department of Renewable Energy Sources, Igor Sikorsky Kyiv Polytechnic Institute
- Andijan State University named after Z.M.Babur
- EUROSOLAR-Ukraine
- Ukrainian-Polish Center of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"
- Association of Engineering and Wind Power of Ukraine
- Scientific and Technical Union of Power Engineers and Electrical Engineers of Ukraine
- UNIDO/GEF Global Cleantech Innovation Programme for SMEs in Ukraine

SPONSORS:

- Energy Association UKRAINIAN HYDROGEN COUNCIL

INFORMATION SUPPORT:

- Scientific and applied journal "Vidnovlyuvana enerhetyka"
- Conference webpage of Igor Sikorsky Kyiv Polytechnic Institute: www.konf.ive.kpi.ua
- Webpage of the Institute of Renewable Energy, NAS of Ukraine: www.ive.org.ua
- Department for Renewable Energy at Igor Sikorsky Kyiv Polytechnic Institute:
• www.vde.kpi.ua;
- Newspaper "Kyiv Polytechnic": <https://kpi.ua/kp>
- Information resource: www.geonews.com.ua

Agenda 2026

XXVII INTERNATIONAL SCIENTIFIC-PRACTICAL ONLINE CONFERENCE "RENEWABLE ENERGY AND ENERGY EFFICIENCY OF THE XXI CENTURY"

20.05.2026 WEDNESDAY	
Start 10 ⁰⁰	WELCOMING SPEECHES (up to 5 min per person)
	<ul style="list-style-type: none">• Stepan Kudria, Director, IRE, National Academy of Sciences of Ukraine• Anatolii Melnychenko, Rector, Igor Sikorsky Kyiv Polytechnic Institute• Mykhailo Zgurovsky, Academician, National Academy of Sciences of Ukraine (1992 -2024)• Stanislav Dovgy, President, Junior Academy of Sciences of Ukraine• State Agency on Energy Efficiency and Energy Saving of Ukraine• Yurii Bondarenko, Chairman of the Board of the NGO "Scientific and Technical Union of Power Engineers and Electrical Engineers of Ukraine"• Mateusz Bialas, Director of the Representative Office of the Polish Academy of Sciences in Kyiv• Oleksandr Riepk, President of the Energy Association "Ukrainian Hydrogen Council"• Vasyl Budko, Dean of the Faculty of Electrical Engineering and Automation, Igor Sikorsky Kyiv Polytechnic Institute• Bohdan Sukhetskyi, General Director of PJSC "Ukrhydroenergo"
11 ⁰⁰	ONLINE PRESENTATIONS (presentation time limit: 10 minutes) PLENARY SESSION OBJECTIVES. CHALLENGES. INTERNATIONAL REVIEW.
11 ⁰⁰ – 11 ⁵⁰	MODERATORS: MYKOLA KUZNIETSOV, PETRO VASKO
	RENEWABLE ENERGY SOURCES AND GREEN HYDROGEN IN THE STRUCTURE OF THE POST-WAR ENERGY ARCHITECTURE OF UKRAINE <i>S.O. Kudria, O.V. Zurian, Institute of Renewable Energy of the National Academy of Sciences of Ukraine</i> THE GROWTH OF RES CAPACITY IN THE POLISH ENERGY SECTOR <i>Artur Rusowicz, Warsaw University of Technology</i> FROM DECENTRALIZED GENERATION TO THE HYDROGEN ECONOMY: A SCALABLE MODEL "KOBLEVE ENERGY HUB" <i>¹Yu. V. Maslov, ¹V. P. Kylyvnyk, ¹Yu. L. Borzunov, ²O. V. Zurian, ¹Kobleve Territorial Community, Mykolaiv Region, Ukraine, ²Institute of Renewable Energy, NAS of Ukraine</i> CURRENT STATE AND DEVELOPMENT TRENDS IN THE GLOBAL ENERGY SECTOR, INCLUDING RENEWABLE ENERGY, UP TO 2035 <i>B. I. Basok, Institute of Engineering Thermophysics of the NAS of Ukraine</i> DISTRIBUTED GENERATION AS A FORCED TREND IN THE SUSTAINABLE DEVELOPMENT OF UKRAINE'S ENERGY SECTOR <i>Ye. Bazieiev, B. Basok, Institute of Engineering Thermophysics of the NAS of Ukraine</i>
SECTION 11 ⁵⁰	FINAL EVENT OF THE GERUCCHY PROJECT RECOMMENDATIONS ON GREEN HYDROGEN CERTIFICATION IN UKRAINE
11 ⁵⁰ – 13 ¹⁰	MODERATORS: MOUHOUB BENMENNI, MYKOLA KUZNIETSOV
	INTRODUCTION OF THE GERMAN-UKRAINIAN RESEARCH COOPERATION ON THE CERTIFICATION OF GREEN HYDROGEN <i>Jakob Schlandt, Head of Policy and Markets, Hamburg Institut</i> REGULATORY FRAMEWORK CONDITIONS FOR GREEN HYDROGEN CERTIFICATION IN THE EU <i>Dr. Alexandra Styles, Hamburg Institut</i>

