

# GLOBALIZATION AND THE PRESERVATION OF NATIONAL IDENTITY IN UZBEK LITERATURE: A QUALITATIVE STUDY OF CONTEMPORARY STRATEGIES

**Nodirakhon Rakhimova**

*Teacher at Namangan City Technical School No. 2*

**Abstract.** Globalization exerts a powerful influence on Central Asian literary fields, including that of Uzbekistan. This article investigates how contemporary Uzbek literature (2010–2025) negotiates the tension between global integration and the preservation of national identity. Using qualitative content analysis of 15 literary works, 12 critical essays, and 8 author interviews, the study identifies three dominant authorial strategies: selective hybridization, critical traditionalism, and transcultural writing. Results indicate that while Western genres, digital themes, and lexical mixing are pervasive, authors actively embed linguistic markers, folklore, and national historical narratives to assert local identity. The findings challenge a simple “loss versus purity” dichotomy, showing that globalization paradoxically both erodes and strengthens national literary distinctiveness. The article concludes with policy recommendations for literary education, translation funding, and digital preservation that balance openness with cultural heritage continuity.

**Keywords:** Uzbek literature, globalization, national identity, literary hybridization, Central Asian cultural studies

## Introduction

The early 1990s marked a profound cultural reorientation for Uzbekistan. Independence, achieved in 1991, brought not only political sovereignty but also a deliberate effort to reclaim and reconstruct a national literary identity that had been systematically marginalised or redirected for decades under the previous ideological system. Writers and literary critics turned to pre-twentieth-century classics—Alisher Navoi, Zahiriddin Babur, Ogahiy—as well as oral epics such as *Alpomish* and *Manas* to rebuild a sense of literary continuity. At the same time, the 1990s and 2000s saw the gradual opening of Uzbekistan to global cultural flows: translations of Harry Potter, Murakami, and Coelho filled bookshops; international literary festivals began including Tashkent; and the internet brought world literature directly to Uzbek readers. By the 2010s and accelerating into the 2020s, a new generation of Uzbek writers had grown up with access to global genres—dystopia, magical realism, young adult fiction, even fan fiction—while also inheriting a revived national tradition. This historical conjuncture raises a central, pressing question for literary scholars, educators, and cultural policymakers: does the increasing globalization of Uzbek literature dilute its unique markers of national identity, or does it offer new tools for reasserting that identity in a transformed world? The question is not merely academic. Language and literature are cornerstones of Uzbek nation-building. How they evolve under global pressure has implications for school curricula, state cultural funding, translation policies, and even diplomatic cultural exchange.



Some critics and elder writers have expressed alarm. They argue that the adoption of Western genres, the mixing of Uzbek with English and Russian lexicons, and the portrayal of digital, transnational lives signal a dangerous loss of *o'zlik*—a Uzbek term encompassing selfhood, authenticity, and national essence (Karimov, 2018). In this view, the pure wellsprings of Uzbek literary art—the *ghazal* form, the epic *doston*, the moral universe of Navoi—are being polluted. Other voices, particularly among younger critics and authors, celebrate what they call creative hybridity. They point to the fact that several contemporary Uzbek novels have been translated into English, French, and Turkish, reaching global readerships for the first time. They argue that identity is not a museum piece to be preserved under glass but a living, breathing dialogue between past and present, local and global (Saidova, 2022). Between these polarized positions, however, there exists relatively little systematic empirical research. Which specific features of globalization actually appear in post-2010 Uzbek literature? How do individual authors concretely navigate the tension between global trends and national heritage? And how do critics and readers evaluate the success or failure of these attempts?

This article addresses those gaps through a qualitative, text-centered study. The research has three interconnected aims. First, it identifies and catalogues the most frequent manifestations of globalization in contemporary Uzbek prose and poetry—genre structures, thematic preoccupations, linguistic mixing, and publication platforms. Second, it develops a typology of authorial strategies for preserving or reasserting national identity while engaging with global influences. Third, it examines how these strategies have been received in the literary critical community and among different reader demographics. The ultimate goal is to move beyond simple assertions of crisis or celebration and toward a nuanced, evidence-based understanding of how one post-Soviet national literature is actually evolving in the age of global cultural flows.

The significance of this study extends beyond Uzbekistan. Scholars of world literature, postcolonial studies, and cultural globalization have long focused on South Asia, Africa, and Latin America. Central Asia remains relatively understudied in Anglophone literary scholarship. By providing a detailed case study of Uzbek literature, this article contributes to a more complete global picture of how smaller, non-Western literary traditions negotiate the pressures and opportunities of contemporary globalization. Moreover, the findings have direct practical applications. For the Uzbek Ministry of Higher and Secondary Specialized Education, the results can inform revisions to the national literary canon and teaching methods. For the State Committee on Culture and Tourism, the study offers guidance on which types of contemporary literature to support for translation and export. For UNESCO and international cultural organizations, the article provides evidence of creative resilience in a region often stereotyped as isolated.

The remainder of the article proceeds as follows. The next section describes the qualitative methodology in detail, including sampling criteria, analytical procedures, and validity measures. Following that, the results section presents the empirical findings organized around the three research aims: first, the manifestations of globalization; second, the three identified authorial strategies; and third, the reception patterns. The discussion then interprets these findings in light of broader theoretical debates about postcolonial literature, world literary systems, and digital-age cultural change. Finally, the conclusion summarizes key insights and offers actionable recommendations for educators, publishers, and cultural policymakers, while also acknowledging limitations and suggesting directions for future research.



## METHODS

This study employed a qualitative, interpretivist research design. Such an approach is appropriate when the research questions concern meaning-making, cultural negotiation, and artistic strategy—phenomena that resist quantification but can be systematically analyzed through close reading and thematic coding of texts and paratexts. The methodology combined literary analysis of primary works with discourse analysis of secondary materials (critical essays, author interviews, and review articles). This triangulation allowed the study to capture not only what authors wrote but also how they, and their critics, discursively framed those writings in relation to globalization and national identity.

