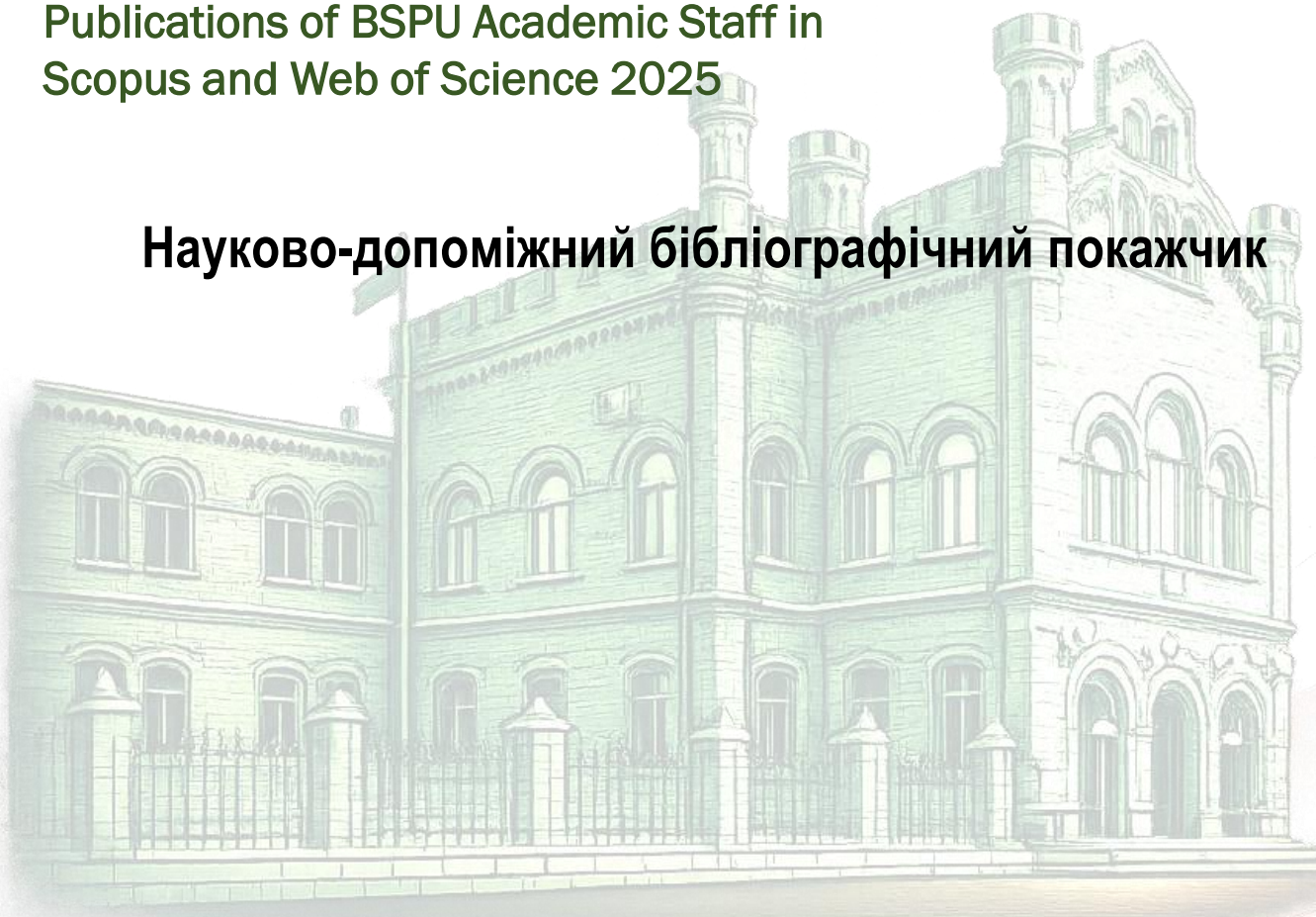
ПУБЛІКАЦІЇ НАУКОВО-ПЕДАГОГІЧНИХ ПРАЦІВНИКІВ БДПУ В НАУКОМЕТРИЧНИХ БАЗАХ
SCOPUS ТА WEB OF SCIENCE 2025

Publications of BSPU Academic Staff in
Scopus and Web of Science 2025

Науково-допоміжний бібліографічний покажчик



Бібліотека БДПУ
Запоріжжя
2026

УДК 016:378 (477.64-21БДПУ)

П70

Упорядкування та комп'ютерний набір:
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П70 **Публікації науково-педагогічних працівників БДПУ в наукометричних базах Scopus та Web of Science 2025** : науково-допоміжний бібліографічний покажчик / упоряд. та комп. набір Г. В. Потапенко ; бібліограф. редактор А. В. Куторга ; Бердянський державний педагогічний університет, Бібліотека БДПУ. – Запоріжжя : БДПУ, 2026. – 125 с.

Щорічний науково-бібліографічний покажчик публікацій науковців університету у міжнародних базах Scopus та Web of Science, виходить один раз на рік до Днів науки України. Видання систематизує публікаційну діяльність наукових і науково-педагогічних працівників БДПУ, надаючи аналітичний огляд їхніх робіт за попередній рік. Покажчик призначений для наукової спільноти, адміністрації університету та бібліотекарів як інструмент моніторингу наукової продуктивності.

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P70 Potapenko, H. (Compiler & Typesetter), & Kutorha, A. (Bibliographic Editor). (2025). **Publications of BSPU Academic Staff in Scopus and Web of Science 2025** : A Scientific Auxiliary Bibliographic Index. Berdyansk State Pedagogical University, BSPU Library, 125 p.

The Annual Scientific and Bibliographic Index of University Researchers' Publications in the International Databases Scopus and Web of Science is published once a year before the Science Days in Ukraine. The publication systematizes the scientific output of the researchers and academic staff of Berdyansk State Pedagogical University, providing an analytical overview of their works from the previous year. The index is intended for the scientific community, university administration, and librarians as a tool for monitoring scientific productivity.

https://doi.org/10.5281/zenodo.20155140

UDC 016:378 (477.64-21BSPU)

ВІД УПОРЯДНИКА

Мета даного науково-допоміжного бібліографічного покажчика – ознайомити наукову спільноту з публікаційною діяльністю наукових і науково-педагогічних працівників університету в міжнародних наукометричних реферативних базах даних Scopus та Web of Science. Покажчик містить інформацію про публікації, проіндексовані в цих базах даних за 2025 рік, загальною кількістю 111 наукові статті. Бібліографічні записи систематизовано у двох розділах. Групування описів в межах розділів здійснено за хронологічним та алфавітним принципом. До першого розділу увійшли видання, проіндексовані у наукометричній базі Scopus. У другому розділі розміщені праці науково-педагогічних працівників університету, проіндексовані в наукометричній базі Web of Science Core Collection.

До покажчика також включено результати аналізу публікаційної активності викладачів БДПУ у міжнародних наукометричних базах за 2025 рік, зокрема:

- Найактивніші автори: понад 3 публікації у наукометричних базах — перелік дослідників, які продемонстрували найвищу результативність;
- Публікаційна активність викладачів БДПУ: Scopus та Web of Science (2025) — огляд журналів, у яких викладачі публікувалися найбільше (діаграма) ;
- Перелік видань, які індексуються у Scopus та Web of Science, обраних викладачами у 2025 році — реєстр журналів із «подвійним індексуванням», у яких оприлюднено результати досліджень;
- Наукометричні дані університету, 2025 — актуальні відомості про рейтинг та позиції ЗВО у світовому науковому просторі.

Бібліографічний опис здійснено згідно з міжнародним бібліографічним стандартом APA style. Опис публікацій подано мовою оригіналу документа із дотриманням правил орфографії, пунктуації та фонетичних особливостей. Додано анотації до статей, а також гіперпосилання або DOI, які дозволяють одразу перейти до тексту публікації. Електронну версію науково-допоміжного бібліографічного покажчика оприлюднено на:
Сайті бібліотеки БДПУ
Сайті Інституційного репозитарію БДПУ
Сайті міжнародного репозитарію Zenodo. Community Berdyansk State Pedagogical University

Науково-допоміжний бібліографічний покажчик видано до Днів науки в Україні. Він розрахований на науковців, науково-педагогічних працівників, здобувачів вищої освіти.

ЗМІСТ

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ПУБЛІКАЦІЇ НАУКОВО-ПЕДАГОГІЧНИХ ПРАЦІВНИКІВ УНІВЕРСИТЕТУ, ПРОІНДЕКСОВАНІ В НАУКОМЕТРИЧНІЙ БАЗІ SCOPUS

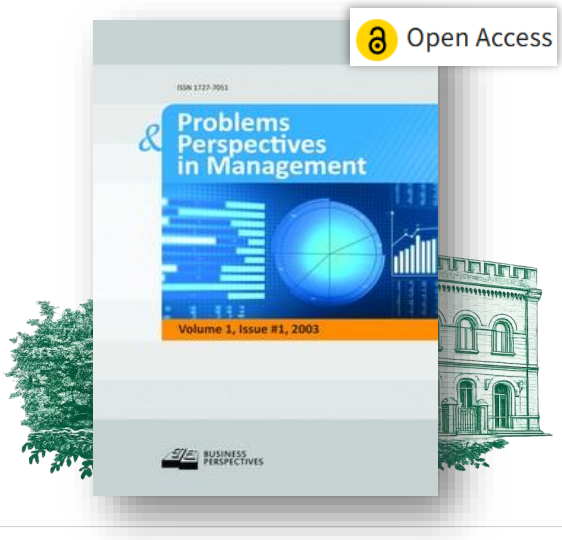
CHAPTER I

PUBLICATIONS OF THE UNIVERSITY'S SCIENTIFIC AND PEDAGOGICAL STAFF INDEXED IN THE SCOPUS DATABASE

Digital transformation of relocated higher education institutions in Ukraine under martial law

Alieksieieva H., Kravchenko N., Horbatiuk L., Nestorenko T., Zhyhir V., Kalinichenko A., & Glazova Y.
(2025). Digital transformation of relocated higher education institutions in Ukraine under martial law. *Problems and Perspectives in Management*, *23*(2-si), pp. 71–85.

https://doi.org/10.21511/ppm.23(2-si).2025.06



Journal «Problems and Perspectives in Management»
Publisher: LLC CPC Business Perspectives

ISSN 1727-7051 (Print)
ISSN 1810-5467 (Online)

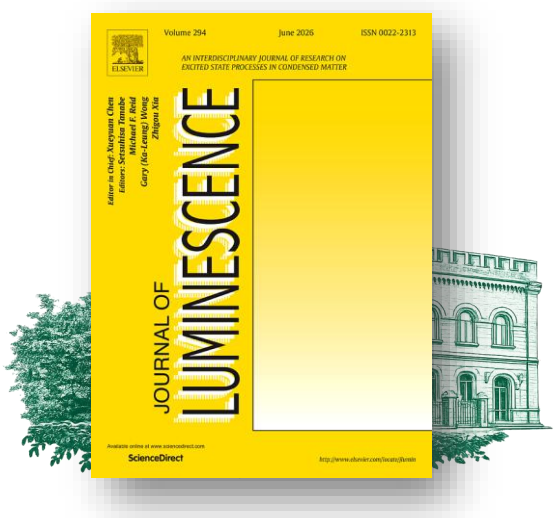
Abstract

The ongoing Russia-Ukraine war has profoundly disrupted the higher education landscape, compelling numerous institutions to adapt to unprecedented challenges. This study investigates the resilience and adaptive strategies of relocated higher education institutions under martial law, focusing on Berdyansk State Pedagogical University. The analysis emphasizes the critical role of digital transformation in sustaining academic operations amidst displacement. Methodologically, the study integrates qualitative interviews and quantitative analysis, exploring how cloud technologies, learning management systems, and AI-driven chatbots contributed to continuity in education. The results reveal that digital platforms ensured accessibility to educational resources, increased student engagement, and enhanced institutional resilience. Over 85% of surveyed participants identified learning management systems' platforms as pivotal in maintaining educational quality, while AI chatbots were instrumental during crises, offering real-time communication and support even during power outages. Additionally, cloud-based solutions enabled the preservation of critical data and ensured uninterrupted access to academic+ resources, facilitating smooth transitions for both faculty and students…

Photoluminescence origin in Bi^{3+}-doped $GdAlO_3$ perovskite

Baran, M., Hreb, V., Kissabekova, A., Krasnikov, A., Laguta, V. V., Vasylechko, L., Zazubovich, S., & Zhydachevskyy, Ya. (2025). Photoluminescence origin in Bi^{3+}-doped $GdAlO_3$ perovskite. *Journal of luminescence, 288*, art. no. 121513.

https://doi.org/10.1016/j.jlumin.2025.121513



Journal of «Luminescence»
Publisher: Elsevier

ISSN 0022-2313 (Print)
ISSN 1872-7883 (Online)

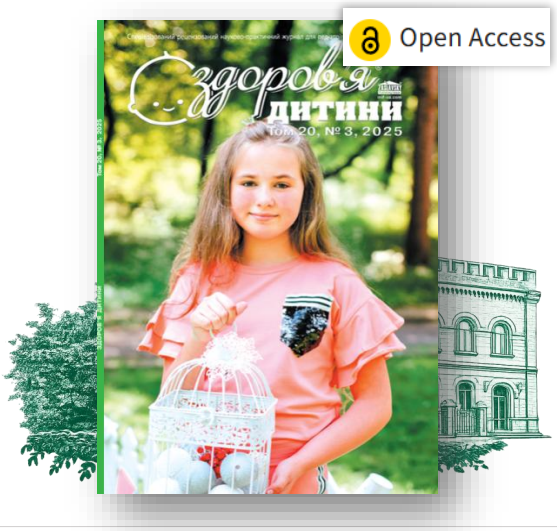
Abstract

Microcrystalline powders of GdAlO3:Bi with different bismuth concentrations were synthesized by the modified sol-gel method. The pure orthorhombic perovskite structure of the investigated samples was confirmed by X-ray diffraction. Photoluminescence characteristics of GdAlO3:Bi were investigated in the 4.2-500 K temperature range by the methods of steady-state and time-resolved luminescence spectroscopy. The ultraviolet emission spectrum of GdAlO3:Bi is found to consist of two bands. The dominating 3.72 eV band is assigned to the electron transitions from the emitting and metastable levels of the triplet relaxed excited state of a single Bi3+ center, corresponding to the P-3(1,0) -> S-1(0) transitions of the free Bi3+ ion. A weak approximate to 3.65 eV band is attributed to the dimer {Bi3+ - Bi3+} center. The visible emission spectrum consists of two bands of an exciton origin centered at about 2.5 eV and 2.3 eV and assigned to the excitons localized around the single Bi3+ ions and dimer {Bi3+ - Bi3+} centers, respectively. The electron-transfer processes in the {Bi3+- Bi3+} pairs resulting in the appearance of the {Bi3+- Bi3+}-related UV and VIS luminescence are suggested…

Perinatal and postnatal markers of cerebral palsy [Перинатальні та постнатальні маркери дитячого церебрального паралічу]

Bielova, O., Konopliasta, S., Synytsia, A., Fedorenko, S., & Mykhalska, Y. (2025). Perinatal and postnatal markers of cerebral palsy [Перинатальні та постнатальні маркери дитячого церебрального паралічу]. *Child`s health*, *20*(2), pp. 122–127.

https://doi.org/10.22141/2224-0551.20.2.2025.1802



Journal «Child`s health»
Publisher: Zaslavsky Publishing House

ISSN 2224-0551 (Print)
ISSN 2307-1168 (Online)

Abstract

Background. The aim ofthis study is to identify adverse factors of the perinatal and postnatal periods that provoke the onset of cerebral palsy. Materials and methods. The experimental study used theoretical methods aimed at analysing the results of scientific research and drawing conclusions. Empirical methods included analysis, comparison, data processing, Interviews, and a questionnaire for parents ofchildren with cerebral palsy. The latter included questlons that covered perinatal (Information about parents, pregnancy), intrapartum (features of the course of childbirth) and postnatal (assessment ofthe child'sgeneral andneuromotorfunctlon) development. Indicators oftheflrst manifestations of neurological Symptoms and concomitant disorders were studied. Results. The results ofthe study materials give a clear idea that the perinatal period of development is an important stage offoetal functioning. Identification of pathological factors allows preventing negative consequences in advance. The studied children with cerebral palsy were at high risk at the stage of perinatal development. Their mothers experienced severe toxicosis/gestosis during pregnancy and were in hospital...

Mental health of preschool children with speech disorders [Психічне здоров'я дітей дошкільного віку з порушеннями мовлення]

Bobro, V., Fedorenko, M., Bielova, O., Fedorenko, S., Rudenko, L., & Lisova, L. (2025). Mental health of preschool children with speech disorders [Психічне здоров'я дітей дошкільного віку з порушеннями мовлення]. *Child`s health*, *20*(6), pp. 462–469.

https://doi.org/10.22141/2224-0551.20.6.2025.1905

Journal «Child`s health»
Publisher: Zaslavsky Publishing House

ISSN 2224-0551 (Print)
ISSN 2307-1168 (Online)

Abstract

Background. The purpose of the present study is to identify the current state of mental health in preschool children with speech development disorders. Materials and methods. The experimental framework included theoretical methods for understanding the research problem, as well as the systematization and analysis of scholarly findings and the formulation of key conclusions. The empirical research methods were based on the analysis, comparison, and statistical processing of data; surveys of specialists in preschool education institutions (medical personnel, speech therapists, psychologists, educators, etc.); and the application of psychological diagnostic techniques. The components of mental health (socio-emotional, socio-communicative, and socio-motivational) and the strategy for their assessment (diagnostic parameters, scoring system, and developmental levels) in preschool children with speech development disorders were determined. Results. The analysis of the research findings indicates insufficient psychological well-being among children with speech disorders (such as alalia, dyspraxia, dysarthria, and comorbid conditions). Examination of the socio-emotional component revealed excessive anxiety states leading to fatigue, unfounded fears, behavioral problems, difficulties concentrating during learning, as well as sleep and appetite disturbances…

ELSEVIER Scopus

Supporting scientists who study and work abroad

Chakraborty, T., Mekkawy, H. K., Cloete, K. J., Mahla, R., Peng, D. D., Perez, A., Rouabah, N., Gomes, J. F., Drallou, F, Abdalrahman, T., Santos, J., Tiwari, V., Lin, T. J., He, Sh., Kadlec, J., Dincaslan, F. B., Suchikova, Y., Lu, ZL., Shi, JH. … & Ribeiro, HL Jr. (2025). Supporting Scientists Who Study and Work Abroad. *Science, 389* (6755), pp. 24–26.

https://doi.org/10.1126/science.aea0626

Journal «Science»
Publisher: Amer Assoc Advancement Science

ISSN 0036-8075 (Print)
ISSN 1095-9203 (Online)

Abstract

Because of the war in Ukraine, traveling abroad, as I did to Latvia, forscientific reasons has become a challenge. There are no direct flightsfrom Ukraine, border crossings can take days, and men of conscrip-tion age face legal restrictions on leaving the country, even for shortacademic visits. A dedicated, transparent mechanism for fast-trackingshort-term academic travel permits would allow Ukrainian scientiststo stay connected with the global scientific community. Internationalinstitutions can show support by issuing formal invitations and advo-cating for flexible travel arrangements for Ukrainian scholars.

© *Yana Suchikova Research Department, Berdyansk State Pedagogical University, Zaporizhzhia, Ukraine.*

Social Emotional Learning in Pre-Service EFL Teachers' Formative Assessment in Crisis Times

Dmitrenko, N., Panchenko, V., Hladka, O., Shkola, I., & Devitska, A. (2025). Social Emotional Learning in Pre-Service EFL Teachers' Formative Assessment in Crisis Times. *LLT Journal on Language and Language Teaching, 28*(1), *pp.* 37–57.

https://doi.org/10.24071/llt.v28i1.9837

Journal «LLT Journal on Language and Language Teaching»
Publisher: Sanata Dharma University

ISSN 1410-7201 (Print)
ISSN 2579-9533 (Online)

Abstract

This qualitative case study deals with the problem of social-emotional learning (SEL) implementation in Ukrainian pre-service English as a foreign language (EFL) teachers' formative assessment in the English language classroom. The research question is "How did the implementation of SEL techniques during formative assessment affect pre-service EFL teachers' communicative skills?" It is particularly important in times of crisis, such as wars, natural disasters, or pandemics, when pre-service EFL teachers are socially and emotionally vulnerable. Taking into account that the assessment provokes additional stress and anxiety, the introduction of SEL techniques in formative assessment contributes to creating a fertile educational space with a focus on pre-service teachers' emotional needs and mental well-being. The study found that integrating SEL techniques such as exit tickets, reading logs, dialogue journals, pilgrim's journals, assessment rubrics, reflective activities, and graphic organizers into formative assessments significantly enhanced pre-service EFL teachers' communicative skills, emotional intelligence, and learner autonomy. Participants reported improved engagement, self-awareness, and interpersonal skills, confirming the value of SEL-informed pedagogy in fostering both language proficiency and emotional resilience in times of crisis.

AI-powered tools for teaching ESP to preservice physics teachers

Dmitrenko, N., Shkola, I., & Shkola, O. (2025). AI-powered tools for teaching ESP to preservice physics teachers. *Analele Universitatii Ovidius Constanta, Seria Filologie*, *36*(1), pp. 304–324.

https://litere.univ-ovidius.ro/Anale/2025_volumul_1/sectiunea3/20.%20Natalia%20Dmitrenko%20et%20al.pdf

Journal «Analele Universitatii Ovidius Constanta, Seria Filologie»
Publisher: Ovidius University

ISSN 1224-1768 (Print)
ISSN 2734-7060 (Online)

Abstract

This qualitative case study analyzes AI-enhanced educational technologies in ESP instruction for prospective Physics educators. The research presents a multidimensional framework incorporating diverse AI-driven solutions to strengthen specialized vocabulary development and linguistic competencies within Physics education contexts. The study investigates the application of four key components: speech recognition AI for pronunciation practice, AI-powered platforms for interactive vocabulary activities, AI content generation tools for creating Physics-specific materials, and AI image generators for visual learning prompts. The study employed tools such as Educaplay for vocabulary development, Padlet for AI-guided discussions, Twee and Claude, and TTS Reader for content generation for creating multimodal learning experiences and applied them in ESP coursework for prospective Physics educators throughout a single academic term. The findings demonstrate notable enhancements in ESP faculty performance, featuring considerable reductions in instructional preparation duration and improved effectiveness in developing individualized assessments, while prospective Physics educators exhibited remarkable progress in specialized vocabulary mastery, phonetic precision, and conceptual understanding through engaging interactive and multimedia learning environments. The findings highlight the effectiveness of AI-powered tools in creating an immersive learning environment that simultaneously enhances English proficiency and reinforces Physics content knowledge, preparing future teachers for successful classroom communication.

Engineering students' English proficiency development through AR technologies

Dmitrenko, N., Shkola, I., Dubrova, O., Lobachuk, I., & Malinka, O. (2025). Engineering students' English proficiency development through AR technologies. *Environment Technology Resources – Proceedings of the 16th International Scientific and Practical Conference, 3*, pp. 105–110.

https://doi.org/10.17770/etr2025vol3.8542

Conference «Environment. Technology. Resources» Published by RTU PRESS.

ISSN 2256-070X (Online)

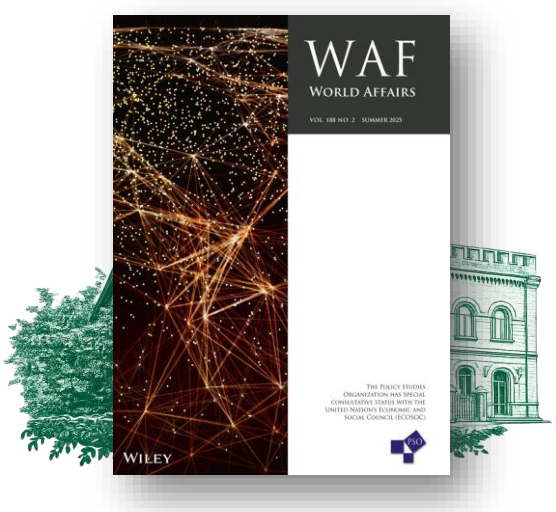
Abstract

This paper explores the implementation of Augmented Reality (AR) technology as an innovative tool for enhancing English language skills among engineering students. In the context of rapid technological integration into educational processes, AR emerges as a powerful instrument for creating an effective learning environment, particularly relevant for future engineers who will work with cutting-edge technologies. While this topic has been extensively researched internationally over the past decade, the application of AR in English language teaching for technical specialists remains understudied in the domestic educational space. This study aims to unveil the potential of AR applications and platforms for developing professionally-oriented language competencies among engineering students. The research analyzes the didactic capabilities of mobile AR applications and proposes a comprehensive set of exercises designed to develop technical vocabulary and communication skills in a professional context. Special attention is paid to creating immersive scenarios that simulate real industrial situations, where engineering students can practice professional English while interacting with virtual objects and delivering technical presentations…

Beneath the Silence: The Hidden Struggles of Occupied Cities

Glazkova, I., Suchikova, Y. & Rezvan, O. (2025). Beneath the Silence: The Hidden Struggles of Occupied Cities. *World Affairs*, *188*(2), art. no. e212070.

https://doi.org/10.1002/waf2.12070



Journal «World Affairs»
Publisher: John Wiley and Sons Inc

ISSN 0043-8200 (Print)
ISSN 1940-1582 (Online)

Abstract

This article explores the understudied critical issue of life under military occupation, focusing on Berdiansk (Ukraine), a peaceful resort city now under occupation. While scholarly attention has been directed toward broader military and political consequences, the everyday experiences of people living in occupied cities have largely been overlooked. Berdiansk's transformation under occupation provides a poignant case for examining the phenomenon of "silence" in such cities—what it signifies. The study reveals hidden dynamics of life under occupation through indirect methods like oral interviews, social media analysis, and regional media outlets. This article contributes to urban studies by highlighting the resilience and adaptation strategies of occupied communities. It emphasizes the need for robust global discourse and action to restore sovereignty and revive community and urban life in these silenced cities.

Barriers in online education for displaced universities: Insights from faculty and students

Glazkova, I., Falko, N., Khomenko, O., Khatuntseva, S., Rula, N., Shulzhenko, A., & Tatarin, V. (2025). Barriers in online education for displaced universities: Insights from faculty and students. *Problems and Perspectives in Management*, *23*(2-si), pp. 136–150.

https://doi.org/10.21511/ppm.23(2-si).2025.10

Journal «Problems and Perspectives in Management»
Publisher: LLC CPC Business Perspectives

ISSN 1727-7051 (Print)
ISSN 1810-5467 (Online)

Abstract

The relevance of this study lies in the growing shift to online education for displaced universities due to war-related disruptions. The aim is to identify barriers faculty and students face in such institutions and propose strategies for creating a barrier-free educational environment. The study employs a survey-based method, analyzing responses from 224 students and 71 faculty members of a displaced Ukrainian university.

Results highlight significant economic barriers, with 79% of students reporting financial difficulties affecting access to stable Internet, modern devices, and essential resources. Virtual isolation was noted by 79% of students as a challenge in maintaining social connections, while 78% cited reduced motivation characterized by the dominance of avoidance motives. Faculty reported psychological stress (85.6%), including anxiety (75%), tremors (54%), and sleep disturbances (45%). Organizational barriers, such as adapting practical courses to online formats and increased workloads due to asynchronous learning, were also prominent. These findings underscore the need for targeted strategies to address the barriers and promote inclusivity and effectiveness in online education. A comprehensive approach integrating institutional, pedagogical, and policy-level interventions is critical for overcoming these challenges.

