

# CURRICULUM VITAE

Shkilniuk Iryna Olexandrivna

Date of birth\* 27/11/1987

Early-career researcher status at the time of application\* (No)

Citizenship\* Ukraine

## Contact information\*

\*  
National Technical University of Ukraine  
"Igor Sikorsky Kyiv Polytechnic Institute"  
\* Ukraine, 03056, Kyiv-56, 37 Beresteiskyi Avenue (Peremohy)  
\*+380934571714  
[\\*i\\_shkilniuk@ukr.net](mailto:i_shkilniuk@ukr.net), [i\\_shkilniuk@ill.kpi.ua](mailto:i_shkilniuk@ill.kpi.ua)

## Personal profiles in scientometric databases\*

ORCID 0000-0002-8808-3570  
Scopus 57194556036  
Publons Web of Science AAZ-8919-2021  
Google Scholar: [https://scholar.google.com.ua/citations?user=el\\_tUO4AAAAJ&hl=uk](https://scholar.google.com.ua/citations?user=el_tUO4AAAAJ&hl=uk)

## Education\*

(in the chronological order)

1999-2005 National aviation university (NAU), «Airport technology and technological equipment» specialisation.  
Diplom number: 25927666

## Academic Degree\*

(in the chronological order)

PhD in technical science, 05.17.07 – Fuels and Lubricants Chemical Engineering, 27.11.2020, National aviation university, diploma number: 059333

## Professional work experience\*

(for the last 10 years, if applicable)

from 10/06/2022 – still working  
Head of the Research Interactive Laboratory of Operating Materials in Energy and Transport of Educational and Research Institute of Energy Saving and Energy gement  
National Technical University of Ukraine  
'Igor Sikorsky Kyiv Polytechnic Institute'  
2015-2022  
Director of the Ukrainian Research and Training Centre for Chemmology and Certification fuel and lubricants and technical liquids,  
National aviation university

## Participation in collective research projects

(up to 5 projects in the last 10 years)

1. Team member, EFACA (Environmentally friendly aviation for all types of aircraft), international project financed by the Horizon Europe programme, Grant of the EC No HORIZON CL5-2021-D5-01-101056866, 2023-2026  
<https://cordis.europa.eu/project/id/101056866>

2. Project Manager, R&D Project No 2023.04/0146 "Experimental and analytical foundations of the reliability of dual-use aviation equipment through the improvement of aviation fuel utilization technology in accordance with ASTM and NATO standards", funded by the NRFU, 2024-2025

3. Project Manager, R&D Project 0124U000973 "Study of the properties of fuel fractions obtained from the processing of recycled materials and the development of composite motor fuel formulations based on them", funded by the Ministry of Education and Science of Ukraine, 2024-2025

4. Project Manager, DZ-142/2022 of 27.10.2022 (0122U201279) "Development of technology for the production of new environmentally friendly high-octane aviation gasoline from domestic raw materials", all-Ukrainian, organizer - Ministry of Education and Science of Ukraine, executor - National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic University", term of implementation - 2022-2023, source of funding – state budget

(<https://www.kmu.gov.ua/npas/prozatverdzhennia-pereliku-naukovo-tekhnichnykh-eksperymentalnykh-rozrobok-713-120822>)

5. Project Manager, 2020.01/0242 "Experimental and analytical principles of ensuring the safety of man and society by improving waste management technologies in the technosphere", All-Ukrainian competition "Science for the safety of man and society", organizer - National Research Foundation of Ukraine, executor - National Aviation University, execution period - 2020-2021, funding source – state budget.

(<https://grants.nrfu.org.ua/#/applications/994>)

## Cooperation, including international

(up to 5 items in the last 10 years)

1. «Environmentally Friendly Aviation for all Classes of Aircraft» (EFACA), international, Horizon Europe (HORIZON-CL5-2021-D5-01), coordinator Grant agreement ID: 101056866, 01.01.2023 – 31.12.2026, EU, <https://cordis.europa.eu/project/id/101056866>
2. Sustainable Aviation Research Society (Туреччина): Boichenko, S., Yakovlieva, A., Zaporozhets, O., Karakos, T.H., Shkilniuk, I., Dalkiran, A. (eds) Sustainable Transport and Environmental Safety in Aviation. Sustainable Aviation. Springer, Cham. <https://doi.org/10.1007/978-3-031-34350-6>

## Major scientific, scientific and technical accomplishments

(up to 5 items in the last 10 years)