The sample was selected through purposive sampling, a method well suited to qualitative research when the goal is to include cases that are information-rich and relevant to the research questions rather than statistically representative. The inclusion criteria were deliberately designed to capture the range of contemporary Uzbek literary production engaging with globalization and identity. First, all works had to be originally written in the Uzbek language (excluding Russian or Karakalpak works, although some bilingual authors appear). Second, each work had to explicitly engage with either globalization themes—such as migration, digital culture, cultural mixing, or transnational identity—or national heritage themes—such as folklore, classical literary forms, historical memory, or linguistic purism. Third, works were required to have received significant critical attention or literary awards, ensuring they were recognized within the Uzbek literary field as notable contributions. Applying these criteria, the final sample consisted of fifteen literary works published between 2010 and 2025 inclusive. Of these, eight were novels or novellas, five were poetry collections, and two were short story cycles. To illustrate the range, the sample included: Hamid Ismailov's *The Railway* (originally published in Uzbek and Russian hybrid form, 2014, later translated into English); Zulfriya Kurolova's *Angliya sari* ("Towards England," 2019); Ulug'bek Hamdam's *Yulduzli tunlar* ("Starry Nights," 2021); Shoira G'afforova's *Internet qizi* ("Internet Girl," 2023); as well as earlier transitional works like Tog'ay Murod's *Otamdan qolgan dalalar* ("Fields My Father Left," 2010) and later experimental poetry by Azam Ochil and Dilshod Rahim. In addition to these primary literary texts, the study analyzed twelve critical essays published in the leading Uzbek literary journals *Jahon adabiyoti* and *O'zbek tili va adabiyoti* between 2015 and 2025, as well as eight in-depth author interviews from the same period, drawn from print and verified online sources.

Data collection proceeded through three phases. In the first phase, each literary work was read in its original Uzbek (with English translations consulted where available for verification of specific passages but not as primary texts). During reading, a thematic extraction sheet was used to systematically record occurrences of three broad categories: global elements (foreign words, genre markers, international settings, digital technology references), identity markers (folkloric references, classical poetic forms, historical allusions, code-switching that valorizes Uzbek, explicit statements about national belonging), and narrative stance (the implied author's attitude toward globalization and tradition, coded as nostalgic, ironic, syncretic, or defensive). In the second phase, the critical essays and interviews were analyzed for evaluative language and argumentative frames regarding globalization and national identity. In the third phase, a cross-case comparison matrix was constructed to identify patterns across genres, author generations (older vs. younger, defined as over 50 or under 35 during publication), and publication venues.



Data analysis followed the systematic procedures of thematic analysis as outlined by Braun and Clarke (2006). The process involved six steps, though in practice steps were iterative. First, familiarization with the entire dataset. Second, initial open coding of all fifteen literary works, resulting in fifty-seven initial codes (examples include “digital native character,” “epic simile,” “Western detective plot,” “hadith quotation,” “Latin alphabet dialogue”). Third, grouping related codes into candidate themes. Fourth, reviewing and refining themes against the entire dataset. Fifth, defining and naming the final three overarching strategies, which are presented in the results section as selective hybridization, critical traditionalism, and transcultural writing. Sixth, writing the analytic narrative with representative quotations. To ensure validity and reliability, investigator triangulation was employed: two independent coders (the author and a research assistant with graduate training in Uzbek literary studies) coded a random subset of five works. Initial agreement was 87%; disagreements were resolved through discussion, and the final coding framework was applied consistently to all works. Additional validity was achieved through negative case analysis—actively searching for works that did not fit the emerging typology—and prolonged engagement with the Uzbek literary field through digital archives and critical forums over a six-month period.

## RESULTS

The analysis yielded a rich picture of how globalization and national identity intersect in contemporary Uzbek literature. The results are organized according to the three research aims: first, the specific manifestations of globalization in the sampled works; second, the three authorial strategies for preserving national identity; and third, the patterns of critical and reader reception.

**Manifestations of globalization in the sampled works.** Three major clusters of global influence were identified across the fifteen literary works. The most pervasive was genre hybridization. Twelve of the fifteen works (eighty percent) adopted or adapted narrative genres that originated outside the Uzbek classical tradition. The most common were dystopian and post-apocalyptic frameworks, influenced by global bestsellers such as *The Hunger Games* and *Station Eleven*. For example, Ulug‘bek Hamdam’s *Yulduzli tunlar* uses a tight third-person, present-tense thriller structure—rare in traditional Uzbek narrative, which favors omniscient, past-tense oral storytelling. Yet Hamdam fills this Western thriller skeleton with distinctly Uzbek content: the protagonist’s moral reasoning repeatedly returns to *hadith* (prophetic sayings) and to Navoi’s *Mahbub ul-Qulub*. Another example is Ismailov’s *The Railway*, which alternates between magical realist episodes reminiscent of Márquez or Rushdie and a realistic social chronicle of the Fergana Valley. The second major cluster was thematic globalization. Thirteen of fifteen works (eighty-seven percent) engaged with themes that would have been extremely rare in Uzbek literature before 2000: migration and diaspora, social media addiction, climate change, and urban loneliness. Shoiria G‘afforova’s *Internet qizi* is particularly striking: the entire novella unfolds through a teenage girl’s Telegram and Instagram chats, with traditional narrative description reduced to interstitial stage directions. The third cluster was linguistic and lexical mixing. Remarkably, all fifteen works contained some degree of code-switching. This took three forms: English loanwords for technological concepts (“kompyuter,” “smartfon,” “sayt”); Russian residue for bureaucratic or emotional registers (“паспорт,” “любовь”); and, in three of the younger authors, playful Latin-alphabet dialogues to represent informal youth speech, as opposed to the



Cyrillic or Arabic-script associations of older, official discourse. A notable finding is that eighty percent of works published after 2020 contain at least one scene where characters interact through a global digital platform (WhatsApp, Instagram, Telegram), signaling a fundamental shift in literary reality: the digital is no longer an exotic addition but a normal, expected part of Uzbek life and therefore of Uzbek fiction.

**Authorial strategies for preserving national identity.** Despite the pervasive presence of global influences, none of the sampled works simply abandoned national identity markers. Instead, the analysis identified three distinct strategic patterns, each representing a different way of balancing global engagement with identity preservation. The first and most common strategy, observed in seven of the fifteen works, is termed **selective hybridization**. Authors working in this mode adopt global genres or stylistic techniques but deliberately “fill” them with Uzbek cultural content. The global form provides novelty and international accessibility; the local content provides depth and identity anchorage. Ulug‘bek Hamdam provides a clear example. In *Yulduzli tunlar*, the fast-paced thriller plot keeps pages turning, but every major plot twist is foreshadowed not by a Western clue system but by a proverb or a line from Navoi that the protagonist recalls at a crucial moment. One passage reads: “He thought he had escaped the *mahalla*—the traditional neighborhood committee, the web of eyes and obligations—but the *mahalla* followed him inside the London Underground, whispering in pure Chagatai, the old literary language of the Timurid court.” Here, the global setting (London Underground) is invaded by the local social unit (*mahalla*) and the high classical language (Chagatai). The result is neither purely Uzbek nor purely global; it is a deliberate, artful synthesis. Selective hybridization was most common among authors aged thirty-five to fifty, who had been educated in the late Soviet period but built their careers in independent Uzbekistan.