Analysis of accounting organization in small businesses in Poland and Ukraine: Legal, technological, and economic aspects

Glazova, Y., & Kostenko, G. (2025). Analysis of accounting organization in small businesses in Poland and Ukraine: Legal, technological, and economic aspects. *Zeszyty teoretyczne rachunkowosci*, *49*(1), pp. 163–180.

https://doi.org/10.5604/01.3001.0055.0288

Journal «Zeszyty Teoretyczne Rachunkowości»
(«The Theoretical Journal of Accounting»)
Publisher:Accountants Assoc Poland

ISSN 1641-4381 (Print)
ISSN 2391-677X (Online)

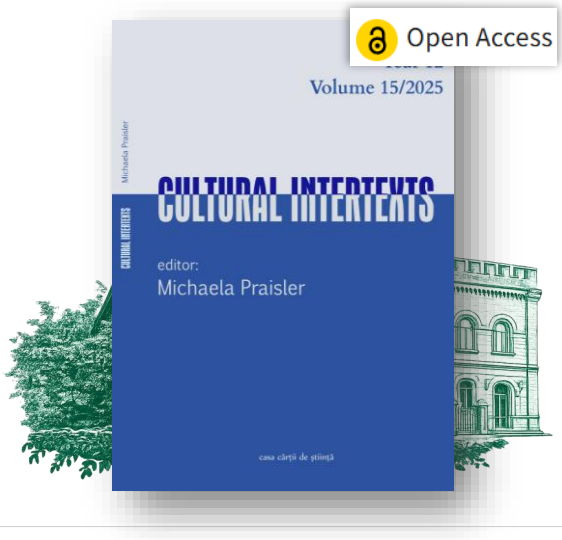
Abstract

The main objective of the study is to analyze and compare accounting organization models in small businesses in Poland and Ukraine using various types of software. It is done from an organizational and economic perspective. The study aims to identify the benefits, challenges, and opportunities that business owners encounter when organizing accounting in each country. The methodology/approach: The study uses both quantitative and qualitative methods. The quantitative analysis relies on data collected and processed by the statistical offices of Poland and Ukraine. The qualitative analysis involves reviewing legal frameworks, literature, and internet sources, as well as conducting user surveys. Findings: The study identified approaches to organizing accounting, as well as common and distinct elements in the legal, organizational, and technological aspects of accounting. The results provide a better understanding of the factors that influence the effective implementation and use of different accounting approaches. This information will be helpful for companies planning to implement or update software applications when expanding operations in specific countries. Research limitations/implications: The article contributes further in-depth research that documents the challenges in developing and adapting technological solutions in the area of accounting organization in Poland and Ukraine...

Cyborg image in modern Ukrainian media discourse: Strategies of representation, hybridisation and mediatisation

Ivaniukha, T., & Pyrogova, K. (2025). Cyborg image in modern Ukrainian media discourse: Strategies of representation, hybridisation and mediatisation. *Cultural Intertexts*, *15*, pp. 104–116.

https://doi.org/10.35219/cultural-intertexts.2025.08



Journal «Cultural Intertexts»
Publisher: House of the Book of Science

ISSN 2393-0624 (Print)
ISSN 2393-1078 (Online)

Abstract

The purpose of the work is to investigate the dynamics of stress and motor indicators of high school students in the process of physical exercises (using the example of boxing). Materials and methods. The research involved 64 high school students (boys) (17 years old). A pedagogical experiment was conducted, for which two groups were formed: Control (CG, n = 31) and experimental (EG, n = 33). The CG high school students were trained according to the current physical education curriculum, and the EG high school students were trained according to the methodology we proposed, which involved boxing. The following indicators were studied: Stress indicators (anxiety, stress resistance, stress level); motor indicators (coordination and strength endurance, speed and strength endurance). Results. A methodology for reducing high school students' stress indicators as well as improving the motor indicators through boxing in the process of physical education has been developed. Testing the methodology's effectiveness has shown significantly better results in the EG high school students than in the CG in all stress and motor indicators. Thus, from boxing training, the EG high school students showed statistically significant reduction the stress and anxiety level, and improvement in stress resistance and speed and strength endurance, as well as coordination and strength endurance level. Conclusions…

Reducing high school students' stress indicators in the process of physical exercises

[Зниження показників стресу в учнів старших класів у процесі занять фізичними вправами]

Ivanovych, O., Petrovych, S., Danylevych, M., Lohvynenko, O., & Nekrasov, H. (2025). Reducing high school students' stress indicators in the process of physical exercises [Зниження показників стресу в учнів старших класів у процесі занять фізичними вправами]. *Ukraine. Nation's Health*, *4*, pp. 67–73.

https://doi.org/10.32782/2077-6594/2025.4/07

Journal «Ukraine. Nation's Health»
Publisher: Publishing House Helvetica

ISSN 2077-6594

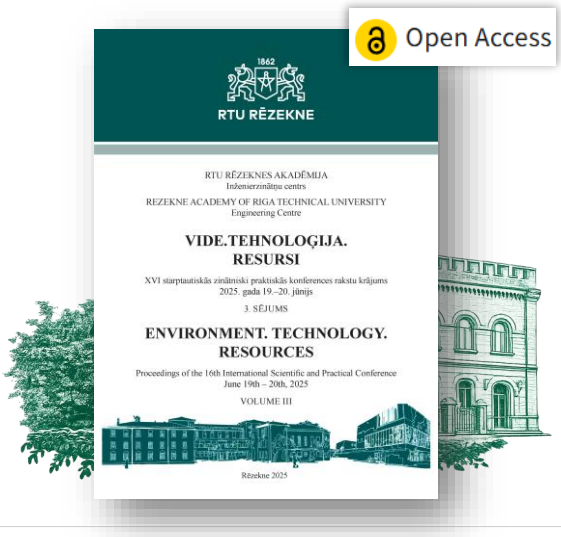
Abstract

The purpose of the work is to investigate the dynamics of stress and motor indicators of high school students in the process of physical exercises (using the example of boxing). Materials and methods. The research involved 64 high school students (boys) (17 years old). A pedagogical experiment was conducted, for which two groups were formed: Control (CG, n = 31) and experimental (EG, n = 33). The CG high school students were trained according to the current physical education curriculum, and the EG high school students were trained according to the methodology we proposed, which involved boxing. The following indicators were studied: Stress indicators (anxiety, stress resistance, stress level); motor indicators (coordination and strength endurance, speed and strength endurance). Results. A methodology for reducing high school students' stress indicators as well as improving the motor indicators through boxing in the process of physical education has been developed. Testing the methodology's effectiveness has shown significantly better results in the EG high school students than in the CG in all stress and motor indicators. Thus, from boxing training, the EG high school students showed statistically significant reduction the stress and anxiety level, and improvement in stress resistance and speed and strength endurance, as well as coordination and strength endurance level. Conclusions…

The potential of Sketchfab in visualizing technical processes in the educational environment

Khomenko, L., Saliuk, B., Matviienko, L., & Kashuba, S. (2025). The potential of Sketchfab in visualizing technical processes in the educational environment. *Environment. Technology. Resources. Proceedings of the International Scientific and Practical Conference*, 3, pp. 169–175.

https://doi.org/10.17770/etr2025vol3.8517



Conference «Environment. Technology. Resources» Published by RTU PRESS.

ISSN 2256-070X (Online)

Abstract

This paper explores the potential of Sketchfab as a tool for visualizing technical processes in the educational environment, focusing on its application in STEM and technology education. The research examines how the platform's 3D modeling and visualization capabilities can enhance learning outcomes by fostering better understanding of complex technical concepts and improving spatial reasoning. The study is grounded in the context of the increasing digitalization of education and the integration of immersive technologies in teaching practices. The research employs a mixed-methods approach, combining quantitative analysis of user engagement statistics with qualitative interviews and surveys conducted with both teachers and students. Statistical data were collected on the number of users, their purposes for using Sketchfab, and the time spent engaging with the platform. Additionally, perceptions of Sketchfab's impact on learning outcomes were assessed, focusing on its role in enhancing student motivation, improving understanding of technical content, and developing spatial thinking. Results indicate a significant increase in the adoption of Sketchfab among educators and learners between 2023 and 2024, with teacher usage rising by 40% and student engagement growing by 37.5%...

Electronic structure, reflectivity and X-ray luminescence of $MAPbCl_3$ crystal in orthorhombic phase

Kolomiets, V., Kapustianyk, V., Kovalenko, M., Kraus, H., Chukova, O., Zhydachevskyy, Y., Zia, W., Saliba, M., & Mykhaylyk, V. (2025). Electronic structure, reflectivity and X-ray luminescence of MAPbCl3 crystal in orthorhombic phase. *Scientific reports*, *15*(1), art. no. 12912.

https://doi.org/10.1038/s41598-025-96694-0

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN 2045-2322 (Online)

Abstract

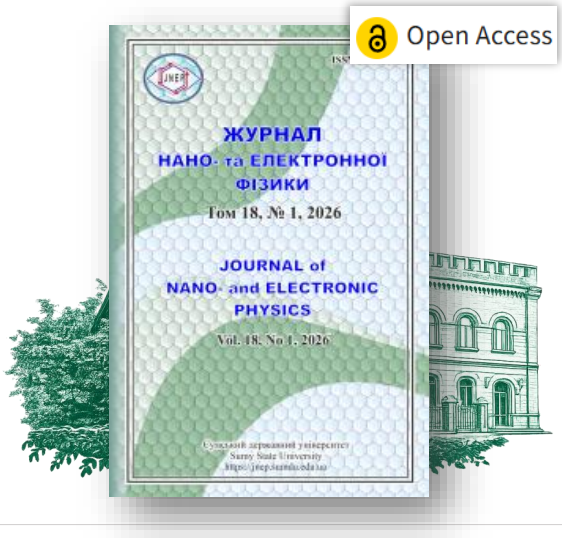
This study provides a comprehensive analysis of the electronic structure, reflectivity, and luminescent spectra of the organic-inorganic, metal-halide $MAPbCl_3$ perovskite, which has considerable potential for various optoelectronic applications. Using density functional theory (DFT) calculations, we investigated the electronic structure of MAPbCl3 and interpreted the key features of its reflectivity spectra across a wide energy range from 3 to 10 eV. The reflectivity spectra reveal prominent excitonic features at 3.22 eV near the absorption edge and additional optical transitions at higher energies, highlighting the material's intricate electronic structure. Furthermore, we examined the temperature dependence of radiative decay dynamics under high-energy radiation through X-ray luminescence spectra and decay time measurements. We observe emission from free and bound excitons with an exceptionally short decay time (<= 1 ns) and significant thermal quenching at low temperatures (100 K) in the 385-430 nm range. These findings underline the importance of continued exploration of optoelectronic properties of the material to enhance its performance in practical applications.

Translational twins and extraordinary classification of divalent nitrates

[Трансляційні двійники та незвичайна класифікація нітратів двовалентних елементів]

Kolomoets, A. G., Shkola, O. V., Lisina, L. O., & Kuznetsova, O. Ya. (2025). Translational twins and extraordinary classification of divalent nitrates [Трансляційні двійники та незвичайна класифікація нітратів двовалентних елементів]. *Journal of Nano- and Electronic Physics*, *17*(2), art. no. 02009.

https://doi.org/10.21272/jnep.17(2).02009



Journal of Nano- and Electronic Physics
Publisher: Sumy State University

ISSN 2077-6772 (Print)
ISSN 2306-4277 (Online)

Abstract

Symmetry aspects of Pm3 → Pa3 and Pm3 → P213 phase transitions in Barium, Strontium and Lead nitrates are considered. It is noted that the Pm3 → Pa3 phase transition is proper for crystal class called nonferroics. The characteristic features of nonferroics are given. It has been shown that divalent nitrates have these features. The Pm3 → P213 phase transition is classified as a phase transition characteristic of second-order ferroics. Thus, it is concluded that divalent nitrates are second-order ferroics and nonferroics at the same time. It was reported that to the classification of higher-order ferroics, a spontaneous thermodynamic quantity described by a third-rank tensor should arise in the P213 phase. Such a tensor could be a tensor of piezoelectric coefficients, but in the P213 phase we were unable to detect the piezoelectric effect. It was suggested that in the P213 phase piezoelectric charges are localized on the walls of translational twins (domains), where they can be neutralized. Such domains arise as a result of the Pm3 → Pa3 phase transition. They were visualized by chemical etching. The temperature dependences of dielectric permeance in high-temperature region were also investigated. Small anomalies of the dielectric permeance were fond in the vicinity of the Pm3 → Pa3 phase transition for all tree compounds. It is noted that such anomalies are one of the signs of translational phase transitions.

ELSEVIER Scopus

Traits of educational guides in transversal reality

Kondratenko, Y., & Kryzhko, V. (2025). Traits of educational guides in transversal reality. *Journal of Institutional Research South East Asia, 23*(3), pp. 418–435.

https://www.seaairweb.info/default.aspx

Journal of Institutional Research South East Asia
Publisher: SEAAIR,S. E. Asian Association for Institutional Res.

ISSN 1675-6061

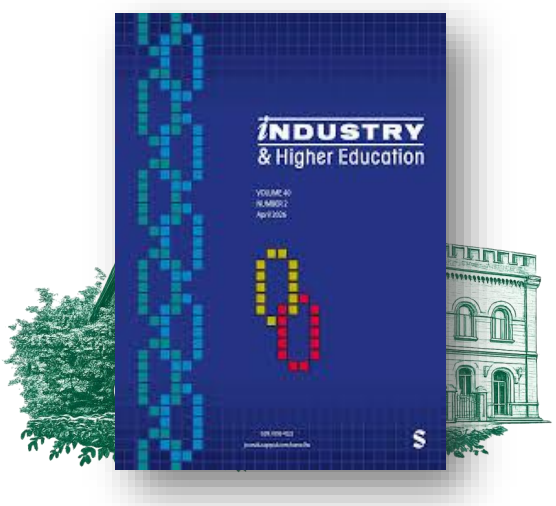
Abstract

The aim of the study is to determine the methods of reactivating the national philosophical idea of guidance in the field of education and to research the transversal connections of personal traits of educational guides. Methodology of the study includes approaches that are the object of both educational management and educational and pedagogical sciences. Empirical research methods are determined by the specifics of the chosen topic and are aimed at studying the perspective of guidance among students of the second (master's) level of higher education and the realities of the guidance practice of working heads of educational institutions. Theoretical methods are temporally prolonged and aimed at mythologizing the guidance paradigm. The guidance in education was presented as a new perspective direction of pedagogical and management studies. Attribution was defined as the main mechanism of institutionalization of personal traits of guides, heads of educational institutions. The nature of the advanced role of the guiding mission in education management was determined. The attributive selection of outstanding professional traits for successful guidance of future heads of educational institutions was carried out. A scheme-model of transversal connections of guiding professional traits and multiplier effects of their interaction was created. The results can be used in further scientific research and in the educational process of training educational managers.

Nano or Na-No? Ukraine's crisis of opportunity in nanotechnology education

Kovachov, S., Bohdanov, I., & Suchikova, Y. (2025). Nano or Na-No? Ukraine's crisis of opportunity in nanotechnology education. *Industry and Higher Education, 39*(1), pp. 3–7.

https://doi.org/10.1177/09504222231209259



Journal «Industry and Higher Education»
Publisher: SAGE Publications Inc.

ISSN 0950-4222 (Print)
ISSN 2043-6858 (Online)

Abstract

This opinion piece delves into the intricate challenges facing higher education in nanotechnology, particularly in Ukraine, a country currently embroiled in geopolitical unrest. Through a reflective lens, the article examines the complexities of preparing graduates for an uncertain job market while also considering the pressing national imperatives that demand specialized expertise. Beyond the Ukrainian context, the article escalates the discussion to a global scale, calling for an immediate yet thoughtful reassessment of how we approach specialized education in a rapidly changing world. The piece confronts uncomfortable questions and proposes calls to action for policymakers, educators, and the global community. By framing Ukraine's struggle as indicative of a broader global challenge, it aims to catalyze meaningful discussions and reforms in how specialized higher education is approached and implemented worldwide.

Philosophical approach to understanding artificial intelligence in pedagogical practice

Kozub, H., Kozub, V., Kozlovets, M., Shcherbakova, N., & Osmachko, O. (2025). Philosophical approach to understanding artificial intelligence in pedagogical practice. *International Journal on Culture, History, and Religion*, 7(1), pp. 611–626.

https://eprints.zu.edu.ua/45483/1/1.pdf

International Journal on Culture, History, and Religion
Publisher: Dr. Esmeralda F. Sanchez

ISSN 3028-1318

Abstract

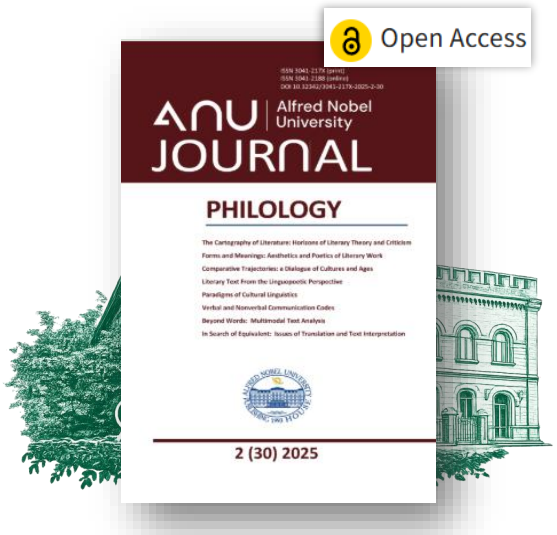
The article provides a philosophical evaluation of the AI positioning within the educational process. The intensity of integrating innovative technologies into the education sector necessitates immediate theoretical and methodological organization. Philosophical discourse offers a critical understanding of the AI prospects in the pedagogical system in the context of various contemporary socio-cultural paradigms. This scholarly inquiry aims to systematize and compare methods of using AI in education based on value-based and goal-oriented criteria. The research methodology is focused on: general scientific methods of analytical clustering, which facilitate the study of practical mechanisms for the AI application in pedagogical activities; and philosophical methods, based on the dialectical and synergistic principles of educational innovation. The study's findings highlight problematic niches in the philosophical understanding of AI: existential, axiological, epistemological, methodological, and ethical. Interpreting the phenomenon of AI through the lens of contemporary philosophical-anthropological trends defines innovative tools as elements supporting human potential, which is shaped and realized during the educational process. The research prospects lie in developing theoretical and methodological guidelines for AI usage in the educational sphere. AI requires algorithmic coherence in its application, as it activates fundamental dimensions of philosophical-anthropological potential in the education participants...

Cognitive and pragmatic mechanisms of generating situational and echoic irony

(A case study of Thackeray's novel The history of pendennis: his fortunes and misfortunes, his friends and his greatest enemy)

Kravchenko, N. N., & Kryzhko, O. A. (2025). Cognitive and pragmatic mechanisms of generating situational and echoic irony (A case study of Thackeray's novel The history of pendennis: his fortunes and misfortunes, his friends and his greatest enemy). *Alfred Nobel University Journal of Philology, 29*(1), pp. 103–117.

https://phil.duan.edu.ua/images/PDF/2025/1/6-.pdf



Alfred Nobel University Journal of Philology

Publisher: Alfred Nobel University

ISSN: 3041-217X (Print)
ISSN: 3041-2188 (Online)

Abstract

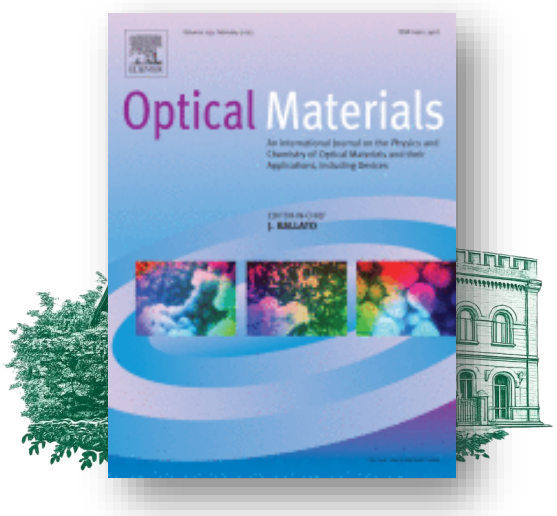
The aim of the article is to identify the cognitive and pragmatic mechanisms of irony generation in Thackeray's Novel, The History of Pendennis: His Fortunes and Misfortunes, His Friends and His Greatest Enemy, while distinguishing between situational and echoic irony regarding ostensive stimuli and collisional scripts. This goal is achieved through the application of a comprehensive methodology, including the model of integrated pragmatics by O. Ducrot and the method of echoic interpretation of irony within the framework of relevance theory, combined with the method of inference of discursive implicatures and tools for the analysis of irony-generating metaphors and comparisons. The article arrives at the main conclusion of the commonality of cognitive and pragmatic mechanisms in generating situational and echoic irony. The cognitive mechanism is based on the incongruity and collision of scripts marked by ironic utterances, the connection between which is facilitated by ostensive stimuli. Differences between the two types of irony are identified in the types of ostensive stimuli, the specificity of actualized scripts, and the typed of the violated presuppositions underlying their collision. Ostensive stimuli in situational irony include metaphor, authorial metatext, comparison, and implicit antithesis as triggers for transitioning between scripts. ?ollision scripts generating situational irony are based on "comparison samples"of similes, source and target spaces of a metaphor, or frames formed by groups of contrasting images...

ELSEVIER Scopus

A novel method of preparation of Y3Al5O12:Cr3+ ceramics and its structural and optical characterization

Kumarbekov, K. K., Zhilgildinov, Z. S., Karipbayev, Z. T., Zhunusbekov, A. M., Nurmoldin, E. E., Brik, M. G., Suchikova, Y., Kemere, M., Popov, A. I., & Kassymzhanov, M. T. (2025). A novel method of preparation of Y3Al5O12:Cr3+ ceramics and its structural and optical characterization. *Optical Materials, 159*, art. no. 116535

https://doi.org/10.1016/j.optmat.2024.116535



Journal «Optical Materials»
Publisher: Elsevier

ISSN 0925-3467

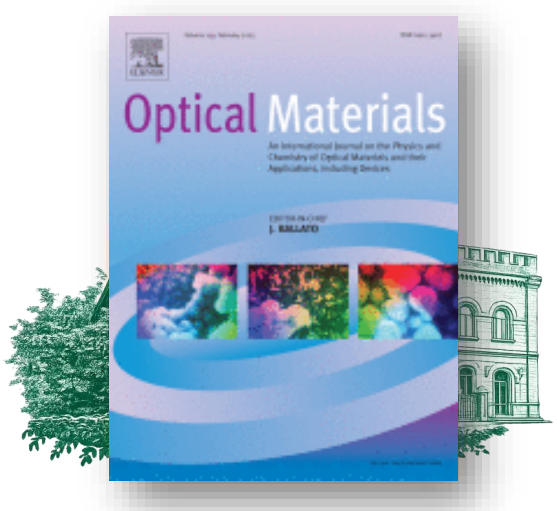
Abstract

Y3Al5O12:Cr3+ ceramics were prepared by a new method of electron beam synthesis. Special features of this method are the fast speed of synthesis, high phase purity and stoichiometry. The samples were characterized by SEM and XRD methods. After the samples structure was confirmed, the optical measurements of the excitation/emission spectra and luminescence kinetics were performed in a wide temperature range. Characteristic excitation and emission spectral features of the 6-fold coordinated Cr3+ ions were detected and investigated; their presence is solid proof of successful doping of the prepared ceramics samples with the trivalent chromium ions. The developed technique of ceramics synthesis can be applied to other samples with different chemical compositions.

Temperature-dependent luminescence of europium-doped Ga_2O_3 ceramics

Kumarbekov, K. K., Kakimov, A. B., Karipbayev, Z. T., Kassymzhanov, M. T., Brik, M. G., Ma, C., Piasecki, M., Suchikova, Y., Kemere, M., Konuhova, M., & Popov, A. I. (2025). Temperature-dependent luminescence of europium-doped Ga_2O_3 ceramics. *Optical Materials: X*, *25*, art. no. 100392.

https://doi.org/10.1016/j.omx.2024.100392



Journal «Optical Materials»
Publisher: Elsevier

ISSN 0925-3467

Abstract

This study explores the synthesis and luminescent properties of europium-doped gallium oxide (Ga_2O_3:Eu) ceramics fabricated via electron beam-assisted synthesis (EBAS) at 1.4 MeV. The resulting Ga_2O_3:Eu ceramics exhibit a nanocrystalline structure with an average crystallite size of ~30 nm, high crystallinity, and minimal lattice strain (<0.5 %). Luminescence analysis from 4 K to 300 K reveals both intrinsic and europium-induced emissions. While intrinsic Ga_2O_3 emission exhibits thermal quenching above 100 K, Eu^{3+}-related emissions, notably the 611 nm red emission, show thermal stability, retaining ~90 % of their intensity at 300 K. Additionally, a novel low-temperature emission peak at 1.74 eV, potentially associated with electron beam-induced defects, was detected, meriting further exploration. These findings indicate that Ga_2O_3:Eu ceramics synthesized via EBAS hold promise for optoelectronic, radiation detection, and high-temperature applications, given their rapid production and enhanced thermal stability.

ELSEVIER Scopus

The role of educational institutions in transformations to achieve sustainable development

Kurylo, O., Kryvylova, O., Zhyhir, V., Peregudova, V., Bielova-Oleynik, Y., Onyshchenko, S., & Revutska, O.

(2025). The role of educational institutions in transformations to achieve sustainable development. *Problems and Perspectives in Management*, *23*(2-si), pp. 38–53.

https://doi.org/10.21511/ppm.23(2-si).2025.04

Journal «Problems and Perspectives in Management»
Publisher: LLC CPC Business Perspectives

ISSN 1727-7051 (Print)
ISSN 1810-5467 (Online)

Abstract

The study aims to assess the role of educational institutions in achieving sustainable development goals (SDGs) during wartime in Ukraine. The focus is on the education sector, namely, adapting educational strategies to contemporary challenges. The paper employs a content analysis of information published by ten leading pedagogical universities in Ukraine to assess their success in implementing sustainable development goals. Special attention is given to such sustainable development goals as quality education (SDG 4), gender equality (SDG 5), sustainable cities and communities (SDG 11), peace and justice (SDG 16), and partnerships for the goals (SDG 17). University strategies and publication activity on addressing global sustainable development challenges in the Scopus database were analyzed. The research results demonstrate the variability of university development strategies, which determines their uneven focus on certain aspects of sustainable development. The results highlight the need to improve management strategies, integrate sustainable development principles into educational programs, and strengthen international partnerships. Finally, the study offers recommendations for further adaptation of educational institutions to changing conditions to ensure the sustainable development of Ukrainian society.

Coupling mechanisms of plasmon resonance and Bi^{3+} emission in YAG: Bi, Ce, Yb epitaxial films at low temperatures

Kushlyk, M., Shpotyuk, Y., Tsiumra, V., Zhydachevskyy, Y., Bulyk, L. I., Haiduchok, V., Syvorotka, I., Sugak, D., Baláz, M., & Suchocki, A. (2025). Coupling mechanisms of plasmon resonance and Bi^{3+} emission in YAG: Bi, Ce, Yb epitaxial films at low temperatures. *Scientific Reports*, *15*, art. no. 1477.

https://doi.org/10.1038/s41598-025-85843-0

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN: 2045-2322 (Online)

Abstract

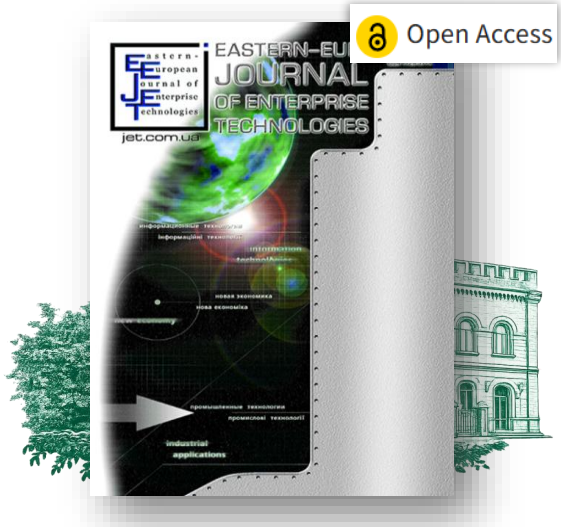
This paper is devoted to the investigation of the plasmonic effect of metal nanoparticles (NPs) formed on the surface of the YAG: Bi, Ce, Yb phosphors in a temperature range between 4 and 300 K. Combination of a thin conversion layer with silver plasmonic nanostructures leads to increase of sensitizer absorption and emission efficiency. Enhancement of Bi3+ luminescence in YAG epitaxial films with Ag NPs was observed upon cooling the samples below 200 K. High enhancement factors were associated with closely matching the maximum of plasmon extinction and Bi3+ emission bands. The maximum value of enhancement factor near 170% at 4 K was obtained. It is shown that temperature decrease causes an increase in the EM field intensity around the NPs, the probability of spontaneous recombination, the penetration depth of the localized surface plasmon resonances (LSPR) into the substrate, and the adjustment of the position of the LSPR. Simultaneous action of all these factors leads to Bi3+ emission intensity enhancement. Comparative analysis of the Finite-Difference Time-Domain (FDTD) simulation data vs. experimental results of the temperature behavior of plasmon absorption spectra, luminescence spectra of Bi3+ ions, and their decay kinetics confirms the correctness of the proposed mechanisms.