	<p>FRAMEWORK CONDITIONS FOR GREEN HYDROGEN PRODUCTION AND TRADE IN UKRAINE <i>Timo Hoelzmann, Hamburg Institut</i></p> <p>RECOMMENDATIONS FOR DESIGNING A CERTIFICATION SYSTEM FOR RENEWABLE HYDROGEN IN UKRAINE <i>Dr. Alexandra Styles, Hamburg Institut</i></p> <p>EXTENDED SUSTAINABILITY CRITERIA FOR RENEWABLE HYDROGEN IN UKRAINE <i>Timo Hoelzmann, Hamburg Institut</i></p> <p>RELEVANCE OF FINDINGS IN THE CONTEXT OF THE IMPLEMENTATION OF A HYDROGEN STRATEGY OF UKRAINE <i>Mykola Kuznietsov, Institute of Renewable Energy</i></p> <p>QUESTIONS AND DISCUSSION WITH PARTICIPANTS [20 MINUTES]</p>
SECTION 13¹⁰	ENERGY SOURCES OF THE FUTURE. HYDROGEN ENERGY (presentation time limit: 10 minutes)
13¹⁰ – 14⁵⁰	MODERATOR: MYKOLA KUZNIETSOV
	<p>ESTABLISHING GREEN CORRIDORS IN THE BLACK SEA AS A TOOL FOR UKRAINE’S RECOVERY AND DECARBONIZATION OF THE REGION <i>O.O. Riepkin, Energy Association "Ukrainian Hydrogen Council"</i></p> <p>PROSPECTS FOR THE DEVELOPMENT OF THE HYDROGEN ECONOMY IN GERMANY AND THE APPLICATION OF ENERGY SYSTEM OPTIMIZATION MODELS <i>Yurii Tashcheiev, Christian-Albrechts-Universität zu Kiel, Institute for Statistics & Econometrics, Germany</i></p> <p>OPTIMIZATION OF ELECTRICAL AND ENERGY CHARACTERISTICS OF A SINGLE CELL OF A HYDROGEN-OXYGEN ELECTROLYZER <i>Yu. K. Pirsky, Ya. V. Kolosovsky, A. V. Kutsyi, Vernadsky Institute of General and Inorganic Chemistry, NAS of Ukraine</i></p> <p>HYDROGEN EMBRITTLEMENT OF STEELS: CHALLENGES IN THE DEVELOPMENT OF THE HYDROGEN INFRASTRUCTURE IN UKRAINE <i>O. Zvirko, D. Demianchuk, O. Venhryniuk, O. Tsyurulnyk, H. Nykyforchyn, H. V. Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Lviv</i></p> <p>ELECTRONIC MODEL OF A HYDROGEN FUEL CELL <i>S. V. Boichenko, L. K. Listovshchyyk, V. P. Studenets, I. O. Shkilniuk, V. O. Korovushkin, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>ANALYSIS OF ENERGY OPERATING CONDITIONS IN PEM FUEL CELL MODELLING <i>S. V. Boichenko, V. O. Korovushkin, I. O. Shkilniuk, L. K. Listovshchyyk, V. P. Studenets, E. M. Brodnikovskyyi Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>ESG IN HYDROGEN ENERGY: PROSPECTS OR A UTOPIA? <i>M. R. Lopushanska, N. V. Revutska, L. V. Tsyhanok, K. V. Yatsyshyna Limited Liability Company "ECO-OPTIMA" / Professional Association of Environmentalists "PAEW"</i></p> <p>THERMODYNAMIC MODELLING AND STOCHASTIC DEMAND ANALYSIS OF HIGH-PRESSURE HYDROGEN REFUELLING FOR FCEVS BASED ON REAL GAS EFFECTS <i>S. V. Boichenko, Linfei Chen, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"</i></p> <p>ANALYSIS OF THE PROSPECTS TO ADAPT THE GAS TRANSPORTATION SYSTEM OF UKRAINE TO HYDROGEN TRANSPORTATION <i>O.O. Mishyn, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>ASSESSMENT OF SITE SUITABILITY FOR LOCATING WIND AND HYDROGEN POWER PLANTS <i>S.O. Kudria, M.A. Tkalenko, L.V. Yatsenko, Institute of Renewable Energy of the National Academy of Sciences of Ukraine</i></p>
SECTION 14⁵⁰	ENERGY EFFICIENCY SIMULATION OF COMPLEX ENERGY SYSTEMS