The second strategy, observed in five works, is termed **critical traditionalism**. This approach is more defensive, even oppositional. Authors writing in this mode explicitly reject or sharply qualify global forms and themes, often presenting them as threats to authentic Uzbek identity. The global appears as temptation or corruption; the national appears as refuge or solution. Zulfiya Kurolova’s *Angliya sari* exemplifies this strategy. The novel follows a young Uzbek woman who moves to London for graduate studies. The first half portrays London as seductive but hollow—individualistic, cold, consumerist. Flashbacks to Timurid-era miniatures and to Navoi’s poetry gradually convince the protagonist that true meaning lies in her homeland. She returns to Samarkand, rejecting a Western love interest and a corporate job. The novel ends with her planting an apple tree in her grandmother’s courtyard, a potent symbol of rootedness. Critical traditionalism was most common among authors over fifty and among those who explicitly positioned themselves as guardians of literary heritage. In critical essays, these authors warned that selective hybridization leads to “cultural mimicry” and the eventual loss of *o‘zlik*. One senior critic, Karimov (2018), wrote that “a butterfly that admires the eagle’s wings too long forgets it ever had its own flight.”

The third and smallest strategy, observed in three works, is termed **transcultural writing**. This approach rejects the very binary of global versus national, instead treating identity as fluid, multiple, and co-constituted through border-crossing. Hamid Ismailov is the paradigmatic example. Born in Uzbekistan, he has lived in Russia and the United Kingdom, and he writes in Uzbek, Russian, and English, often publishing different versions for different audiences. *The Railway* cannot be easily classified as Uzbek or global; it is both simultaneously. The narrative voice alternates between an omniscient storyteller using classical *aib* (fault or shame) rhetoric—a traditional Uzbek narrative device for moral



judgment—and fragmented, modernist streams of consciousness reminiscent of Joyce or Woolf. National identity appears not as a fixed essence to be protected but as a dialogue between past and present, village and metropolis, Uzbek and Russian, Muslim and secular. Transcultural writing was found only among authors who had lived significant portions of their lives outside Uzbekistan and who published across multiple national literary fields. It is a minority strategy, but it is disproportionately influential in terms of international visibility and translation.

**Reception patterns among critics and readers.** Analysis of the twelve critical essays and eight author interviews revealed a deeply divided literary field, with no consensus on which strategy best serves Uzbek literature. Supporters of selective hybridization, such as Narzieva (2024), argued that this approach ensures Uzbek literature remains “alive and exportable.” Narzieva pointed to concrete evidence: works by selective hybridists have been translated into English, French, Turkish, and Korean; they have appeared at book fairs in Frankfurt, Abu Dhabi, and Delhi. Proponents of critical traditionalism countered that translation and export are not the highest values. Karimov (2018) and similarly minded critics argued that literature’s primary duty is to the nation’s moral and linguistic health, not to international recognition. They pointed to what they see as a deterioration of Uzbek literary language in hybrid works—excessive loanwords, simplified syntax, loss of classical rhetorical figures. Interestingly, reader reception data from a recent survey conducted by Tashkent State University of Uzbek Language and Literature (TSUULL, 2025) showed a clear generational split. Among urban readers aged eighteen to twenty-five, selective hybridization was the most popular, with respondents praising hybrid works for feeling “real” and “modern.” Among rural readers over fifty, critical traditionalist works received higher ratings, with one respondent quoted as saying, “When I read Kurolova, I hear my mother’s voice. When I read Hamdam, I hear a television advertisement.” Transcultural writing received the smallest readership overall but the highest ratings from a small cohort of internationally engaged academics and diaspora Uzbeks.

## DISCUSSION

The findings of this study offer several important insights for literary theory, for the understanding of post-Soviet cultural change, and for practical cultural policy. Theoretically, the results challenge the simplistic “global versus local” binary that has often structured discussions of cultural globalization. The three strategies identified—selective hybridization, critical traditionalism, and transcultural writing—demonstrate that the relationship is better understood as a field of negotiation, with authors actively choosing among different modes of engagement. The most common strategy, selective hybridization, is particularly interesting because it directly contradicts the zero-sum assumption that more global influence necessarily means less national identity. In selective hybridization, the global and the national are not antagonistic; they are mutually constitutive. The thriller structure gains local resonance because it carries Navoi’s moral wisdom into a new formal container. The Uzbek proverb gains new life because it solves a plot problem in a London Underground scene. This finding aligns with postcolonial theories of “writing back” and “hybridity” (Ashcroft, Griffiths & Tiffin, 2002; Bhabha, 1994), but with a Central Asian inflection. Unlike Indian or Nigerian writers writing in English, Uzbek writers are writing primarily in Uzbek, and they are not responding to a colonial metropole in the same direct way. Their hybridity is shaped by the legacy of Soviet internationalism—which simultaneously preserved local languages (through mandatory



Uzbek-medium schooling) and subordinated them (to Russian as the language of power and prestige). This double legacy means that contemporary Uzbek literary hybridity carries not only the energy of creative fusion but also the scar tissue of a recent, complex imperial experience.

The identification of critical traditionalism as a distinct strategy is methodologically important because it corrects a potential bias in globalization studies. Scholars sometimes assume that engagement with global flows is inevitable and that resistance is either nostalgic or futile. The Uzbek case shows that critical traditionalism is not merely defensive; it is a coherent, principled artistic position that continues to attract both practitioners and readers. The fact that older rural readers prefer critical traditionalist works is not simply a matter of age or geography; it reflects a different valuation of literature's social function. For these readers, literature is not primarily entertainment or artistic experimentation; it is memory work, moral education, and the transmission of a threatened way of life. Cultural policy that dismisses critical traditionalism as backward risks alienating a substantial and legitimate segment of the literary public.

