

The background of the poster features a dark, atmospheric scene of an oil pumpjack (jackal) in the upper right, with a network of glowing orange lines and nodes overlaid on a dark, flowing liquid surface in the lower half.

PROGRAM
of IX International
Scientific-Technical
Conference

**THEORY AND PRACTICE
OF RATIONAL USE
OF TRADITIONAL
AND ALTERNATIVE FUELS
& LUBRICANTS**

(PROBLEMS OF CHEMMOTOLOGY)

July 03–07, 2023

Kyiv–Warsaw, Ukraine–Poland

The Conference is dedicated to the
125th Anniversary of the
«Igor Sikorsky Kyiv Polytechnic Institute»

PROGRAM

of IX International Scientific-Technical Conference

**«THEORY AND PRACTICE OF RATIONAL USE
OF TRADITIONAL AND ALTERNATIVE FUELS
& LUBRICANTS»**
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Sergii Shamanskyi – Professor of the Department of Water Supply and Drainage, Kyiv National University of Construction and Architecture, Ukraine, Dr. Sc., Professor

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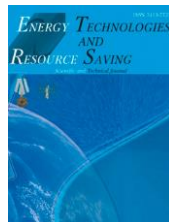
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MEDIA PARTNERS



PRESENTATIONS

Scientific and Methodical Achievements



Discussion Panels

03 July, 2023	
Ethnographic Program «Know and Love Your Land. History, Modernity, Traditions» – Kyiv	
Moderator – <i>Tetyana Bilyk</i>	
05 July, 2023	
Modern Requirements for Quality Control of Aviation Fuels and Lubricants and Technical Liquids	
Moderator – <i>Iryna Shkilniuk</i>	
05 July, 2023	
Prospects for the development of the «Petrochemistry and Oil Refining» department of the Ukrainian Oil and Gas Academy jointly with TC 38, TC 48, TC 197	
Moderator – <i>Sergii Boichenko</i>	
04 July, 2023	
	Discussion of implementation of joint R&D project «Environmentally Friendly Aviation for All Classes Of Aircraft» (EFACA)
Moderator – <i>Oleksandr Zaporozhets</i>	
05 July, 2023	
	Presentation of Education & Research Laboratory of «Hydrogen Technologies in Energy and Transport» Jointly with «Energy Association «Ukrainian Hydrogen Council» https://hydrogen.ua/ua/)
Moderator – <i>Sergii Boichenko</i>	
07 July, 2023	
Discussion on the current state and perspective plan of the development of the Scientific-Technical Union of Chemmotologists	
Moderator – <i>Anna Yakovlieva</i>	

OPENING SESSION

**Jointly with ISEAS'23 – <https://2023.iseasci.org/>
04 July, 2023 / 10.00–10.45 / Off-line+On-line,
room 405 + Warsaw + Eskisehir**

Chairman: Sergii Boichenko, Oleksandr Zaporozhets

Co-Chairman: Anna Yakovlieva

1. Welcome words from the Conference Honorary Chairman
T. Hikmet Karakoc, Turkey.

2. Welcome words from the Conference Honorary professor
Max Shauk, USA

3. Welcome words from the Conference Honorary professor
Jean Szydywar, France

4. Welcome words from the Conference Honorary Chairman
Vitalii Pasichnyk, Ukraine

5. Welcome words from the Member of the Organizing Committee
Vitalii Babak, Ukraine

6. Welcome words from the President of the Association "Airports of
Ukraine", **Petro Lipovenko**, Ukraine

7. Welcome words from the Conference Honorary Chairman
Oksana Vovk, Ukraine



SESSION 1

«Chemical, Biotechnology and Engineering»