ELSEVIER Scopus

Development of a procedure for calculating problems in the mechanics of elastomers based on the open modeling language

Lavrik, V., Bohdanov, I., Alieksieieva, H., Antonenko, O., & Ovsyannikov, O. (2025). Development of a procedure for calculating problems in the mechanics of elastomers based on the open modeling language. *Eastern-European Journal of Enterprise Technologies*, *2*(7 (134), pp. 23–32.

https://doi.org/10.15587/1729-4061.2025.326219



Eastern-European Journal of Enterprise Technologies
Publisher: Technology Center
ISSN 1729-3774 (Print)
ISSN 1729-4061 (Online)

Abstract

The object of the study is the stress-strain state of elastomeric structures. When solving practical problems in elastomer mechanics, the issue of selecting an effective computational scheme based on computational mathematics methods arises. However, due to the insufficient number of studies, it is difficult to assess the optimality of a particular methodology, which necessitates an analysis of computational algorithms followed by a comparison of their advantages and disadvantages. In the design of elastomeric structures, the numerical analysis of their stress-strain state is a relevant issue. One of the key characteristics is the compressibility of the material, which is not taken into account by equations for incompressible media. In thin-layer rubber elements, this effect becomes more pronounced as the ratio of one of the geometric dimensions to the thickness of the structure increases. The use of the finite element method in displacements, despite its convenience, encounters computational errors. When the Poisson's ratio approaches 0.5, numerical instabilities arise, complicating the attainment of reliable computational results. This study proposes a new approach to organizing computational schemes in specialized automated design systems, which ensures more accurate modeling of the stress-strain state of structures. The foundation is the use of Open Modeling Language, which simplifies the description of mechanics problems and corresponding numerical schemes within a unified variational framework...

Building a model of the flow in a nozzle-flapper valve of the HP-3 control pump to improve the stability of characteristics

Lytviak, O., Trishch, R., Khomiak, E., Kochuk, S., Khomenko, S., & Tiupa, I. (2025). Building a model of the flow in a nozzle-flapper valve of the HP-3 control pump to improve the stability of characteristics. *Eastern-European Journal of Enterprise Technologies, 3*(1 (135), pp. 51–57.

https://doi.org/10.15587/1729-4061.2025.329024

Eastern-European Journal of Enterprise Technologies
Publisher: Technology Center

ISSN 1729-3774 (Print)
ISSN 1729-4061 (Online)

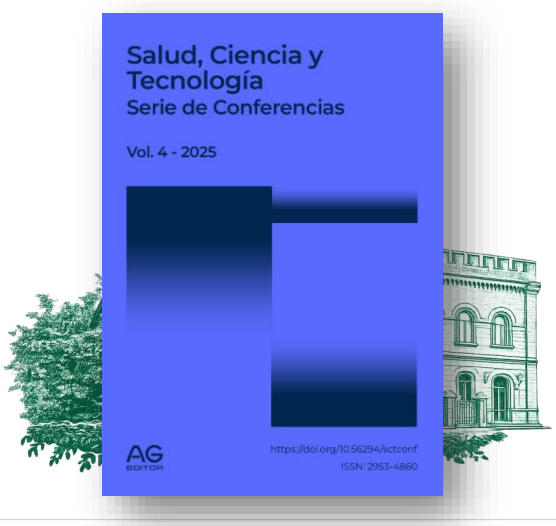
Abstract

The object of this study is the flow of a viscous incompressible fluid in a nozzle-flapper valve used as part of the free turbine speed controller in the HP-3 pump-regulator of the TV3-117 turboprop helicopter engine. The task addressed relates to a need for detailed calculations of the fluid flow because of unsatisfactory operation of the valve under actual operating conditions. An additional difficulty was the contradictory data on the characteristics of such valves in the literature, which made it impossible to determine the flow characteristics and directions for improving the design. This paper reports the results of numerical calculations of the flow in the valve performed in the SolidWorks Flow Simulation environment. A mathematical model is proposed that takes into account the influence of the design mesh on the accuracy and computational time volume, as well as ways to improve accuracy without a significant increase in resources. The model was verified by comparing it with the manufacturer's experimental data. The results have made it possible to solve the problem through the detailed construction of the model taking into account the valve geometry and optimization of the computational mesh, which ensured a balance between accuracy and computational speed…

Exploring contemporary socio-cultural shifts in Ukraine and their effects on strengthening national identity and resilience in times of war

Marukhovska-Kartunova, O., Turenko, V., Zarutska, O., Spivak, L., Vynnychuk, R., & Vynnychuk, R. (2025). Exploring contemporary socio-cultural shifts in Ukraine and their effects on strengthening national identity and resilience in times of war. *Salud, Ciencia Y Tecnología - Serie De Conferencias*, *4*, art. no. 1288.

https://doi.org/10.56294/sctconf20251288



Journal «Salud, Ciencia y Tecnologia - Serie de Conferencias»
Publisher: Editorial Salud, Ciencia y Tecnologia

ISSN 2953-4860

Abstract

Establishing a Ukrainian political nation is contingent upon a complex set of circumstances. Ukraine is compelled to wage a war against Russia for its independence, sovereignty, and territorial integrity. In such times, national self-identification becomes pivotal in consolidating efforts across all resistance fronts. The formation of Ukrainian identity is complicated by the dichotomy within Ukraine's socio-cultural space, where Russian culture, alongside Ukrainian, has had significant influence. Russia's full-scale aggression has facilitated the ultimate dissolution of Russian influence on the self-identification of Ukrainians. This article aims to identify the main socio-cultural trends that influence the transformation of national identity and resilience in Ukraine. Constructivism serves as the principal methodological approach to the research, enabling the analysis of the critical elements of national identity during its formation and development. The research methods include document analysis and sociological data, case studies, comparison, synthesis, deduction, generalisation, and systematisation. The findings of the research indicate that the war has significantly impacted the self-identification processes of Ukrainians, hastening the decolonisation of Ukraine's socio-cultural space. Ukrainians are creating distance from Russian influences, including its culture and cultural outputs like music, literature, and cinema.

Materiality of memorialization: Mapping migrant women's landmarks in Europe

Miyamoto, B., Ojala-Fulwood, M., Čapská, V., Bakas, F. E., Lyman, I., Barros-del Río, M. A., Bostenaru Dan, M., Comino, A., Frigren, P., Konstantinova, V., Martins, H., Prosinger, L., Räsänen, P., Ristovska-Josifovska, B., & Ruiz, M. (2025). Materiality of memorialization: Mapping migrant women's landmarks in Europe. *Open Research Europe, 4*, art. no. 234.

https://doi.org/10.12688/openreseurope.18433.3

Journal «Open Research Europe»
Publisher: F1000 Research Ltd

ISSN 2732-5121 (Online)

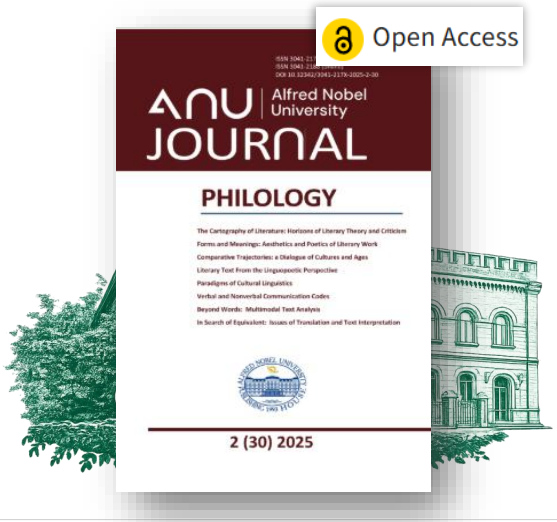
Abstract

This article investigates the memorialization of migrant women across transcultural landscapes, and analyses results from the Register of Migrant Women Landmarks in Europe (hereinafter RMWLE), central to the European Cooperation in Science and Technology (COST) action project "Women on the Move" (CA19112 – WEMov). It serves as reference for subsequent research based on data from this Register, for which data collection is continuing. The RMWLE registers landmarks, such as monuments, plaques, streets and other toponymic infrastructures named after women with a significant history of migration. It honours aspects rarely prioritized in memorialization agendas, which are skewed towards men's stories, and towards the more linear biographies of sedentary figures whose European, national, and regional memorialization have remained uncomplicated by migration. This Deep Data study reveals recurring patterns at the level of Europe in the memorialization of these women migrants. The diversity of stories, the richness and the prominence of landmarks devoted to men compared to women is a subject well-covered in memorialization studies. This unbalance is compounded by the data from our register which shows landmarks on women migrants that are sometime tokenized, often marginalized, and which reproduce the bias towards nurture and care that have besieged the memorialization of women in general...

Means of image creation of Russian military men in English texts about the Crimean War (1853–1856): Linguoimagological aspect

Moroz, A. (2025). Means of image creation of Russian military men in English texts about the Crimean War (1853–1856): Linguoimagological aspect. *Alfred Nobel University Journal of Philology*, *29*(1), pp. 164–180.

https://doi.org/10.32342/3041-217X-2025-1-29-10



Alfred Nobel University Journal of Philology
Publisher: Alfred Nobel University

ISSN 3041-217X (Print)
ISSN 3041-2188 (Online)

Abstract

This study explores the linguistic representation of Russian national and military identity in 19th-cen-tury English-language narratives, with a focus on the Crimean War (1853-1856). Grounded in linguoimagology - an interdisciplinary approach that analyzes how national images are formed and transmitted through language - this research offers a comparative literary-linguistic perspective on how English authors verbal-ized their image of Russians during this pivotal historical period. The primary aim of the article is to identify and interpret the linguistic means used by English authors to construct the image of Russians during the Crimean War. This issue remains largely unexplored in both domestic and international linguistics. To achieve this aim, the following objectives were addressed: to analyze English-language depictions of the Russian military under Nicholas I and Alexander II; to identify positive and negative evaluations of Russian identity using linguoimagologemes such as: topographic and anthropological images of Russian proper names as seen by the British; Russians' love of state awards as Seen by the British; piousness of Russians as Seen by the British; to determine the specific linguistic devices employed by British authors to assess and portray the Russian army and national character. The study applies synchronous linguoimagological analysis using specialized terms such as macrolinguoimagotheme, linguoimagotheme, linguoimageme, and linguoimagologeme.

Where it seems impossible: School education in the occupied and front-line territories of Ukraine

Mytsyk, H., Balaban, O., Furmanova, T., Kovachov, S., & Suchikova, Y. (2025). Where it seems impossible: School education in the occupied and front-line territories of Ukraine. *Review of Education*, *13*(1), art. no. e70062.

https://doi.org/10.1002/rev3.70062

Journal «Review of Education»
Publisher: WILEY

ISSN 2049-6613

Abstract

This study explores the significant impact of ongoing military conflicts on the educational process within the occupied and frontline regions of Ukraine. These territories include areas occupied by Russian troops since the beginning of the full-scale invasion of Ukraine in February 2022, as well as regions near the active frontline. The research rigorously examines the severe challenges faced by teachers, students and their parents, such as disrupted learning environments and constant threats to safety. It underscores the adaptive measures implemented to maintain educational continuity under such daunting conditions, emphasising the integration of remote learning technologies, strategic curricular adjustments, and reinforced psychological support systems. The study is based on surveys conducted with teachers and parents. It utilises both quantitative and qualitative data analyses to demonstrate the remarkable adaptability of educational systems in times of crisis. These adaptations not only ensure the continuity of education but also play a pivotal role in preserving societal stability and facilitating recovery and development in the affected regions. The findings suggest that the resilience strategies developed in response to these emergencies could serve as a global model for educational resilience…

From acceptance to implementation: student speech-language pathologists' perspectives on using digital technologies in practice

Mytsyk, H., Kovachov, S., & Suchikova, Y. (2025). From acceptance to implementation: student speech-language pathologists' perspectives on using digital technologies in practice. *Disability and Rehabilitation: Assistive Technology*, *20*(6), pp. 1711–1726.

https://doi.org/10.1080/17483107.2025.2472262

Journal «Disability and Rehabilitation: Assistive Technology»
Publisher: Taylor & Francis INC

ISSN 1748-3107 (Print)
ISSN 1748-3115 (Online)

Abstract

This qualitative study explores the perceptions of digital technologies among student speech-language pathologists (SLPs) at the bachelor's and master's levels, focusing on key factors influencing their acceptance and conditions fostering their intention to use these technologies in future speech-language pathology services. A total of 16 student SLPs, all currently enrolled in undergraduate and graduate programs, participated in this study. Their views on using digital technologies were gathered through in-depth semi-structured interviews. The data were analyzed using thematic analysis, guided by the Unified Theory of Acceptance and Use of Technology (UTAUT), which examines how factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions affect their acceptance and use of digital technology. The findings revealed that these students generally have optimistic views on digital technologies, recognizing their role in sustaining speech-language pathology services during emergencies. Findings indicate that performance expectancy, effort expectancy, social influence, and facilitating conditions significantly shape student SLPs' intentions to use digital technologies. Themes beyond the UTAUT framework discovered in the study, such as confidence in one's digital skills and the impact of societal context, particularly the ongoing war in Ukraine, further emphasize the need for comprehensive strategies addressing both the psychological and practical dimensions of technology adoption...

The Use of Gamification in the System of Social and Psychological Adaptation of Forcibly Displaced Teenagers from Ukraine: Reflections of the German Experience.

Mytsyk, H., Popova, A., & Bohdanova, M. (2025). The Use of Gamification in the System of Social and Psychological Adaptation of Forcibly Displaced Teenagers from Ukraine: Reflections of the German Experience. *Journal of Education for Students Placed at Risk (JESPAR), 30*(2), pp. 129–155.

https://doi.org/10.1080/10824669.2024.2309359

Journal of Education for Students Placed at Risk
Publisher: Taylor & Francis

ISSN 1082-4669 (Print)
ISSN 1532-7671 (Online)

Abstract

The article presents its own view on a partial solution to the problem of social and psychological adaptation of teenagers who, as a result of the armed aggression of the Russian Federation against Ukraine, have become forced migrants. Based on the conducted social-pedagogical experiment, it was found that social and psychological deafness is typical for forcibly displaced teenagers from Ukraine even after the implementation of a complex set of adaptation measures at the German school. This confirms the necessity of making certain changes in the existing adaptation programs for this category of individuals. It is justified to use gamification in school conditions as a way of influencing the process of social and psychological adaptation of forcibly displaced teenagers from Ukraine. The text highlights the structure of gamification in the educational process and points out its advantages. It determines the main tasks of social and psychological adaptation of teenagers through gamification, including subcultural identification, self-actualization, and emotional congruence. It presents an algorithm for the introduction and use of gamification in this process. The author's program, "Together" for the social and psychological adaptation of forcibly displaced teenagers from Ukraine, provides a detailed description of the active use of gamification elements.

Stench of Errors or the Shine of Potential: The Challenge of (Ir)Responsible Use of ChatGPT in Speech-Language Pathology

Mytsyk, H., Suchikova, Y. (2025). Stench of Errors or the Shine of Potential: The Challenge of (Ir)Responsible Use of ChatGPT in Speech-Language Pathology. *International Journal of Language & Communication Disorders*, 60(4), art. no. e70088.

https://doi.org/10.1111/1460-6984.70088

International Journal of Language & Communication Disorders
Publisher: WILEY

ISSN 1368-2822 (Print)
ISSN 1460-6984 (Online)

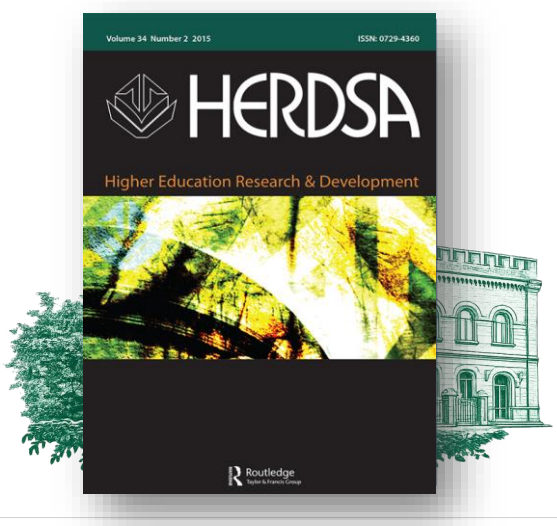
Abstract

BackgroundIntegrating large language models (LLMs), such as ChatGPT, into speech-language pathology (SLP) presents promising opportunities and notable challenges. While these tools can support diagnostics, streamline documentation and assist in therapy planning, they also raise concerns related to misinformation, cultural insensitivity, overreliance and ethical ambiguity. Current discourse often centres on technological capabilities, overlooking how future speech-language pathologists (SLPs) are being prepared to use such tools responsibly.AimsThis paper examines the pedagogical, ethical and professional implications of integrating LLMs into SLP. It emphasizes the need to cultivate professional responsibility, ethical awareness and critical engagement amongst student SLPs, ensuring that such technologies are applied thoughtfully, appropriately and in accordance with evidence-based and contextually relevant therapeutic standards.MethodsThe paper combines a review of recent interdisciplinary research with reflective insights from academic practice. It presents documented cases of student SLPs' overreliance on ChatGPT, analyzes common pitfalls through a structured table of examples and synthesizes perspectives from SLP, education, data ethics and linguistics...

Wandering into the weeds or planting seeds? Balancing depth and breadth in early and late career research

Mytsyk, H., & Suchikova, Y. (2025). Wandering into the weeds or planting seeds? Balancing depth and breadth in early and late career research. *Higher Education Research & Development*, *44*(8), pp. 2159–2168.

https://doi.org/10.1080/07294360.2025.2543411



Journal «Higher Education Research & Development (HERD)»
Publisher: Routledge Journals, Taylor & Francis LTD

ISSN 0729-4360 (Print)
ISSN 1469-8366 (Online)

Abstract

This article offers a reflective analysis rather than an empirical investigation. It examines the persistent tension in academia between pursuing deep specialization and the temptation to broaden intellectual horizons. While narrow expertise remains the foundation of academic credibility, researchers increasingly face institutional, technological, and personal pressures to engage with topics outside their primary domain. Drawing on illustrative cases and personal insight, the piece explores how such interdisciplinary forays stimulate genuine growth or lead to intellectual fragmentation. The discussion highlights how these dynamics manifest differently at various stages of an academic career: early-career researchers may scatter their efforts in search of identity. At the same time, senior scholars risk dilution as they take on administrative and supervisory responsibilities. Rather than rejecting either path, the article proposes practical strategies to explore beyond one's core specialization without losing methodological rigor, focus, or depth. It argues that with purpose, humility, and structure, intellectual wandering can become a catalyst for meaningful scholarship, not a distraction.

STEM education through the eyes of teachers from various specialties in Ukrainian pedagogical university

Nesterenko, M., Mytsyk, H., Petryk, K., Kryvylova, O., Kovachov, S., & Suchikova, Y. (2025). STEM education through the eyes of teachers from various specialties in Ukrainian pedagogical university. *International Journal of Educational Research Open*, *9*, art. no. 100464.

https://doi.org/10.1016/j.ijedro.2025.100464

International Journal of Educational Research Open
Publisher: Elsevier

ISSN 2666-3740 (Online)

Abstract

This article investigates the implementation of STEM education at a Ukrainian Pedagogical University, focusing on the awareness, experiences, and perceptions of teachers from various specialties. Findings indicate a general positivity towards interdisciplinary education, yet many teachers, mainly from humanities and social sciences, display limited awareness and experience of implementing STEM education. The study explores the challenges, opportunities, and critical need for professional development and resource enhancement to facilitate the effective implementation of STEM education. This study contributes to the discourse on STEM education by mapping the current landscape and suggesting avenues for future research and practice improvement.

Clergy and bookishness: Ivan Levanda in the circle of contemporaries

Novyk, O. (2025). Clergy and bookishness: Ivan Levanda in the circle of contemporaries. *Bibliotekarz Podlaski, 66*(1), pp. 9–22.

https://doi.org/10.36770/bp.1009

Journal «Bibliotekarz Podlaski»
Publisher:Ksiaznica Podlaska

ISSN 1640-7806 (Print)
ISSN 2544-8900 (Online)

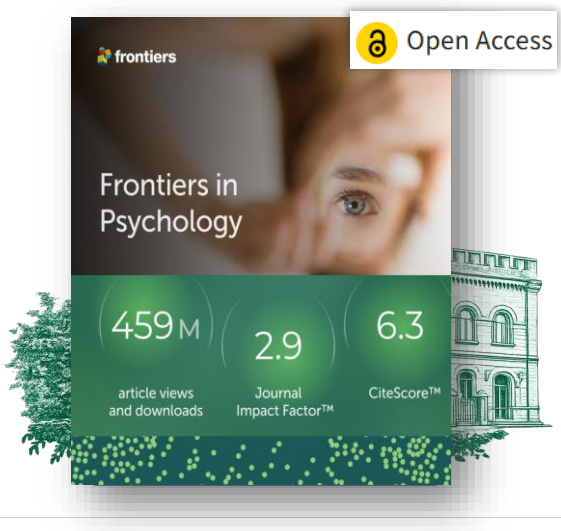
Abstract

This article examines the figure of Ivan Levanda, archpriest of Kiev's St. Sophia Cathedral, in the context of Baroque bookishness. A historical-comparative method is employed to analyze the everyday dimen-sions of his intellectual activity, including his correspondence with fellow clergymen. This approach enables a multifaceted analysis of Levanda's bookishness, highlighting both his wide-ranging interests as a preacher and the high intellectual standards of graduates of the Kyiv-Mohyla Academy. His letters and sermons reveal a complex interplay between religious reflection and considerations of science, social issues, and questions of war and peace—particularly in relation to the Napoleonic Wars. Several of Levanda's views on contemporary science are best understood through the lens of Christian doctrine, as evidenced by philosophical positions similar to those expressed in the works of Hryhorii (Georgy) Konysky. The topics addressed by Levanda, characteristic of the second half of the eighteenth century, are presented through Baroque imagery and stylistic richness. By studying his writings as a representative of the clergy, the article also sheds light on the intellectual interests of his closest circle and the broader community of his contemporaries with whom he maintained correspondence.

Strengthening mental health among university students

Ozamiz-Etxebarria, N., Mondragon, N. I., & Tsybuliak, N. (2025). Strengthening mental health among university students. *Frontiers in Psychology*, *16*, art. no. 1689173.

https://doi.org/10.3389/fpsyg.2025.1689173



Journal «Frontiers in Psychology»
Publisher: Frontiers Media SA

ISSN 1664-1078

Abstract

The COVID-19 pandemic amplified long-standing vulnerabilities in university students' mental health, exposing critical weaknesses in institutional support systems (Son et al., 2020; Segú-Odriozola, 2025). Even before the crisis, students faced heavy academic workloads, transitional life stages, and financial pressures, factors that, in unsupportive environments, heightened the risk of psychological strain (Grimmond et al., 2020; Zahedi et al., 2022). The pandemic acted as a catalyst, magnifying these pressures through the abrupt loss of in-person peer networks, reduced access to campus-based services, and reliance on remote learning environments often lacking adequate psychosocial support (Elmer et al., 2020; Khoshaim et al., 2020; Sundarasen et al., 2020). This was not merely a temporary disruption but a sustained weakening of the social and institutional structures essential for academic engagement and personal wellbeing (Hamza et al., 2021). While this perspective takes a global view, it also recognizes that political contexts, resources, and institutional structures vary widely. Such differences influence both the design and effectiveness of mental health programming in higher education...

Transforming reference management software into a hub for collaborative learning

Pavlenko, L., Pavlenko, M. (2025). Transforming reference management software into a hub for collaborative learning. *CEUR Workshop Proceedings, 4096*, pp. 61–73.

https://ceur-ws.org/Vol-4096/paper5.pdf

CEUR Workshop Proceedings
Publisher: CEUR-WS

ISSN 1613-0073 (Print)

Abstract

Reference management software (RMS) is ubiquitous in academia but is typically confined to administrative tasks like citation management, overlooking its pedagogical potential to foster collaborative skills. This study addresses this gap by introducing and rigorously evaluating a novel pedagogical framework. This collective scientific research life cycle transforms standard RMS into a dynamic hub for computer-supported collaborative learning (CSCL). A sequential explanatory mixed-methods design involving 54 master's students was employed. A quasi-experimental, pre-test/post-test control group design (n = 23 experimental, n = 31 control) measured the intervention's impact on teamwork skills. Quantitative data were contextualised through thematic analysis of semi-structured interviews with experimental group participants. The quantitative analysis revealed a statistically significant improvement in teamwork competencies for the experimental group compared to the control group ($p < .01$), with a large effect size ($d = 0.91$). The qualitative findings illuminated three core mechanisms for this success: (1) the model's scaffolding structure provided actionable clarity and enhanced accountability; (2) the creation of a'visible cognition' space promoted deeper knowledge co-construction; and (3) initial technical challenges functioned as a productive struggle, catalysing team cohesion. The research provides a validated, theory-driven, and transferable framework for educators. It demonstrates how a standard digital tool can be pedagogically repurposed to cultivate the essential collaborative competencies required in the 21st-century academic and professional landscape.

ELSEVIER Scopus

Experience in the development and implementation of the course “Python for physics teachers”

Pavlenko, M. P., Pavlenko, L. V., Iotov, Y. V., & Pavlenko, Y. M. (2025). Experience in the development and implementation of the course “Python for physics teachers”. *Journal of Physics: Conference Series, 3105, XVII International Conference on Mathematics, Science and Technology Education (ICon-MaSTEd 2025), Kryvyi Rih, Ukraine, May 14–15, 2025, 3105*(1), art. no. 012011.

https://doi.org/10.1088/1742-6596/3105/1/012011

Journal of Physics: Conference Series
Publisher: Institute of Physics Publishing

ISSN 1742-6588 (Print)
ISSN 1742-6596 (Online)

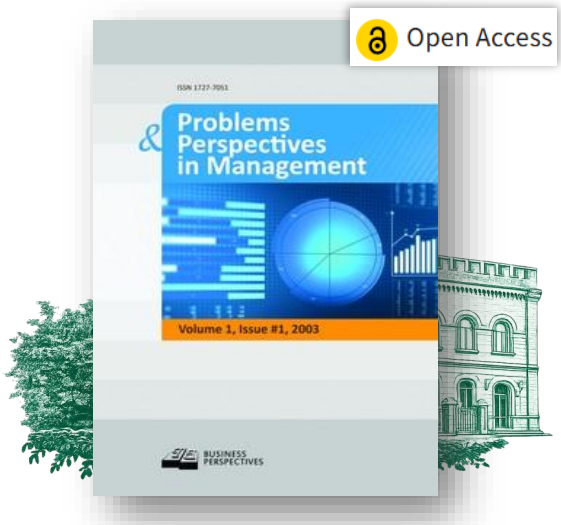
Abstract

The study explores the integration of programming into the professional development of prospective physics educators. The study emphasizes the development of practical skills in computational methods and data visualization. The course is structured into 13 lectures and 12 practical sessions. The lectures cover foundational Python programming, visualization of physical phenomena, and modeling of school physics topics. The practical sessions focus on the application of these skills. The study underscores the contemporary relevance of integrating Python, a widely adopted programming language in science and education, into the pedagogical training of physics teachers. The course aligns with STEM education principles, enabling participants to model, analyze, and visualize physical phenomena, thus bridging theoretical physics concepts and real-world applications. This integration equips future educators with critical digital competencies to meet the demands of modern educational practices. The study uses an adapted Course Experience Questionnaire (CEQ) to assess student satisfaction and the effectiveness of the course. The findings indicate a high level of satisfaction in various domains, including teaching quality, clarity of objectives, and practical relevance. However, the study also identified challenges, such as the need for additional support for students without previous programming experience. This research contributes to the broader discourse on educational innovation by demonstrating the feasibility and benefits of incorporating computational tools like Python into physics education. The study offers actionable information for curriculum development and underscores the potential to cultivate computational literacy among prospective educators.