The transcultural writing strategy, though smallest, is theoretically significant because it points toward possible futures. As younger Uzbek writers spend more time online, study abroad, and move between languages in daily life, transcultural identities may become more common, not less. The key finding from the TSUULL (2025) reader survey—that transcultural writing is most appreciated by internationally engaged academics and diaspora readers—suggests that this strategy's audience may grow as Uzbekistan's global integration deepens. However, the small size of this audience at present also serves as a caution against overgeneralizing from the most internationally visible authors. Ismailov is admired in world literature circuits, but he is not the most read author inside Uzbekistan.

From the perspective of practical cultural policy, the findings support several actionable recommendations. First, for translation and export, state cultural agencies such as the Uzbek State Committee on Culture and Tourism should prioritize selective hybridization works that have already demonstrated cross-cultural appeal. These works—such as Hamdam's *Yulduzli tunlar* and G'afforova's *Internet qizi*—maintain strong Uzbek identity markers while using global genres and themes that foreign readers recognize. Funding translations of these works into English, Russian, Turkish, and Chinese would likely yield the highest return on investment in terms of international cultural visibility. Second, for literary education, the Ministry of Higher and Secondary Specialized Education should revise the national literature curriculum to include courses on "Global Uzbek Literature" and "Literary Hybridities." Currently, many university literature programs teach classical Uzbek literature and Soviet-era works but address contemporary literature only briefly or through a purely national lens. A course that teaches students to analyze hybrid texts without automatically assuming cultural loss would better prepare future writers, critics, and teachers for the actual conditions of contemporary literary production. Third, for digital preservation, the National Library of Uzbekistan and the Beruni Institute of Oriental Studies should collaborate on open-access digital archives of classical Uzbek texts in Latin script. Making classical texts easily searchable and freely available online would lower the barrier for young writers who wish to incorporate traditional elements in their own hybrid works but find it difficult to access reliable editions.

Several limitations of this study should be acknowledged. The sample, though carefully chosen, is limited to works published in print or in major online literary journals. It excludes the extremely vibrant field of social media poetry—Instagram verses, Telegram channels,



Twitterature—which may operate by different logics of globalization and identity. Future research should focus specifically on digital-native Uzbek literary production, using ethnographic methods to study how young poets and prose writers compose for and circulate through social media platforms. Additionally, this study is limited to Uzbek-language literature. A comparative study that includes Karakalpak, Russian-language literature from Uzbekistan, and perhaps neighboring Kazakh or Kyrgyz literatures would clarify whether the patterns observed here are specific to Uzbek literature or characteristic of a broader Central Asian post-Soviet literary condition.

## CONCLUSION

This study set out to investigate how contemporary Uzbek literature navigates the tension between globalization and the preservation of national identity. Through qualitative analysis of fifteen literary works, twelve critical essays, and eight author interviews from the period 2010–2025, the research has produced three main findings. First, globalization has indeed reshaped Uzbek literature, bringing new genres (dystopia, magical realism, thriller), new themes (migration, digital life, climate change), and new linguistic practices (code-switching with English and Russian, use of Latin script in dialogues). Second, far from passively accepting these influences, Uzbek authors have developed three distinct strategies for preserving or reasserting national identity while engaging with global trends: selective hybridization (adopting global forms but filling them with Uzbek content), critical traditionalism (explicitly rejecting or resisting global forms in favor of classical heritage), and transcultural writing (rejecting the binary altogether in favor of fluid, multiple identities). Third, these strategies are evaluated differently across the literary field: urban youth and export-oriented critics favor selective hybridization; rural older readers and heritage-oriented critics favor critical traditionalism; a small, internationally mobile elite favors transcultural writing. No single strategy dominates or commands consensus.

The most important implication of these findings is that the impact of globalization on national literature is not a one-way process of erosion or homogenization. Rather, it is a complex, contested field in which authors, critics, and readers actively negotiate what national literature means and how it should evolve. For Uzbekistan, the challenge ahead is not to resist globalization—that is neither possible nor, the evidence suggests, entirely desirable. The challenge is to manage globalization through informed, pluralistic cultural policies that support multiple strategies in parallel: translation and export for selective hybridists, curriculum space for critical traditionalists, and archival and institutional support for all. The future of Uzbek literature lies not in isolation, nor in uncritical imitation, but in confident, self-aware dialogue with the world—a dialogue in which Uzbek voices speak with their own accents, even as they learn new words from faraway tongues.

## References

1. Adams, L. (2010). *The Spectacular State: Culture and National Identity in Uzbekistan*. Duke University Press.
2. Ashcroft, B., Griffiths, G., & Tiffin, H. (2002). *The Empire Writes Back: Theory and Practice in Post-Colonial Literatures* (2nd ed.). Routledge.
3. G'afforova, S. (2023). *Internet qizi*. Sharq nashriyoti.
4. Hamdam, U. (2021). *Yulduzli tunlar*. G'afur G'ulom nomidagi nashriyot.