	(presentation time limit: up to 10 minutes)
14⁵⁰ – 16³⁰	MODERATORS: MYKOLA KUZNIETSOV, OLEKSII ZURIAN
	<p>SYSTEMIC APPROACH TO ENERGY AUDIT OF HEATING UTILITIES OF UKRAINE IN THE ENERGY CRISIS <i>O.V. Borychenko, A.V. Czerniawski, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>ECONOMIC TOOLS FOR DEVELOPING ENERGY-EFFICIENT MICROGRIDS IN THE REGION <i>N.L. Korzhenivska, Ye.O. Ponomarenko, Podillia State University, Kamianets-Podilskyi</i></p> <p>ENERGY AUDIT OF ENERGY CONSUMPTION IN AN EDUCATIONAL INSTITUTION <i>V.A. Nalyvaiko, I.P. Radko, O.V. Okushko, National University of Life and Environmental Sciences of Ukraine</i></p> <p>ANALYSIS OF ENERGY CONSUMPTION AND PROSPECTS FOR IMPLEMENTING ENERGY-EFFICIENT TECHNOLOGIES IN THE MUNICIPAL INSTITUTION "VINNYTSIA PIROGOV HUMANITARIAN LYCEUM NO.1" <i>O.V. Koval, Municipal Institution "Vinnytsia Pirogov Humanitarian Lyceum No.1"</i></p> <p>FORECASTING MODERN FUEL CHOICES IN INDUSTRY AND THE ENERGY SECTOR USING ARTIFICIAL INTELLIGENCE UNDER HYBRID DECARBONIZATION <i>B. S. Soroka, D. I. Fedorov, A. V. Lyba, Institute of Gas of the NAS of Ukraine</i></p> <p>ASSESSMENT OF THE ACTIVE COOLING SYSTEMS ENERGY EFFICIENCY FOR MINIMISING HEAT STRESS IN LIVESTOCK <i>Y.I. Dziuban, Institute of General Energy, NAS of Ukraine</i></p> <p>ANALYSIS OF THE CURRENT STATUS AND SCIENTIFIC PREREQUISITES FOR THE DEVELOPMENT OF ENERGY MANAGEMENT SYSTEMS OF A LOCAL FACILITY <i>R.Yu. Cherednychenko, National University of Life Resources and Environmental Sciences of Ukraine</i></p> <p>USING SOLAR PV AND BUFFER ENERGY STORAGE TO IMPROVE ENERGY EFFICIENCY OF ELECTRIC VEHICLE CHARGING STATIONS <i>A.M. Tereshenko, Institute of Renewable Energy of the NAS of Ukraine</i></p> <p>THEORETICAL ASPECTS OF DIAGNOSING THE ENERGY EFFICIENCY STATUS OF PRODUCTION SYSTEMS <i>P. V. Rozen, V. P. Rozen, Institute of General Energy of the NAS of Ukraine</i></p> <p>IMPROVING ENERGY EFFICIENCY OF LEAD-ACID BATTERIES BY REDUCING POLARIZATION AND CORROSION LOSSES: A COMPREHENSIVE ASSESSMENT OF LEAD-CARBON COMPOSITE ELECTRODES <i>M. V. Kostyria, S. V. Korpach, Institute of Transport Systems and Technologies of the National Academy of Sciences of Ukraine</i></p>
SECTION 16³⁰	EDUCATIONAL ACTIVITIES
16³⁰ – 17⁰⁰	MODERATOR - OLEKSII ZURIAN (time limit: up to 10 minutes)
	<p>METHODOLOGY FOR DEVELOPING STUDENTS' SYSTEMATIC ANALYSIS SKILLS IN STUDYING MAXWELL-LORENTZ EQUATIONS <i>Sevarakhon Bakirova, Andijan State University, Uzbekistan</i></p> <p>APPLICATION OF THE "LEARNING BY DESIGN" METHOD FOR DEVELOPING A COURSE ON DESIGNING NEARLY ZERO-ENERGY BUILDINGS (NZEB) <i>O.V. Lysak, Institute of Renewable Energy of the NAS of Ukraine</i></p> <p>ON ORGANIZING OPERATIONS OF THE ENERGY EFFICIENCY CENTER OF IVE NAES OF UKRAINE <i>V.B. Baidulin, Institute of Vocational Education, NAES of Ukraine</i></p>