The role of leadership qualities of the management in preserving and ensuring the functionality of relocated Ukrainian higher education institutions during the war

Petryk, K., Mukhina, T., Koval, K., Vientseva, N., Lesyk, A., Popova, O., & Fatianova, T. (2025). The role of leadership qualities of the management in preserving and ensuring the functionality of relocated Ukrainian higher education institutions during the war. *Problems and Perspectives in Management, 23*(2-si), pp. 100–120.

https://doi.org/10.21511/ppm.23(2-si).2025.08



Journal «Problems and Perspectives in Management»
Publisher: LLC CPC Business Perspectives

ISSN 1727-7051 (Print)
ISSN 1810-5467 (Online)

Abstract

The war in Ukraine has led to significant changes in the functioning of higher education institutions. Many universities from the eastern and southern regions of the country were forced to relocate to safer areas. The study examines the role of leadership qualities of the management of Ukrainian HEIs relocated due to the war on their success in functioning in the new conditions from the perspective of the academic staff. The research methods included an anonymous online questionnaire of 162 academic staff members from Berdiansk State Pedagogical University and Melitopol State Pedagogical University named after Bohdan Khmelnytsky. The study identified leadership qualities that HEI staff identified as key to stabilizing the institution's operations in crisis conditions. Responsibility was named by 53.09% of respondents, and strategic thinking by 44.44%. Also, it was found that respondents, in general, positively assessed the results of leadership actions of management in difficult conditions: 29.6% rated them as "very effective" and 54.3% as "effective." Despite the overall successful adaptation of the studied HEIs, weaknesses in management decisions were revealed, including insufficient emotional support for academic staff and the absence of developed crisis action plans…

Directive (EU) 2024/1203 as a guideline for criminal liability for environmental offenses in Ukraine

Pysmenskyy, Y., Movchan, R., Dudorov, O., & Kamensky, D. (2025). Directive (EU) 2024/1203 as a guideline for criminal liability for environmental offenses in Ukraine. *Pravni Vjesnik*, *41*(4), pp. 103–128.

https://doi.org/10.25234/pv/36170

Journal «Pravni Vjesnik»
Publisher: Pravni Fakultet Sveucilista Josipa Jurja Strossmayera & Osijeku

ISSN 0352-5317 (Print)
ISSN 1849-0840 (Online)

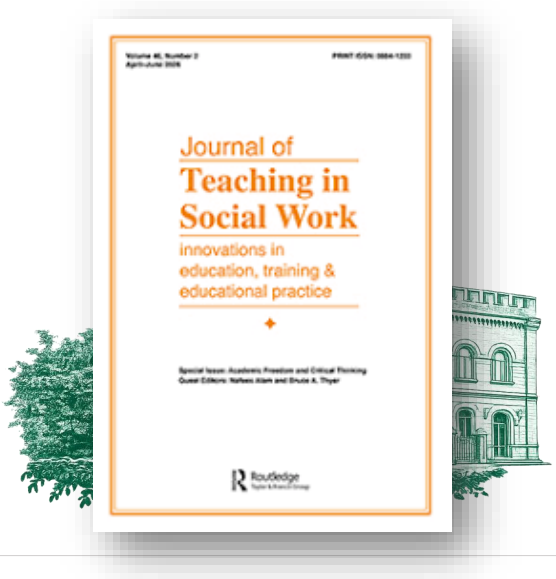
Abstract

This article examines the newly adopted Directive (EU) 2024/1203 and its role as a benchmark for reforming Ukraine's criminal legislation on environmental offenses. The authors analyze key provisions of this document, which set minimum standards for the criminalization of environmental harm, aggravating circumstances, and sanctions. Special attention is paid to the Directive's requirements for the inclusion of negligent acts, passive conduct, and unlawful actions involving hazardous substances or invasive species. It is argued that the current criminal legislation of Ukraine lacks several offenses required by the EU Directive, with additional gaps identified in the draft Criminal Code. Therefore, aligning national legislation with the Directive's standards is essential. The analysis outlines key elements that must be addressed, including criminalization of negligent and passive conduct, illegality as a core offense element, and the need for clear qualitative and quantitative thresholds. It emphasizes the importance of establishing liability for incitement, aiding and abetting, and differentiating punishment based on offense severity. The study supports recognizing unlawful handling of hazardous waste as a criminal offense regardless of scale and using property damage as a key indicator of environmental harm. It also finds that current sanctions fall short of the EU Directive's requirements and should be strengthened by combining imprisonment and fines to ensure fair and effective enforcement.

Rebuilding Lives Through Learning: A Master's Program for Social Work in Post-War Recovery

Popova, A., Petrovska, K., Turgenieva, A., Matseiko, N., Hurenko, O., Zaharova, N., & Melnychuk, A. (2025). Rebuilding Lives Through Learning: A Master's Program for Social Work in Post-War Recovery. *Journal of Teaching in Social Work*, *45*(3), pp. 543–572.

https://doi.org/10.1080/08841233.2025.2510903



Journal of «Teaching in Social Work»
Publisher: Routledge Journals,
Taylor & Francis LTD

ISSN 0884-1233 (Print)
ISSN 1540-7349 (Online)

Abstract

This article explores the development and implementation of the master's program "Postwar social-psychological rehabilitation" as an innovative approach to preparing social workers for post-conflict recovery. The war in Ukraine has created unprecedented challenges for the social system, particularly the need for specialists capable of providing social-psychological support to affected individuals, families, and communities. The article examines how the program addresses these challenges by integrating an interdisciplinary approach, practice-oriented methodologies, and international standards. The findings demonstrate the program's effectiveness in enhancing students' professional readiness, meeting stakeholder needs, and addressing the pressing demands of war-affected populations. Its iterative design, informed by feedback from students, employers, and the academic community, has ensured its adaptability to wartime realities. This article highlights the importance of educational programs as tools for societal recovery, emphasizing the connection between academic expertise and its practical application. The conclusion discusses the program's potential for scaling to other conflict-affected contexts and offers recommendations for future research and improvements...

Gamification methods for developing lexical competence of engineering students

Shkola, I., Dmitrenko, N., Kondratieva, O., Shymanovych, I., & Moroz, A. (2025). Gamification methods for developing lexical competence of engineering students. *In Environment. Technology. Resources. Proceedings of the International Scientific and Practical Conference*, 3, pp. 269–275.

https://doi.org/10.17770/etr2025vol3.8543

Conference «Environment. Technology. Resources»
Published by RTU PRESS.

ISSN 2256-070X (Online)

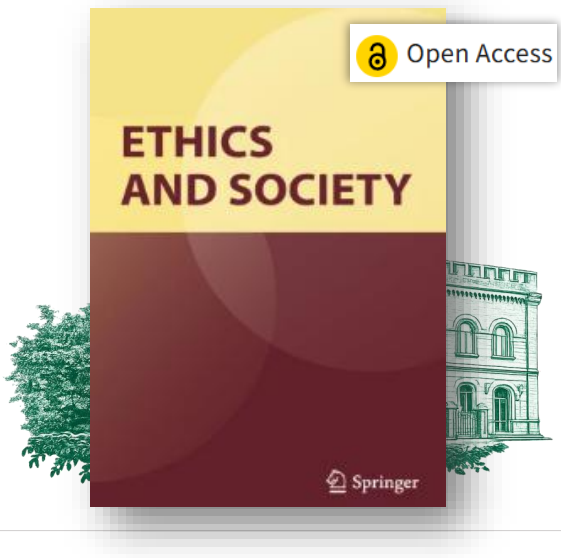
Abstract

In the contemporary world, where information technology finds application in all spheres of life, the issue of the effectiveness of teaching a foreign language to future engineers emerges as a particularly significant one. It has been noted that traditional teaching methods tend to demonstrate a lack of sufficient effectiveness in the development of lexical competence in future specialists, thus giving rise to a significant need for the exploration of innovative, new approaches to be developed. One such approach that has been identified is gamification, which involves the integration of game elements into the learning process. The purpose of the research is to analyse the peculiarities of using gamified learning technology in the formation of future engineers' lexical competence and to develop practical recommendations for its implementation of game methods in the process of studying the discipline “Foreign Language (English) for Specific Purposes”. The study used a complex of methods, in which theoretical analysis of scientific literature on gamification and lexical competence development, student interviews, pedagogical monitoring of the learning process and an experimental study of the effectiveness of gamified learning materials were used. As a result, the theoretical basis for the use of gamification methods in the formation of future specialists' lexical competence has been determined.

Risks and Realities of Speculative Ethics: Lessons from Nanotechnology for the Artificial Intelligence Discourse

Suchikova, Y. (2025). Risks and Realities of Speculative Ethics: Lessons from Nanotechnology for the Artificial Intelligence Discourse. *NanoEthics*, *19*, art. no.15.

https://doi.org/10.1007/s11569-025-00477-w



Journal
«NanoEthics»
Publisher: SPRINGER

ISSN 3091-3314 (Print)
ISSN 3091-3322 (Online)

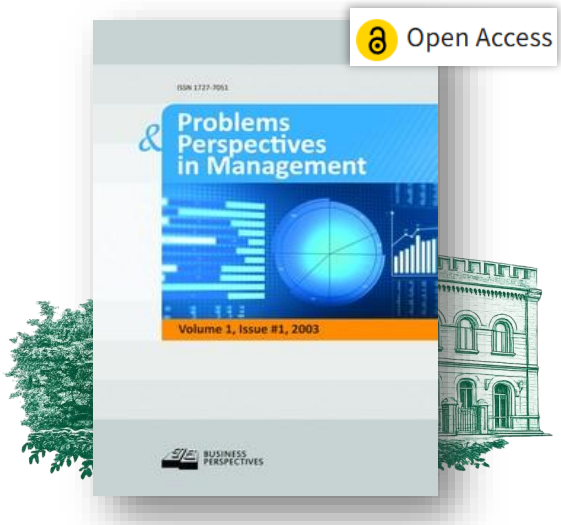
Abstract

This article reinterprets speculative ethics, as discussed by Alfred Nordmann in the context of nanotechnology, and applies it to the modern discourse on artificial intelligence (AI). Speculative ethics often centers on hypothetical threats and conditional scenarios, which can divert attention from the real and urgent challenges already affecting society. As an alternative, the article proposes a realistic approach to evaluating new technologies, emphasizing tangible impacts and plausible risks. Drawing on current regulatory efforts and policy discussions, it outlines key areas that warrant ethical scrutiny, such as algorithmic transparency, data bias, privacy, and adaptive regulation. Lessons from the history of nanotechnology are revisited to show that not all technological promises come true, an essential consideration for today's AI ethics. The article advocates for prioritizing present challenges over distant speculations, aiming to support a balanced and context-aware integration of AI into society.

Ukrainian universities in new realities: Strategies for preserving academic potential during the war

Suchikova, Y., & Danko, Y. (2025). Ukrainian universities in new realities: Strategies for preserving academic potential during the war. *Problems and Perspectives in Management*, *23*(2-si), pp. 1–6.

https://doi.org/10.21511/ppm.23(2-si).2025.01



Journal «Problems and Perspectives in Management»
Publisher: LLC CPC Business Perspectives

ISSN 1727-7051 (Print)
ISSN 1810-5467 (Online)

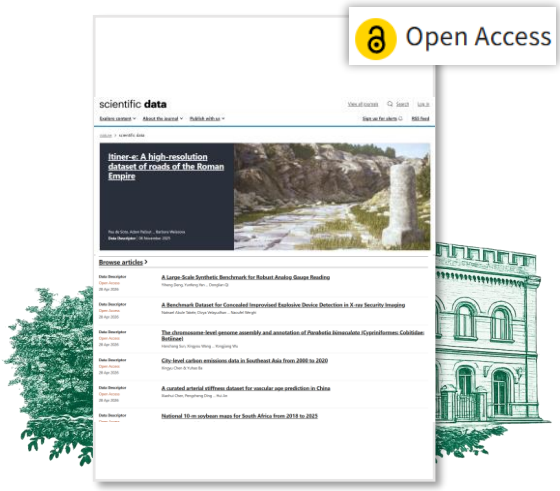
Abstract

The war in Ukraine has been ongoing for 10 years, reshaping the lives of people, communities, institutions, and worldviews. The occupation of Crimea and significant parts of the Donetsk and Luhansk regions in 2014 marked the first wave of shocks for Ukraine's higher education system. The massive relocation of universities from these regions signaled the beginning of a new reality. During this time, frontline regions actively demonstrated their dedication to Ukraine. Universities transformed into volunteer hubs, collecting supplies, provisions, and protective equipment for the front. Students, faculty, and other staff became volunteers and joined the war effort.

Extending the CARE Principles: managing data for vulnerable communities in wartime and humanitarian crises

Suchikova, Y., & Nazarovets, S. (2025). Extending the CARE Principles: managing data for vulnerable communities in wartime and humanitarian crises. *Scientific Data*, *12*, art. no. 420.

https://doi.org/10.1038/s41597-025-04756-9



Journal «Scientific Data»
Publisher: Nature Portfolio

ISSN 2052-4463 (Online)

Abstract

The CARE Principles (Collective Benefit, Authority to Control, Responsibility, Ethics) were developed to ensure ethical stewardship of Indigenous data. However, their adaptability makes them an ideal framework for managing data related to vulnerable populations affected by armed conflicts. This essay explores the application of CARE principles to wartime contexts, with a particular focus on internally displaced persons (IDPs) and civilians living under occupation. These groups face significant risks of data misuse, ranging from privacy violations to targeted repression. By adapting CARE, data governance can prioritize safety, dignity, and empowerment while ensuring that data serves the collective welfare of affected communities. Drawing on examples from Indigenous data governance, open science initiatives, and wartime humanitarian challenges, this essay argues for extending CARE principles beyond their original scope. Such an adaptation highlights CARE's potential as a universal standard for addressing the ethical complexities of data management in humanitarian crises and conflict-affected environments.

Redefining sabbaticals: A strategic investment in early career researchers' futures

Suchikova, Y., & Nazarovets, S. (2025). Redefining sabbaticals: A strategic investment in early career researchers' futures. *Policy Futures in Education, 23*(2), pp. 267–273.

https://doi.org/10.1177/14782103241281893

Journal «Policy Futures in Education»
Publisher: SAGE

ISSN 1478-2103 (Online)

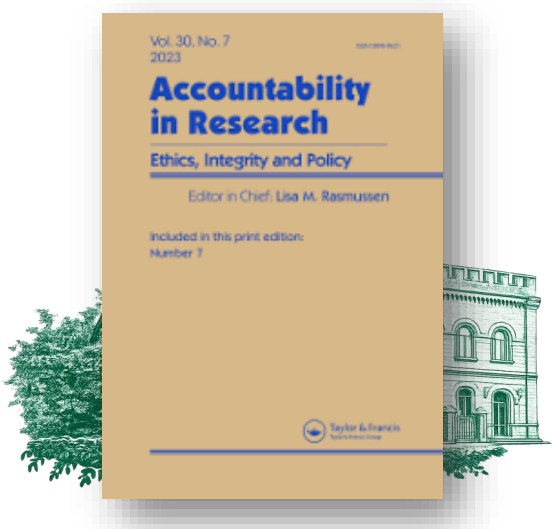
Abstract

Opening: A call to rethink academic development
In the dynamic and demanding world of higher education, the traditional concept of a sabbatical – a paid leave granted to faculty for study or travel – has often been viewed as a privilege afforded primarily to established academics (Sima, 2000; Yarmohammadian et al., 2018). This longstanding model typically envisions sabbaticals as periods of rejuvenation and renewal for senior faculty, allowing them to step back from their teaching and administrative duties to engage deeply with research, travel, or other scholarly activities. The primary goal of these sabbaticals has been to reinvigorate seasoned scholars, giving them the time and space to innovate, reflect, and recharge their intellectual energies.
Traditionally, sabbaticals have been justified as essential for sustaining long-term academic productivity and maintaining high scholarly engagement. They offer an opportunity for professors to explore new research areas, develop collaborative networks, and produce significant scholarly outputs such as books, articles, or grant proposals. This model implicitly assumes that the most significant contributions to academia come from those already well-established in their fields – those who need a break after years of continuous service to rediscover their passion for research and teaching (Gardner, 2022)...

ChatGPT isn’t an author, but a contribution taxonomy is needed

Suchikova, Y., & Tsybuliak, N. (2025). ChatGPT isn’t an author, but a contribution taxonomy is needed. *Accountability in Research*, *32*(8), art. no. 1590–1595.

https://doi.org/10.1080/08989621.2024.2405039



Journal «Accountability in Research»
Publisher:Taylor & Francis

ISSN: 0898-9621 (Print)
ISSN: 1545-5815 (Online)

Abstract

Purpose: The increasing use of AI tools, particularly large language models like ChatGPT, in academic research has raised significant questions about authorship and transparency. This commentary emphasizes the need for a standardized AI contributions taxonomy to clarify AI’s role in producing and publishing research outputs, ensuring ethical standards and maintaining academic integrity. Approach: We propose adapting the NIST AI Use Taxonomy and incorporating categories that reflect AI’s use in tasks such as hypothesis generation, data analysis, manuscript preparation, and ethical oversight. Findings: Establishing an AI contributions taxonomy for the production and publication of research output would address inconsistencies in AI disclosure, enhance transparency, and uphold accountability in research. It would help differentiate between AI-assisted and human-led tasks, providing more explicit attribution of contributions. Findings: Establishing an AI contributions taxonomy for the production and publication of research output would address inconsistencies in AI disclosure, enhance transparency, and uphold accountability in research. It would help differentiate between AI-assisted and human-led tasks, providing more explicit attribution of contributions. Practical implications: The proposed taxonomy would offer researchers and journals a standardized method for disclosing AI’s role in academic work, promoting responsible and transparent reporting aligned with ethical guidelines from COPE and ICMJE. Value: A well-defined AI contributions taxonomy for the production and publication of research output would foster transparency and trust in using AI in research, ensuring that AI’s role is appropriately acknowledged while preserving academic integrity.

The purity myth: Why stigmatizing GAI in academic writing is harmful

Suchikova, Y., & Tsybuliak, N. (2025). The purity myth: Why stigmatizing GAI in academic writing is harmful. *Science Communication*, *47*(5), pp. 753–761.

https://doi.org/10.1177/10755470241313233

Journal «Science Communication»
Publisher: Sage Publications Inc

ISSN 1075-5470 (Print)
ISSN 1552-8545 (Online)

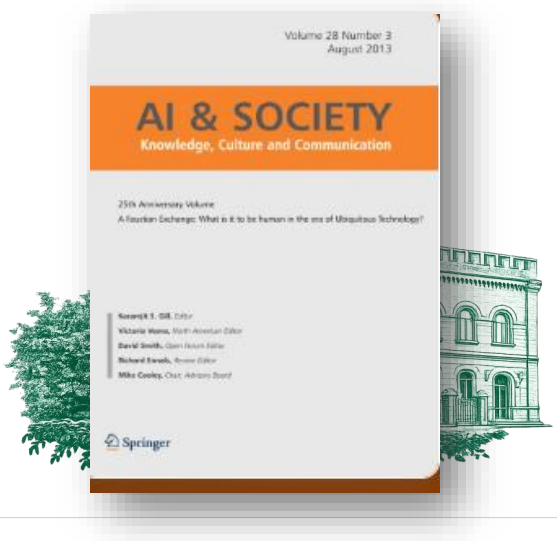
Abstract

This article explores the evolving role of generative artificial intelligence (GAI) in academic writing, addressing the challenges, opportunities, and ethical considerations surrounding its adoption. While GAI tools like ChatGPT enhance efficiency and accessibility, their use in writing remains stigmatized due to traditional notions of authorship and intellectual rigor. This article argues against this stigma, advocating for a balanced perspective that values content quality over outdated ideals of textual purity. By embracing GAI responsibly and transparently, academia can foster innovation, democratize access to publishing, and redefine the collaborative potential of human-machine partnerships in advancing knowledge.

Where did all the AI experts come from? They used to be virologists…

Suchikova, Y., & Tsybuliak, N. (2025). Where did all the AI experts come from? They used to be virologists…. *AI & Society*, *40*(7), pp. 5579–5580.

https://doi.org/10.1007/s00146-025-02287-w



Journal «AI & Society»
Publisher: SPRINGER

ISSN 0951-5666 (Print)
ISSN 1435-5655 (Online)

Abstract

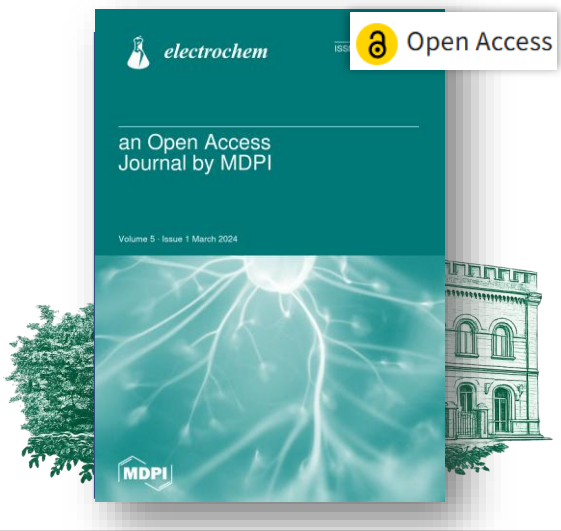
The scientific community has always been quick to pivot. When COVID-19 arrived, virologists were not the only ones investigating the pandemic. Researchers from computer science, psychology, and business all jumped into the fray, eager to contribute—or at least to publish. As Satyaki Sikdar and colleagues noted in their article "What We Should Learn from Pandemic Publishing" (Nature Human Behaviour 2024), only 7.7% of those publishing on COVID-19 during the pandemic were actual outbreak science experts. The rest? Well, they were researchers who, until early 2020, had never touched epidemiology. That did not stop them from producing an avalanche of papers, some insightful, many redundant, and quite a few later retracted. Now, we are watching the same bandwagon roll through AI research. During the peak of the pandemic, AI was still a niche interest. Then, around late 2022, it became the next intellectual gold rush. Yeong Jae Kim and colleagues showed in their article "Rapid Expansion of Artificial Intelligence Publications During the Pandemic" (Science Editing 2024) that after the pandemic, AI research output exploded as scientists rapidly shifted focus from COVID-19 to machine learning...

ELSEVIER Scopus

Electrochemical etching vs. electrochemical deposition: A comparative bibliometric analysis

Suchikova, Y., Nazarovets, S., & Popov, A. I. (2025). Electrochemical etching vs. electrochemical deposition: A comparative bibliometric analysis. *Electrochem, 6*(2), 18.

https://doi.org/10.3390/electrochem6020018



Journal «Electrochem»
Publisher:Multidisciplinary Digital Publishing Institute (MDPI)

ISSN 2673-3293 (Online)

Abstract

This study presents a comprehensive bibliometric analysis of scientific publications on electrochemical etching and electrochemical deposition from 1970 to 2023. Using the Science Citation Index Expanded (SCIE) database, we analysed 5166 publications on electrochemical etching and, 30,759 publications on electrochemical deposition. The analysis reveals distinct yet interconnected research landscapes for these two techniques. Electrochemical etching research has focused on themes such as porous silicon, photoluminescence, and applications in photonics, while electrochemical deposition research has centred on energy storage, catalysis, and biosensing applications. Keyword co-occurrence analysis illustrates the progression from fundamental studies to specialised applications in both fields. This study highlights the importance of international collaboration and provides insights into the historical and contemporary advancements in electrochemical methods for nanomaterial synthesis. The findings underscore the complementary nature of electrochemical etching and deposition, driving innovation and offering new opportunities in materials science and technology.

Fabrication and characterization of a CdxTeyOz/CdS/por-ZnO/ZnO heterostructure using combined chemical and electrochemical methods

Suchikova, Y., Kovachov, S., Bohdanov, I., Kosogov, I., Drozhcha, D., & Popov, A. I. (2025). Fabrication and characterization of a CdxTeyOz/CdS/por-ZnO/ZnO heterostructure using combined chemical and electrochemical methods. *2025 IEEE 6th KhPI Week on Advanced Technology (KhPIWeek 2025)*.

https://doi.org/10.1109/KhPIWeek61436.2025.11288652

2025 IEEE 6th KhPI Week on Advanced Technology (KhPIWeek)
Publisher: IEEE

ISSN 3064-9579 (Online)

Abstract

The quest for effective solar energy conversion has led to the development of innovative photovoltaic materials. This study presents the creation of a new heterostructure, CdxTeyOz/CdS/por-ZnO/ZnO, through an approach that combines chemical deposition and electrochemical etching. Structural and compositional analysis was conducted using Scanning Electron Microscopy (SEM) and Energy Dispersive X-ray Spectroscopy (EDX), revealing a heterostructure with unique morphology and multi-element composition. Raman scattering spectra further elucidated the heterostructure's structural integrity and phase purity, with distinct peaks corresponding to γ-TeO2 and β-CdO. Structural and compositional analysis by SEM/EDX and Raman spectroscopy confirms the successful formation of a CdxTeyOz/CdS/por ZnO/ZnO heterostructure with a multilayer architecture and mixed oxide phases. These results establish a fabrication route and structural baseline for subsequent optical and electronic characterization toward photovoltaic and optoelectronic applications.

ELSEVIER Scopus

New approach to synthesizing the CdO/por-CdS/CdS heterostructure

Suchikova, Y., Kovachov, S., Bohdanov, I., Kosogov, I., Drozhcha, D., & Popov, A. I. (2025). New approach to synthesizing the CdO/por-CdS/CdS heterostructure. ***2025 IEEE 6th KhPI Week on Advanced Technology (KhPIWeek 2025).***

https://doi.org/10.1109/KhPIWeek61436.2025.11288657

2025 IEEE 6th KhPI Week on Advanced Technology (KhPIWeek)
Publisher: IEEE

ISSN 3064-9579 (Online)

Abstract

This study presents a new approach to synthesizing the CdO/por-CdS/CdS heterostructure to improve solar energy conversion. We achieved a heterostructure with unique morphological and crystalline features by utilizing an anodic and cathodic processing method in an acidic solution followed by oxygen annealing. Scanning Electron Microscopy (SEM) revealed a complex surface topology combining elliptical and circular pores, providing a substantial active surface area. Energy-dispersive X-ray (EDX) analysis confirmed the elemental composition, indicating the presence of CdS and CdO or CdSO phases. Raman spectroscopy and X-ray Diffraction (XRD) allowed us to discern the crystallinity of CdS and the potential amorphous nature of the CdO layer. The intricate design of the heterostructure facilitates efficient light absorption, charge separation, and electron transport, which is critical for solar energy devices. This research contributes to developing photovoltaics and photocatalysis, presenting a heterostructure that leverages the synergistic properties of CdS and CdO for improved solar energy conversion.

Investigation of phase segregation in highly doped InP by selective electrochemical etching

Suchikova, Y., Kovachov, S., Bohdanov, I., Popov, A. I., Karipbayev, Z. T., Kozlovskiy, A. L., & Konuhova, M. (2025). Investigation of phase segregation in highly doped InP by selective electrochemical etching. *Technologies*, *13*(9), art. no. 395.

https://doi.org/10.3390/technologies13090395

Journal «Technologies»
Publisher: MDPI

ISSN 2227-7080 (Online)

Abstract

We demonstrate that selective electrochemical etching is a reliable method for detecting and observing the uneven concentration distribution of impurities in indium phosphide crystals, which accompanies the growth of highly doped crystals using the Czochralski method. Even though selective electrochemical etching, as a method of detecting defects in the crystal lattice, has been discussed many times in the literature, it has not yet been described for indium phosphide. In this work, we investigated etching in compositions of various selective electrolytes for InP of n- and p-type conductivity with different surface orientations. We present in detail the features of detecting the striped inhomogeneity of impurity distribution. The mechanisms and peculiarities of the formation of oxide crystallites on the surface of InP during electrochemical processing are presented, including structures like flower-like and parquet crystallites. The formation of porous surfaces, terraces, tracks, and crystallites is explained from the perspective of the defect-dislocation mechanism.

Developing ethical responsibility in future nanoscience professionals through scenario-based assessment

Suchikova, Y., Kovachov, S., Kryvylova, O., Popova, A., Mytsyk, H., Nesterenko, M., Petryk, K., Tsybuliak, N., & Lopatina, H. (2025). Developing ethical responsibility in future nanoscience professionals through scenario-based assessment. *Science and Engineering Ethics*, *31*, art. no. 23.

https://doi.org/10.1007/s11948-025-00549-w

Journal
«Science and Engineering Ethics»
Publisher: SPRINGER

ISSN 1353-3452 (Print)
ISSN 1471-5546 (Online)

Abstract

This study evaluates the formation of ethical responsibility among master's students enrolled in the «Applied Physics and Nanomaterials» program. Recognizing the pivotal role of ethics in the evolving field of nanoscience, the research implements a three-phase methodology that integrates an Initial Ethical Responsibility Assessment, a facilitator-led Group Discussion, and a Retest Ethical Responsibility Assessment. The assessments are based on realistic scenarios reflecting ethical dilemmas that students may encounter in professional practice. This dual approach - combining quantitative assessment with qualitative analysis - provides a comprehensive understanding of students' ethical reasoning and decision-making. Results indicate varying levels of ethical responsibility, underscoring the need for more integrated ethics education in nanoscience curricula. The study contributes to ongoing discussions on the importance of ethics in scientific training, especially in high-impact fields such as nanotechnology. It offers educators a structured framework for embedding ethics into technical education, ensuring that future nanomaterials specialists are not only proficient scientists but also ethically responsible professionals. The article concludes with recommendations for enhancing ethics education in nanoscience through interactive, scenario-based, and discussion-centered learning methods.