1. Utility Model Patent: Sergii Boichenko, Volodymyr Dubovyk, Iryna Shkilniuk (co-author), Borys Kochirko, Ihor Kuberskyi, Andrii Soldatenko. *Technological Unit for the Production of Unleaded High-Octane Gasoline from Polymer Waste*: Utility Model Patent No. 161435, Ukraine, IPC C10B 53/07, C10G 1/00. Application No. u202502996; filed June 20, 2025; published December 3, 2025. <https://sis.nipo.gov.ua/uk/search/detail/1889007/>
2. Utility Model Patent: Sergii Boichenko, Iryna Shkilniuk (co-author), Volodymyr Dubovyk, Liudmyla Listovshchuk, Anastasiia Yakovlieva. *Unit for Producing Motor Fuel Components from Vegetable Oils and Fats*: Utility Model Patent No. 158980, Ukraine, IPC C10L 1/00, C10G 3/00. Application No. u202402795; filed May 24, 2024; published April 16, 2025, Bulletin No. 16/2025. <https://sis.nipo.gov.ua/uk/search/detail/1851737/>
3. Utility Model Patent: Sergii Boichenko, Volodymyr Dubovyk, Oleksandr Danilin, Iryna Shkilniuk (co-author), Anastasiia Yakovlieva, Yevhen Bustruk. *Unit for Producing Bio-Components of Motor Fuels*: Utility Model Patent No. 158985, Ukraine, IPC B01F 35/00, B01F 27/00. Application No. u202403004; filed June 6, 2024; published April 16, 2025, Bulletin No. 16/2025. <https://sis.nipo.gov.ua/uk/search/detail/1851715/>
4. Utility Model Patent: Sergii Boichenko, Volodymyr Dubovyk, Anastasiia Yakovlieva, Iryna Shkilniuk (co-author), Oleksandr Danilin, Liudmyla Listovshchuk. *Unit for Producing Jet Fuel Containing Bio-Components*: Utility Model Patent No. 159010, Ukraine, IPC C10L 1/00. Application No. u202403899; filed July 31, 2024; published April 16, 2025, Bulletin No. 16/2025. <https://sis.nipo.gov.ua/uk/search/detail/1851768/>
5. Anastasiia Yakovlieva, Mykhailo Tsiuman, Sergii Boichenko, Iryna Shkilniuk (co-author), Yevhen Shuba. *Method for Producing Unleaded Aviation Gasoline*. Patent No. 149231, Ukraine, IPC C10L 10/10. Application No. u202102989; filed June 3, 2021; published October 27, 2021, Bulletin No. 9. 5 p. Patent record

Selected research publications (including those relevant to the project topic)\*

(up to 10 items in the last 5 years)

1. Boichenko, S., Yakovlieva, A., Zubenko, S., & Shkilniuk, I. (2025). Physical, Chemical, and Performance Properties of Biodiesel Fuels: A Comparative Study of Lipid-Based Feedstocks. *Energies*, 18(16), 4274. <https://doi.org/10.3390/en18164274> (Scopus, Q1)
2. Boichenko, S., Yakovlieva, A., Zubenko, S., Konovalov, S., Shkilniuk, I., Artyukhov, A., Wit, B., Czarnocki, K., & Wołowiec, T. (2024). Properties of Components of Renewable Motor Fuel Based on Plant Oils and Assessment of Their Compatibility with Traditional Fuels. *Energies*, 17(24), 6390. <https://doi.org/10.3390/en17246390> (Scopus, Q1)
3. Boichenko, S., Shkilniuk, I., Yakovlieva, A. (2024). Evolution of the Quality of Jet Fuels: Ukrainian Comparative Review from Traditional to Sustainable Aviation Fuels. In: Boichenko, S., Zaporozhets, A., Shkilniuk, I., Yakovlieva, A. (eds) *Modern Technologies in Energy and Transport II. Studies in Systems, Decision and Control*, vol 574. Springer, Cham. ISBN978-3-031-76649-7 [https://doi.org/10.1007/978-3-031-76650-3\\_13](https://doi.org/10.1007/978-3-031-76650-3_13) (Scopus Q3)
4. Boichenko, S., Kuberskyi, I., Shkilniuk, I., Danilin, O., Kryuchkov, A., Rozen, V., Khotian, A., Sokolovska, N., Yakovlieva, A., & Pavlovskyi, M. (2024). Prospects of electricity generation through the use of alternative sources such as waste tires processing products. *Eastern-European Journal of Enterprise Technologies*, 5(8 (131)), 6–21. <https://doi.org/10.15587/1729-4061.2024.313823> (Scopus Q3)
5. Shkilniuk, I., Boichenko, S. (2020). Biological Risk of Aviation Fuel Supply. In: Babak, V., Isaienko, V., Zaporozhets, A. (eds) *Systems, Decision and Control in Energy I. Studies in Systems, Decision and Control*, vol 298. Springer, Cham. [https://doi.org/10.1007/978-3-030-48583-2\\_12](https://doi.org/10.1007/978-3-030-48583-2_12) (Scopus Q3)