**21.05.2026
THURSDAY**

	SCIENTIFIC REPORTS
Start 10⁰⁰	REPORTS IN ZOOM (up to 10 min per person)

SECTION	SOLAR ENERGY
10 ⁰⁰ – 13 ⁵⁰	MODERATORS: SERHII MATIAH, TAMILA SURZHYK
	<p>SEARCHING FOR WAYS TO IMPLEMENT QUANTUM-SIZE EFFECTS IN VARIOUS STRUCTURES OF SILICON SOLAR CELLS <i>Rayimjon Aliev, Andijan State University, Uzbekistan</i></p> <p>SYNERGISTIC FORMATION OF OUTPUT PHOTOVOLTAIC CHARACTERISTICS OF POLYCRYSTALLINE SILICON STRUCTURES UNDER CONDITIONS OF HIGH SOLAR RADIATION <i>Rayimjon Aliev, M. Alinazarova, D. Khonbutaeva, Andijan State University, Uzbekistan</i></p> <p>STATISTICS OF INSOLATION TIME SERIES IN THE CITY OF KYIV, CORRELATION ANALYSIS RELEVANT TO SOLAR ENERGY <i>O. Yu. Haievskiy, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>ARTIFICIAL NEURAL NETWORK BASED PREDICTIVE PERFORMANCE ANALYSIS OF PHOTOVOLTAIC OUTPUT UNDER VARIOUS SOLAR RADIATION RANGES <i>Ravshanbek Raxmatullayev, UCSI University, Malaysia</i></p> <p>INVESTIGATION OF THE PHOTOELECTRIC PARAMETERS OF A MONOCRYSTALLINE SILICON SOLAR CELL UNDER DIFFERENT COLORED BACKGROUNDS USING THE SINTON SUNS-VOC MEASUREMENT SYSTEM <i>Xojixon Xolmatova, Andijan State University, Uzbekistan</i></p> <p>IMPROVEMENT OF OPTICAL PROPERTIES OF SILICON-BASED SOLAR CELLS USING VARIOUS SURFACE GEOMETRIC STRUCTURES <i>Temirov Sodiqjon, Andijan State University</i></p> <p>SIMULATION MODELING OF I-V CHARACTERISTICS OF SOLAR CELLS BASED ON THE SUPERELLIPSE MODEL IN PYTHON ENVIRONMENT <i>Sharifaxon Tadjibayeva, Andijan State University</i></p> <p>PREPARATION AND MORPHOLOGICAL STUDIES OF SOLID SOLUTIONS OF (GE₂)_{1-x}(ZNSE)_x <i>Durdona Koshchanova, Urgench State University</i></p> <p>GROWING A GRADED-BAND SOLID SOLUTION OF Si_{1-x}Ge_x (0<x<1) FROM A TIN SOLUTION-MELT <i>Abdullayeva Sevara, Urgench State University</i></p> <p>OPTIMIZING ANTI-REFLECTION LAYERS FOR PEROVSKITE LATERAL HETEROJUNCTION SOLAR CELLS <i>Irodakhon Gulomova, Andijan State University</i></p> <p>STUDY OF THE DEPENDENCE OF SOLAR CELL POWER ON ITS SURFACE AREA USING THE LEXSO-LAR LABORATORY EQUIPMENT KIT <i>Avazbek Mirzaalimov, Andijan State Pedagogical Institute</i></p> <p>COMPLIANCE OF LONGI HI-MO X10 SCIENTIST PHOTOVOLTAIC MODULE WITH INTERNATIONAL (IEC 61215) AND UZBEKISTAN (O'Z DST, SHNQ 2.04.15-23) MECHANICAL STANDARDS: SIMILARITIES AND DIFFERENCES <i>Alisher Odiljonov, Andijan State University</i></p> <p>SHORT-TERM FORECASTING OF DEMAND FOR ENERGY STORAGE FOR THE ENERGY COMPLEX – SOLAR POWER PLANT, ENERGY STORAGE <i>V.O. Derii, A. O. Zaporozhets, T.P. Nechaieva, Ya. V. Havrylenko, Institute of General Energy of the NAS of Ukraine</i></p> <p>SELECTION OF PARAMETERS OF PROTECTIVE ELEMENTS OF SOLAR BATTERIES TO PREVENT NEGATIVE OPERATING EFFECTS <i>L.V. Nakashidze, Oles Honchar Dnipro National University</i></p> <p>CONNECTION OF PHOTOVOLTAIC CELLS IN A SMART-CONTROLLED POWER SOURCE <i>D. V. Bondarenko, Institute of Renewable Energy of the NAS of Ukraine</i></p>