04 July, 2023 / 11.00–14.00 / Off-line+On-line,
room 405 + Warsaw + Eskisehir

Chairman: Oleh Hrynyshyn

Co-Chairman: Olena Shevchenko

1. **Oleksandr Davydenko**, LLC Paltech, Ukraine
Methods of combating hydrogen sulfide and mercaptans, protection against corrosion and salt deposits of oil and gas industry equipment
2. **Oleh Hrynyshyn, Iurii Hlibyshyn**, National University «Lviv Polytechnic», Ukraine
Oil bitumen from Ukrainian feedstock: problems and solutions
3. **Olha Poliak, Volodymyr Gunka, Iurii Demchuk, Myhailo Bratychak**, National University «Lviv Polytechnic», Ukraine
The influence of duration of road bitumen modification with monoperoxide derivative of epoxy acid ED-24
4. **Stanislav Hrynyshyn, Zenovii Znak**, National University «Lviv Polytechnic», Ukraine
Application of Natural Clinoptilolite for Cleaning the Soil from Oil
5. **Serhii Konovalov, Stepan Zubenko, Lyubov Patrylak, Vitalii Yevdokymenko, Dmytro Kamenskyh, Yevhen Polunkin, Anjela Yakovenko, David Davitadze, Anton Levterov**, V.P. Kukhar Institute of Bioorganic Chemistry and Petrochemistry of the National Academy of Sciences of Ukraine, Ukraine, A.M. Pydgorny Institute of Engineering Problems, Ukraine of the National Academy of Science of Ukraine, Ukraine
Fatty acid ethyl esters as domestic Ukrainian biodiesel. Are there any perspectives?
6. **Iurii Prysiashnyi, Guri Isaya Borbeijong, Sergii Pyshiev**, National University «Lviv Polytechnic», Ukraine
Testing of kumaron-indene-carbazol resin as a modifier of road oil bitumens
7. **Valeriia Pinchuk, Olena Tutova, Andrey Kuzmin**, Ukrainian State University of Science and Technologies, Ukraine, Institute of Engineering Thermophysics of National Academy of Sciences of Ukraine, Ukraine
Formation of trace elements during high-temperature coal gasification
8. **Andrii Grigorov**, National Technical University «Kharkiv Polytechnic Institute», Ukraine
Prospects for obtaining a component of automobile gasoline from secondary polymer raw materials
9. **Petro Topilnytskyy, Tetiana Yarmola, Viktoriia Romanchuk**, National University «Lviv Polytechnic», Ukraine
Selection of demulsifiers for oil dehydration at the Bugarivatske field

10. Maria Michela Dell'Anna, Valentyna Tkachuk, Oxana Rechun, Galina Golodyuk, Politecnico di Bari (POLIBA), Italy, Lutsk National Technical University, Ukraine

The use of biocomponents and additives to improve the quality and safety of diesel fuels

11. Olha Gordiienko, Anatolii Ranskyi, Bohdan Kornienko, Olha Sandul, Vinnytsia national technical university, Ukraine

Development and research of new greases based on secondary feedstock

12. Hennadiy Zhuk, Yuriy Ivanov, Liliya Onopa, Serhii Krushnevych, Mehrzad Soltanibereshne, The Gas Institute of National Academy of Science of Ukraine, Ukraine

Absorption technologies for biomethane production from biogas to replace natural gas in gas distribution networks and use as motor fuel

13. Ihor Bagriy, Serhii Payuk, Iaroslav Kryl, Viktor Dubosarsky, Kateryna Yaroshovets-Baranova, Institute of Geological Sciences of National Academy of Sciences of Ukraine, Ukraine, State Commission of Ukraine on Mineral Reserves, Ukraine, "Hydrogen Ukraine" LLC, Ukraine

Geological conditions of formation and introduction of alternative energy sources into production (peat, oil shale, brown coal)

14. Viktoriia Ribun, Sergii Boichenko, Hubert Kuzhewski, Pawel Wos, Chemical-analytical laboratory of PJSC Ukrnafta, Ukraine, Igor Sikorsky Kyiv Polytechnic Institute, Rzeszow University of Technology, Rzeszow, Poland

SWOT analysis of modern GTL technologies

15. Myroslava Donchenko, Iurii Demchuk, Oleh Hrynyshyn, Sergii Pyshiev, National university "Lviv Polytechnic", Ukraine

Study of the effect of thermoplastic elastomer and plasticizer on bitumen modified with coal processing by-products

16. Roman Prokop, Taras Chervinskyi, Oleh Hrynyshyn, Anastasiia Pryshliak, National university "Lviv Polytechnic", Ukraine

New methods of regeneration of waste semi-synthetic motor oils

17. Iurii Znak, Oleh Hrynyshyn, Taras Chervinskyi, National University «Lviv Polytechnic», Ukraine

Oil sludge as a raw material for motor fuels production

18. Sergii Boichenko, Iryna Shkilniuk, Anna Yakovlieva, Igor Kuberskyi, Bohdan Kochirko, Sofiia Dokshyna, Oleksandr Danilin, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine, Technical university of Kosice, Slovakia