ELSEVIER Scopus

Binary oxide ceramics (TiO_2, ZnO, Al_2O_3, SiO_2, CeO_2, Fe_2O_3, and WO_3) for solar cell applications: A comparative and bibliometric analysis

Suchikova, Y., Nazarovets, S., Konuhova, M., & Popov, A. I. (2025). Binary oxide ceramics (TiO_2, ZnO, Al_2O_3, SiO_2, CeO_2, Fe_2O_3, and WO_3) for solar cell applications: A comparative and bibliometric analysis. *Ceramics*, *8*(4), art. no. 119.

https://doi.org/10.3390/ceramics8040119

Journal «Ceramics»
Publisher: MDPI

ISSN 2571-6131 (Print)
ISSN 2571-6131 (Online)

Abstract

Binary oxide ceramics have emerged as key materials in solar energy research due to their versatility, chemical stability, and tunable electronic properties. This study presents a comparative analysis of seven prominent oxides (TiO2, ZnO, Al2O3, SiO2, CeO2, Fe2O3, and WO3), focusing on their functional roles in silicon, perovskite, dye-sensitized, and thin-film solar cells. A bibliometric analysis covering over 50,000 publications highlights TiO2 and ZnO as the most widely studied materials, serving as electron transport layers, antireflective coatings, and buffer layers. Al2O3 and SiO2 demonstrate highly specialized applications in surface passivation and interface engineering, while CeO(2)offers UV-blocking capability and Fe(2)O(3)shows potential as an absorber material in photoelectrochemical systems. WO(3)is noted for its multifunctionality and suitability for scalable, high-rate processing. Together, these findings suggest that binary oxide ceramics are poised to transition from supporting roles to essential components of stable, efficient, and environmentally safer next-generation solar cells.

Small is sexy: Rethinking article length in the age of AI

Suchikova, Y., Popova, A., Lopatina, H., & Tsybuliak, N. (2025). Small is sexy: Rethinking article length in the age of AI. *Learned Publishing*, *38*(2), art. no. 1659.

https://doi.org/10.1002/leap.1659

Journal «Learned Publishing»
Publisher: WILEY

ISSN 0953-1513 (Print)
ISSN 1741-4857 (Online)

Abstract

1 Introduction

With the emergence of large language models (LLMs) like ChatGPT, the scholarly community faces a growing question: Are lengthy articles still the best way to communicate research? Recently, Pividori (2024) highlighted the ability of AI tools to generate large volumes of text quickly, prompting reflection on whether long articles truly advance scientific progress. As we move further into the AI era, should we instead focus on brevity and clarity?

2 Approach and Rationale

This article is an opinion piece that reflects on the evolving challenges in academic publishing, particularly in the context of the increasing role of AI tools like LLMs. We aim to provoke thought and inspire action towards adopting concise and impactful scientific reporting in response to the growing issue of information overload in the research community. This piece deliberately reflects on the ethical, environmental, and academic implications of publishing in the AI era. It does not claim to present empirical findings but rather serves as a reaction to current developments and an argument for rethinking traditional publishing practices in favour of clarity, efficiency, and sustainability.

Digital pedagogy of open education: essence, content, and effectiveness

Tolochko, S., Kanishevska, L., Vasiuk, O., Vyhovska, S., Prylypko, V., & Lesyk, A. (2025). Digital pedagogy of open education: essence, content, and effectiveness. *Educational Policy and Reforms: the Impact of Globalization,* pp. 34–69.

https://doi.org/10.15587/978-617-8360-20-7.ch2

Book «Educational Policy and Reforms: the Impact of Globalization»
Publisher: TECHNOLOGY CENTER PC

ISBN 978-617-8360-20-7 (Online)

Abstract

This chapter explores the essence, content, and effectiveness of digital pedagogy in the context of open education. It analyzes the state of implementation of digital pedagogy in global and Ukrainian education and science, and examines its development under conditions of digitalization and distance learning through sociological survey data. The findings confirm the unique role of digital pedagogy in formal, non-formal, and informal education, highlighting its effectiveness in educational and scientific activity. Digital pedagogy is defined as a new field of pedagogical science aimed at using online and hybrid learning environments to improve individualized learning, create methodologies that integrate digital tools, and enhance cognitive activity. The chapter also investigates how digital pedagogy overcomes the limitations of traditional approaches - such as fixed curricula, limited classroom hours, and restricted communication - by enabling anytime-anywhere learning with diverse digital methods. A methodological toolkit for applying digital pedagogy in preschool, primary, and adolescent education is proposed.

Give grants to female scientists in war zones

Tsybuliak, N., & Suchikova, Y. (2025). Give grants to female scientists in war zones. *Nature*, *639*(8056), pp. 867.

https://doi.org/10.1038/d41586-025-00926-2

Journal «Nature»
Publisher: Nature Portfolio

ISSN 0028-0836 (Print)
ISSN 1476-4687 (Online)

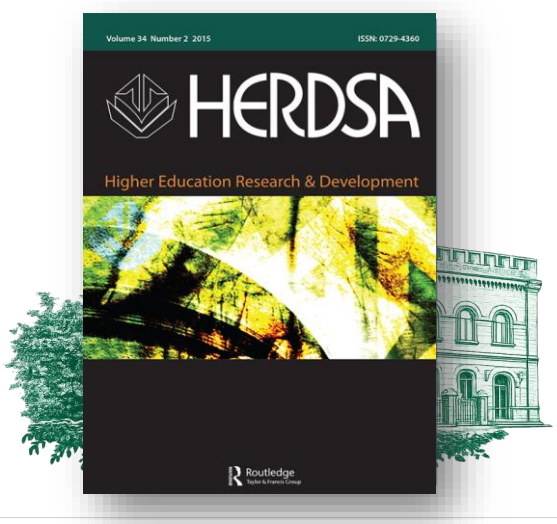
Abstract

Your Editorial on women's achievements in science and technology (see Nature 638, 582; 2025) highlights an important truth: recognition matters. However, it's equally crucial to acknowledge those women working to keep science alive in war zones, whose contributions are often overlooked. The fight on the front lines predominantly involves men, but female researchers are fighting for science amid bombings, displacement and devastation. In Ukraine and Gaza, for example, women are teaching, conducting experiments in makeshift laboratories and addressing crises in medicine, psychology and engineering. Yet their efforts remain largely invisible in the global scientific discourse. Even in their own countries and territories, their achievements are often overshadowed by the war itself. But recognition alone isn't enough. The world must do more than award honours — it must provide real support. Grants, fellowships and institutional partnerships should prioritize women in conflict zones, ensuring that they have the resources to sustain their work. Science doesn't stop in wartime. Acknowledging women's contributions isn't just about fairness — it's essential for progress. If we fail to support and amplify their voices, we risk losing entire fields of knowledge that are crucial for rebuilding societies. Science must not become another casualty of war.

Mobilization and stigmatization: PhD admissions in wartime

Tsybuliak, N., Polulyakhov, A., & Suchikova, Y. (2025). Mobilization and stigmatization: PhD admissions in wartime. *Higher Education Research & Development*, *44*(5), pp. 1305–1313.

https://doi.org/10.1080/07294360.2024.2424161



Journal «Higher Education Research & Development (HERD)»
Publisher: Taylor & Francis LTD

ISSN 0729-4360 (Print)
ISSN 1469-8366 (Online)

Abstract

The ongoing war in Ukraine has profoundly impacted Ukraine's higher education system, particularly in the realm of PhD admissions. This essay explores the surge in PhD enrollments, driven partly by mobilization policies, and examines the complex challenges it presents, including the stigmatization of male students who are often labelled as 'draft dodgers'. The essay analyzes policy changes, societal perceptions, and their implications for the future of Ukrainian higher education. It argues that while the recent reforms aim to maintain academic integrity, they may inadvertently create barriers that limit diversity and academic potential. The stigmatization of male PhD students threatens both their mental health and the vitality of academic discourse, creating a hidden crisis with long-term consequences for research and intellectual potential. By navigating this complex terrain with a balanced approach to policy-making, Ukraine can preserve the integrity of its education system while supporting its scholars for future recovery.

Progressive intensification of burnout among academic staff during the war

Tsybuliak, N., Kolomiiets, U., Popova, A., Lopatina, H., Petrushenko, Y., & Suchikova, Y. (2025). Progressive intensification of burnout among academic staff during the war. *Humanities & Social Sciences Communications*, *12*(1), art. no. 1994.

https://doi.org/10.1057/s41599-025-06322-5

Journal «Humanities & Social Sciences Communications»
Publisher: Springer Nature

ISSN 2662-9992 (Online)

Abstract

This study examined the intensification of burnout among Ukrainian academic staff during the full-scale war, focusing on three core dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). Data were collected across three waves (July 2022, January 2023, and January 2024) from 1493 participants using the Maslach Burnout Inventory (MBI). Findings reveal a significant increase in high EE levels from 49.5% in Wave 1 to 71.8% in Wave 3. High DP levels also grew substantially, from 32.9% to 59.4%. In contrast, low PA levels decreased from 22.0% to 13.0%, while high PA levels increased from 45.7% to 59.9%. Additionally, regression analysis showed that institutional relocation was associated with lower burnout, whereas migration status and sustained war-related stress were linked to higher levels of burnout dimensions. Findings underscore the cumulative impact of sustained crisis on occupational well-being. Additionally, the data suggest that across waves, burnout symptoms appeared more generalized at the population level. The results highlight the urgent need for targeted interventions to support the resilience of academic staff in conflict-affected environments. These findings contribute to the broader discourse on occupational burnout in crisis settings, offering insights relevant to other regions experiencing prolonged instability.

In a Stranger's House: Social Isolation of Internally Displaced People in Ukraine During Wartime

Tsybuliak, N., Popova, A., Lopatina, H. & Suchikova, Y. (2025). In a Stranger's House: Social Isolation of Internally Displaced People in Ukraine During Wartime. *Human Affairs, 35*(2), pp. 240–258.

https://doi.org/10.1515/humaff-2024-0027

Journal «Human Affairs»
Publisher: Walter de Gruyter

ISSN 1210-3055 (Print)
ISSN 1337-401X (Online)

Abstract

This article explores the impact of internal displacement during wartime in Ukraine on individuals' social isolation. This study focused on understanding and comparing feelings of isolation in two different contexts: the native community in territories temporarily occupied by Russian troops since the full-scale war and the host community. The research reveals a consistent pattern of isolation characterized by feelings of loneliness, anxiety, and emotional exhaustion among internally displaced people (IDPs), irrespective of their location. Cultural disconnection emerges as a significant factor in both settings, with war-induced changes in social norms and practices leading to a sense of alienation in native communities, and the challenge of adapting to new cultural environments in host communities. Furthermore, it highlights IDPs' increased vulnerability to bias, stigma, and anxiety in social interactions. Overall, this qualitative study advances the understanding of the effects of displacement on social isolation and provides insights that can inform effective recovery strategies and foster a resilient, cohesive national identity in post-war contexts in Ukraine.

Mental health of Ukrainian researchers during wartime

Tsybuliak, N., Popova, A., Lopatina, H., & Suchikova, Y. (2025). Mental health of Ukrainian researchers during wartime. *Global Public Health, 20*(1), art. no. 2495328.

https://doi.org/10.1080/17441692.2025.2495328

Journal «Global Public Health»
Publisher: Routledge Journals, Taylor & Francis LTD

ISSN 1744-1692 (Print)
ISSN 1744-1706 (Online)

Abstract

The full-scale war in Ukraine has introduced unique challenges for researchers, including physical displacement, destruction of research infrastructure, and deteriorating working conditions. This qualitative study investigates the impact of the ongoing war on the mental health and academic functioning of Ukrainian researchers. Based on 30 semi-structured interviews conducted between February and April 2024, the study reveals pronounced psychological consequences, including stress, anxiety, burnout, and feelings of isolation. Academically, researchers reported significant disruptions in research productivity, loss of professional networks, and diminished institutional support. Three critical areas of impact were identified: (1) the deterioration of working conditions and researcher well-being, (2) the fragmentation of academic communities and networks, and (3) restricted access to research resources and support. Despite these challenges, many researchers demonstrated resilience by adapting to remote work, forming new international collaborations, and finding renewed purpose in contributing to Ukraine's recovery through science. The findings underscore the urgent need for comprehensive, multilevel support systems that include mental health services, financial and infrastructural assistance, and initiatives to restore academic belonging. These insights are essential for developing responsive strategies to support academic communities in crisis settings globally.

ELSEVIER Scopus

Time to act: Institutional mental health support for Ukrainian academic staff during wartime

Tsybuliak, N., Vakhitov, V., Mytsyk, H., Lopatina, H., Nesterenko, M., Polulyakhov, A., & Petrushenko, Y. (2025). Time to act: Institutional mental health support for Ukrainian academic staff during wartime. *Problems and Perspectives in Management*, *23*(2-si), pp. 7–23.

https://doi.org/10.21511/ppm.23(2-si).2025.02

Journal «Problems and Perspectives in Management»
Publisher: LLC CPC Business Perspectives

ISSN 1727-7051 (Print)
ISSN 1810-5467 (Online)

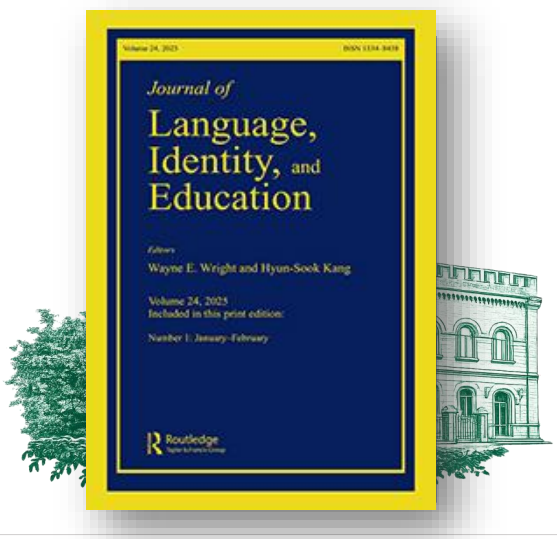
Abstract

The study examines the impact of institutional mental health support on the career stability of academic staff at Ukrainian universities during the full-scale war, focusing on accessibility, cultural alignment, and tailored mental health initiatives provided by universities. The relevance of this topic arises from the unprecedented stressors affecting academic members in higher education institutions, who face both personal and professional challenges. A cross-sectional analytical design was employed, using an online survey distributed among 429 academic staff members. The findings reveal that nearly half of the respondents frequently contemplate changing careers, highlighting substantial job instability. Accessible mental health support is associated with a 6% decrease in career change intentions, while a supportive institutional culture further reduces these intentions by 8-9%. Notably, self-help practices emerged as the most effective support mechanism, associated with a 12% reduction in career change intentions. These findings suggest that institutions can improve retention by prioritizing and promoting accessible self-help initiatives. The study underscores the importance of structured mental health support in fostering resilience within the academic community, with implications for policy and practice in war-affected educational environments.

Language in Professional Communication and National Identity of Ukrainian Civil Servants-Bilinguals

Ulunova, H., Spivak, L., & Starynska, O. (2025). Language in Professional Communication and National Identity of Ukrainian Civil Servants-Bilinguals. *Journal of Language, Identity & Education*, *24*(1), pp. 179–193.

https://doi.org/10.1080/15348458.2022.2091570



Journal of Language, Identity and Education
Publisher: Taylor & Francis

ISSN 1534-8458 (Print)
ISSN 1532-7701 (Online)

Abstract

This study addressed the language in professional communication and national identity of civil servants-bilinguals in the Ukrainian border oblasts with Russia. It was empirically determined that the civil servants mainly use the Ukrainian language in professional communication with the users of civil services, but with colleagues, the Russian language. Most civil servants are proud of their nationality, but not all of them are clearly aware of their national identity. A statistically significant relationship between the valence of the national identity of the civil servants and oral and written professional communication in Ukrainian with the colleagues and users of civil services has been established. The clarity of the national identity of the civil servants is connected only with oral professional communication in Ukrainian with the colleagues and users of civil services. The parameters of male civil servants' national identity is connected with a larger number of professional communication forms in Ukrainian.

Tuning of crystal structure and electronic band gap of the monoclinic Ga_2O_3 by simultaneous alloying with Al_2O_3 and In_2O_3

Vasylechko, L., Hreb, V., Zhydachevskyy, Y., Hizhnyi, Y., Smaliuk, A., Stasiv, V., Stadnik, V., Hirskyi, Y., Zhydachevska, H., Mykhaylyk, V., & Suchocki, A. (2025). **Tuning of crystal structure and electronic band gap of the monoclinic Ga_2O_3 by simultaneous alloying with Al_2O_3 and In_2O_3. *Scientific Reports*, *15*(1), art. no. 37128**

https://doi.org/10.1038/s41598-025-21074-7

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN 2045-2322 (Online)

Abstract

The paper presents the study of phase and structural behavior of pseudoternary compound (Ga1-x-yInxAly)2O3 with focus on the compositional cross-section where the x/y ratio is a fixed at 0.31/0.69. This specific ratio ensures that the average cation radius, equal to that of Ga3+ ions, remains unchanged. Through the combination of experimental XRD studies and DFT calculations, the stability region of the monoclinic phase within the Ga2O3–Al2O3–In2O3 ternary system was established. Detailed analysis of the crystal lattice parameters and unit cell volume of the monoclinic structure was carried out across a wide range of compositions. An empirical relationship was derived linking the monoclinic lattice parameters to the average ionic radius of the cations (Ga3+, Al3+, In3+) enabling prediction of lattice parameters in monoclinic (Ga1-x-yInxAly)2O3 solely from chemical composition. The experimental crystal structure studies and the electronic structure calculations suggest that in the monoclinic (Ga1-x-yInxAly)2O3 structure the tetrahedral positions of Ga1 atoms are preferentially occupied by Ga3+ and Al3+ cations, while the octahedral Ga2 sites accommodate a mixture of Ga3+, Al3+ and In3+ cations. Additionally, the presence of unidentified phase(s) was confirmed in the central region of the Ga2O3–Al2O3–In2O3 triangle. Comparison of the calculated optical absorption spectra and the Tauc-plots derived from the diffuse reflectance spectra indicate that the monoclinic (Ga1−x−yInxAly)2O3 compounds have a direct band gap.

ELSEVIER Scopus

Development of soft skills in future preschool teachers using ICT in their professional training

Zdanevych, L., Dychkivska, I., Atroshchenko, T., Uliukaieva, I., Rozghon, V., & Reho, H. (2025). Development of soft skills in future preschool teachers using ICT in their professional training. *WSEAS Transactions on Information Science and Applications*, 22, pp. 311–325.

https://doi.org/10.37394/23209.2025.22.26

Journal «WSEAS Transactions on Information Science and Applications»
Publisher: WSEAS Press

ISSN 1790-0832 (Print)
ISSN 2224-3402 (Online)

Abstract

The objective of this study is to determine the extent to which future preschool teachers develop soft skills through the use of information and communication technologies (ICT) in their professional training. The effectiveness of this approach was assessed using J. Phillips' model, along with efficiency, variation, effectiveness, and correlation coefficients. Additionally, peer observation was employed to evaluate training. Correlation analysis was performed using the Pearson correlation coefficient and the Mann–Whitney U test. The teaching method developed consisted of three stages, and the training program incorporated various digital tools, such as Mentimeter, Kahoot, VoiceThread, Pear Deck, and EdPuzzle. The study showed that the proposed pedagogical approach promoted the development of critical thinking (0.92), creativity (0.90), competitiveness (0.87), and social competence (0.84) among learners. The findings revealed that 74% of future preschool teachers displayed a high level of organizational skills, particularly in presenting original information. J. Phillips' model indicated high performance in preschoolers (Group 1) and students (Group 2). The practical significance of this work lies in its potential to enhance the educational process through the use of digital technologies. Further research could explore the effectiveness of modern digital technologies in cultivating soft skills in future teachers.

New high-Z detectors based on $YAlO_3:Bi^{3+}$ for joint use with tissue equivalent BeO in tandem OSL dosimeter

Zhydachevskyy, Y., Stasiv, V., Poshyvak, O., Ubizskii, S., Pawlowska, Z., Rumiantseva, Y., Baran, M., Zhydachevska, H., Berkowski, M., & Suchocki, A. (2025). New high-Z detectors based on $YAlO_3:Bi^{3+}$ for joint use with tissue equivalent BeO in tandem OSL dosimeter. *Scientific Reports*, *15*, art. no. 21578.

https://doi.org/10.1038/s41598-025-05285-6

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN 2045-2322 (Online)

Abstract

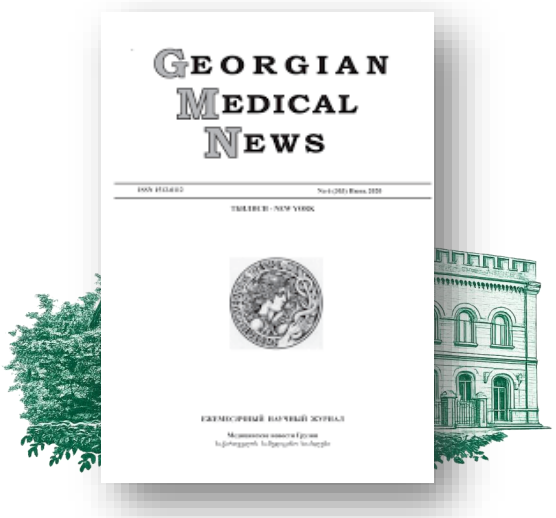
The work introduces a new type of UV-emitting high-Z OSL detectors based on YAlO3:Bi3+ (YAP: Bi) perovskite. Two kinds of YAP: Bi solid state detectors have been fabricated and compared to BeO Thermalox (R) 995 chips. The first ones are single-crystalline detectors cut from a Czochralski grown crystal. The second are detectors cut from the high-density bulk ceramics prepared by the high-pressure high-temperature (HPHT) pressing technique from nanocrystalline powder derived from sol-gel synthesis. The YAP: Bi ceramic detectors studied suffer from strong thermal fading, which makes their use impractical, at least until technological methods to modify this property of ceramics are found. The single crystalline YAP: Bi detectors show very low thermal fading, a wide linearity range of dose response and a sensitivity comparable to BeO, which together with the optical registration in the same UV range, compatible optical stimulation by blue light and similar registration times in CW-OSL mode make them ideal high-Z detectors that can be used alone or in tandem with BeO detectors.

ELSEVIER Scopus

Using psycholinguistics in developing therapeutic methods for overcoming anxiety states

Zhylin, M., Starynska, O., Yatsynovych, V., Nevoenna, O., & Romanova, I. (2025). Using psycholinguistics in developing therapeutic methods for overcoming anxiety states. *Georgian Medical News, 368*(11), pp. 61–67.

https://geomednews.com/v368i11.html



Journal «Georgian Medical News»
Publisher: Georgian Association of Business Press

ISSN 1512-0112 (Print)

Abstract

Purpose: The study aimed to identify the relationship between speech characteristics and anxiety levels to identify psycholinguistic markers that can serve as diagnostic tools in psychotherapy practice. Methods: A sample of 160 participants was stratified by anxiety level (high, medium, low) using standardized methods (STAI, BAI). Quantitative analysis showed significant differences in the speech of the groups: participants with high anxiety used shorter sentences, were characterized by a lower level of lexical diversity, more frequent use of negatively colored vocabulary and the pronoun “I”, and also used future tense forms less often. Results: Correlation and regression analyses confirmed the close relationship of these speech indicators with anxiety levels, which explained up to 48% of the variation on the BAI scale. The results suggest that speech analysis can be a reliable indicator of anxiety levels and can be integrated into psychotherapy practice as an additional diagnostic tool. The resulting speech profile of a highly anxious individual—negative vocabulary, self-referentiality, cognitive simplification, and low future orientation—can be used to individualize psychotherapeutic interventions and monitor therapy dynamics. Conclusions: Practical applications include regular speech analysis, working with written texts, and integrating automated analysis systems into clinical and online environments. A promising direction is to expand the sample and test the cross-cultural validity of the resulting model.

РОЗДІЛ ІІ

ПУБЛІКАЦІЇ НАУКОВО-ПЕДАГОГІЧНИХ ПРАЦІВНИКІВ УНІВЕРСИТЕТУ, ПРОІНДЕКСОВАНІ В НАУКОМЕТРИЧНІЙ БАЗІ WEB OF SCIENCE

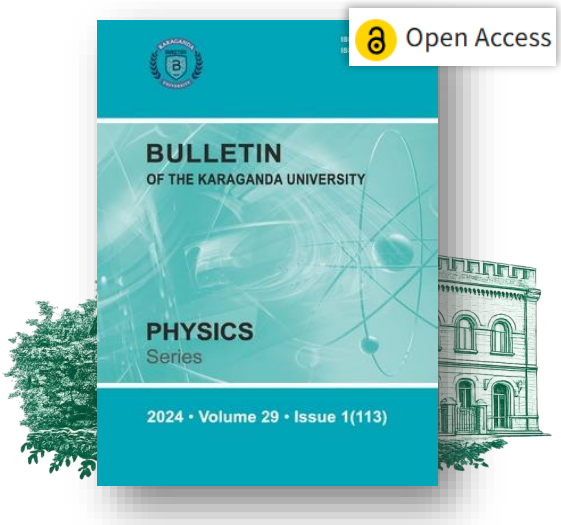
CHAPTER II

PUBLICATIONS OF THE UNIVERSITY'S SCIENTIFIC AND PEDAGOGICAL STAFF INDEXED IN THE WEB OF SCIENCE DATABASE

Low Temperature Luminescence Behavior of Trace Cr and Fe Impurities in Gd3Ga5O12 Single Crystals

Aralbayeva, G. M., Karipbayev, Zh. T., Zhunusbekov, A. M., Tolegenova, A., Kakimov, A., Suchikova, Y., Ubizskii, S., Popov, A. I., & Sagyndykova, G. E. (2025). Low Temperature Luminescence Behavior of Trace Cr and Fe Impurities in Gd3Ga5O12 Single Crystals. *Bulletin of the University of Karaganda-physics*, *4*(120), pp. 54–60.

https://doi.org/10.31489/2025PH4/54-60



Journal «Bulletin of the Karaganda University»
Publisher: Buketov Karaganda National Research University
ISSN 2518-7198 (Print)
ISSN 2663-5089 (Online)

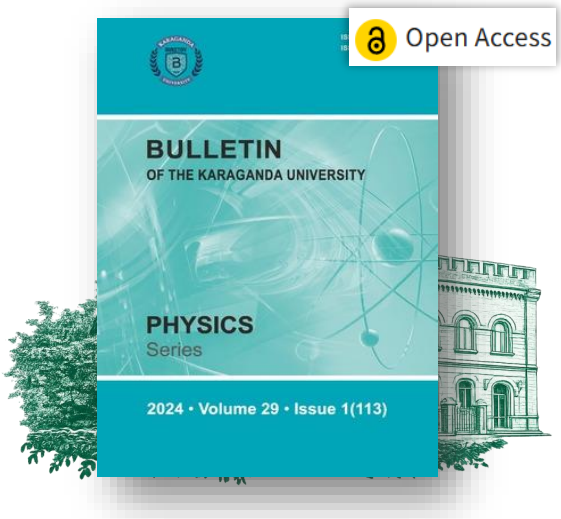
Abstract

This article examines the influence of unintentional Cr3+ and Fe3+ impurity ions on the luminescent properties of Gd3Ga5O12 (GGG) single crystals. The characteristic features of the spectra excited by high-energy synchrotron radiation in the temperature range of 10-300 K are analyzed. It is shown that at 10 K the luminescence is dominated by a narrow-band emission of Cr3+ ions arising from the spin-forbidden 2E-*4A2 transition, which indicates weak electron-phonon coupling and high crystalline homogeneity. It is revealed that with increasing temperature the intensity of this transition decreases significantly, while a broadband luminescence emerges, associated with the spin-allowed 4T2-*4A2 transition and the contribution of Fe3+ ion emission. The temperature evolution of the spectra is shown to result from thermal redistribution of the Cr3+ excited-state populations, interlevel state mixing, and partial removal of the spin-forbidden nature of Fe3+ transitions due to lattice vibrations. Based on the study, conclusions are drawn regarding the role of impurity centers in energy transfer and nonradiative relaxation processes. The results are of interest both for fundamental photonics and for the development of efficient luminescent materials and optical devices designed to operate over a wide temperature range.