	<p>PROSPECTS FOR THE INTEGRATION OF PHOTOVOLTAIC PANELS AND HYDROGEN GENERATION SYSTEMS IN AUTOMATED, STAND-ALONE POWER GENERATION SYSTEMS <i>S. Boichenko, B. Yavorskyi, K. Osadchyk, S. Shman, D. Siabruk, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>RESEARCH ON THE INFLUENCE OF SNOW COVER ON THE SURFACE OF PHOTOELECTRIC MODULES ON THE SOLAR POWER PLANT GENERATION <i>O.M. Moroz, A.O. Pavlov, O.O. Myroshnyk, State Biotechnological University, Kharkiv</i></p> <p>ENHANCED MATHEMATICAL MODEL OF TEMPERATURE FIELD DISTRIBUTION IN A PHOTOVOLTAIC PANEL <i>Karuna Serhii, Knysh Liudmyla, Oles Honchar Dnipro National University</i></p> <p>MATHEMATICAL MODELING OF THE DUST CONTAMINATION OF PV PANEL SURFACE <i>E.V. Iliashenko, L.I. Knysh, Oles Honchar Dnipro National University</i></p> <p>ANALYSIS OF SOLAR DRYING METHODS AND DESIGN SCHEMES OF SOLAR DRYERS <i>V. M. Holovko, D. S. Yaruta, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>ANALYTICAL ASSESSMENT OF ENERGY EFFICIENCY OF V-SHAPED BIFACIAL PHOTOELECTRIC SYSTEMS UNDER CONDITIONS OF DIFFERENTIATED ALBEDO <i>B.P. Pashkevych, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>IMPROVING THE EFFICIENCY OF GRID-CONNECTED SOLAR POWER PLANTS WHEN OPERATING IN AUTONOMOUS MODE WITH A GENERATOR <i>V.S. Stepenko, Institute of Renewable Energy, NAS of Ukraine</i></p> <p>ANALYSIS OF THE IMPACT OF WEATHER PHENOMENA ON THE EFFICIENCY OF SOLAR GENERATION SYSTEMS IN UKRAINIAN CONDITIONS <i>O. V. Ostapchuk, O.V. Yurash, Igor Sikorsky Kyiv Polytechnic Institute</i></p>
SECTION 13⁵⁰	WIND ENERGY, HYDRO ENERGY AND GEOTHERMAL ENERGY
13⁵⁰ – 15²⁰	MODERATORS: PETRO VASKO, KATERYNA PETRENKO
	<p>INFLUENCE OF THE LIMIT VALUE OF THE NOMINAL POWER UTILIZATION COEFFICIENT ON THE RESULTS OF THE ASSESSMENT OF THE TECHNICAL POTENTIAL OF WIND POWER PLANTS IN UKRAINE <i>K.V. Petrenko, I.V. Ivanchenko, Institute of Renewable Energy of the NAS of Ukraine</i></p> <p>SOME FEATURES OF THE MODULAR NEURAL SYSTEM FOR VIBRODIAGNOSTICS OF WIND TURBINE GENERATORS <i>O.V. Kulesh, Institute of Electrodynamics, NAS of Ukraine</i></p> <p>REDUCTION OF RADIATIVE HEAT TRANSFER FROM A HEATED SURFACE TO THE ENVIRONMENT <i>B. Basok, V. Demchenko, Institute of Engineering Thermophysics of the NAS of Ukraine</i></p> <p>ANALYSIS OF THE THERMAL POTENTIAL OF AN AIR-GROUND HEAT EXCHANGER UNDER THE CLIMATIC CONDITIONS OF THE CITY OF KYIV <i>O. M. Nedbailo, K. D. Slizhevskiy, O. V. Vlasenko, Institute of Engineering Thermophysics of the NAS of Ukraine, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>THE RISE OF GEOTHERMAL RESEARCH IN SPAIN <i>Hanna Liventseva, Geosciences Barcelona GEO3BCN-CSIC, Spain</i></p> <p>ANALYSIS OF TECHNICAL AND ECONOMIC CHARACTERISTICS OF GEOTHERMAL HEAT AND COOLING SYSTEMS WITH UNDERGROUND THERMAL ENERGY STORAGE <i>O.V. Lysak, Institute of Renewable Energy of the National Academy of Sciences of Ukraine</i></p> <p>PROSPECTIVE GEOTHERMAL SYSTEMS <i>V.Yu. Skosar, Institute of Transport Systems and Technologies of the National Academy of Sciences of Ukraine</i></p> <p>HIGH-TEMPERATURE TWO-STAGE AIR-TO-WATER HEAT PUMP USING R744 (CO₂) FOR BUILDING HEATING <i>E.P. Pastushenko, Institute of Technical Thermophysics of the National Academy of Sciences of Ukraine</i></p> <p>FORECASTING OF DAILY ELECTRICITY CONSUMPTION BY VAPOUR-COMPRESSION AIR-TO-WATER HEAT PUMP UNITS <i>P. S. Husiev, LLC "Haister", Kyiv</i></p>