Utilization of plastic waste and used scrap tires for the production of motor fuels

19. Andrii Koveria, Lina Kieush, Pavlo Saik, Vasyl Lozynskyi, Dnipro University of Technology, Ukraine

Metallurgical coke production with biomass additives. Part 2. Production and characterization of laboratory biocokes

SESSION 2

«Energy Safety, Environmental Safety and Development of Ecologistics, Systems of Utilization and Disposal of Transport and Energy Materials»

04 July, 2023 / 15.00–18.00 / Off-line+On-line,
room 405 + Warsaw + Eskisehir

Chairman: Viktoriia Khrutba

Co-Chairman: Sergii Shamanskyi

1. **Vira Sabadash**, National University «Lviv Polytechnic», Ukraine
Studies on the Adsorption of Petroleum Products

2. **Inna Nezbrytska, Sergii Shamanskyi, Lesia Pavliukh, Zoya Gorbunova, Olena Horbachova, Viktor Repeta**, Institute of Hydrobiology of National academy of sciences of Ukraine, Ukraine, Kyiv National University of Construction and Architecture, Ukraine, National Aviation University, Ukraine
Removal of Biogenic Compounds from Sewage Water in a Culture of Euglena Gracilis (EUGLENOPHYTA)

3. **Oleksandr Novoseltsev, Tatyana Eutukhova, Leonora Chupryna**, Institute of General Energy of National academy of sciences of Ukraine, Ukraine
A model of an ecologically balanced system of utilization and processing of energy materials

4. **Oleh Terentiev, Anatoliy Kryuchkov, Mykola Sergienko, Viktor Rozen, Artur Jaworski**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine, Rzeszow university of technology, Poland
Removal of contaminants from an aqueous solution by a magnetic field using the effect of focusing ionic impurities

5. **Kateryna Balalaieva, Mykhailo Mitrakhovych, Igor Kravchenko, Sergiy Dmytriiev**, National Aviation University, Ukraine, Zaporizhzhia Machine-Building Design Bureau «Progress» State Enterprise named after Academician O. H. Ivchenko, Ukraine
Prospects for the use of hydrogen as a fuel for green aircraft

6. **Oleksandr Teslenko, Volodymyr Derii, Vitaly Makarov, Iryna Leshchenko**, General energy institute of National Academy of Sciences of Ukraine, Ukraine
Methodological approaches for forecasting the structure of consumption of fuel and energy resources in heat supply

7. Leonid Shcherbak, Yurii Kuts, Svitlana Kovtun, Oleksandr Ponomarenko, General energy institute of National Academy of Sciences of Ukraine, Ukraine, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Noise signals in the tasks of monitoring and identifying the state of energy facilities in operation

8. Olena Spaska, University of Silesia in Katowice, Poland
Influence of Hollow Glass Microspheres on the Evaporation of Fuels

9. Viktoriia Khrutba, National transport university, Ukraine
Experience in the implementation of hydrogen energy projects in Germany (for example, the H2BAR project, Brandenburg)

10. Kostiantyn Zamikula, Olena Tertyshna, Oleg Tertyshnyi, Kostiantyn Sukhyi, SHEI Ukrainian State University of Chemical Technology, Ukraine, Dnipro State Agrarian and economic university, Ukraine
The influence of vegetable origin surfactants on the process of asphaltenes flocculation

11. Yevgen Zbykovskyy, Iryna Shvets, Donetsk National Technical University, Ukraine
Research of the influence of external factors on the iron content in industrial and drinking water

12. Kateryna Ulianova, Kateryna Synylo, National Aviation University, Ukraine
Review of trends in aviation fuel research in the context of sustainability

13. Ivan Kozii, Leonid Plyacuk, Sumy state university, Ukraine
Enhancing the environmental protection against emissions originating from energy enterprises released into the surrounding environment

14. Leonid Plyacuk, Sumy state university, Ukraine
Estimation of technogenic load on environment from aircrafts

15. Iryna Novakovska, Nataliia Bavrovska, National University of Life and Environmental Sciences of Ukraine, Ukraine
Implementation of the principles of sustainable development for the formation of environmentally safe land use of transport