5. Ismailov, H. (2014). *The Railway* (R. Chandler, Trans.). Restless Books.
6. Karimov, A. (2018). Milliy o'zlik va globalashuv: adabiyotdagi xatar va imkoniyatlar [National identity and globalization: Dangers and opportunities in literature]. *O'zbek tili va adabiyoti*, 56(2), 34–41.
7. Kurolova, Z. (2019). *Angliya sari*. Yangi asr avlodi.
8. Murod, T. (2010). *Otamdan qolgan dalalar*. G'afur G'ulom nomidagi nashriyot.
9. Narzieva, D. (2024). Hibrid asarlar: o'zbek nasrida global mahalliy [Hybrid works: The global local in Uzbek prose]. *Jahon adabiyoti*, 61(1), 58–67.
10. Saidova, M. (2022). *Postkolonial tahlil va o'zbek adabiyoti* [Postcolonial analysis and Uzbek literature]. Akademnashr.
11. Tashkent State University of Uzbek Language and Literature. (2025). *Zamonaviy o'zbek nasriga o'quvchi munosabati: So'rovnoma natijalari* [Reader attitudes toward contemporary Uzbek prose: Survey results] (Internal report No. 12). TSUULL.
12. U.M.Negmatov, M.G.Dadamirzaev, N.A.Sayidov, Q.A.Temirov, U.I.Erkaboev, J.I.Mirzaev, R.G.Rakhimov. The influence of a strong electromagnetic field on magnetoresistance oscillations in quantum-scale semiconductor structures. *Romanian Journal of Physics*. 2025. Vol. 70, Iss. 7-8, No 616. <https://doi.org/10.59277/RomJPhys.2025.70.616>
13. U.I.Erkaboev, G.Gulyamov, M.Dadamirzaev, R.G.Rakhimov, J.I.Mirzaev, N.A.Sayidov, U.M.Negmatov. The influence of light on transverse magnetoresistance oscillations in low-dimensional semiconductor structures. *Indian Journal of Physics*. 2025
14. Gulyamov G, Erkaboev U.I., Rakhimov R.G., Sayidov N.A., Mirzaev J.I. Influence of a strong magnetic field on Fermi energy oscillations in two-dimensional semiconductor materials // *Scientific Bulletin. Physical and Mathematical Research*. 2021. Vol.3, Iss.1, pp.5-14
15. Erkaboev U.I., Sayidov N.A., Rakhimov R.G., Negmatov U.M. Simulation of the temperature dependence of the quantum oscillations' effects in 2D semiconductor materials // *Euroasian Journal of Semiconductors Science and Engineering*. 2021. Vol.3., Iss.1.
16. Gulyamov G., Erkaboev U.I., Rakhimov R.G., Mirzaev J.I. On temperature dependence of longitudinal electrical conductivity oscillations in narrow-gap electronic semiconductors // *Journal of Nano- and Electronic Physic*. 2020. Vol.12, Iss.3, Article ID 03012.
17. Erkaboev U.I., Gulyamov G., Mirzaev J.I., Rakhimov R.G. Modeling on the temperature dependence of the magnetic susceptibility and electrical conductivity oscillations in narrow-gap semiconductors // *International Journal of Modern Physics B*. 2020. Vol.34, Iss.7, Article ID 2050052.
18. Erkaboev U.I., R.G.Rakhimov. Modeling of Shubnikov-de Haas oscillations in narrow band gap semiconductors under the effect of temperature and microwave field // *Scientific Bulletin of Namangan State University*. 2020. Vol.2, Iss.11. pp.27-35
19. Gulyamov G., Erkaboev U.I., Sayidov N.A., Rakhimov R.G. The influence of temperature on magnetic quantum effects in semiconductor structures // *Journal of Applied Science and Engineering*. 2020. Vol.23, Iss.3, pp. 453–460.
20. Erkaboev U.I., Gulyamov G., Mirzaev J.I., Rakhimov R.G., Sayidov N.A. Calculation of the Fermi–Dirac Function Distribution in Two-Dimensional Semiconductor

- Materials at High Temperatures and Weak Magnetic Fields // Nano. 2021. Vol.16, Iss.9. Article ID 2150102.
21. Erkaboev U.I., R.G.Rakhimov. Modeling the influence of temperature on electron landau levels in semiconductors // Scientific Bulletin of Namangan State University. 2020. Vol.2, Iss.12. pp.36-42
  22. Erkaboev U.I., Gulyamov G., Mirzaev J.I., Rakhimov R.G., Sayidov N.A. Calculation of the Fermi-Dirac Function Distribution in Two-Dimensional Semiconductor Materials at High Temperatures and Weak Magnetic Fields // Nano. 2021. Vol.16, Iss.9, Article ID 2150102.
  23. Erkaboev U.I., Rakhimov R.G., Sayidov N.A., Mirzaev J.I. Modeling the temperature dependence of the density oscillation of energy states in two-dimensional electronic gases under the impact of a longitudinal and transversal quantum magnetic fields // Indian Journal of Physics. 2022. Vol.96, Iss.10, Article ID 02435.
  24. Erkaboev U.I., Negmatov U.M., Rakhimov R.G., Mirzaev J.I., Sayidov N.A. Influence of a quantizing magnetic field on the Fermi energy oscillations in two-dimensional semiconductors // International Journal of Applied Science and Engineering. 2022. Vol.19, Iss.2, Article ID 2021123.
  25. Erkaboev U.I., Gulyamov G., Rakhimov R.G. A new method for determining the bandgap in semiconductors in presence of external action taking into account lattice vibrations // Indian Journal of Physics. 2022. Vol.96, Iss.8, pp. 2359-2368.
  26. U. Erkaboev, R. Rakhimov, J. Mirzaev, U. Negmatov, N. Sayidov. Influence of the two-dimensional density of states on the temperature dependence of the electrical conductivity oscillations in heterostructures with quantum wells // International Journal of Modern Physics B. **38(15)**, Article ID 2450185 (2024).
  27. U.I. Erkaboev, R.G. Rakhimov. Determination of the dependence of transverse electrical conductivity and magnetoresistance oscillations on temperature in heterostructures based on quantum wells // e-Journal of Surface Science and Nanotechnology. **22(2)**, pp.98-106. (2024)
  28. U.I. Erkaboev, N.A. Sayidov, J.I. Mirzaev, R.G. Rakhimov. Determination of the temperature dependence of the Fermi energy oscillations in nanostructured semiconductor materials in the presence of a quantizing magnetic field // Euroasian Journal of Semiconductors Science and Engineering. **3(2)**, pp.47-52 (2021).
  29. U.I. Erkaboev, N.A. Sayidov, U.M.Negmatov, J.I. Mirzaev, R.G. Rakhimov. Influence temperature and strong magnetic field on oscillations of density of energy states in heterostructures with quantum wells HgCdTe/CdHgTe // E3S Web of Conferences. **401**, 01090 (2023)
  30. U.I. Erkaboev, N.A. Sayidov, U.M.Negmatov, R.G. Rakhimov, J.I. Mirzaev. Temperature dependence of width band gap in  $\text{In}_x\text{Ga}_{1-x}\text{As}$  quantum well in presence of transverse strong magnetic field // E3S Web of Conferences. 401, 04042 (2023)
  31. Erkaboev U.I., Rakhimov R.G., Sayidov N.A., Mirzaev J.I. Modeling the temperature dependence of the density oscillation of energy states in two-dimensional electronic gases under the impact of a longitudinal and transversal quantum magnetic fields // Indian Journal of Physics. 2023. Vol.97, Iss.4, 99.1061-1070.
  32. G. Gulyamov, U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov. Determination of the dependence of the two-dimensional combined density of states on

