



International Student Professional Creative Competition «Materials Science»

Programme of the International Student Professional Creative Competition «Materials Science»

[Програма Міжнародного студентського професійного творчого конкурсу
«Матеріалознавство»]

09 June 2025 at 10:00 a.m. (time zone - Kyiv)	Opening of the final scientific and practical online conference.
09 червня 2025 року о 10:00 (часовий пояс - Київ)	Відкриття підсумкової науково-практичної онлайн-конференції.
09 June 2025 at 10:30 a.m. (time zone - Kyiv)	Start of the final scientific and practical online conference for the defence of scientific projects.
09 червня 2025 року о 10:30 (часовий пояс - Київ)	Початок проведення підсумкової науково-практичної онлайн-конференції для захисту наукових проєктів.
10 June 2025	Announcement of the winners of the International Student Professional Creative Competition «Materials Science» on the official website.
10 червня 2025 року	Оголошення переможців Міжнародного студентського професійного творчого конкурсу «Матеріалознавство» на офіційному сайті.
Link to the video conference on the ZOOM platform:	https://us02web.zoom.us/j/87133897484? pwd=cFrSlclz2gy2NePlppHBaN6DqyWLRf.1
Посилання на відеоконференцію на платформі ZOOM:	<ul style="list-style-type: none">• Conference ID: 871 3389 7484• Access code: 2025

<p><i>For further information, please contact:</i></p> <p><i>За додатковою інформацією звертайтеся:</i></p>	<ul style="list-style-type: none"> ● Member of the Organising Committee, Deputy Chair of the Competition Jury [членкиня організаційного комітету, заступник голови журі Конкурсу] - Diana HLUSHKOVA [ГЛУШКОВА Діана Борисівна], tel. +38 (097) 481 15 93 ● Organisational secretary of the competition [організаційний секретар Конкурсу] - Vladyslava BAIDALA [БАЙДАЛА Владислава Юріївна], tel. +38 (095) 355 88 90
<p><i>E-mail:</i></p>	<p>kaf.tmim.khnahu@gmail.com</p>

Rules for submitting scientific projects:

Each participant in the Competition is given no more than **10-15 minutes** to present and defend their science project, including: 7-10 minutes for presentation and defence (the presentation should not exceed 20 slides), and 3-5 minutes for questions from the jury members. Participant presentations should be concise and clear, focusing on the key aspects of their research.

[Правила представлення наукових проєктів:

Кожному учаснику Конкурсу надається не більше **10-15 хв.** для презентації та захисту свого наукового проєкту, з них: 7-10 хв. - презентація та захист (обсяг презентації не повинен перевищувати 20 слайдів), 3-5 хв. - для запитань від членів журі.

Просимо учасників бути лаконічними та чіткими, зосередившись на ключових аспектах своїх досліджень]

Sequence of defence of scientific projects at the final scientific and practical online conference

[Послідовність захисту наукових проєктів на підсумковій науково-практичній онлайн-конференції]

Viktoriia DUDKA (National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» (Ukraine))	Describe the extent of the project. This can include the duration, resources, outcomes, or teams involved.
Dmytro TORHACHOV, Tymur SIRENKO (Sumy State University (Ukraine))	Study of the structure and mechanical properties of multicomponent materials.
Nazarii NIMETS (Lviv Polytechnic National University (Ukraine))	Influence of the type of filling during 3D printing on the tribological properties of pla products.
Dmytro MEHES, Maksym KOCHERZHENKO (Mykolayiv National Agrarian University (Ukraine))	Electromechanical processing of aluminum alloys.
Mark VASILIEV (International Academy of Applied Sciences in Łomża (Poland)) Andrii PUTIVSKYI (Kharkiv National Automobile and Highway University (Ukraine))	Increase of quality characteristics plasma coatings.
Mariia ROMANETS, Nina ZAMORENA (Dnipro University of Technology (Ukraine))	Microstructural analysis of dental biomaterials fracture mechanisms using scanning electron microscopy.
Liubov SIOMAK (Lutsk National Technical University (Ukraine))	Biocompatible surfaces synthesized on titanium alloys by plasma-electrolytic oxidation.
Serhii KOLIESNIK, Illia DEINEKA (Kharkiv National Automobile and Highway University (Ukraine))	Increasing the stability of injection molding.