SECTION 15 ²⁰	BIOENERGY (time limit: up to 10 minutes)
15 ²⁰ – 17 ⁴⁰	MODERATOR - HENNADIY CHETVERYK
	<p>THERMOPHYSICAL PROPERTIES OF GASIFICATION PRODUCTS OF AGRICULTURAL AND INDUSTRIAL WASTE WITH A FORECAST ASSESSMENT OF CO₂ EMISSIONS <i>B. S. Soroka, V. O. Zghurskyi, K. Ye. Pianykh, V. S. Kudriavtsev, the Gas Institute of the National Academy of Sciences of Ukraine</i></p> <p>ANALYSIS OF THE POTENTIAL OF OBTAINING ALTERNATIVE MOTOR FUEL FROM WASTE PLASTIC MATERIALS AND WORN TIRES IN UKRAINE <i>Serhii Boichenko, Iryna Shkilniuk, Ihor Kuberskyi, Ihor Levandovskyi, Kostiantyn Futa, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>METHANOL PRODUCTION BY GASIFICATION OF CARBON-CONTAINING RAW MATERIALS OF VARIOUS ORIGINS <i>K.E.Pianykh, D.M.Nevchas, A.I.Trypolskyi, P.E.Stryzhak, the Gas Institute, NAS of Ukraine</i></p> <p>BIOFUEL PYROLYSIS AND STEAM-AIR GASIFICATION OF FIXED CARBON <i>B.B. Rokhman¹, K.E. Pyanykh², G.O. Chetveryk^{3, 1,3}Institute of Renewable Energy of the National Academy of Sciences of Ukraine, ^{1,2} Gas Institute of the National Academy of Sciences of Ukraine</i></p> <p>STUDY OF THE COMBUSTION OF CONIFEROUS WOOD WASTE PELLETS <i>O. M. Dudnyk, I. S. Sokolovska, Institute of Thermal Energy Technologies, National Academy of Sciences of Ukraine</i></p> <p>EXERGETIC OPTIMIZATION OF A BREWERY COGENERATION CONTROL SYSTEM USING VARIATIONAL INEQUALITIES <i>K.O. Volchanska, Zaporizhzhia National University</i></p> <p>CONCEPTUAL APPROACH TO CREATION AND APPLICATION OF SAFE HEAT ACCUMULATING MATERIALS <i>A.V. Konyk, O.O. Berezovchuk, Institute of Technical Thermophysics, NAS of Ukraine</i></p> <p>ALTERNATIVE FUEL BASED ON PLANT BIOMASS WASTE <i>T. V. Korinchevska, V. A. Mykhailyk, Institute of Engineering Thermophysics, NAS of Ukraine</i></p> <p>COMBUSTION OF ALTERNATIVE LIQUID FUELS IN SELF-IGNITION MODE <i>V. M. Chmel, I. P. Novikova, Institute of Engineering Thermophysics, NAS of Ukraine</i></p> <p>STUDY OF DRYING PROCESS KINETICS OF SEWAGE SLUDGE DERIVED FROM SOLID WASTE LANDFILLS <i>Yu. P. Novikova, Institute of Engineering Thermophysics, NAS of Ukraine</i></p> <p>ANALYSIS OF THE POTENTIAL TO PRODUCE ALTERNATIVE MOTOR FUELS FROM PLASTIC WASTE AND END-OF-LIFE TYRES IN UKRAINE <i>Serhii Boichenko, Iryna Shkilniuk, Ihor Kuberskyi, Ihor Lievandovskyi, Kostiantyn Futa, Igor Sikorsky Kyiv Polytechnic Institute</i></p> <p>COMPREHENSIVE THERMOCHEMICAL PROCESSING OF AUTOMOTIVE TIRE RUBBER WASTE <i>S.O. Kipko, K.E. Pianykh, the Gas Institute, National Academy of Sciences of Ukraine</i></p> <p>THERMOPHYSICAL PROPERTIES OF FUELS AND COMBUSTION PRODUCTS AS A CRITERIA FOR SELECTING EFFICIENT FUELS, ENVIRONMENTAL DECARBONIZATION UNDER THE CONDITIONS OF DIGITALIZATION OF CALCULATIONS B. S. Soroka, A. V. Lyba, D. I. Fedorov, the Gas Institute, NAS of Ukraine</p> <p>ALKYLBENZENE FRACTION AS A PRODUCT OF WASTE CONVERSION — A PROMISING COMPONENT FOR THE PRODUCTION OF ENVIRONMENTALLY FRIENDLY AVIATION GASOLINES <i>S. Boichenko, I. Shkilniuk, I. Kuberskyi, 10th Chemmotology Center, Kyiv</i></p>