Exploration of β-Ga_2O_3 Ceramics Synthesized via Solid-State Method

Bakytkyzy, A., Karipbayev, Z. T., Suchikova, Y., Usseinov, A. B., Koketai, T. A., Mussabek, N. K., & Popov, A. I. (2025). Exploration of β-Ga_2O_3 Ceramics Synthesized via Solid-State Method. *Bulletin of the University of Karaganda-physics, 1*(117), pp. 13–19.

https://doi.org/ 10.31489/2025PH1/13-19



Journal «Bulletin of the Karaganda University»
Publisher: Buketov Karaganda National Research University
ISSN 2518-7198 (Print)
ISSN 2663-5089 (Online)

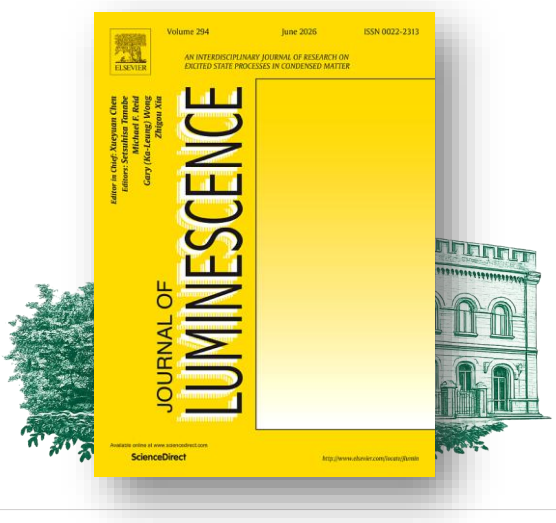
Abstract

Beta-Ga2O3 ceramic was synthesized using the solid-state method, a well-established technique for creating ceramic materials with controlled composition and structure. The process began by pressing gallium oxide (Ga2O3) powder into a unified form, ensuring even distribution and compactness of the material. This pressed form was then subjected to annealing at 1400 degrees C for 10 hours, a critical step facilitating the formation of a stable and crystalline beta-Ga2O3 phase. Energy dispersive X-ray analysis (EDS) was employed to investigate the elemental composition of the synthesized beta-Ga2O3 ceramic. The analysis confirmed that the material closely adhered to the ideal stoichiometric ratio of oxygen to gallium (O/Ga) at 3:2, ensuring the purity and consistency of the ceramic. The optical properties of the beta-Ga2O3 ceramics were thoroughly studied. Surface morphology analysis and elemental composition measurements were complemented by the recording of photoluminescence excitation and transmission spectra at successive wavelengths ranging from 200 to 800 nm. These spectra provided valuable insights into the material's electronic and optical behavior...

Photoluminescence origin in Bi^{3+}-doped $GdAlO_3$ perovskite

Baran, M., Hreb, V., Kissabekova, A., Krasnikov, A., Laguta, V. V., Vasylechko, L., Zazubovich, S., & Zhydachevskyy, Ya. (2025).
Photoluminescence origin in Bi^{3+}-doped $GdAlO_3$ perovskite. *Journal of luminescence, 288*, art. no. 121513.

https://doi.org/10.1016/j.jlumin.2025.121513



Journal of
«Luminescence»
Publisher: Elsevier

ISSN 0022-2313 (Print)
ISSN 1872-7883 (Online)

Abstract

Microcrystalline powders of GdAlO3:Bi with different bismuth concentrations were synthesized by the modified sol-gel method. The pure orthorhombic perovskite structure of the investigated samples was confirmed by X-ray diffraction. Photoluminescence characteristics of GdAlO3:Bi were investigated in the 4.2-500 K temperature range by the methods of steady-state and time-resolved luminescence spectroscopy. The ultraviolet emission spectrum of GdAlO3:Bi is found to consist of two bands. The dominating 3.72 eV band is assigned to the electron transitions from the emitting and metastable levels of the triplet relaxed excited state of a single Bi3+ center, corresponding to the P-3(1,0) -> S-1(0) transitions of the free Bi3+ ion. A weak approximate to 3.65 eV band is attributed to the dimer {Bi3+ - Bi3+} center. The visible emission spectrum consists of two bands of an exciton origin centered at about 2.5 eV and 2.3 eV and assigned to the excitons localized around the single Bi3+ ions and dimer {Bi3+ - Bi3+} centers, respectively. The electron-transfer processes in the {Bi3+- Bi3+} pairs resulting in the appearance of the {Bi3+- Bi3+}-related UV and VIS luminescence are suggested…

Clarivate Web of Science™

Supporting scientists who study and work abroad

Chakraborty, T., Mekkawy, H. K., Cloete, K. J., Mahla, R., Peng, D. D., Perez, A., Rouabah, N., Gomes, J. F., Drallou, F, Abdalrahman, T., Santos, J., Tiwari, V., Lin, T. J., He, Sh., Kadlec, J., Dincaslan, F. B., Suchikova, Y., Lu, ZL., Shi, JH. … & Ribeiro, HL Jr. (2025). Supporting Scientists Who Study and Work Abroad. *Science, 389* (6755), pp. 24–26.

https://doi.org/10.1126/science.aea0626

Journal «Science»
Publisher: Amer Assoc Advancement Science

ISSN 0036-8075 (Print)
ISSN 1095-9203 (Online)

Abstract

Because of the war in Ukraine, traveling abroad, as I did to Latvia, forscientific reasons has become a challenge. There are no direct flightsfrom Ukraine, border crossings can take days, and men of conscrip-tion age face legal restrictions on leaving the country, even for shortacademic visits. A dedicated, transparent mechanism for fast-trackingshort-term academic travel permits would allow Ukrainian scientiststo stay connected with the global scientific community. Internationalinstitutions can show support by issuing formal invitations and advo-cating for flexible travel arrangements for Ukrainian scholars.

© ***Yana Suchikova*** *Research Department, Berdyansk State Pedagogical University, Zaporizhzhia, Ukraine.*

Social emotional learning in pre-service EFL teachers' formative assessment in crisis times

Dmitrenko, N., Panchenko, V., Hladka, O., Shkola, I., & Devitska, A. (2025). Social emotional learning in pre-service EFL teachers' formative assessment in crisis times. *LLT Journal: A Journal on Language and Language Teaching, 28*(1), pp. 37–57.

https://doi.org/10.24071/llt.v28i1.9837

LLT Journal: A Journal on Language and Language Teaching
Publisher: Sanata Dharma University

ISSN 1410-7201 (Print)
ISSN 2579-9533 (Online)

Abstract

This qualitative case study deals with the problem of social-emotional learning (SEL) implementation in Ukrainian pre-service English as a foreign language (EFL) teachers' formative assessment in the English language classroom. The research question is "How did the implementation of SEL techniques during formative assessment affect pre-service EFL teachers' communicative skills?" It is particularly important in times of crisis, such as wars, natural disasters, or pandemics, when pre-service EFL teachers are socially and emotionally vulnerable. Taking into account that the assessment provokes additional stress and anxiety, the introduction of SEL techniques in formative assessment contributes to creating a fertile educational space with a focus on pre-service teachers' emotional needs and mental well-being. The study found that integrating SEL techniques such as exit tickets, reading logs, dialogue journals, pilgrim's journals, assessment rubrics, reflective activities, and graphic organizers into formative assessments significantly enhanced pre-service EFL teachers' communicative skills, emotional intelligence, and learner autonomy. Participants reported improved engagement, self-awareness, and interpersonal skills, confirming the value of SEL-informed pedagogy in fostering both language proficiency and emotional resilience in times of crisis.

Analysis of accounting organization in small businesses in Poland and Ukraine: Legal, technological, and economic aspects

Glazova, Y., & Kostenko, G. (2025). Analysis of accounting organization in small businesses in Poland and Ukraine: Legal, technological, and economic aspects. *Zeszyty teoretyczne rachunkowosci*, *49*(1), pp. 163–180.

https://doi.org/10.5604/01.3001.0055.0288

Journal «Zeszyty Teoretyczne Rachunkowości»
(«The Theoretical Journal of Accounting»)
Publisher:Accountants Assoc Poland

ISSN 1641-4381 (Print)
ISSN 2391-677X (Online)

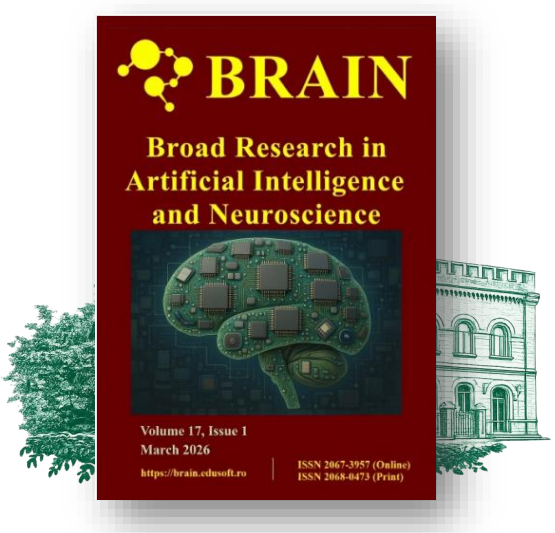
Abstract

The main objective of the study is to analyze and compare accounting organization models in small businesses in Poland and Ukraine using various types of software. It is done from an organizational and economic perspective. The study aims to identify the benefits, challenges, and opportunities that business owners encounter when organizing accounting in each country. The methodology/approach: The study uses both quantitative and qualitative methods. The quantitative analysis relies on data collected and processed by the statistical offices of Poland and Ukraine. The qualitative analysis involves reviewing legal frameworks, literature, and internet sources, as well as conducting user surveys. Findings: The study identified approaches to organizing accounting, as well as common and distinct elements in the legal, organizational, and technological aspects of accounting. The results provide a better understanding of the factors that influence the effective implementation and use of different accounting approaches. This information will be helpful for companies planning to implement or update software applications when expanding operations in specific countries. Research limitations/implications: The article contributes further in-depth research that documents the challenges in developing and adapting technological solutions in the area of accounting organization in Poland and Ukraine...

Neurolinguistic Features of the Use of Anglo-American Loanwords in Ukrainian Youth Slang

Hnatyuk, M., Diakiv, V., Kalashnyk, O., Stupnytska, H., Sopina, O., & Sobol, L. (2025). Neurolinguistic Features of the Use of Anglo-American Loanwords in Ukrainian Youth Slang. *BRAIN. Broad Research In Artificial Intelligence And Neuroscience, 16*(2), pp. 97–105.

https://doi.org/10.70594/brain/16.2/7



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

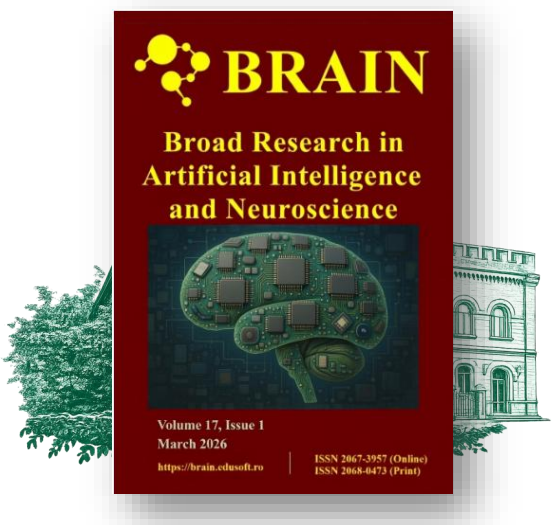
Abstract

In the context of the study, the essence of the psycholinguistic features of the use of Anglo-American words in youth slang was clarified. The definition of the concept of slang and psycholinguistics is revealed. A theoretical and methodological analysis of the work of researchers as a basis for the formation of trends in postmodern society has been carried out. In the course of the study, a linguistic analysis of concepts and terms characterising Ukrainian youth slang was carried out. The research problem is determined by close integration and globalisation processes. The theoretical significance of the research lies in the development of a neurolinguistic approach to the analysis of Anglo-American loanwords in slang; in expanding the idea of the psychologically real meaning of slangisms; when systematising data on the functioning of borrowings in slang, a technique is used that involves a comprehensive consideration of the research object. The work contributes to the study of the ethno-cultural specificity of the linguistic consciousness of speakers of the American variant of the English language and slang as its meaningful form. The article defines the trends of the neuropsychological aspect in the context of rethinking values and determining priority bases for the formation of neurolinguistic analysis of lexical units...

Neuropsychological Aspects of Co-Educators in a Digital Educational Environment: Conditions, Benefits, Safety

Holiiad, I., Semeniako, Y., Pienov, V., Shakotko, V., Ashykhmina, N., Dinko, V., & Maksymchuk, B. (2025). Neuropsychological Aspects of Co-Educators in a Digital Educational Environment: Conditions, Benefits, Safety. *BRAIN. Broad Research In Artificial Intelligence And Neuroscience*, *16*(1 Sup1), 342–350.

http://dx.doi.org/10.70594/brain/16.S1/27



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

Abstract

The article reflects the role of digital learning environment in today's education. It is pointed out that digital fearning environments are aimed at developing newtcompetencies of education seckers how These inclule understanding technologies and interfaces work, protection of privacy and personal data searching for information and evaluating it in terms of reliability and validity for use, information processing, teamwork and the ability to communicate in a team. In this context, the problem of the influence of the digital educational environment, which is now largely forged, on the development of personal potential of educational aspirants is becoming increasingly relavant, and it is to this issue that this article is devoted The article proves that the most important measure to make a decisive step towards solving the fundamental task of improving the quality of education is the development of personalized education.

Electronic structure, reflectivity and X-ray luminescence of $MAPbCl_3$ crystal in orthorhombic phase

Kolomiets, V., Kapustianyk, V., Kovalenko, M., Kraus, H., Chukova, O., Zhydachevskyy, Y., Zia, W., Saliba, M., & Mykhaylyk, V. (2025). Electronic structure, reflectivity and X-ray luminescence of MAPbCl3 crystal in orthorhombic phase. *Scientific reports*, *15*(1), art. no. 12912.

https://doi.org/10.1038/s41598-025-96694-0

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN 2045-2322 (Online)

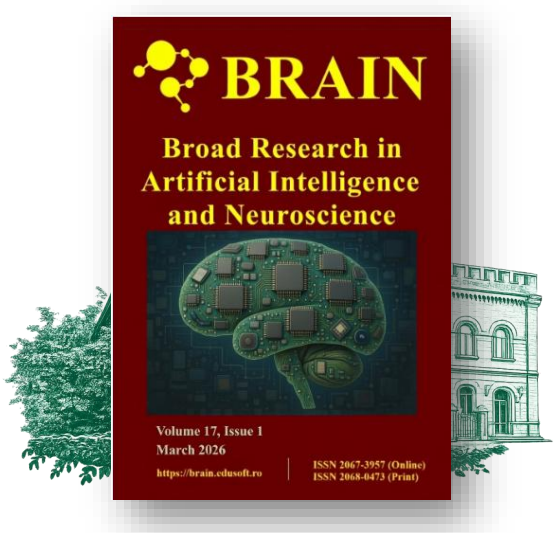
Abstract

This study provides a comprehensive analysis of the electronic structure, reflectivity, and luminescent spectra of the organic-inorganic, metal-halide $MAPbCl_3$ perovskite, which has considerable potential for various optoelectronic applications. Using density functional theory (DFT) calculations, we investigated the electronic structure of MAPbCl3 and interpreted the key features of its reflectivity spectra across a wide energy range from 3 to 10 eV. The reflectivity spectra reveal prominent excitonic features at 3.22 eV near the absorption edge and additional optical transitions at higher energies, highlighting the material's intricate electronic structure. Furthermore, we examined the temperature dependence of radiative decay dynamics under high-energy radiation through X-ray luminescence spectra and decay time measurements. We observe emission from free and bound excitons with an exceptionally short decay time (<= 1 ns) and significant thermal quenching at low temperatures (100 K) in the 385-430 nm range. These findings underline the importance of continued exploration of optoelectronic properties of the material to enhance its performance in practical applications.

Adaptive Capacity of Preschoolers with Special Educational Needs in Inclusive Resource Centres

Kondratyuk, Z., Omelchenko, I., Konopliasta, S., Matiushchenko, I., Synytsia, A., & Mykhailenko, V. (2025). Adaptive Capacity of Preschoolers with Special Educational Needs in Inclusive Resource Centres. *BRAIN. Broad Research In Artificial Intelligence And Neuroscience*, *16*(1 Sup1), 41–55.

http://dx.doi.org/10.70594/brain/16.S1/4



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

Abstract

This article addresses the important issue of evaluating the adaptive capacity of preschoolers with special educational needs, focusing on their inclusion alongside typically developing peers. It provides theoreticak analysis of the concept of "children's adaptive capacity Educating children with special educational needs requires a multifaceted approach, which includes creating an environment specifically designed for their correction and growth. This environment aims to provide equal opportunities and incorporates specialised educational standards tagored to each child's unique needs. It also follows therapeutic, educational, und developmental programs to promote Mocial adaptation and address developmental challenges. Furthermore, the article explores how children with special educational needs adapt within inclusive resource centers. This includes their adaptation to the specialists conducting assessments, the physical environment, and the methods employed. It explores the challenges of implementing inclusive education and integrating children with special needs into mainstream schools. Finally, the article examines the research foundation and the profiles of respondents involved in studying children's adaptation to specialists, environments and assessment methods.

Coupling mechanisms of plasmon resonance and Bi^{3+} emission in YAG: Bi, Ce, Yb epitaxial films at low temperatures

Kushlyk, M., Shpotyuk, Y., Tsiumra, V., Zhydachevskyy, Y., Bulyk, L. I., Haiduchok, V., Syvorotka, I., Sugak, D., Baláz, M., & Suchocki, A. (2025). Coupling mechanisms of plasmon resonance and Bi^{3+} emission in YAG: Bi, Ce, Yb epitaxial films at low temperatures. *Scientific Reports*, *15*, art. no. 1477.

https://doi.org/10.1038/s41598-025-85843-0

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN 2045-2322 (Online)

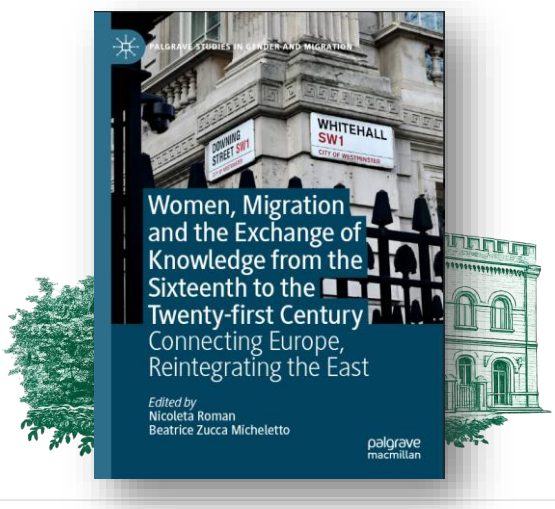
Abstract

This paper is devoted to the investigation of the plasmonic effect of metal nanoparticles (NPs) formed on the surface of the YAG: Bi, Ce, Yb phosphors in a temperature range between 4 and 300 K. Combination of a thin conversion layer with silver plasmonic nanostructures leads to increase of sensitizer absorption and emission efficiency. Enhancement of Bi3+ luminescence in YAG epitaxial films with Ag NPs was observed upon cooling the samples below 200 K. High enhancement factors were associated with closely matching the maximum of plasmon extinction and Bi3+ emission bands. The maximum value of enhancement factor near 170% at 4 K was obtained. It is shown that temperature decrease causes an increase in the EM field intensity around the NPs, the probability of spontaneous recombination, the penetration depth of the localized surface plasmon resonances (LSPR) into the substrate, and the adjustment of the position of the LSPR. Simultaneous action of all these factors leads to Bi3+ emission intensity enhancement. Comparative analysis of the Finite-Difference Time-Domain (FDTD) simulation data vs. experimental results of the temperature behavior of plasmon absorption spectra, luminescence spectra of Bi3+ ions, and their decay kinetics confirms the correctness of the proposed mechanisms.

West Meets East: The Migration Experiences of the German Wives of Western European Consuls in the Port City of Berdyansk During the Russian Empire

Lyman, I., Konstantinova, V. (2025). West Meets East: The Migration Experiences of the German Wives of Western European Consuls in the Port City of Berdyansk During the Russian Empire. *Women, Migration And The Exchange Of Knowledge From The Sixteenth To The Twenty-First Century*, pp. 37–57.

https://doi.org/10.1007/978-3-031-73982-8_2



Book «Women, Migration and the Exchange of Knowledge from the Sixteenth to the Twenty-first Century»
Publisher: Palgrave Macmillan

ISBN 978-3-031-73981-1 (Print)
ISSN 2731-5282 (Print)
ISSN 2731-5290 (Online)

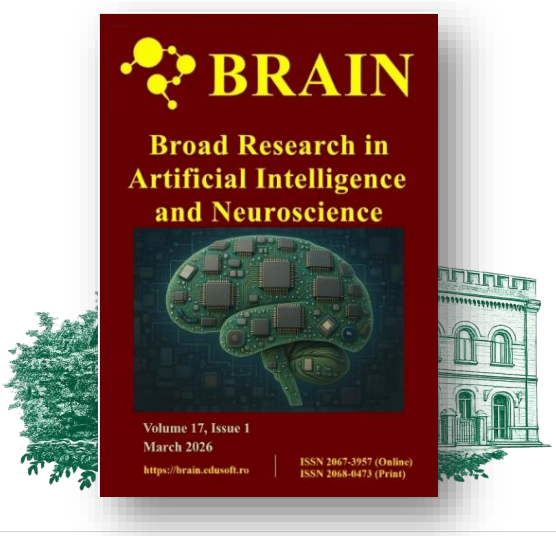
Abstract

The chapter is dedicated to studying how “West met East” on the example of Helena Jansen and Jane Wilhelmina Greaves, the German wives of the consuls of the Grand Duchy of Mecklenburg-Schwerin and Great Britain in the port city of Berdyansk, situated on Ukrainian lands of the Russian Empire, in the nineteenth to early twentieth century. The role of women behind and in the official diplomatic arena has been shown. The two cases show questions about the stereotypes, representations, and identities of people of Western Europe and people of Eastern Europe; the case studies indicate the entanglement of different factors that make up identities: religion, language, culture, clothes, food, etc.

Characteristics of Creativity as a Neuropsychological Manifestation of Personality in the Professional Activity of a Teacher

Maidaniuk, I., Donchenko, O., Gurevych, R., Stets, V., Naichuk, V., & Oliinyk, L. (2025). Characteristics of Creativity as a Neuropsychological Manifestation of Personality in the Professional Activity of a Teacher. BRAIN. *Broad Research In Artificial Intelligence And Neuroscience*, *16*(1), pp. 261–271.

http://dx.doi.org/10.70594/brain/16.1/19



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

Abstract

The article presents the analysis of creativity improvement as a determinant of the creative potential of a higher education institution teacher. Creative competence is one of the most important life resources that ensure the success of the professional activity of a modern teacher. The essence of the concept of creativity from the perspective of neuroscience is revealed, specifically of the neuropsychological approach. It is determined that creativity is an integrative formation, which includes a set of structural components that determine creative nature of human activity. Particular attention is paid to the importance of realisation of the creative potential of the teacher's personality, and the emphasis is put on the importance of lack of over-regulation of the environment in the educational organisation, observance of democratic relations among the teaching staff and a positive example to follow a creative personality in order to develop Creativity. Pedagogical creativity is a certain mental and social readiness of the individual, which allows changing the situation so that the teacher and the student can interasat effectively in joint activities. Pedagogical creativity presupposes that the teacher has a high level of competence in interpersonal perception, interpersonal communication, and interpersonal interaction...

The effectiveness of using interactive methods in teaching arts

Martynenko, O., Klepar, M., Shevtsova, O., Stratan-Artyshkova, T., & Boiko, I. (2025). The effectiveness of using interactive methods in teaching arts. *Revista Conrado*, *21*(105), art. no. e4533.

https://conrado.ucf.edu.cu/index.php/conrado/article/view/4533

Journal «Revista Conrado»
Publisher: Universidad de Cienfuegos

ISSN 1990-8644 (Online)

Abstract

Modern art education requires effective approaches that promote the development of creative potential and improve the quality of learning. The aim of the study was to determine the effectiveness of interactive methods in teaching arts. The research employed the following methods for this purpose: a pedagogical experiment, observation, questionnaire survey, testing, standardized questionnaires (Creative Self-Efficacy Scale, Academic Motivation Scale-College Version, Kaufman Domains of Creativity Scale, Art Judgment Test). Correlation analysis, analysis of variance (ANOVA) and Mann-Whitney test were used to process the results. The study showed a significant increase in the creative competencies level after the implementation of interactive methods. The average indicator increased from 3.2 +/- 0.8 to 4.4 +/- 0.5 ($p < 0.01$). Positive dynamics were also recorded in the development of artistic and analytical thinking. The average value increased from 3.2 +/- 0.7 to 4.3 +/- 0.5 ($p < 0.01$). The intrinsic motivation level increased from 3.2 to 4.3, extrinsic - from 3.5 to 4.1. The amotivation indicator decreased from 2.8 to 2.1. The effectiveness of individual interactive methods was established. The highest results were demonstrated by project activities (4.5 +/- 0.4), followed by workshops (4.2 +/- 0.5) and discussions (3.9 +/- 0.6)...

Stench of Errors or the Shine of Potential: The Challenge of (Ir)Responsible Use of ChatGPT in Speech-Language Pathology

Mytsyk, H., Suchikova, Y. (2025). Stench of Errors or the Shine of Potential: The Challenge of (Ir)Responsible Use of ChatGPT in Speech-Language Pathology. *International Journal of Language & Communication Disorders*, *60*(4), art. no. e70088.

https://doi.org/10.1111/1460-6984.70088

International Journal of Language & Communication Disorders
Publisher: WILEY

ISSN 1368-2822 (Print)
ISSN 1460-6984 (Online)

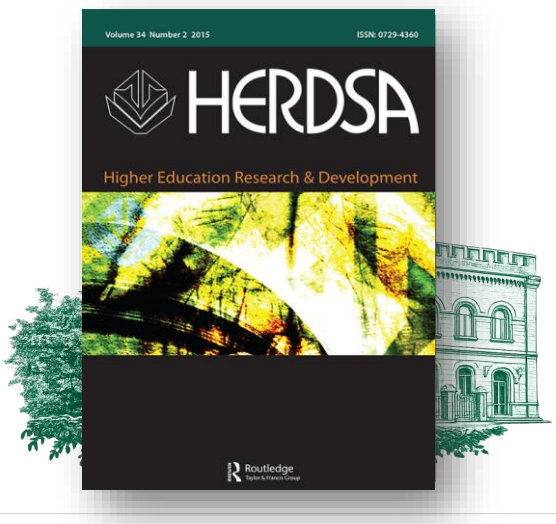
Abstract

BackgroundIntegrating large language models (LLMs), such as ChatGPT, into speech-language pathology (SLP) presents promising opportunities and notable challenges. While these tools can support diagnostics, streamline documentation and assist in therapy planning, they also raise concerns related to misinformation, cultural insensitivity, overreliance and ethical ambiguity. Current discourse often centres on technological capabilities, overlooking how future speech-language pathologists (SLPs) are being prepared to use such tools responsibly.AimsThis paper examines the pedagogical, ethical and professional implications of integrating LLMs into SLP. It emphasizes the need to cultivate professional responsibility, ethical awareness and critical engagement amongst student SLPs, ensuring that such technologies are applied thoughtfully, appropriately and in accordance with evidence-based and contextually relevant therapeutic standards.MethodsThe paper combines a review of recent interdisciplinary research with reflective insights from academic practice. It presents documented cases of student SLPs' overreliance on ChatGPT, analyzes common pitfalls through a structured table of examples and synthesizes perspectives from SLP, education, data ethics and linguistics...

Wandering into the weeds or planting seeds? Balancing depth and breadth in early and late career research

Mytsyk, H., & Suchikova, Y. (2025). Wandering into the weeds or planting seeds? Balancing depth and breadth in early and late career research. *Higher Education Research & Development*, *44*(8), pp. 2159–2168.

https://doi.org/10.1080/07294360.2025.2543411



Journal «Higher Education Research & Development (HERD)»
Publisher: Taylor & Francis LTD

ISSN 0729-4360 (Print)
ISSN 1469-8366 (Online)

Abstract

This article offers a reflective analysis rather than an empirical investigation. It examines the persistent tension in academia between pursuing deep specialization and the temptation to broaden intellectual horizons. While narrow expertise remains the foundation of academic credibility, researchers increasingly face institutional, technological, and personal pressures to engage with topics outside their primary domain. Drawing on illustrative cases and personal insight, the piece explores how such interdisciplinary forays stimulate genuine growth or lead to intellectual fragmentation. The discussion highlights how these dynamics manifest differently at various stages of an academic career: early-career researchers may scatter their efforts in search of identity. At the same time, senior scholars risk dilution as they take on administrative and supervisory responsibilities. Rather than rejecting either path, the article proposes practical strategies to explore beyond one's core specialization without losing methodological rigor, focus, or depth. It argues that with purpose, humility, and structure, intellectual wandering can become a catalyst for meaningful scholarship, not a distraction.