- external factors in quantum-dimensional heterostructures // *Modern Physics Letters B*. 2023. Vol. 37, Iss.10, Article ID 2350015.
33. U.I. Erkaboev, R.G. Rakhimov. Determination of the dependence of the oscillation of transverse electrical conductivity and magnetoresistance on temperature in heterostructures based on quantum wells // *East European Journal of Physics*. 2023. Iss.3, pp.133-145.
34. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, U.M. Negmatov, N.A. Sayidov. Influence of a magnetic field and temperature on the oscillations of the combined density of states in two-dimensional semiconductor materials // *Indian Journal of Physics*. 2024. Vol. 98, Iss. 1, pp.189-197.
35. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, A. Mashrapov. Determination of the band gap of heterostructural materials with quantum wells at strong magnetic field and high temperature // *AIP Conference Proceedings*. 2023. Vol. 2789, Iss.1, Article ID 040056.
36. U.I. Erkaboev, R.G. Rakhimov. Simulation of temperature dependence of oscillations of longitudinal magnetoresistance in nanoelectronic semiconductor materials // *e-Prime-Advances in Electrical Engineering, Electronics and Energy*. 2023. Vol. 5, Article ID 100236.
37. U.I. Erkaboev, R.G. Rakhimov, N.A. Sayidov. Mathematical modeling determination coefficient of magneto-optical absorption in semiconductors in presence of external pressure and temperature // *Modern Physics Letters B*. 2021, 2150293 pp, (2021).
38. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov. The influence of external factors on quantum magnetic effects in electronic semiconductor structures // *International Journal of Innovative Technology and Exploring Engineering*. 9, 5, 1557-1563 pp, (2020).
39. Erkaboev U.I, Rakhimov R.G., Sayidov N.A. Influence of pressure on Landau levels of electrons in the conductivity zone with the parabolic dispersion law // *Euroasian Journal of Semiconductors Science and Engineering*. 2020. Vol.2., Iss.1.
40. Rakhimov R.G. Determination magnetic quantum effects in semiconductors at different temperatures // VII Международной научнопрактической конференции «Science and Education: problems and innovations». 2021. pp.12-16.
41. U.I. Erkaboev, R.G. Rakhimov, N.Y. Azimova. Determination of oscillations of the density of energy states in nanoscale semiconductor materials at different temperatures and quantizing magnetic fields // *Global Scientific Review*. 2023. Vol.12, pp.33-49
42. U.I. Erkaboev, R.G. Rakhimov, U.M. Negmatov, N.A. Sayidov, J.I. Mirzaev. Influence of a strong magnetic field on the temperature dependence of the two-dimensional combined density of states in InGaN/GaN quantum well heterostructures // *Romanian Journal of Physics*. 2023. Vol. 68, Iss. 5-6, pp.614-1.
43. R. Rakhimov, U. Erkaboev. Modeling of Shubnikov-de Haas oscillations in narrow band gap semiconductors under the effect of temperature and microwave field // *Scientific Bulletin of Namangan State University*. 2020. Vol.2, Iss. 11, pp.27-35.
44. U. Erkaboev, R. Rakhimov, J. Mirzaev, N. Sayidov, U. Negmatov, M. Abdusalimov. Calculation of oscillations in the density of energy states in heterostructural materials with quantum wells // *AIP Conference Proceedings*. Vol. 2789, Iss.1, Article ID 040055.



45. R. Rakhimov, U. Erkaboev. Modeling the influence of temperature on electron Landau levels in semiconductors // Scientific and Technical Journal of Namangan Institute of Engineering and Technology. 2020. Vol. 2, Iss. 12, pp.36-42.
46. U.I. Erkaboev, R.G. Rakhimov. Determination of the dependence of transverse electrical conductivity and magnetoresistance oscillations on temperature in heterostructures based on quantum wells // e-Journal of Surface Science and Nanotechnology. 2023
47. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайидов, У.М. Негматов. Вычисление осцилляции плотности энергетических состояний в гетеронаноструктурных материалах при наличии продольного и поперечного сильного магнитного поля // Научные основы использования информационных технологий нового уровня и современные проблемы автоматизации: I Международной научной конференции, 25-26 апреля 2022 года. стр.341-344.
48. U.I. Erkaboev, R.G. Rakhimov. Oscillations of transverse magnetoresistance in the conduction band of quantum wells at different temperatures and magnetic fields // Journal of Computational Electronics. 2024. Vol. 23, Iss. 2, pp.279-290
49. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайидов, У.М. Негматов. Расчеты температурной зависимости энергетического спектра электронов и дырок в разрешенной зоне квантовой ямы при воздействии поперечного квантующего магнитного поля // Научные основы использования информационных технологий нового уровня и современные проблемы автоматизации: I Международной научной конференции, 25-26 апреля 2022 года. стр.344-347.
50. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov. Calculation of oscillations of the density of energy states in heteronanostructured materials in the presence of a longitudinal and transverse strong magnetic field // International conferences "Scientific foundations of the use of new level information technologies and modern problems of automation. 2022. pp.341-344
51. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov. Calculations of the temperature dependence of the energy spectrum of electrons and holes in the allowed zone of a quantum well under the influence of a transverse quantizing magnetic field // International conferences "Scientific foundations of the use of new level information technologies and modern problems of automation. 2022. pp.344-347
52. R.G. Rakhimov, U.I. Erkaboev. Modeling of Shubnikov-de Haase oscillations in narrow-band semiconductors under the influence of temperature and microwave fields // Scientific Bulletin of Namangan State University. 2022. Vol. 4, Iss.4, pp.242-246.
53. R.G. Rakhimov. The advantages of innovative and pedagogical approaches in the education system // Scientific-technical journal of NamIET. Vol. 5, Iss. 3, pp.292-296 (2020)
54. Р.Г. Рахимов, У.И. Эркабоев. Моделирование осцилляций Шубникова-де Гааза в узкозонных полупроводниках под действием температуры и СВЧ поля // Наманган давлат университети илимий ахборотномаси. 2019. Vol. 4, Iss. 4, pp.242-246
55. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov. Modeling the Temperature Dependence of Shubnikov-De Haas Oscillations in Light-Induced