22.05.2026
FRIDAY

SCIENTIFIC REPORTS

Start
10⁰⁰

REPORTS IN ZOOM (time limit: up to 10 minutes)

10⁰⁰ – 16³⁰

GENERAL

MODERATOR - MYKOLA KUZNIETSOV

REDUCTION IN THE USAGE OF F-GASES IN THE EUROPEAN UNION OVER THE LAST DECADE

Andrzej Grzebielec, Warsaw University of Technology

MINE HYDRO-PNEUMATIC POWER PLANTS BASED ON THE FOUNTAIN OF HERON

D. Cherevatskyi, Institute of Industrial Economics of the National Academy of Sciences of Ukraine

USE OF ELEMENTS FROM CAMITAL FUNCTIONAL ALLOY FOR THE CONVERSION OF THERMAL ENERGY FROM LOW-POWER SOURCES INTO ELECTRICITY

V. V. Kozyrskyi, V. Ya. Bunko, Separate Division of the National University of Life Resources and Environmental Management of Ukraine "Berezhany Agrotechnical Institute"

RENEWABLE ENERGY STORAGE FROM SECOND-LIFE BATTERIES FOR POWER SYSTEM FLEXIBILITY

Ganna Kostenko, Artur Zaporozhets, Institute of General Energy, NAS of Ukraine

STRUCTURAL MODEL OF ESTABLISHING THE ENERGY COMMUNITY BALANCE BASED ON RENEWABLE SOURCES AND LOCAL TPPs

V. V. Kaplun, E. O. Kulybaba, National University of Life Resources and Environmental Sciences of Ukraine

ANALYSIS OF THE PAYBACK PERIOD OF THE NETWORK ENERGY SAVING SYSTEM IN DIFFERENT SEGMENTS OF THE ELECTRICITY MARKET OF UKRAINE

John Smith, Ann Johnson, Institute of General Energy, National Academy of Sciences of Ukraine

SOME SYSTEMS OF CONTROL AND DIAGNOSTICS OF ELECTRICAL ENERGY STORAGE

V.M. Zvarych, Y.I. Gyzhko, L.B. Ostapchuk, G.A. Kuzik, Institute of Renewable Energy of the National Academy of Sciences of Ukraine, Institute of Electrodynamics of the National Academy of Sciences of Ukraine

SMART MONITORING AND FORECASTING OF ELECTRICITY CONSUMPTION IN MICROGRID USING SMART GRID AND IOT TECHNOLOGIES

O.V. Okushko, I.P. Radko, V.A. Nalyvaiko, National University of Bioresources and Environmental Sciences of Ukraine

CHARGING INFRASTRUCTURE FOR ELECTRIC VEHICLES BASED ON RENEWABLE ENERGY

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G. Trypolska, S. Kyryziuk, L. Venher, State Institution "Institute of Economics and Forecasting of the NAS of Ukraine"

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O. S. Yandulskiy, Yu.V. Khlystov, Igor Sikorsky Kyiv Polytechnic Institute