Where it seems impossible: School education in the occupied and front-line territories of Ukraine

Mytsyk, H., Balaban, O., Furmanova, T., Kovachov, S., & Suchikova, Y. (2025). Where it seems impossible: School education in the occupied and front-line territories of Ukraine. *Review of Education*, *13*(1), art. no. e70062.

https://doi.org/10.1002/rev3.70062

Journal «Review of Education»
Publisher: WILEY

ISSN 2049-6613

Abstract

This study explores the significant impact of ongoing military conflicts on the educational process within the occupied and frontline regions of Ukraine. These territories include areas occupied by Russian troops since the beginning of the full-scale invasion of Ukraine in February 2022, as well as regions near the active frontline. The research rigorously examines the severe challenges faced by teachers, students and their parents, such as disrupted learning environments and constant threats to safety. It underscores the adaptive measures implemented to maintain educational continuity under such daunting conditions, emphasising the integration of remote learning technologies, strategic curricular adjustments, and reinforced psychological support systems. The study is based on surveys conducted with teachers and parents. It utilises both quantitative and qualitative data analyses to demonstrate the remarkable adaptability of educational systems in times of crisis. These adaptations not only ensure the continuity of education but also play a pivotal role in preserving societal stability and facilitating recovery and development in the affected regions. The findings suggest that the resilience strategies developed in response to these emergencies could serve as a global model for educational resilience…

From acceptance to implementation: student speech-language pathologists' perspectives on using digital technologies in practice

Mytsyk, H., Kovachov, S., & Suchikova, Y. (2025). From acceptance to implementation: student speech-language pathologists' perspectives on using digital technologies in practice. *Disability and Rehabilitation: Assistive Technology*, *20*(6), pp. 1711–1726.

https://doi.org/10.1080/17483107.2025.2472262

Journal «Disability and Rehabilitation: Assistive Technology»
Publisher: Taylor & Francis INC

ISSN 1748-3107 (Print)
ISSN 1748-3115 (Online)

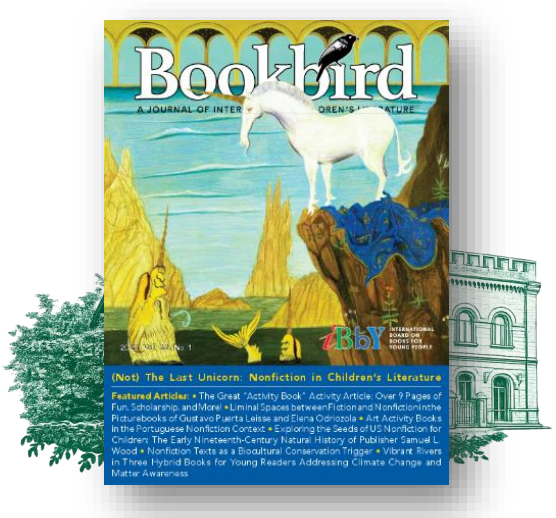
Abstract

This qualitative study explores the perceptions of digital technologies among student speech-language pathologists (SLPs) at the bachelor's and master's levels, focusing on key factors influencing their acceptance and conditions fostering their intention to use these technologies in future speech-language pathology services. A total of 16 student SLPs, all currently enrolled in undergraduate and graduate programs, participated in this study. Their views on using digital technologies were gathered through in-depth semi-structured interviews. The data were analyzed using thematic analysis, guided by the Unified Theory of Acceptance and Use of Technology (UTAUT), which examines how factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions affect their acceptance and use of digital technology. The findings revealed that these students generally have optimistic views on digital technologies, recognizing their role in sustaining speech-language pathology services during emergencies. Findings indicate that performance expectancy, effort expectancy, social influence, and facilitating conditions significantly shape student SLPs' intentions to use digital technologies. Themes beyond the UTAUT framework discovered in the study, such as confidence in one's digital skills and the impact of societal context, particularly the ongoing war in Ukraine, further emphasize the need for comprehensive strategies addressing both the psychological and practical dimensions of technology adoption...

Art Books as Nonfiction: The Alphabetic Encyclopedias on the Lives of Outstanding Ukrainian Figures

Novyk, O. (2025). Art Books as Nonfiction: The Alphabetic Encyclopedias on the Lives of Outstanding Ukrainian Figures. *Bookbird: A Journal of International Childrens Literature, 63*(1).

http://dx.doi.org/10.1353/bkb.2025.a952088



Journal «Bookbird: A Journal of International Children's Literature»
Publisher: Johns Hopkins Univ Press

ISSN 0006-7377 (Print)
ISSN 1918-6983 (Online)

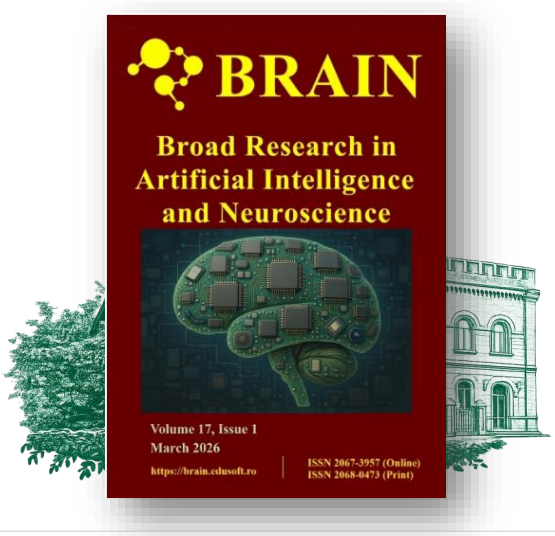
Abstract

From A to Z is a Ukrainian series of alphabetic encyclopedias published by Vydavnytstvo Staroho Leva, dedicated to the lives and works of Ukrainian prominent figures. Each book within the series is co-created by an author who writes the factual text in a popular science style and an illustrator. This multimodal combination is expected to appeal to child readers and adult readers alike and allow the facts to be presented in an accessible form. The first book in the series, *Sheptytsky from A to Z*, is written by Halyna Tereschuck and illustrated by Andriy Lesiv and Romana Romanyshyn from the creative studio Agrafka. Published in 2015, it is dedicated to the 150th anniversary of the birth of Metropolitan Andrey Sheptytsky, a prominent figure, important not only for religion, philosophy, and politics but also as a model of selfless work. The focus on the lives and works of prominent Ukrainian artists such as Taras Shevchenko, Hryhorii Skovoroda, Ivan Franko, Olha Kobylianska, and others is mostly connected to the publisher's desire to coincide the releases with the anniversaries of the said artists and to popularize their works. It should be noted that the authors of the books are often researchers who have already published scholarly literary studies about these artists. In these books, however, the academic texts are transformed into a popular science format.

Translation of Subtitles: Neurolinguistic and Cognitive Aspects

Novytska, O., Romanchuk, H., Vorobets, O., Zhornokui, U., Slyvka, L., & Bohdan, V. (2025). Translation of subtitles: Neurolinguistic and cognitive aspects. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, *16*(1), pp. 229–242.

https://doi.org/10.70594/brain/16.1/17



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

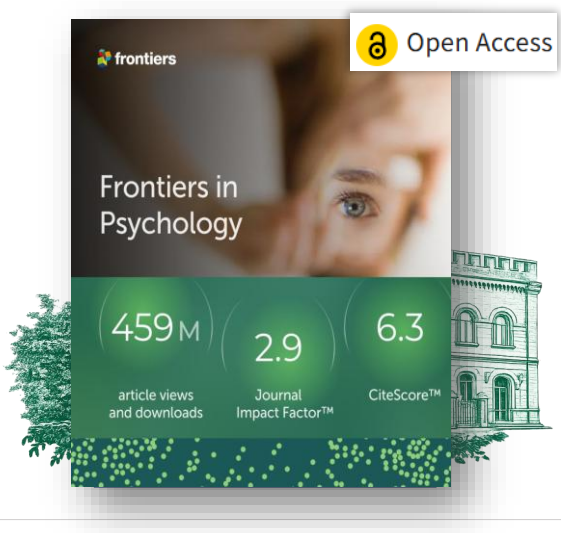
Abstract

The present research delves into the intricate neurolinguistic and cognitive dimensions inherent in the translation of subtitles. Recognizing translation as a multifaceted cognitive endeavor, the study explores the interplay between linguistic and extralinguistic factors that significantly impact translation output quality. It underscores the paramount role of cognitive aspects in enhancing the comprehension of the translator's work, delving into the processes governing human cognition during translation. Drawing from an interdisciplinary approach integrating insights from psychology, neuroscience, and linguistics, the research provides a comprehensive understanding of how translators navigate complex tasks such as meaning-making, context adaptation, and linguistic creativity. The study mainly focuses on audiovisual translation, considering film an intricate medium encapsulating diverse linguistic and visual elements. Subtitling, as a confined mode of translation within audiovisual content, emerges as a pivotal domain within translation studies. The research aims to shed light on the cognitive and neurolinguistic challenges translators face, emphasizing the critical role of subtitles in facilitating better viewer comprehension…

Strengthening mental health among university students

Ozamiz-Etxebarria, N., Mondragon, N. I., & Tsybuliak, N. (2025). Strengthening mental health among university students. *Frontiers in Psychology*, *16*, art. no. 1689173.

https://doi.org/10.3389/fpsyg.2025.1689173



Journal «Frontiers in Psychology»
Publisher: Frontiers Media SA

ISSN 1664-1078

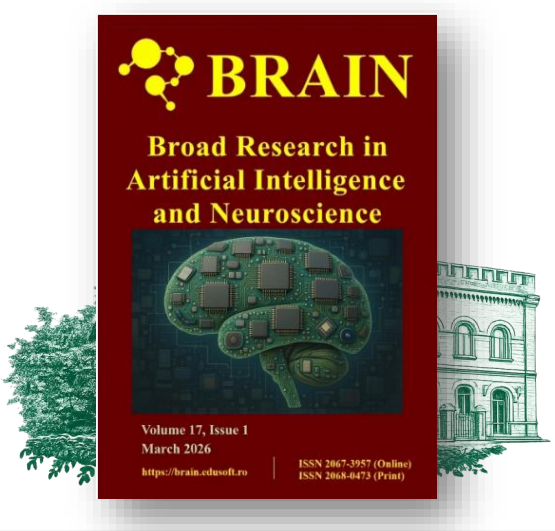
Abstract

The COVID-19 pandemic amplified long-standing vulnerabilities in university students' mental health, exposing critical weaknesses in institutional support systems (Son et al., 2020; Segú-Odriozola, 2025). Even before the crisis, students faced heavy academic workloads, transitional life stages, and financial pressures, factors that, in unsupportive environments, heightened the risk of psychological strain (Grimmond et al., 2020; Zahedi et al., 2022). The pandemic acted as a catalyst, magnifying these pressures through the abrupt loss of in-person peer networks, reduced access to campus-based services, and reliance on remote learning environments often lacking adequate psychosocial support (Elmer et al., 2020; Khoshaim et al., 2020; Sundarasen et al., 2020). This was not merely a temporary disruption but a sustained weakening of the social and institutional structures essential for academic engagement and personal wellbeing (Hamza et al., 2021). While this perspective takes a global view, it also recognizes that political contexts, resources, and institutional structures vary widely. Such differences influence both the design and effectiveness of mental health programming in higher education...

Improving the Mental and Physical Capabilities of University Students in the Context of Using Art Therapy

Poliluieva, I., Marchak, T., Naichuk, V., Liesnichenko, N., Kocherha, Y., & Kuts, P. (2025). Improving the mental and physical capabilities of university students in the context of using art therapy. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience, 16*(4), pp. 558–567.

https://doi.org/10.70594/brain/16.4/34



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

Abstract

The article discusses the effectiveness of using art-therapeutic techniques in work with students, aimed at improving the mental, physical capabilities of university students, building a student team and developing emotional stability. The concepts of "social group" and "student body" are considered. The author of the article proves that the implementation of such a pedagogical condition as involving students in art therapy programmes leads to positive outcomes ,which indicates its effectiveness. Faculty members are expected to play an important role in enhancing students' positive moods by keeping them away from bad moods and encouraging them to focus only on good academic performance to achieve optimal academic results. Art therapy classes can help students to better understand themselves, their emotions and reactions to stress, and to develop skills of emotion regulation. The article establishes that art therapy can be an effective intervention for university students, fostering emotional stability and improving mental well-being through a structured, safe, and creative setting for the exploration of emotions and thoughts.

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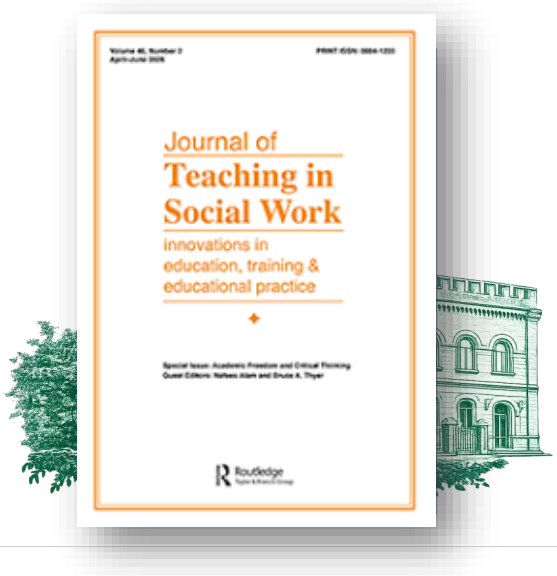
Rebuilding Lives Through Learning: A Master's Program for Social Work in Post-War Recovery

Popova, A., Petrovska, K., Turgenieva, A., Matseiko, N., Hurenko, O., Zaharova, N., & Melnychuk, A. (2025). Rebuilding Lives Through Learning: A Master's Program for Social Work in Post-War Recovery. *Journal of Teaching in Social Work*, *45*(3), pp. 543–572.

https://doi.org/10.1080/08841233.2025.2510903



Journal of «Teaching in Social Work»
Publisher: Routledge Journals,
Taylor & Francis LTD

ISSN 0884-1233 (Print)
ISSN 1540-7349 (Online)

Abstract

This article explores the development and implementation of the master's program "Postwar social-psychological rehabilitation" as an innovative approach to preparing social workers for post-conflict recovery. The war in Ukraine has created unprecedented challenges for the social system, particularly the need for specialists capable of providing social-psychological support to affected individuals, families, and communities. The article examines how the program addresses these challenges by integrating an interdisciplinary approach, practice-oriented methodologies, and international standards. The findings demonstrate the program's effectiveness in enhancing students' professional readiness, meeting stakeholder needs, and addressing the pressing demands of war-affected populations. Its iterative design, informed by feedback from students, employers, and the academic community, has ensured its adaptability to wartime realities. This article highlights the importance of educational programs as tools for societal recovery, emphasizing the connection between academic expertise and its practical application. The conclusion discusses the program's potential for scaling to other conflict-affected contexts and offers recommendations for future research and improvements...

Directive (EU) 2024/1203 as a guideline for criminal liability for environmental offenses in Ukraine

Pysmenskyy, Y., Movchan, R., Dudorov, O., & Kamensky, D. (2025). Directive (EU) 2024/1203 as a guideline for criminal liability for environmental offenses in Ukraine. *Pravni Vjesnik*, *41*(4), pp. 103–128.

https://doi.org/10.25234/pv/36170

Journal «Pravni Vjesnik»
Publisher: Pravni Fakultet Sveucilista Josipa Jurja Strossmayera & Osijeku

ISSN 0352-5317 (Print)
ISSN 1849-0840 (Online)

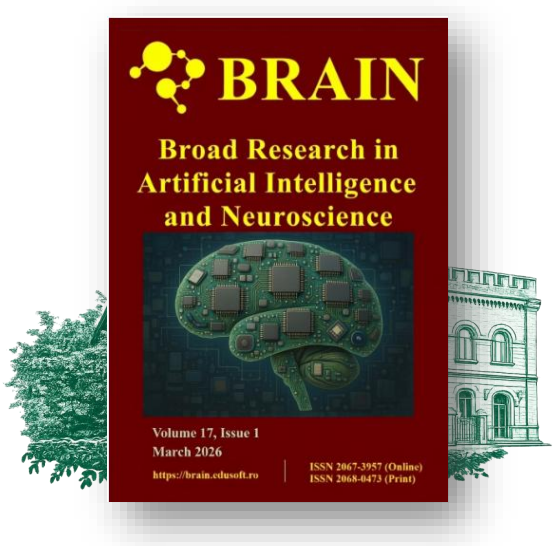
Abstract

This article examines the newly adopted Directive (EU) 2024/1203 and its role as a benchmark for reforming Ukraine's criminal legislation on environmental offenses. The authors analyze key provisions of this document, which set minimum standards for the criminalization of environmental harm, aggravating circumstances, and sanctions. Special attention is paid to the Directive's requirements for the inclusion of negligent acts, passive conduct, and unlawful actions involving hazardous substances or invasive species. It is argued that the current criminal legislation of Ukraine lacks several offenses required by the EU Directive, with additional gaps identified in the draft Criminal Code. Therefore, aligning national legislation with the Directive's standards is essential. The analysis outlines key elements that must be addressed, including criminalization of negligent and passive conduct, illegality as a core offense element, and the need for clear qualitative and quantitative thresholds. It emphasizes the importance of establishing liability for incitement, aiding and abetting, and differentiating punishment based on offense severity. The study supports recognizing unlawful handling of hazardous waste as a criminal offense regardless of scale and using property damage as a key indicator of environmental harm. It also finds that current sanctions fall short of the EU Directive's requirements and should be strengthened by combining imprisonment and fines to ensure fair and effective enforcement.

Peculiarities of the Formation of Professional Competence of Special Education Teachers and Practical Psychologists as an Aspect of Neuropsychology

Revutska, O., Torop, K., Omelianovych, I., Marieieva, T., Dmytrieva, S., & Stets, V. (2025). Peculiarities of the Formation of Professional Competence of Special Education Teachers and Practical Psychologists as an Aspect of Neuropsychology. *BRAIN. Broad Research In Artificial Intelligence And Neuroscience*, *16*(3), pp. 218–232.

http://dx.doi.org/10.70594/brain/16.3/15



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

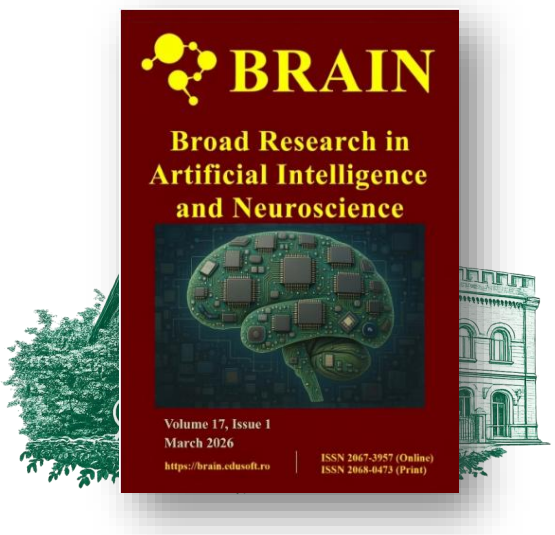
Abstract

The article deals with the professional development of special education teachers and practical psychologists. The main approaches to thix process as a set of research and practical activities in the context of neuropsychology are considered. In addition, it is shown how to develop professional competence in the context of the modern educational paradigm. Research activity is considered as the result of theoretical and methodological approaches to the professional activity of special education teachers and practical psychologists. It is important that the article reveals the main manifestations of the scientific and practical activity of special education teachers and practical psychologists, through the method of determining the level of their professional competence as a result of neuropsychological approaches. The main goal of the article is the analysis of the considered problem in the context of the modern educational paradigm. Accordingly, the article proves that the educational process can be considered effective when it is based on new approaches and technologies aimed at involving children in active learning. There are obvious connections between the effectiveness of the scientific and practical activities of special education teachers, practical psychologists and the level of development of children's competencies and values. The research methods include generalisation, analysis, description of scientific methods., and practical activities in the context of the modern educational paradigm of neuropsychology, as well as current ways of researching the connections between the professional activities of a defectologist and a practical psychologist, the levels of competences and values of children.

Spelling Norms of the Modern Ukrainian Language in the Context of Neurolinguistics

Shuliak, S., Hnatyuk, M., Sopina, O., Diakiv, V., Nikolashyna, T., & Khudenko, O. **(2025). Spelling Norms of the Modern Ukrainian Language in the Context of Neurolinguistics. *BRAIN. Broad Research In Artificial Intelligence And Neuroscience*, *16*(3), pp. 271–281.**

http://dx.doi.org/10.70594/brain/16.3/19



Journal «BRAIN. Broad Research in Artificial Intelligence and Neuroscience»
Publisher: Edusoft Publishing

ISSN 2068 – 0473 (Print)
ISSN 2067 – 3957 (Online)

Abstract

Cognitive neurolinguistics is a scientific discipline that studies the brain processes underlying speech recognition and generation, language acquisition, and quasi-linguistic symbolism. This science examines speech in its connection with human cognition. Speech is presented as one of the main means of accumulating, systematising., processing, and using knowledge about the world. This work is devoted to the historical, scientific, and methodological analysis of cognitive neurolinguistics as an aspect of spelling norms of the modern Ukrainian language. The relationship between neurolinguistics philosophy of language and general linguistics has been and activity philosophy. which studied. There are three main philosophical approaches: structuralism. influenced modern neurolinguistics. The article considers further prospects for the development formalism. of neurolinguistics as a factor in the formation of the modern Ukrainian language. The purpose of the article is to study the peculiarities of the spelling of the modern Ukrainian language as a factor of neurolinguistics. The methods of synthesis, analysis, scientific, explanatory, descriptive, and research methods were used for the research. The article highlights the principles of using the neurolinguistic approach when studying the structural features and semantic code of phraseological units of the Latin language, followed by their interpretation in the Ukrainian language…

The relationship between social intelligence and empathy in students of Ukrainian universities during martial law

Starynska, O., & Melnyk, Z. (2025). The relationship between social intelligence and empathy in students of Ukrainian universities during martial law. *Revista Romaneasca pentru Educatie Multidimensionala*, *17*(3), pp. 786–797.

https://doi.org/10.18662/rrem/17.3/1043

Journal
«Revista Romaneasca pentru Educatie Multidimensionala»
Publisher:Lumen Publishing House

ISSN 2066-7329 (Print)
ISSN 2067-9270 (Online)

Abstract

The study presents the relationships between components ofsocial intelligence and empathy in 240 students at Ukrainian universities during martial law. Statistically significant relationships were identified between the first, third, and fourth components of social intelligence and empathy in university students. The inverse and strong relationship between respondents ' ability to understand the life situations of others and empathy suggests that excessive sensitivity to the emotional needs of others may hinder this ability. However, students correctly interpret others' emotions based on facial expressions and can attune to their emotions. The inverse and fairly strong relationship between students' ability to understand manifestations of verbal behavioral expression and empathy indicates that this ability is not dependent on their sensitivity to the emotional needs of others or their ability to understand even hidden emotions. The direct and fairly strong relationship between students' ability to predict others' behavior and empathy demonstrates that this ability depends on their accuracy in understanding even hidden emotions and communicative cues related to the emotional needs of others, recognizing emotions through facial expressions, and sensitivity to others' emotional needs. During martial law, components of social intelligence (the ability to understand the life situations of others, the ability to interpret verbal behavioral expression, and the ability to predict others' behavior) are statistically significantly related to empathy in students at Ukrainian universities.

Connection between environmental awareness and personal attitudes towards education as a prerequisite for forming environmental educational strategies

Strilchuk, O., Kravchuk, S., & Dovgan, N. (2025). Connection between environmental awareness and personal attitudes towards education as a prerequisite for forming environmental educational strategies. *Revista Romaneasca pentru Educatie Multidimensionala*, *17*(4), pp. 555–574.

https://doi.org/10.18662/rrem/17.4/1069

Journal
«Revista Romaneasca pentru Educatie Multidimensionala»
Publisher:Lumen Publishing House

ISSN 2066-7329 (Print)
ISSN 2067-9270 (Online)

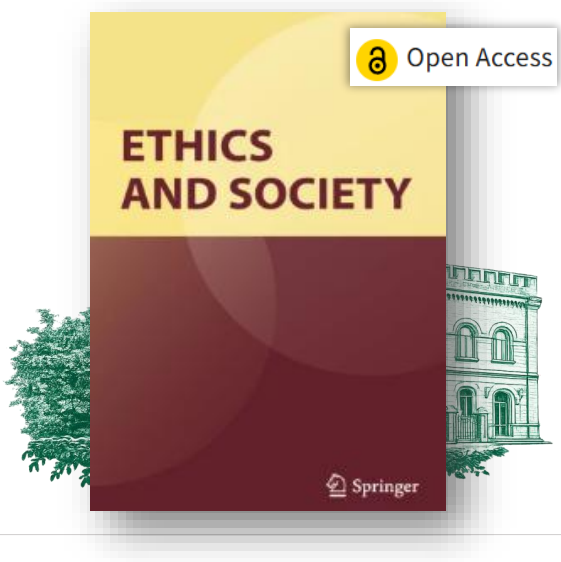
Abstract

The article presents a study on the connection between environmental awareness and personal attitudes to education as a prerequisite for the formation of environmental education strategies. The empirical data were obtained during research conducted in 2022-2024. A total of 9734 people participated in our empirical research. Personal environmental awareness correlated positively and significantly with subjective assessments of the importance of education and with the desire to learn something new. The importance of education correlated positively with the importance of environmental issues, the participants' concern for environmental cleanliness, and painful feelings about the environmental consequences of the war. The desire to learn something new correlated positively with the assessed importance of environmental issues, concern for environmental cleanliness, and with painful feelings about the environmental consequences of the war. Personal awareness about one's own actions and behaviour had a positive impact on the assessed importance of environmental issues, greater concern for environmental cleanliness, painful feelings about the environmental consequences of the war, and the implementation of practical environmental measures to improve ecology. There was also a willingness to invest resources in ecological improvement in one's own community...

Risks and Realities of Speculative Ethics: Lessons from Nanotechnology for the Artificial Intelligence Discourse

Suchikova, Y. (2025). Risks and Realities of Speculative Ethics: Lessons from Nanotechnology for the Artificial Intelligence Discourse. *NanoEthics*, *19*, art. no.15.

https://doi.org/10.1007/s11569-025-00477-w



Journal
«NanoEthics»
Publisher: SPRINGER

ISSN 3091-3314 (Print)
ISSN 3091-3322 (Online)

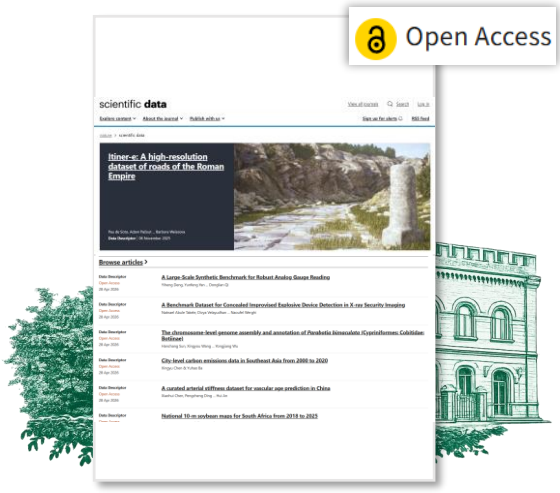
Abstract

This article reinterprets speculative ethics, as discussed by Alfred Nordmann in the context of nanotechnology, and applies it to the modern discourse on artificial intelligence (AI). Speculative ethics often centers on hypothetical threats and conditional scenarios, which can divert attention from the real and urgent challenges already affecting society. As an alternative, the article proposes a realistic approach to evaluating new technologies, emphasizing tangible impacts and plausible risks. Drawing on current regulatory efforts and policy discussions, it outlines key areas that warrant ethical scrutiny, such as algorithmic transparency, data bias, privacy, and adaptive regulation. Lessons from the history of nanotechnology are revisited to show that not all technological promises come true, an essential consideration for today's AI ethics. The article advocates for prioritizing present challenges over distant speculations, aiming to support a balanced and context-aware integration of AI into society.