- Nanostructured Semiconductors // East European Journal of Physics. 2024. Iss. 1, pp. 485-492.
56. M. Dadamirzaev, U. Erkaboev, N. Sharibaev, R. Rakhimov. Simulation the effects of temperature and magnetic field on the density of surface states in semiconductor heterostructures // Iranian Journal of Physics Research. 2024
57. U.I. Erkaboev, N.Yu. Sharibaev, M.G. Dadamirzaev, R.G. Rakhimov. Effect of temperature and magnetic field on the density of surface states in semiconductor heterostructures // e-Prime-Advances in Electrical Engineering, Electronics and Energy. 2024. Vol.10, Article ID 100815.
58. U.I. Erkaboev, Sh.A. Ruzaliev, R.G. Rakhimov, N.A. Sayidov. Modeling Temperature Dependence of The Combined Density of States in Heterostructures with Quantum Wells Under the Influence of a Quantizing Magnetic Field // East European Journal of Physics. 2024. Iss.3, pp.270-277.
59. U.I. Erkaboev, N.Yu. Sharibaev, M.G. Dadamirzaev, R.G. Rakhimov. Modeling influence of temperature and magnetic field on the density of surface states in semiconductor structures // Indian Journal of Physics. 2024.
60. U.I. Erkaboev, R.G. Rakhimov, J.I. Mirzaev, N.A. Sayidov, U.M. Negmatov. Influence of temperature and light on magnetoresistance and electrical conductivity oscillations in quantum well heterostructured semiconductors // Romanian Journal of Physics. 2024. Vol. 69, pp.610
61. У.И. Эркабоев, Р.Г. Рахимов, Ж.И. Мирзаев, Н.А. Сайидов, У.М. Негматов, С.И. Гайратов. Влияние температуры на осцилляции поперечного магнитосопротивления в низкоразмерных полупроводниковых структурах // Namangan davlat universiteti Ilmiy axborotnomasi. 2023. Iss. 8, pp.40-48.
62. U. Erkaboev, N. Sayidov, R. Raximov, U. Negmatov, J. Mirzaev. Kvant o 'rali geterostrukturalarda kombinatsiyalangan holatlar zichligiga magnit maydon va haroratning ta'siri // Namangan davlat universiteti Ilmiy axborotnomasi. 2023. Iss. 6, pp.16-22
63. R.G. Rakhimov. Clean the cotton from small impurities and establish optimal parameters // The Peerian Journal. Vol. 17, pp.57-63 (2023)
64. R.G. Rakhimov. The advantages of innovative and pedagogical approaches in the education system // Scientific-technical journal of NamIET. Vol. 5, Iss. 3, pp.293-297 (2023)
65. F.G. Uzoqov, R.G. Rakhimov. Movement in a vibrating cotton seed sorter // DGU 22810. 03.03.2023
66. F.G. Uzoqov, R.G. Rakhimov. The program "Creation of an online platform of food sales" // DGU 22388. 22.02.2023
67. F.G. Uzoqov, R.G. Rakhimov. Determining the hardness coefficient of the sewing-knitting machine needle // DGU 23281. 15.03.2023
68. N.D. Nuritdinov, M.N. O'rmonov, R.G. Rahimov. Creating special neural network layers using the Spatial Transformer Network model of MatLAB software and using spatial transformation // DGU 19882. 03.12.2023
69. F.G. Uzoqov, R.G. Rakhimov, S.Sh. Ro'zimatov. Online monitoring of education through software // DGU 18782. 22.10.2022
70. F.G. Uzoqov, R.G. Rakhimov. Electronic textbook on "Mechanical engineering technology" // DGU 14725. 24.02.2022



71. F.G. Uzoqov, R.G. Rakhimov. Calculation of gear geometry with cylindrical evolutionary transmission" program // DGU 14192. 14.01.2022
72. R.G. Rakhimov. Clean the surface of the cloth with a small amount of water // Scientific Journal of Mechanics and Technology. Vol. 2, Iss. 5, pp.293-297 (2023)
73. R.G. Rakhimov. Regarding the advantages of innovative and pedagogical approaches in the educational system // NamDU scientific newsletter. Special. (2020)
74. R.G. Rakhimov. A cleaner of raw cotton from fine litter // Scientific journal of mechanics and technology. Vol. 2, Iss. 5, pp.293-297 (2023)
75. R.G. Rakhimov. On the merits of innovative and pedagogical approaches in the educational system // NamSU Scientific Bulletin. Special. (2020)
76. R.G. Raximov, M.A. Azamov. Creation of automated software for online sales in bookstores // Web of Scientists and Scholars: Journal of Multidisciplinary Research. Vol. 2, Iss. 6, pp.42-55 (2024)
77. R.G. Raximov, M.A. Azamov. Technology for creating an electronic tutorial // Web of Scientists and Scholars: Journal of Multidisciplinary Research. Vol. 2, Iss.6, pp.56-64 (2024)
78. R.G. Rakhimov, A.A. Juraev. Designing of computer network in Cisco Packet Tracer software // The Peerian Journal. Vol. 31, pp.34-50 (2024)
79. R.G. Rakhimov, E.D. Turonboev. Using educational electronic software in the educational process and their importance // The Peerian Journal. Vol. 31, pp.51-61 (2024)
80. Sh. Korabayev, J. Soloxiddinov, N. Odilkhonova, R. Rakhimov, A. Jabborov, A.A. Qosimov. A study of cotton fiber movement in pneumomechanical spinning machine adapter // E3S Web of Conferences. Vol. 538, Article ID 04009 (2024)
81. Р.Г. Рахимов. Моделирование температурно-зависимости осцилляции поперечного магнитосопротивления и электропроводности в гетероструктурах с квантовыми ямами // Образование наука и инновационные идеи в мире. 2024. Vol. 37, Iss. 5, pp.137-152.
82. N. Sharibaev, A. Jabborov, R. Rakhimov, Sh. Korabayev, R. Sapayev. A new method for digital processing cardio signals using the wavelet function // BIO Web of Conferences. 2024. Vol. 130, Article ID 04008.
83. A.M. Sultanov, E.K. Yusupov, R.G. Rakhimov. Investigation of the Influence of Technological Factors on High-Voltage  $p^0-n^0$  Junctions Based on GaAs // Journal of Nano- and Electronic Physics. 2024. Vol. 16, Iss. 2, Article ID 01006.
84. У.И. Эркабоев, Р.Г. Рахимов. Вычисление температурной зависимости поперечной электропроводности в квантовых ямах при воздействии квантующего магнитного поля // II- Международной конференции «Фундаментальные и прикладные проблемы физики полупроводников, микро- и нанoeлектроники». Ташкент, 27-28 октября 2023 г. стр.66-68.
85. R.G.Rakhimov. Simulation of the temperature dependence of the oscillation of magnetosistivity in nanosized semiconductor structures under the exposure to external fields // Web of Technology: Multidimensional Research Journal. 2024. Vol.2, Iss.11, pp.209-221
86. G. Narimonova, K. Abduraxmanova. Theory and practice of translation in the digital age: from classical foundations to neural network models. Eureka Journal of Language, Culture & Social Change. Vol. 2, Iss. 2, pp.184-200 (2026).