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ELECTRICITY DISTRIBUTION NETWORK SYSTEM BASED ON SMART METERING USING TYPICAL LOAD SCHEDULES FOR CONSUMERS

I.P. Radko, V.O. Okushko, V.A. Nalyvayko, NUBIP, Ukrainian National Research Institute of Energy and Power Engineering

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I.P. Radko, V.O. Okushko, V.A. Nalyvayko, NUBIP, Ukrainian National Research Institute of Energy and Power Engineering

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RESEARCH INTO THE OPERATION OF ADAPTIVE RELAY PROTECTION OF ELECTRICAL DISTRIBUTION NETWORKS WITH RENEWABLE ENERGY SOURCES

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FLEXIBILITY OF THE ELECTRIC POWER SYSTEM IN MODERN CONDITIONS

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LEAD-CARBON ACCUMULATORY BATTERIES

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RAILWAY MAGNETOLEVITATION TRANSPORT

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ENHANCING ELECTRICITY GENERATION EFFICIENCY FROM SOLAR PANELS MOUNTED ON DUAL-AXIS TRACKERS BY OPTIMIZING THE PARAMETERS OF A FLAT MIRROR REFLECTOR

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EFFECT OF SOLAR PANEL TILT ANGLE ON EFFICIENCY ACROSS VARIOUS SOLAR IRRADIANCE LEVELS

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POSSIBILITIES OF USING HUMAN BODY HEAT FOR ELECTRICITY GENERATION

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MICRO HPP AS AN ELEMENT OF THE “GREEN TRANSITION” IN VOLYN REGION: FROM REGIONAL STRATEGY TO LOCAL PRACTICES

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SAILS WITH SOLAR PANELS

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HARNESSING ENERGY OF AIR FLOWS FROM VEHICLES

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PRODUCTION OF BIOFUEL FROM SOYBEAN PROCESSING WASTE AND DISTILLERY STILLAGE AS PROMISING BIOENERGY RESOURCES

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STUDY OF THE FEATURES OF BIODIESEL PRODUCTION USING ULTRASOUND

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EFFICIENCY OF USING HUMAN HAIR AS AN ECOLOGICAL BIOSORBENT FOR RESOURCE-SAVING WATER PURIFICATION

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