16. Kateryna Kazhan, Vitalii Makarenko, Vadym Tokarev, Oleksandr Zaporozhets, Andrzej Chyla, Michal Bukala, National Aviation University, Ukraine, Institute of Aviation, Poland, Noise Ltd., Poland
Novel aircraft noise assessment scenarios at aircraft, airport and fleet levels

17. Kateryna Synylo, Oleksandr Zaporozhets, Andrii Krupko, Kateryna Kazhan, Vitalii Makarenko, Vadym Tokarev, Sergii Karpenko, National Aviation University, Ukraine, Institute of Aviation, Poland
Novel aircraft emission and fuel burn assessment scenarios at aircraft, airport and fleet levels

18. Kateryna Synylo, Oleksandr Zaporozhets, Andrii Krupko, National Aviation University, Ukraine, Institute of Aviation, Poland
New supersonic aircraft emission and air pollution assessment at airport operational scenario

SESSION 3

«Chemmotological Reliability and Technologies of Alternative Energy in Power and Transport»

05 July, 2023 / 10.00–14.00 / Off-line+On-line,
room 405 + Warsaw + Eskisehir

Chairman: Sergii Shamanskyi

Co-Chairman: Iryna Shkilniuk

1. **Oleksandr Vasylyev**, Frantsevych Institute for Problems of Materials Science of National academy of Science of Ukraine, Ukraine
Ukrainian ceramic fuel cells: achievements and near future prospects

2. **Semen Dragnev**, Institute of Technical Thermophysics of the National Academy of Sciences of Ukraine, Ukraine
Prospects for biodiesel production in Ukraine

3. **Pavol Kurdel, Natália Gecejová, Marek Češkovič**, Technical university of Kosice, Slovakia
Supplementary Methods of Rescue in The High Mountain Environment

4. **Michael Chemerinskyi, Sergii Sirovii**, Institute of Industrial and Business Technologies, Ukraine, Ukrainian State University of Science and Technologies, Ukraine
Obtaining carbon materials from renewable raw materials

5. **Eugene Malyi, Michael Chemerinskyi**, Institute of Industrial and Business Technologies, Ukraine, Ukrainian State University of Science and Technologies, Ukraine
Improving the performance properties of coal electrode pitch

6. **Volodymyr Dubovyk, Viktor Gorodetskyi, Alla Bosak, Yevheniia Bushtruk**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Device for cleaning pipes from resin and paraffin deposits

7. **Ihor Trofimov, Myhailo Svyryd**, National Aviation University, Ukraine
Effect of energy of a uniform pulsed magnetic field on the distribution of materials in the friction zone

8. **Mykola Tsiuman**, National transport university, Ukraine
General methodology for controlling operational modes of vehicular engines

9. **Nataliia Kostian, Vasyl Mateichyk**, Cherkasy State Technological University, Ukraine, National Transport University, Ukraine
Choosing a method for evaluating the energy efficiency of vehicles with alternative power plants

10. **Stefan Zaichenko, Denys Derevianko, Igor Sikorsky** Kyiv Polytechnic Institute, Ukraine
Determination of basic power parameters of devices for cleaning of pipelines with roller drive

11. **Maksym Pavlovskiy**, National Transport University, Ukraine
The improvement of fuel efficiency and environmental characteristics of diesel by using biodiesel fuels

12. **Anna Yakovlieva, Sergii Boichenko, Peter Korba, Pavol Kurdel**, Technical university of Kosice, Slovakia, Igor Sikorsky Kyiv Polytechnic Institute
The Study of Intermolecular Interactions in Bio-jet Fuel and Substantiation of its Influence on Fuel Properties

13. **Oleksiy Melnyk, Svitlana Onyshchenko, Oleg Onishchenko, Oleksandr Shumylo, Andrii Voloshyn, Valentyna Ocheretna, Oleksandr Fedorenko**, Odesa National Maritime University, Ukraine, National University "Odesa Maritime Academy", Ukraine
Implementation research of alternative fuels and technologies in maritime transport

14. **Oleksiy Melnyk, Oleg Onishchenko, Svitlana Onyshchenko, Nadiia Yaremenko, Eduard Maliuha**, Odesa National Maritime University, Ukraine, National University "Odesa Maritime Academy", Ukraine
Innovative technologies for the maritime industry: hydrogen fuel as a promising direction

15. **Iryna Shkilniuk, Nataliia Shevchuk**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Monitoring the Risks of Microbiological Contamination of Aviation Fuels and Fuel Systems