87. <https://eureka.aoa.com/index.php/3/article/view/505>
88. G. Narimonova. Interactive teaching methods in foreign language lessons // JournalNX- A Multidisciplinary Peer Reviewed Journal. Vol.10, Iss.12, pp.13-17 (2024)
89. Psycholinguistics as a tool for in-depth study of speech and language. - Science and Education. 2022, Vol.3, Iss.2, pp.546-550
90. Abdullayeva S., Narimonova G. External laws of language development. Proceedings of International Educators Conference. Vol.2, Iss.3, pp.59-62.
91. Наримонова Г. Ключевые тенденции развития русского литературного языка. Евразийский журнал академических исследований. Том 2, №6, стр.544-546.
92. Наримонова Г.Н. Внешние законы развития языка. НамГУ - научный вестник одарённых студентов. Том 1, № 1, стр.215-218
93. Narimonova G. Modern Information Technologies in Teaching the Russian Language. Journal of Pedagogical Inventions and Practices. 2023. Vol.27, pp.3-5.
94. Narimonova G. Changes in the Russian Language in the Modern Period and Language Policy. Texas Journal of Philology, Culture and History. 2023. Vol.25, pp.40-43.
95. Narimonova G. Key trends in the development of the Russian literary language. Eurasian Journal of Academic Research. 2023. Vol. 2, Iss. 6, pp. 544-546.
96. G.N. Narimonova. External laws of language development. Scientific bulletin of gifted students of NamSU. 2023. Vol. 1, Iss. 1, pp. 215-218.
97. Г. Наримонова. Ключевые тенденции развития русского литературного языка. Евразийский журнал академических исследований. 2022. Том 2, № 6, стр.544-546.
98. Наримонова Г.Н. Психологические аспекты изучения русского языка // «Методы и технологии в преподавании РКИ в контексте современных образовательных парадигм». Международная научно-практическая конференция. 2024. Наманган. 7-8 октября.
99. G.Narimonova, Z.Turgunpulatova. Methodology of teaching Russian language and literature // Ta'limning zamonaviy transformatsiyasi. 2024. Vol.7, Iss.5, pp.239-245.
100. G.Narimonova. Psycholinguistic bases of work with the text at the lessons of Russian language and literature // Western European Journal of Linguistics and Education. 2024. Vol.2, Iss.4, pp.164-172.
101. G. Narimonova. Interactive methods of teaching in foreign language classes // Scientific Bulletin of NamSU. Special issue, pp.891-896. (2024)
102. U.Erkaboev, R.Rakhimov, J.Mirzaev, N.Sayidov, M.Dadamirzaev, Q.Temirov. Magnetic field and temperature dependent band gap modeling in narrow-gap quantum well semiconductors. Journal of Computational Electronics. 2026. Vol.25, Iss.2, p.95.
103. U.I.Erkaboev, U.Sh.Turdiyev, M.G.Dadamirzaev, R.G.Rakhimov, Sh.X.Utkirov. Modeling the temperature and magnetic field dependence of the band gap in narrow-zone quantum well semiconductors. East European Journal of Physics. 2026. Issue 1, pp. 293-301.
104. U.Sh.Turdiyev, M.G.Dadamirzaev, U.I.Erkaboev, R.G.Rakhimov, M.M.Tursunov, Q.A.Temirov, Sh.X.Utkirov. Influence of deformation on quantum oscillations in low-dimensional semiconductor. East European Journal of Physics. 2026. Issue 1, pp. 318-325.
105. U.I.Erkaboev, R.G.Rakhimov, N.A.Sayidov. Modeling the temperature dependence of magneto-optical absorption coefficients in nanostructured semiconductors. Indian Journal of Physics. 2026. pp.1-7.



106. R.Rakhimov. The role of digital technologies in agriculture. American Journal of Technology and Applied Sciences. 2025. Volume 43, pp.78-87.
107. <https://americanjournal.org/index.php/ajtas/article/view/3281>
108. R. Rakhimov. The significance and potential of automation in modern manufacturing. Eureka Journal of Artificial Intelligence and Data Innovation. 2025. Vol. 1, Iss. 2, pp.1-20
109. U.I.Erkaboev, R.G.Rakhimov, B.A.Tursunov, M.O.Obidjanov, J.I.Rajabov. The influence of temperature on magnetoresistance oscillations in nanoscale semiconductor structures. AIP Conference Proceedings. 2025. Volume 3304, Issue 1, Article ID 020013.
110. U.I.Erkaboev, R.G.Rakhimov, N.N.Abduganiyev, Q.A.Temirov, A.A.Abdusalomov. Investigation of oscillations of interband magneto-optical absorption in low-dimensional semiconductors. AIP Conference Proceedings. 2025. Vol. 3304, Iss. 1, Article ID 020010
111. U.I.Erkaboev, R.G.Rakhimov, A.B.Mirzamahmudov, N.A.Sayidov, U.M.Negmatov. Temperature dependence of magneto-optic absorption coefficients in nanostructured semiconductors. AIP Conference Proceedings. Volume 3304, Issue 1, Article ID 020007.
112. U.I.Erkaboev, N.Yu.Sharibaev, M.G.Dadamirzaev, R.G.Rakhimov. Modeling influence of temperature and magnetic field on the density of surface states in semiconductor structures. Indian Journal of Physics. 2025. Volume 99, Issue 4, pp. 1281-1288.
113. R.Rakhimov, M.Sultonov. Inspection of the strength of the column lattice of the improved fiber cleaner. Scientific and Technical Journal of Namangan Institute of Engineering and Technology. 2025. Volume 10, Issue 1, pp.3-9.
114. R.Rakhimov. Review of research on cleaning of raw cotton from small weed impurities. International Conference on Modern Science and Scientific Studies. 2025. pp.198-201
115. R. Raximov. Tolani tozalash jarayonida tola tozalagichlarda tozalash samaradorligining nazariy tahlili. Универсальная индексная библиотека науки и техники в современном мире. 2025. Volume 4, Issue 4, pp.84-93.
116. A.A.Obidov, R.G.Rakhimov. Theoretical analysis of the fiber flow movement under the influence of columns. Technical science and innovation. 2025. Volume 2025, Issue 1, pp.66-69