Pavlo PROKOPOVYCH <i>(Odesa Polytechnic National University (Ukraine))</i>	Research of the properties of materials based on synthetic calcium-deficient hydroxyapatite for medical applications.
Roman MULIAR, Vasyl SYMORIZ <i>(Stepan Gzhytskyi National University of Veterinary Medicine and Biotechnologies of Lviv (Ukraine))</i>	Research of surface defects of products using deep learning methods before powder coating.
Olesya RUSSU <i>(Alecu Russo Balti State University (Republic of Moldova))</i> Dmytro SOLIONYI <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Increase the durability of wheel bolts for transport vehicles after repair.
Vitalii LOFERDIUK, Larysa SAMARSKA <i>(National University «Zaporizhzhia Polytechnic» (Ukraine))</i>	Effect of micro- and nanomodification on the mechanical properties of secondary aluminium alloys.
Iryna KOSENKO <i>(O.M. Beketov National University of Urban Economy in Kharkiv (Ukraine))</i>	Anti-icing coatings for the effective operation of unmanned aerial vehicles.
Piotr PLEWNICKI <i>(International Academy of Applied Sciences in Łomża (Poland))</i> Mykhailo VYDASHENKO <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Development of composite heat-resistant coatings for gas turbine engine parts.
Kateryna FURLET <i>(Zaporizhzhia National University (Ukraine))</i>	Investigation of transition zones in layered composite materials obtained under explosion bonding conditions.
Olha BASARAB <i>(Cherkasy State Technological University (Ukraine))</i>	Formation and Investigation of Functional Carbon Coatings.
Pavlo ZLOBIN, Oleksii NOVIKOV <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Structure and properties of chrome coatings, which are formed by ion plasma spraying.

Serhii ZAVODOVSKYI <i>(Central Ukrainian National Technical University (Ukraine))</i>	Features of forming sealing in magnesium alloys ML 10 and ML 12.
Oleksandr VNUKOV <i>(Ukrainian State University of Science and Technologies (Ukraine))</i>	Structure formation of 7075 alloy during complex processing "Twin-roll casting – Hot rolling – Heat treatment".
Mykhailo KORSHUN, Dmytro SKUBAK <i>(National Technical University «Kharkiv Polytechnic Institute» (Ukraine))</i>	Study of the kinetics of thickness formation and phase composition of coatings on a deformable aluminium alloy during microarc oxidation.
Serhii SELEZNIOV, Olha PERETS <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Study of wear-resistant materials for plasma spraying operating under gas abrasive wear conditions.
Catherine POPOVA <i>(Educational and Scientific Institute Prydniprovsk State Academy of Civil Engineering and Architecture of the Ukrainian State University of Science and Technology (Ukraine))</i>	Formation of structure, properties and texture in titanium alloys Ti-3Al-2,5V of production tubes.
Oleksii PTASHYNSKYI <i>(Kharkiv National University of Radio Electronics (Ukraine))</i>	Features and prospects of uv laser radiation application in modern material processing technologies.
Vadim GONCHARYUK <i>(Alecu Russo Balti State University (Republic of Moldova))</i> Dmytro BOVA <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	The choice of material for strengthening the leading edges of the working blades of steam turbines.
Mykola MARCHENKO <i>(State Biotechnological University (Ukraine))</i>	Determination of the influence porogens NaCl and NaHCO ₃ and their combination on the structure and microhardness of porous materials based on polytetrafluoroethylene.
Mykola KHVOROST, Kostyantyn SIMONOV <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Application of plasma coatings for restoration of crankshafts.