Extending the CARE Principles: managing data for vulnerable communities in wartime and humanitarian crises

Suchikova, Y., & Nazarovets, S. (2025). Extending the CARE Principles: managing data for vulnerable communities in wartime and humanitarian crises. *Scientific Data*, *12*, art. no. 420.

https://doi.org/10.1038/s41597-025-04756-9



Journal «Scientific Data»
Publisher: Nature Portfolio

ISSN 2052-4463 (Online)

Abstract

The CARE Principles (Collective Benefit, Authority to Control, Responsibility, Ethics) were developed to ensure ethical stewardship of Indigenous data. However, their adaptability makes them an ideal framework for managing data related to vulnerable populations affected by armed conflicts. This essay explores the application of CARE principles to wartime contexts, with a particular focus on internally displaced persons (IDPs) and civilians living under occupation. These groups face significant risks of data misuse, ranging from privacy violations to targeted repression. By adapting CARE, data governance can prioritize safety, dignity, and empowerment while ensuring that data serves the collective welfare of affected communities. Drawing on examples from Indigenous data governance, open science initiatives, and wartime humanitarian challenges, this essay argues for extending CARE principles beyond their original scope. Such an adaptation highlights CARE's potential as a universal standard for addressing the ethical complexities of data management in humanitarian crises and conflict-affected environments.

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The purity myth: Why stigmatizing GAI in academic writing is harmful

Suchikova, Y., & Tsybuliak, N. (2025). The purity myth: Why stigmatizing GAI in academic writing is harmful. *Science Communication*, *47*(5), pp. 753–761.

https://doi.org/10.1177/10755470241313233

Journal «Science Communication»
Publisher: Sage Publications Inc

ISSN 1075-5470 (Print)
ISSN 1552-8545 (Online)

Abstract

This article explores the evolving role of generative artificial intelligence (GAI) in academic writing, addressing the challenges, opportunities, and ethical considerations surrounding its adoption. While GAI tools like ChatGPT enhance efficiency and accessibility, their use in writing remains stigmatized due to traditional notions of authorship and intellectual rigor. This article argues against this stigma, advocating for a balanced perspective that values content quality over outdated ideals of textual purity. By embracing GAI responsibly and transparently, academia can foster innovation, democratize access to publishing, and redefine the collaborative potential of human-machine partnerships in advancing knowledge.

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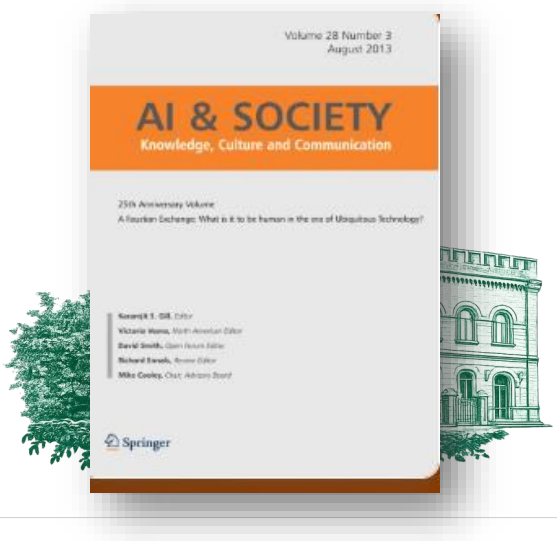
Where did all the AI experts come from? They used to be virologists…

Suchikova, Y., & Tsybuliak, N. (2025). Where did all the AI experts come from? They used to be virologists…. *AI & Society*, *40*(7), pp. 5579–5580.

https://doi.org/10.1007/s00146-025-02287-w



Journal «AI & Society»
Publisher: SPRINGER

ISSN 0951-5666 (Print)
ISSN 1435-5655 (Online)

Abstract

The scientific community has always been quick to pivot. When COVID-19 arrived, virologists were not the only ones investigating the pandemic. Researchers from computer science, psychology, and business all jumped into the fray, eager to contribute—or at least to publish. As Satyaki Sikdar and colleagues noted in their article “What We Should Learn from Pandemic Publishing” (Nature Human Behaviour 2024), only 7.7% of those publishing on COVID-19 during the pandemic were actual outbreak science experts. The rest? Well, they were researchers who, until early 2020, had never touched epidemiology. That did not stop them from producing an avalanche of papers, some insightful, many redundant, and quite a few later retracted. Now, we are watching the same bandwagon roll through AI research. During the peak of the pandemic, AI was still a niche interest. Then, around late 2022, it became the next intellectual gold rush. Yeong Jae Kim and colleagues showed in their article “Rapid Expansion of Artificial Intelligence Publications During the Pandemic” (Science Editing 2024) that after the pandemic, AI research output exploded as scientists rapidly shifted focus from COVID-19 to machine learning...

Investigation of phase segregation in highly doped InP by selective electrochemical etching

Suchikova, Y., Kovachov, S., Bohdanov, I., Popov, A. I., Karipbayev, Z. T., Kozlovskiy, A. L., & Konuhova, M. (2025). Investigation of phase segregation in highly doped InP by selective electrochemical etching. *Technologies*, *13*(9), art. no. 395.

https://doi.org/10.3390/technologies13090395

Journal «Technologies»
Publisher: MDPI

ISSN: 2227-7080 (Online)

Abstract

We demonstrate that selective electrochemical etching is a reliable method for detecting and observing the uneven concentration distribution of impurities in indium phosphide crystals, which accompanies the growth of highly doped crystals using the Czochralski method. Even though selective electrochemical etching, as a method of detecting defects in the crystal lattice, has been discussed many times in the literature, it has not yet been described for indium phosphide. In this work, we investigated etching in compositions of various selective electrolytes for InP of n- and p-type conductivity with different surface orientations. We present in detail the features of detecting the striped inhomogeneity of impurity distribution. The mechanisms and peculiarities of the formation of oxide crystallites on the surface of InP during electrochemical processing are presented, including structures like flower-like and parquet crystallites. The formation of porous surfaces, terraces, tracks, and crystallites is explained from the perspective of the defect-dislocation mechanism.

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Developing ethical responsibility in future nanoscience professionals through scenario-based assessment

Suchikova, Y., Kovachov, S., Kryvylova, O., Popova, A., Mytsyk, H., Nesterenko, M., Petryk, K., Tsybuliak, N., & Lopatina, H. (2025). Developing ethical responsibility in future nanoscience professionals through scenario-based assessment. *Science and Engineering Ethics*, *31*, art. no. 23.

https://doi.org/10.1007/s11948-025-00549-w

Journal
«Science and Engineering Ethics»
Publisher: SPRINGER

ISSN 1353-3452 (Print)
ISSN 1471-5546 (Online)

Abstract

This study evaluates the formation of ethical responsibility among master's students enrolled in the «Applied Physics and Nanomaterials» program. Recognizing the pivotal role of ethics in the evolving field of nanoscience, the research implements a three-phase methodology that integrates an Initial Ethical Responsibility Assessment, a facilitator-led Group Discussion, and a Retest Ethical Responsibility Assessment. The assessments are based on realistic scenarios reflecting ethical dilemmas that students may encounter in professional practice. This dual approach - combining quantitative assessment with qualitative analysis - provides a comprehensive understanding of students' ethical reasoning and decision-making. Results indicate varying levels of ethical responsibility, underscoring the need for more integrated ethics education in nanoscience curricula. The study contributes to ongoing discussions on the importance of ethics in scientific training, especially in high-impact fields such as nanotechnology. It offers educators a structured framework for embedding ethics into technical education, ensuring that future nanomaterials specialists are not only proficient scientists but also ethically responsible professionals. The article concludes with recommendations for enhancing ethics education in nanoscience through interactive, scenario-based, and discussion-centered learning methods.

Binary oxide ceramics (TiO_2, ZnO, Al_2O_3, SiO_2, CeO_2, Fe_2O_3, and WO_3) for solar cell applications: A comparative and bibliometric analysis

Suchikova, Y., Nazarovets, S., Konuhova, M., & Popov, A. I. (2025). Binary oxide ceramics (TiO_2, ZnO, Al_2O_3, SiO_2, CeO_2, Fe_2O_3, and WO_3) for solar cell applications: A comparative and bibliometric analysis. *Ceramics*, *8*(4), art. no. 119.

https://doi.org/10.3390/ceramics8040119

Journal «Ceramics»
Publisher: MDPI

ISSN 2571-6131 (Print)
ISSN 2571-6131 (Online)

Abstract

Binary oxide ceramics have emerged as key materials in solar energy research due to their versatility, chemical stability, and tunable electronic properties. This study presents a comparative analysis of seven prominent oxides (TiO2, ZnO, Al2O3, SiO2, CeO2, Fe2O3, and WO3), focusing on their functional roles in silicon, perovskite, dye-sensitized, and thin-film solar cells. A bibliometric analysis covering over 50,000 publications highlights TiO2 and ZnO as the most widely studied materials, serving as electron transport layers, antireflective coatings, and buffer layers. Al2O3 and SiO2 demonstrate highly specialized applications in surface passivation and interface engineering, while CeO(2)offers UV-blocking capability and Fe(2)O(3)shows potential as an absorber material in photoelectrochemical systems. WO(3)is noted for its multifunctionality and suitability for scalable, high-rate processing. Together, these findings suggest that binary oxide ceramics are poised to transition from supporting roles to essential components of stable, efficient, and environmentally safer next-generation solar cells.

Small is sexy: Rethinking article length in the age of AI

Suchikova, Y., Popova, A., Lopatina, H., & Tsybuliak, N. (2025). Small is sexy: Rethinking article length in the age of AI. *Learned Publishing*, *38*(2), art. no. 1659.

https://doi.org/10.1002/leap.1659

Journal «Learned Publishing»
Publisher: WILEY

ISSN 0953-1513 (Print)
ISSN 1741-4857 (Online)

Abstract

1 Introduction

With the emergence of large language models (LLMs) like ChatGPT, the scholarly community faces a growing question: Are lengthy articles still the best way to communicate research? Recently, Pividori (2024) highlighted the ability of AI tools to generate large volumes of text quickly, prompting reflection on whether long articles truly advance scientific progress. As we move further into the AI era, should we instead focus on brevity and clarity?

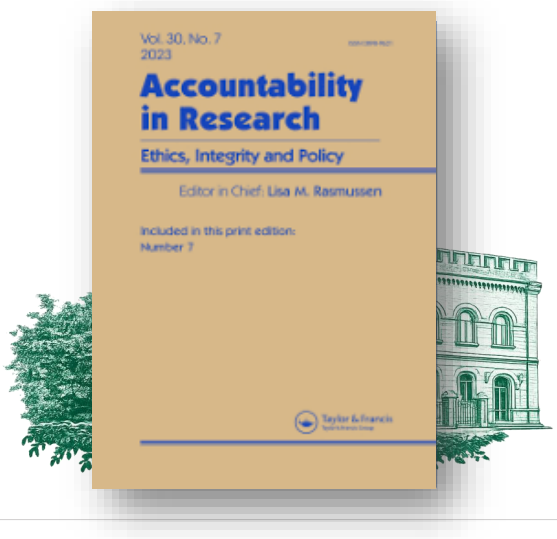
2 Approach and Rationale

This article is an opinion piece that reflects on the evolving challenges in academic publishing, particularly in the context of the increasing role of AI tools like LLMs. We aim to provoke thought and inspire action towards adopting concise and impactful scientific reporting in response to the growing issue of information overload in the research community. This piece deliberately reflects on the ethical, environmental, and academic implications of publishing in the AI era. It does not claim to present empirical findings but rather serves as a reaction to current developments and an argument for rethinking traditional publishing practices in favour of clarity, efficiency, and sustainability.

GAIDeT (Generative AI Delegation Taxonomy): A taxonomy for humans to delegate tasks to generative artificial intelligence in scientific research and publishing

Suchikova, Y., Tsybuliak, N., Teixeira da Silva, J. A., & Nazarovets, S. (2025). GAIDeT (Generative AI Delegation Taxonomy): A taxonomy for humans to delegate tasks to generative artificial intelligence in scientific research and publishing. *Accountability in Research*, *33*(3), art. no. 2544331.

https://doi.org/10.1080/08989621.2025.2544331



Journal
«Accountability in Research»
Publisher: SpringerNature

ISSN 0898-9621 (Print)
ISSN 1545-5815 (Online)

Abstract

Background:The integration of generative artificial intelligence (GAI) in research raises concerns about transparency, accountability, and task delegation. While frameworks such as CRediT and the NIST AI Use Taxonomy address contributions to research, they either exclude AI-assisted input (CRediT) or do not provide a stage-specific approach (NIST). A structured taxonomy is needed to delineate GAI's contributions across research stages while preserving human oversight and research integrity.Methods:This study introduces the Generative AI Delegation Taxonomy (GAIDeT), informed by existing contributor role taxonomies, peer-reviewed literature, and an iterative consensus-building approach. It categorizes GAI's contributions at macro and corresponding micro levels, specifying the degree of human oversight required.Results:GAIDeT provides a structured framework for documenting GAI's role in scholarly research. It classifies research activities into key domains - conceptualization, literature review, methodology, data analysis, writing, supervision, and ethical review - ensuring transparency and human accountability. A GitHub-based interactive tool - the GAIDeT Declaration Generator - was developed to help researchers document delegation choices transparently.Conclusions:By standardizing GAI task delegation, GAIDeT enhances research integrity and transparency. Future work should focus on empirical validation, cross-disciplinary adaptability, and policy implications for GAI governance.

Give grants to female scientists in war zones

Tsybuliak, N., & Suchikova, Y. (2025). Give grants to female scientists in war zones. *Nature*, *639*(8056), pp. 867.

https://doi.org/10.1038/d41586-025-00926-2

Journal «Nature»
Publisher: Nature Portfolio

ISSN 0028-0836 (Print)
ISSN 1476-4687 (Online)

Abstract

Your Editorial on women's achievements in science and technology (see Nature 638, 582; 2025) highlights an important truth: recognition matters. However, it's equally crucial to acknowledge those women working to keep science alive in war zones, whose contributions are often overlooked. The fight on the front lines predominantly involves men, but female researchers are fighting for science amid bombings, displacement and devastation. In Ukraine and Gaza, for example, women are teaching, conducting experiments in makeshift laboratories and addressing crises in medicine, psychology and engineering. Yet their efforts remain largely invisible in the global scientific discourse. Even in their own countries and territories, their achievements are often overshadowed by the war itself. But recognition alone isn't enough. The world must do more than award honours — it must provide real support. Grants, fellowships and institutional partnerships should prioritize women in conflict zones, ensuring that they have the resources to sustain their work. Science doesn't stop in wartime. Acknowledging women's contributions isn't just about fairness — it's essential for progress. If we fail to support and amplify their voices, we risk losing entire fields of knowledge that are crucial for rebuilding societies. Science must not become another casualty of war.

Progressive intensification of burnout among academic staff during the war

Tsybuliak, N., Kolomiiets, U., Popova, A., Lopatina, H., Petrushenko, Y., & Suchikova, Y. (2025). Progressive intensification of burnout among academic staff during the war. *Humanities & Social Sciences Communications*, *12*(1), art. no. 1994.

https://doi.org/10.1057/s41599-025-06322-5

Journal «Humanities & Social Sciences Communications»
Publisher: Springer Nature

ISSN 2662-9992 (Online)

Abstract

This study examined the intensification of burnout among Ukrainian academic staff during the full-scale war, focusing on three core dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). Data were collected across three waves (July 2022, January 2023, and January 2024) from 1493 participants using the Maslach Burnout Inventory (MBI). Findings reveal a significant increase in high EE levels from 49.5% in Wave 1 to 71.8% in Wave 3. High DP levels also grew substantially, from 32.9% to 59.4%. In contrast, low PA levels decreased from 22.0% to 13.0%, while high PA levels increased from 45.7% to 59.9%. Additionally, regression analysis showed that institutional relocation was associated with lower burnout, whereas migration status and sustained war-related stress were linked to higher levels of burnout dimensions. Findings underscore the cumulative impact of sustained crisis on occupational well-being. Additionally, the data suggest that across waves, burnout symptoms appeared more generalized at the population level. The results highlight the urgent need for targeted interventions to support the resilience of academic staff in conflict-affected environments. These findings contribute to the broader discourse on occupational burnout in crisis settings, offering insights relevant to other regions experiencing prolonged instability.

Mental health of Ukrainian researchers during wartime

Tsybuliak, N., Popova, A., Lopatina, H., & Suchikova, Y. (2025). Mental health of Ukrainian researchers during wartime. *Global Public Health, 20*(1), art. no. 2495328.

https://doi.org/10.1080/17441692.2025.2495328

Journal «Global Public Health»
Publisher: Routledge Journals, Taylor & Francis LTD

ISSN 1744-1692 (Print)
ISSN 1744-1706 (Online)

Abstract

The full-scale war in Ukraine has introduced unique challenges for researchers, including physical displacement, destruction of research infrastructure, and deteriorating working conditions. This qualitative study investigates the impact of the ongoing war on the mental health and academic functioning of Ukrainian researchers. Based on 30 semi-structured interviews conducted between February and April 2024, the study reveals pronounced psychological consequences, including stress, anxiety, burnout, and feelings of isolation. Academically, researchers reported significant disruptions in research productivity, loss of professional networks, and diminished institutional support. Three critical areas of impact were identified: (1) the deterioration of working conditions and researcher well-being, (2) the fragmentation of academic communities and networks, and (3) restricted access to research resources and support. Despite these challenges, many researchers demonstrated resilience by adapting to remote work, forming new international collaborations, and finding renewed purpose in contributing to Ukraine's recovery through science. The findings underscore the urgent need for comprehensive, multilevel support systems that include mental health services, financial and infrastructural assistance, and initiatives to restore academic belonging. These insights are essential for developing responsive strategies to support academic communities in crisis settings globally.

Tuning of crystal structure and electronic band gap of the monoclinic Ga_2O_3 by simultaneous alloying with Al_2O_3 and In_2O_3

Vasylechko, L., Hreb, V., Zhydachevskyy, Y., Hizhnyi, Y., Smaliuk, A., Stasiv, V., Stadnik, V., Hirskyi, Y., Zhydachevska, H., Mykhaylyk, V., & Suchocki, A. (2025). Tuning of crystal structure and electronic band gap of the monoclinic Ga_2O_3 by simultaneous alloying with Al_2O_3 and In_2O_3. *Scientific Reports*, *15*(1), art. no. 37128

https://doi.org/10.1038/s41598-025-21074-7

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN 2045-2322 (Online)

Abstract

The paper presents the study of phase and structural behavior of pseudoternary compound (Ga1-x-yInxAly)2O3 with focus on the compositional cross-section where the x/y ratio is a fixed at 0.31/0.69. This specific ratio ensures that the average cation radius, equal to that of Ga3+ ions, remains unchanged. Through the combination of experimental XRD studies and DFT calculations, the stability region of the monoclinic phase within the Ga2O3–Al2O3–In2O3 ternary system was established. Detailed analysis of the crystal lattice parameters and unit cell volume of the monoclinic structure was carried out across a wide range of compositions. An empirical relationship was derived linking the monoclinic lattice parameters to the average ionic radius of the cations (Ga3+, Al3+, In3+) enabling prediction of lattice parameters in monoclinic (Ga1-x-yInxAly)2O3 solely from chemical composition. The experimental crystal structure studies and the electronic structure calculations suggest that in the monoclinic (Ga1-x-yInxAly)2O3 structure the tetrahedral positions of Ga1 atoms are preferentially occupied by Ga3+ and Al3+ cations, while the octahedral Ga2 sites accommodate a mixture of Ga3+, Al3+ and In3+ cations. Additionally, the presence of unidentified phase(s) was confirmed in the central region of the Ga2O3–Al2O3–In2O3 triangle. Comparison of the calculated optical absorption spectra and the Tauc-plots derived from the diffuse reflectance spectra indicate that the monoclinic (Ga1−x−yInxAly)2O3 compounds have a direct band gap.

New high-Z detectors based on $YAlO_3:Bi^{3+}$ for joint use with tissue equivalent BeO in tandem OSL dosimeter

Zhydachevskyy, Y., Stasiv, V., Poshyvak, O., Ubizskii, S., Pawlowska, Z., Rumiantseva, Y., Baran, M., Zhydachevska, H., Berkowski, M., & Suchocki, A. (2025). New high-Z detectors based on $YAlO_3:Bi^{3+}$ for joint use with tissue equivalent BeO in tandem OSL dosimeter. *Scientific Reports*, *15*, art. no. 21578.

https://doi.org/10.1038/s41598-025-05285-6

Journal
«Scientific Reports»
Publisher: Nature Portfolio

ISSN 2045-2322 (Online)

Abstract

The work introduces a new type of UV-emitting high-Z OSL detectors based on YAlO3:Bi3+ (YAP: Bi) perovskite. Two kinds of YAP: Bi solid state detectors have been fabricated and compared to BeO Thermalox (R) 995 chips. The first ones are single-crystalline detectors cut from a Czochralski grown crystal. The second are detectors cut from the high-density bulk ceramics prepared by the high-pressure high-temperature (HPHT) pressing technique from nanocrystalline powder derived from sol-gel synthesis. The YAP: Bi ceramic detectors studied suffer from strong thermal fading, which makes their use impractical, at least until technological methods to modify this property of ceramics are found. The single crystalline YAP: Bi detectors show very low thermal fading, a wide linearity range of dose response and a sensitivity comparable to BeO, which together with the optical registration in the same UV range, compatible optical stimulation by blue light and similar registration times in CW-OSL mode make them ideal high-Z detectors that can be used alone or in tandem with BeO detectors.

Найактивніші автори: понад 3 публікації у наукометричних базах

Most Active Authors: Over 3 Publications in Scientometric Databases

Scopus 2025

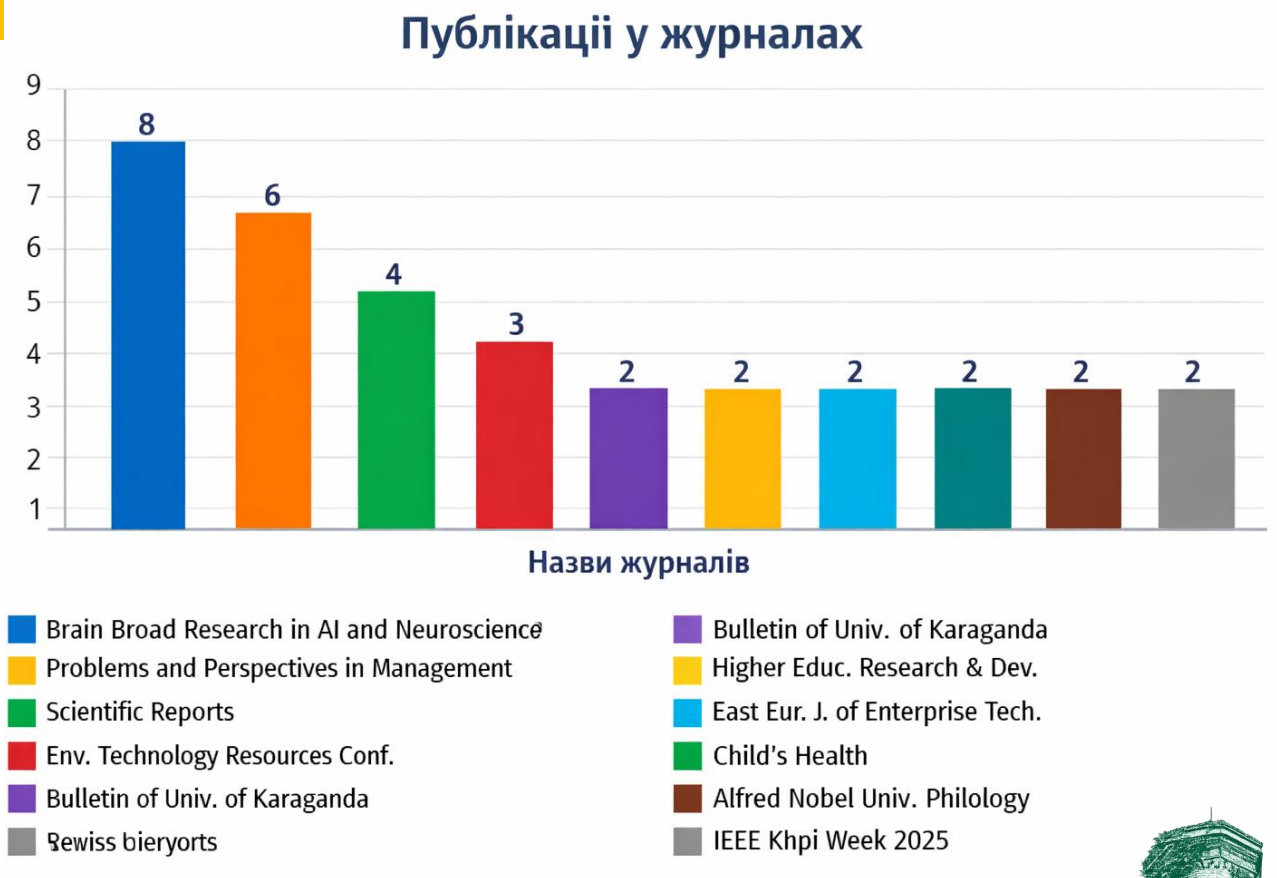
№	Author's Surname	Number of Publications
1.	Suchikova, Y. Scopus ID: 36523907500	27
2.	Tsybuliak, N. Scopus ID: 57200150887	12
3.	Kovachov, S. Scopus ID: 57208748653	7
4.	Lopatina, H. Scopus ID: 57200145628	6
5.	Mytsyk, H. Scopus ID: 58865871700	6
6.	Bohdanov, I. Scopus ID: 57197810681	5
7.	Popova, A. Scopus ID: 58246885800	5
8.	Zhydachevskyy, Y. Scopus ID: 6603506739	5
9.	Shkola, I. Scopus ID: 59231684500	4

Web of Science 2025

№	Author's Surname	Number of Publications
1.	Suchikova, Y. Researcher ID: O-7911-2019	19
2.	Tsybuliak, N. Researcher ID: O-8734-2017	9
3.	Mytsyk, H. Researcher ID: E-1509-2019	5
4.	Zhydachevskyy, Y. Researcher ID: P-4869-2017	5
5.	Lopatina, H. Researcher ID: AAB-7858-2020	4
6.	Popova, A. Researcher ID: E-3107-2019	4

Публікаційна активність викладачів БДПУ: Scopus та Web of Science, 2025

Publication Activity of Berdyansk State Pedagogical University: Scopus and Web of Science, 2025



Перелік видань, які індексуються у Scopus та Web of Science, обраних викладачами у 2025 році

List of Scopus and Web of Science Indexed Journals Selected by Faculty in 2025

№	Назва журналу / Journal Title
1.	Ai & Society
2.	Disability and Rehabilitation Assistive Technology
3.	Global Public Health
4.	Journal of Luminescence
5	Learned Publishing
6.	Nanoethics
7.	Nature
8.	Pravni Vjesnik
9.	Review of Education
10.	Science
11.	Science Communication
12.	Science and Engineering Ethics
13.	Scientific Data
14.	Scientific Reports
15.	Technologies
16	Zeszyty Teoretyczne Rachunkowosci

Наукометричні дані університету, 2025

University Scientometric Data, 2025

Scopus BSPU		Web of Science BSPU	
Scopus Affiliation	https://www.scopus.com/pages/organization/60109901?origin=AffiliationNamesList	**Web of Science Affiliation**	https://www.webofscience.com/wos/woscc/summary/e8d4c5d8-1a83-48e5-bb97-df3546fc23a5-01b1c9b48d/relevance/1
H-Index	29	**H-Index**	17
Publications Scopus	69	**Publications Web of Science**	42

Додаткові матеріали

Праці науково-педагогічних працівників університету в наукометричних базах Scopus та Web of Science (1974–2023) : науково-допоміжний бібліографічний покажчик / укладач Г. В. Потапенко ; редактор А. В. Куторга ; Бердянський державний педагогічний університет, Бібліотека БДПУ. – Запоріжжя : БДПУ, 2024. – 82 с.
https://dspace.bdpu.org.ua/items/20d8a087-b026-4369-8a2d-064bbe1a53eb

Публікації науково-педагогічних працівників БДПУ в наукометричних базах Scopus та Web of Science 2024 : науково-допоміжний бібліографічний покажчик / упоряд. та комп. набір Г. В. Потапенко ; бібліограф. редактор А. В. Куторга ; Бердянський державний педагогічний університет, Бібліотека БДПУ. – Запоріжжя : БДПУ, 2025. – 89 с.
https://dspace.bdpu.org.ua/items/043fc63c-bb83-4151-b616-aca3e71fb018

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