16. **Daniil Muhenov, Litvinov Volodymyr, Kuz Yevhenii**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Insulated gate bipolar transistor substitution scheme overview

17. **Yuliia Shupta**, JSC «Ukrasvydobuvannya» Gas and Gas Condensate Processing, Ukraine
Alternative motor fuels. Features of handling and quality control. Normative and legal framework

18. **Sergii Boichenko, Iryna Shkilniuk, Anna Yakovlieva, Oksana Vovk, Bohdan Kochirko, Igor Kuberskyi**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
World tendencies and novel domestic advances in development of receipts of energy and environment saving aviation gasolines

19. **Vitalii Nesin, Serhii Lakhtadyr**, Ukrainian Scientific and Research Institute of Special Equipment and Forensic Expertise of the Security Service of Ukraine, Ukraine
Features of the Application of Ethanol Protection of the Tool Against the Sticking of the Material of the Soft Layer During the Mechanical Processing of Bimetallic Soldered Blanks

SESSION 4

Young Scientists Section «Modern Energy Technologies in Power and Transport»

05 July, 2023 / 15.00–18.00 / On-line

Chairman: Sofiia Dokshyna

Co-Chairman: Artem Khotian

1. Daryna Popytailenko, Olena Shevchenko, SHEI Ukrainian State University of Chemical Technology, Ukraine

Influence of raw materials of FAME on the degree of swelling of elastomers

2. Vasyl Boshkov, Maksym Moskovchuk, Kateryna Slesarenko, National Aviation University, Ukraine

Selection of new renewable feedstock for biojet fuels production in Ukraine

3. Oleh Kovalenko, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine

Examples of application of hydrogen gas boilers

4. Viktoriia Dubrovska, Viktor Shklyar, Denys Marushchak, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine

Modeling of the thermal operating mode of the methane tank utilizing chicken droppings to obtain biogas

5. Olha Ilina, Oksana Mikosianchyk, National Aviation University, Ukraine

The influence of self-organization processes during friction and wear on the reliability of the tribosystem

6. Anatolii Hostylo, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine

Classification and characteristics of biodiesel fuel

7. Kseniia Hrynyshyn, Volodymyr Skorohoda, Taras Chervinskyi, National university “Lviv Polytechnic”, Ukraine

Recycling of rubber waste by low-temperature pyrolysis

8. Liubov Marchuk, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine

Simulation of energy parameters of the vibrating bucket

9. Linfei Chen, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine

Comparative analysis of hydrogen production, accumulation, distribution and storage systems, including on aircraft

10. David Davitadze, Serhii Konovalov, Stepan Zubenko, Volodymyr Pyliavskyi, Anjela Yakovenko, V.P. Kukhar Institute of Bioorganic Chemistry and Petrochemistry of the National Academy of Sciences of Ukraine, Ukraine

Products of high-oleic wasted-frying oil chemical modification as fuel additives

11. Vlad Zelinskyi, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine

Hydrogen gas storage technologies

12. **Maxim Zaporozhets**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Examples of hydrogen use in transportation: motor vehicles

13. **Oleksandr Synytsia**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Examples of hydrogen use in transportation: air transport

14. **Roman Zozulia**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Classification of hydrogen as an energy resource

15. **Vitalii Korovushkin**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Polymer Electrolyte Membrane Fuel Cell: A Brief Review

16. **Mykhaylo Kudilchak**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Main provisions of the new energy strategy of Ukraine until 2035 "Security, Energy Efficiency, Competitiveness"

17. **Iaroslav Sorochynskyi**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Basics of biogas production technology

18. **Oleksandr Khalyk**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Characterization of biological waste for biofuel production

19. **Oleksii Syveryn**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Energy production by processing agricultural residues

20. **Mykhailo Antonenko**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Development of an autonomous photoelectrochemical high-frequency hydrogen heating system

21. **Artem Khotian**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Methods and models for constructing systems of electricity supply to local objects by the criteria of energy efficiency

22. **Sofiia Dokshyna**, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Models and methods of energy efficiency monitoring of regions of Ukraine

23. **Viktor Gurin, Oleh Yurchenko**, Institute of Electrodynamics of National Academy of Science of Ukraine, Ukraine
Increasing of the economic efficiency of the process of atmospheric CO₂ transformation into methanol using chemical miner of cryptocurrency with hybrid algorithm PoS + PoW