Serhii VEREMCHUK <i>(Ternopil Ivan Puluj National Technical University (Ukraine))</i>	Research of the properties of a TiC-NbC based cermet as a material for friction-stir welding tools.
Denys KOLOBOV, Tatiana KOLIESNIK <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Application of electric spark alloying (ESAL) to increase the wear resistance of hydraulic hammer parts.
Damian DĄBROWSKI <i>(International Academy of Applied Sciences in Łomża (Poland))</i> Valeriia SIEROKUROVA <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Study of kinetics of plastic deformation propagation in welded joints with 10G2FB steel after welding in a shielding gases environment.
Antonina GRIGORENKO, Serhiy KUROCHKIN <i>(Mykolayiv National Agrarian University (Ukraine))</i>	Research on the influence of repair and restoration compounds on friction surfaces of cam mechanisms of auto tractor engines.
Olena DORONINA <i>(Alecu Russo Balti State University (Republic of Moldova))</i> Yaroslav MOTUZ <i>(Kharkiv National Automobile and Highway University (Ukraine))</i>	Increasing the durability of road construction machinery components.
Viktoriia OTROSH, Kateryna KARPENKO <i>(National University of Civil Protection of Ukraine (Ukraine))</i>	Research of thermal insulation materials based on paper industry waste.
Kiril VASILIEV, Olha PRUDNIK <i>(National University «Yuri Kondratyuk Poltava Polytechnic» (Ukraine))</i>	Ultrasonic effect on paraffin deposits in oil pipelines.
Oleksii YERMOCHENKO <i>(Kherson Educational and Scientific Institute of the National University of Shipbuilding (Ukraine))</i>	Investigation of the influence of the convexity of butt joints on their stress state.

Matvii BARABASH, Andriy NYKYFORUK <i>(Vasyl Stefanyk Precarpathian National University (Ukraine))</i>	Investigation of the elemental composition, structure, and properties of an axe and metallurgical slag of the Gava-Holihrad culture: a contemporary view on the metallurgical technologies of the ancestors.
Illia PASIEKA, Viktor ANDREIEV <i>(Institute of Digital Technologies, Design and Transport of the Odesa Polytechnic National University (Ukraine))</i>	Study of Diffusionless Phase Transformations in the Surface Layer of a Part Under the Influence of Grinding Temperatures.
Ivan HONCHARUK <i>(Educational and Scientific Institute Ukrainian State University of Chemical Technology of the Ukrainian State University of Science and Technologies (Ukraine))</i>	Smart biomaterials: bioglasses with adaptive properties for medicine.
Illia PUSHA, Yuliia GAMETSKA <i>(Dnipro University of Technology (Ukraine))</i>	Research on the influence of continuous controlled rolling on the structure and properties of the welded joint of low-alloy steel 10G2FB.
Tetiana HOLUMBOVSKA <i>(National University «Zaporizhzhia Polytechnic» (Ukraine))</i>	Investigation of resistance of heat exchangers made of 06KhN28MDT alloy to crevice corrosion in industrial conditions of recycled water supply.
Oleksandr BORZYKH, Illia STAKHIEIEV <i>(Sumy National Agrarian University (Ukraine))</i>	Research into a comprehensive technology for ensuring the wear resistance of pump parts surfaces under abrasive wear conditions.
Herman KULINCHYK, Olga ZAHARII <i>(Odesa Polytechnic National University (Ukraine))</i>	Research on a composite material based on epoxy oligomer der-331 with biocidal fillers.
Kateryna KOZLOVSKA, Viktoriia KOVALCHUK <i>(Lutsk National Technical University (Ukraine))</i>	The structure of the cast iron BЧ400 for the hot die forging optimization.
Artur PRYSHCHEPA <i>(Polissia National University (Ukraine))</i>	Increasing the wear resistance of the working bodies of tillage machines by electrical discharge machining.

<i>Daniil MANKO, Maksym KUSHNIR</i> <i>(National University «Yuri Kondratyuk Poltava Polytechnic» (Ukraine))</i>	Modeling and optimization of a variable geometry dump.
<i>Yevhen REDKO, Maksym ROMANENKO</i> <i>(Sumy National Agrarian University (Ukraine))</i>	Forming Run-in Coatings from Tin Bronze by the Method of Electrospark Deposition.