Selected conference papers and presentations

(up to 5 items in the last 5 years)

1. XXVI International Scientific and Practical Conference “Renewable Energy and Energy Efficiency in the 21st Century”, May 21–23, 2025, Kyiv, Ukraine: Institute of Renewable Energy of the National Academy of Sciences of Ukraine – Igor Sikorsky Kyiv Polytechnic Institute, oral presentation. <https://www.ive.org.ua/language/uk/xxvi-mizhnarodna-naukovo-praktychna-konf/?lang=uk>  
2to 16th International Conference TRANSBALTICA, September 18–19, 2025, Vilnius TRANSBALTICA XVI: *Transportation Science and Technology*. Vilnius Gediminas Technical University, oral presentation <https://conferences.vilniustech.lt/index.php/TRANSBALTICA/issue/view/48>.

<p>Participation in organizing committees for academic events, and events aimed at presenting and disseminating research findings <i>(up to 5 items the last 5 years)</i></p>	<p>1. Head of the Secretariat of the International Scientific and Technical Conference “<i>Theory and Practice of Rational Use of Traditional and Alternative Fuels and Lubricants</i>” (2006, 2008, 2010, 2012, 2015, 2017, 2019, 2021, 2023, 2025), organized by Igor Sikorsky Kyiv Polytechnic Institute. <a href="http://chemmotology.kpi.ua/">http://chemmotology.kpi.ua/</a></p> <p>2. Member of the Organizing Committee of the All-Ukrainian Competition for Students and Young Scientists with International Participation “<i>Youth Intelligence. Rational Use of Natural Resources and Advanced Energy-Efficient Technologies</i>” (2022, 2024, 2026), organized by Igor Sikorsky Kyiv Polytechnic Institute. <a href="https://aemk.kpi.ua/%d0%ba%d0%be%d0%bd%d0%ba%d1%83%d1%80%d1%81-%d0%bd%d0%b0%d1%83%d0%ba%d0%be%d0%b2%d0%b8%d1%85-%d1%80%d0%be%d0%b1%d1%96%d1%82/">https://aemk.kpi.ua/%d0%ba%d0%be%d0%bd%d0%ba%d1%83%d1%80%d1%81-%d0%bd%d0%b0%d1%83%d0%ba%d0%be%d0%b2%d0%b8%d1%85-%d1%80%d0%be%d0%b1%d1%96%d1%82/</a></p>
<p>Scientific editing (compiling) of academic publications <i>(up to 5 items the last 5 years)</i></p>	<p>1. Boichenko, S., Zaporozhets, A., Shkilniuk, I., Yakovlieva, A. (eds) (2025) <i>Modern Technologies in Energy and Transport II. Studies in Systems, Decision and Control</i>, vol 574. ISBN 978-3-031-76649-7. Springer, Cham. <a href="https://link.springer.com/book/10.1007/978-3-031-76650-3">https://link.springer.com/book/10.1007/978-3-031-76650-3</a></p> <p>2. Boichenko, S., Zaporozhets, A., Yakovlieva, A., Shkilniuk, I. (eds) <i>Modern Technologies in Energy and Transport. Studies in Systems, Decision and Control</i>, vol 510. ISBN 978-3-031-44353-4, Springer, Cham. <a href="https://link.springer.com/book/10.1007/978-3-031-44351-0">https://link.springer.com/book/10.1007/978-3-031-44351-0</a></p> <p>3. Boichenko, S., Yakovlieva, A., Zaporozhets, O., Karakoc, T.H., Shkilniuk, I. (eds) (2022) <i>Chemmotological Aspects of Sustainable Development of Transport . Sustainable Aviation</i>. ISBN 978-3-031-06576-7. Springer, Cham. <a href="https://link.springer.com/book/10.1007/978-3-031-06577-4">https://link.springer.com/book/10.1007/978-3-031-06577-4</a></p>
<p>Foreign language proficiency</p>	<p><i>English-B2</i></p>