SESSION 5

«Sustainable Aviation Fuels»

jointly with **ISEAS'23** - <https://2023.iseasci.org/>

(«Alternative Motor Fuels»)

06 July, 2023 / 10.00–14.00 / Off-line+On-line,
room 405 + Warsaw + Eskisehir

Chairman: Sergii Boichenko, Oleksandr Zaporozhets

Co-Chairman: Anna Yakovlieva

1. **César Velarde**, European Civil Aviation Conference (ECAC), France
Introduction to Sustainable Aviation Fuels and the European policy context.
2. **Blandine Ferrier**, ICAO EUR/NAT Office, France
The global landscape: ICAO work on Sustainable Aviation Fuels
3. **Inmaculada Gómez Jiménez**, Spanish civil aviation authority
at SENASA, Spain
National case-study: SAF promotion in Spain
4. **Daniel Brousse Rivas**, European Union Aviation Safety Agency
(EASA), Germany
EASA activities in the field of sustainable aviation fuels (SAF)
5. **Sergii Boichenko**, Igor Sikorsky Kyiv Polytechnic Institute, Scientific
and Technical Union of Chemmotologists, Ukraine
International experience and the current state of SAF use in Ukraine
6. **Gianluca Valenti**, Politecnico di Milano, Italy
Liquid hydrogen technologies and applications in the aviation sector
7. **Renata Adami**, University of Salerno, Italy
Sustainable aviation fuels and their use for large long-range aircraft
8. **Kirill Suyarkov**, Sustainable Fuels and Energy Projects GmbH,
Germany
Best practice in design and construction of NATO standard aircraft fuelling facility

06 July, 2023 / 15.00–18.00 / Off-line+On-line,
room 405 + Warsaw + Eskisehir

Chairman: Oleksandr Zaporozhets, Sergii Boichenko
Co-Chairman: Anna Yakovlieva

1. **Ramesh Agarwal**, Washington University in St. Louis, USA
Analysis and Design of a Short to Mid- Range Hydrogen Fuel Cell Powered Commercial Aircraft

2. **Georgii Geletukha**, Bioenergy Association of Ukraine, Institute of Technical Thermophysics of the National Academy of Sciences of Ukraine, Ukraine
Prospects of biomethane production in Ukraine.

3. **Iaroslav Kryl, Ihor Bagriy**, «Hydrogen Ukraine» LLC, «Scientific, Coordination Center of the Latest Search Technologies», Ukraine
H₂ – Hydrogen. Environmental and energy challenges of the 21st century. Global projects. Ways of implementation

1. **Oleksandr Petrovskyy**, Ukrainian Oil & Gas Academy, Ukraine
A breakthrough in providing Ukraine with self-hydrocarbons produced and ways of the post-war development of Ukraine's oil and gas industry

2. **Olena Sibilieva, Sofiia Dokshyna, Petro Topilnytskyi**, Environmental Inspection of Ukraine, Ukraine, Igor Sikorsky Kyiv Polytechnic Institute, National University «Lviv Polytechnic», Ukraine
International requirements and the current state of quality assurance of traditional and alternative motor fuels

4. **Vitaly Horichko**, All-Ukrainian Association of Workers and Veterans of the Oil Refining and Petrochemical Industry, Ukraine
Modern problems of legal support for the production and use of traditional and alternative motor fuels



5. **Donald L. Smith**, McGill University, BioFuelNet, Canada
Crop biomass, Biostimulants and Greenhouse Gas Management

6. **Anna Yakovlieva, Sergii Boichenko**, Technical university of Kosice, Slovakia, Igor Sikorsky Kyiv Polytechnic Institute, Scientific and Technical Union of Chemmotologists, Ukraine,
Review of Recent Advances in Technologies of LH₂ Storage on-board Aircraft

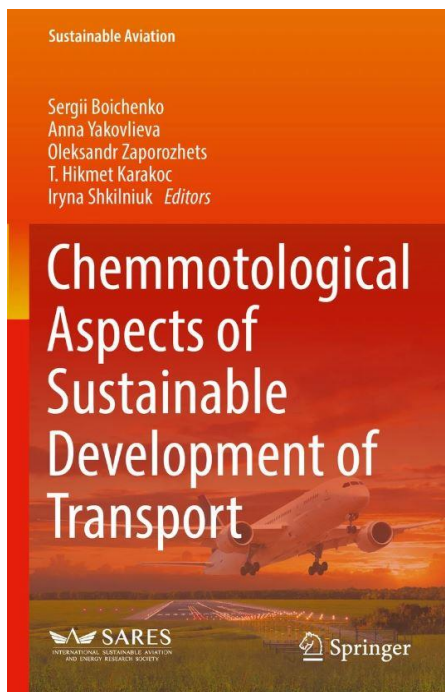
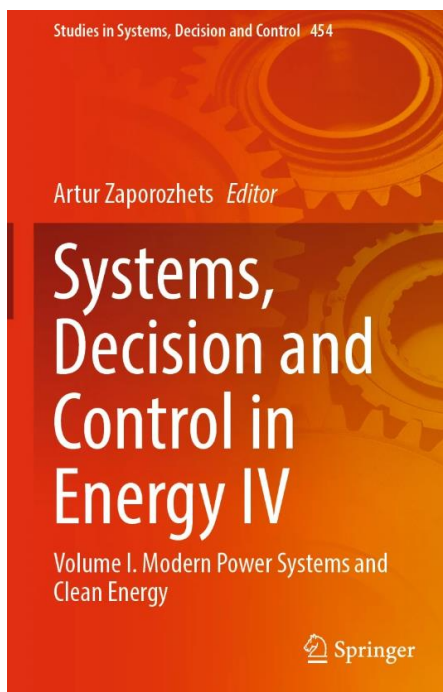
7. **Iurii Golych, Iryna Shkilniuk, Andrii Pushak, Tetiana Medvedieva, Olena Zinchenko, Vasyl Bogun**, JSC Ukratnafta, LLC Paltech, Igor Sikorsky Kyiv Polytechnic Institute, Ukraine
Modern Energy Efficient Additives to Aviation Fuels

8. **Tetiana Zheliezna**, Institute of Technical Thermophysics of the National Academy of Sciences of Ukraine, expert of the Bioenergy Association of Ukraine, Ukraine
Prospects for the Use of Biofuels in Aviation Transport

MAP OF THE CONFERENCE

03 July, 2023	
14 ⁰⁰ –18 ⁰⁰	Registration
15 ⁰⁰ –16 ⁰⁰	Lunch (Igor Sikorsky Kyiv Polytechnic Institute, Ukraine)
16 ⁰⁰ –18 ⁰⁰	Discussion Panels – Ethnographic Program «Know and Love Your Land. History, Modernity, Traditions» – Kyiv
04 July, 2023	
10 ⁰⁰ –10 ⁴⁵	Conference Opening. <i>Jointly with ISEAS'23</i> – https://2023.iseasci.org/
11 ⁰⁰ –14 ⁰⁰	Session 1 «Chemical, Biotechnology and Engineering»
14 ⁰⁰ –14 ⁴⁵	Lunch (Igor Sikorsky Kyiv Polytechnic Institute, Ukraine)
15 ⁰⁰ –18 ⁰⁰	Session 2 «Energy Safety, Environmental Safety and Development of Ecologistics, Systems of Utilization and Disposal of Transport and Energy Materials»
	Discussion Panels – Discussion of Implementation of Joint R&D project «Environmentally Friendly Aviation for All Classes Of Aircraft» (EFACA)
05 July, 2023	
10 ⁰⁰ –14 ⁰⁰	Session 3 «Chemmotological Reliability and Technologies of Alternative Energy in Power and Transport»
14 ⁰⁰ –14 ⁴⁵	Lunch (Igor Sikorsky Kyiv Polytechnic Institute, Ukraine)
15 ⁰⁰ –18 ⁰⁰	Session 4 – Young Scientists Section «Modern Energy Technologies in Power and Transport»
	Presentation of Education & Research Laboratory of «Hydrogen Technologies in Energy and Transport» Jointly with «Energy Association “Ukrainian Hydrogen Council»
06 July, 2023	
10 ⁰⁰ –18 ⁰⁰	Session 5 «Sustainable Aviation Fuels» <i>jointly with ISEAS'23</i> - https://2023.iseasci.org/
07 July, 2023	
10 ⁰⁰ –12 ⁰⁰	Discussion Panels – «Discussion on the current state and perspective plan of the development of the Scientific-Technical Union of Chemmotologists». Discussions & Conference Closing

We Would Like to Invite You to be the Author of our Monograph



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Approved by

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